MTR Corporation Limited

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

Monthly EM&A Report

(October 2024)

Verified by: Adi Lee

Position: Independent Environmental Checker

Date: 12 November 2024

MTR Corporation Limited

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

Monthly EM&A Report

(October 2024)

Certified by: Edan Li

Position: Environmental Team Leader

Date: 12 November 2024

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# 1 INTRODUCTION

## 1.1 Background

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

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

## 1.2 Project Programme

1.2.1 Four civil construction works contracts of the Project have been awarded since December 2021. The construction of the Project commenced in December 2021. The major works for Works Contracts 1731, 1732 and 1733 have been completed in October 2024, while Works Contract 1701 is expected to complete in 2030. **Table 1.1** summarises the information of the awarded Works Contracts.

**Table 1.1 Summary of Awarded Works Contracts**

| Works Contract | Description | Construction Start Date | Contractor | Environmental Team |
|---|---|---|---|---|
| 1701 | Oyster Bay Station and Associated Works | April 2024 | China State Construction Engineering (HK) Ltd. | Aurecon Hong Kong Ltd. |
| 1731 | Trial Piles and Site Formation for Siu Ho Wan Depot Property Development – Phase 1 | January 2023 | Gammon Construction Ltd. | WSP (Asia) Ltd. |
| 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 thirty-fifth 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 31 October 2024.

# 2 ENVIRONMENTAL MONITORING AND AUDIT

## 2.1 EM&A Results

2.1.1 The EM&A Report for Works Contract 1701, 1731, 1732 and 1733 prepared by the Contractor's ET are provided in **Appendices A** to **D**. 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 |
|---|---|---|
| 1701 | Overall | • Site clearance, underground utilities (UU) detection, trial pit and instrumentation & monitoring installation at site<br>• Trial pit, predrilling and bored pile works in W11<br>• Project Manager Office: Concrete casting for foundation<br>• Underfloor Wheel Lathe: Excavation to FEL, concreting for blinding layer, water proofing<br>• Oyster Bay Station: Sheet piling, railway protective (RP) fencing installation<br>• Sewage Pump Station: Underground utilities (UU) detection, predrill trial pit |
| 1731 | Overall | • Site Clearance & Hoarding<br>• Pile Load Test |
| 1732 | Overall | • Instrumentation monitoring<br>• EVA watermain installation<br>• Cable bridge E&M works and finishing works |
| 1733 | Overall | • Tree Felling |

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 **Table 2.2**. Details of the monitoring requirements, locations, equipment and methodology are presented in **Appendices A** to **D** of this Report.

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

| Monitoring Station ID | Location | TSP Concentration (μg/m$^3$) [1] | Action Level (μg/m$^3$) | Limit Level (μg/m$^3$) | Exceedance due to the Project Construction (Yes/No) |
|---|---|---|---|---|---|
| ***Works Contract 1701, 1731, 1732 & 1733*** | | | | | |
| DM1 | Siu Ho Wan Government Maintenance Depot | 7.0 – 21.0 | 294.7 | 500 | No |

Note:

[1] The reporting period of Works Contracts 1701, 1732 & 1733 is from 1 to 31 October 2024 and hence monitoring conducted on 3, 9, 15, 21, 25 and 31 October 2024 was included. TSP concentration ranged from 7.0 – 21.0 μg/m$^3$. The construction works for Works Contract 1731 were completed on 10 October 2024 and hence monitoring conducted on 3 and 9 October 2024 was included in the reporting period. TSP concentration ranged from 8.0 – 17.0 μg/m$^3$.

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

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

| Works Contract | Environmental Complaints | Notification of Summons | Successful Prosecutions |
|---|---|---|---|
| 1701 | 0 | 0 | 0 |
| 1731 | 0 | 0 | 0 |
| 1732 | 0 | 0 | 0 |
| 1733 | 0 | 0 | 0 |

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

# 3 IMPLEMENTATION STATUS ON THE ENVIRONMENTAL PROTECTION REQUIREMENTS

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

**Table 3.1 Summary of EP Submissions Status**

| EP Condition (EP-588/2021) | Submission | Submission date |
|---|---|---|
| Condition 1.12 | Commencement Date of Construction | 11 Jun 2021 (1st submission)<br>12 Jul 2021 (2nd submission)<br>12 Aug 2021 (3rd submission) |
| Condition 2.7 | Construction Works Phasing Schedule Proposal | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>29 Dec 2021 (Deposited)<br>9 October 2023 (1st Submission with updated Phase 1 works)<br>30 Nov 2023 (Deposited) |
| Condition 2.8 | Environmental Permit Submission Schedule | 12 Aug 2021<br>10 Sep 2021 (Deposited) |
| Condition 2.9 | Management Organization | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>21 Mar 2022 (3rd Submission)<br>9 Aug 2022 (4th Submission)<br>16 Nov 2022 (5th Submission)<br>18 Sep 2023 (6th submission)<br>22 Jan 2024 (7th Submission) |
| Condition 2.10 | Construction Noise Mitigation Plan | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>28 Dec 2021 (Deposited)<br>30 Dec 2022 (1st Submission which covered Phase 1 main works)<br>29 Mar 2023 (2nd Submission which covered Phase 1 main works)<br>18 May 2023 (3rd Submission which covered Phase 1 main works)<br>28 Jul 2023 (4th Submission for Phase 1 works)<br>30 Oct 2023 (5th Submission for Phase 1 works)<br>6 Dec 2023 (6th Submission for Phase 1 works)<br>8 Dec 2023 (Deposited)<br>21 June 2024 (7th Submission for Phase 1 works) |
| Condition 2.11 | Noise Mitigation Plan | 31 Mar 2023 (1st submission)<br>31 Jul 2023 (2nd submission)<br>20 Oct 2023 (3rd submission)<br>7 March 2024 (4th submission)<br>18 March 2024 (Approved) |
| Condition 2.13 | Waste Management Plan | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>28 Dec 2021 (Deposited)<br>30 Jun 2023 (1st Submission for Phase 1 work)<br>1 Aug 2023 (2nd Submission for Phase 1 works)<br>31 Aug 2023 (Deposited for Phase 1 works) |
| Condition 2.15 | Landscape and Visual Plan(s) | 27 Apr 2023 (1st Submission) |

| EP Condition (EP-588/2021) | Submission | Submission date |
|---|---|---|
| | | 27 Jul 2023 (2nd Submission)<br>20 Oct 2023 (3rd Submission)<br>8 Dec 2023 (Approved) |
| Condition 3.3 | Baseline Monitoring Report | 1 Nov 2021<br>16 Nov 2021 (Deposited) |
| Condition 3.4 | Monthly EM&A Report No.34 (September 2024) | Submitted within 10 working days after the end of the reporting month |
| Condition 4.2 | Dedicated Internet Website | 12 Jan 2022<br>25 Jul 2023 (update address)<br>14 Mar 2024 (update address) |

# Appendix A

Monthly EM&A Report for October 2024
Oyster Bay Station and Associated Works Contract 1701

# MTR Corporation Limited

# Contract 1701

# Siu Ho Wan Depot Property Development
# Oyster Bay Station and Associated Works

# Monthly EM&A Report
# (October 2024)
# (Version 2.0)

| | Name | Post | Signature | Date |
|---|---|---|---|---|
| Prepared by: | Jack Chow | *Contractor's* Environmental Team Member |  | 12 November 2024 |
| Checked and Certified by: | F. C. Tsang | *Contractor's* Environmental Team Leader |  | 12 November 2024 |

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# EXECUTIVE SUMMARY

A.1 Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works Contract 1701 - Siu Ho Wan Depot Property Development for Oyster Bay Station and Associated Works (hereafter called "Contract 1701") covers the Oyster Bay Station (OYB) (formerly named as Siu Ho Wan Station (SHO)) and Siu Ho Wan Depot Replanning Works.

A.2 To facilitate the construction of the Siu Ho Wan Depot (SHD) Property Development, railway related works would be required. The existing SHD will undergo replanning works to make room for the phased construction of the SHD Property Development, while maintenance and supporting services to the existing Tung Chung Line (TCL), Airport Express Line (AEL) and Disneyland Resort Line (DRL) should be maintained without causing disruption to the normal operation. A new OYB Station has also been proposed along the TCL tracks to meet transport needs of the SHD Property Development and enable building of a sustainable community.

A.3 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.

A.4 This is the 7th monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the reporting period from 1 to 31 October 2024.

A.5 A summary of the construction works reported by the *Contractor* for the Project during the reporting month is listed below.

**Construction Activities undertaken**

- Site clearance, Underground utilities (UU) detection, trial pit and instrumentation & monitoring installation at site;
- Trial pit, predrilling and bored pile works in W11;
- Project Manager Office: Concrete casting for foundation;
- Underfloor Wheel Lathe: Excavation to FEL, concreting for blinding layer, water proofing;
- Oyster Bay Station: Sheet piling, railway protective (RP) fencing installation; and
- Sewage Pump Station: Underground utilities (UU) detection, predrill trial pit.

A.6 A summary of regular construction dust monitoring activities in this reporting period is listed below:

**Construction dust (1-hour TSP) monitoring**

| | |
|---|---|
| DM1 | 18 times |

A.7 Weekly environmental site inspections were conducted during the reporting period. Five site inspections were carried out on 02, 08, 15, 22 and 29 October 2024. One joint site inspection with the IEC was also undertaken on 08 October 2024. All items are rectified within the reporting period. The environmental performance of the Project was considered satisfactory.

A.8 Details of waste management are presented in **Section 3**.

**Breaches of Action Level and Limit Level for Air Quality**

A.9 No Action Level or Limit Level exceedance of 1-hour TSP was recorded during the reporting period.

**Complaint, Notification of Summons and Successful Prosecution**

A.10 No Complaint, Notification of Summons or Successful Prosecution was recorded in the reporting month.

**Reporting Changes**

A.11 No changes of EM&A programme were made in this reporting period.

A.12 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**

- Continue site clearance, underground utility (UU) detection and diversion, instrumentation & monitoring, trial pit, predrilling works at site;
- Depot: Bored pile installation work, precautionary sheet pile works, pre-bored socket H piles installation and railway protective (RP) fencing installation;
- Test Track: Railway protective fencing installation, excavation and lateral support (ELS) for Overhead Line (OHL) Mast, underground utility (UU) construction and test track removal;
- Oyster Bay Station: Railway protective (RP) fencing installation, mini piles installation;
- Underfloor Wheel Lathe: RC and steel roof structure works, drainage and road works, Overhead Line (OHL) construction and track works;
- Sewage Pump Station: Demolition of AB26, fencing and underground utility (UU) construction, trial trench and predrilling, SSK widening works; and
- Project Manager Office: Civil structure, Architectural Builders' Works and Finishes (ABWF) and BS works.

A.13 Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, construction noise, water quality and waste management.

# 1 INTRODUCTION

1.1 China State Construction Engineering (Hong Kong) Limited was commissioned by the MTR Corporation (MTRC) as the Contractor for Service Contract 1701. Aurecon Hong Kong Limited (Aurecon) was appointed by China State Construction Engineering (Hong Kong) Limited as the *Contractor's* Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) programme during the construction phase of the project.

**Propose of the Report**

1.2 This is the 7th monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the reporting period from 1 to 31 October 2024.

**Report Structure**

1.3 The monthly EM&A Report is organized as follows:

- Section 1: Introduction
- Section 2: Project Information
- Section 3: Environmental Status
- Section 4: Monitoring Results
- Section 5: Summary of Complaints, Notification or Summons and Prosecutions
- Section 6: Environmental Site Inspection and Audit
- Section 7: Future Key Issues
- Section 8: Conclusions and Recommendations

# 2 PROJECT INFORMATION

## Background

2.1 The Siu Ho Wan Depot (SHD) Property Development is envisaged as a multi-phases scheme to reconfigure the existing Depot and construct a roof deck above the Depot for topside development including foundation and structure, with associated building services and E&M systems and enabling works for depot migration and topside development.

2.2 A new above ground station with side platforms alongside the live running track of Tung Chung Line (TCL) is required. The Oyster Bay Station (OYB), formerly Siu Ho Wan Station (SHO), is to serve the future Siu Ho Wan topside development and the wider population within the nearby reclamation area development.

2.3 Track modification works to the Airport Express Link (AEL) and TCL in the form of a 2 to 4 bifurcation is required to accommodate the new station.

2.4 The existing Siu Ho Wan Depot (SHD) operations must be maintained to provide continuous uninterrupted maintenance to the running lines (including Tung Chung Line, Airport Express Line and Disneyland Resort Line), stabling and operational services during the phased migration schemes.

2.5 The "Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works" Environmental Impact Assessment Report (EIAO Register No. AEIAR-214/2017) 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.

2.6 The Contract 1701 – Siu Ho Wan Depot Property Development Oyster Bay Station and Associated Works was awarded to China State Construction Engineering (Hong Kong) Limited. China State Construction Engineering (Hong Kong) Limited has engaged Aurecon Hong Kong Limited as the Environmental Team (ET) to provide EM&A services for this contract.

### General Description of the Project

2.7 The Project covers the following construction activities:

i. Civil and structural works for the Oyster Bay Station (OYB) excluding the property enabling works supporting the northern platform and concourse area;

ii. Link bridges and structures spanning between the OYB northern and southern concourse;

iii. Building services for the whole OYB, comprising fire services, mechanical ventilation, electrical and plumbing services, above ground drainage services and associated control system;

iv. Architectural Builders' Works and Finishes (ABWF) for the whole OYB, including supply and installation of common station components, sign and advertising panels; Information Corner; metal doors and ironmongeries, etc.;

v. Civil and structural works, including placement of bottom ballast and associated formation, Overhead Line (OHL) masts/ portals and associated foundation and cross station beams, for the Tung Chung Line 4-tracking bifurcation works;

vi. Civil and BS provisions, trackwork and associated formation, OHL masts and associated foundation for the temporary Underfloor Wheel Lathe (UFWL);

vii. Civil and structural works, including trackwork and associated formation, OHL masts/portals and associated foundation for existing west depot track modification and test track diversion;

viii. Sewage Pump Station, including civil and structural works, E&M plant and equipment, BS and ABWF works at the eastern side of SHD;

ix. Foundation and superstructure works up to depot roof with covered chambers for Phase 3D area, and associated drainage works together with relevant services from Phase 1 along the Phase 3D area connecting to Sewage Pump Station;

x. Eastern Access Ramp including necessary road furniture with provisions for connection to the future Road P1 together with the services zone for accommodating the sewage pipes and services from Phase 3D connecting to Sewage Pump Station;

xi. Property Enabling Works including foundation for podium edge columns at Phase 1 area; and

xii. Landscaping including green roofs, green walls, ground plantings and associated drainage and irrigation systems.

**Construction Programme and Activities**

2.8 A summary of the major construction activities undertaken in this reporting period (from 1 to 31 October 2024) is shown in **Table 2.1**. The construction programme is presented in **Appendix A**.

**Table 2.1 Summary of the construction activities reported by Main Contractor during the Reporting Month**

| **Construction Activities undertaken** |
|---|
| • Site clearance, Underground utilities (UU) detection, trial pit and instrumentation & monitoring installation at site;<br>• Trial pit, predrilling and bored pile works in W11;<br>• Project Manager Office: Concrete casting for foundation;<br>• Underfloor Wheel Lathe: Excavation to FEL, concreting for blinding layer, water proofing;<br>• Oyster Bay Station: Sheet piling, railway protective (RP) fencing installation; and<br>• Sewage Pump Station: Underground utilities (UU) detection, predrill trial pit. |

2.9 The project organisational chart specifying management structure and contact details are shown in **Figure 3**. The key personal contact names and numbers for the Project are summarized in **Table 2.2**.

**Table 2.2 Contact Information of Key Personnel**

| Party | Role | Position | Name | Telephone |
|---|---|---|---|---|
| MTRC | Project Environmental Team | Project Environmental Team Leader | Mr. Edan Li | 2688 1179 |
| Meinhardt | Independent Environmental Checker (IEC) | Independent Environmental Checker (IEC) | Mr. Adi Lee | 2859 5443 |

| Party | Role | Position | Name | Telephone |
|---|---|---|---|---|
| CSHK | *Contractor* | Environmental Officer | Ms. Iris Ho | 5611 8325 |
| Aurecon | *Contractor's* Environmental Team (ET) | *Contractor's* ET Leader | Dr. F. C. Tsang | 3664 6888 |

2.10 A summary of the valid permits, licences, and/ or notifications on environmental protection for this Project is presented in **Table 2.3**.

**Table 2.3 Summary of the Status of Valid Environmental License Notification, Permit and Documentations**

| Permit/ Licences/ Notification/ Reference No. | Valid Period | | Status | Remark |
|---|---|---|---|---|
| | From | To | | |
| **Environmental Permit** | | | | |
| EP-588/2021 | - | | | |
| **Wastewater Discharge License** | | | | |
| Licence No.: WT10002895 | 09/07/2024 | 31/07/2029 | Valid | N/A |
| **Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation** | | | | |
| Ref. No.: 500947 | 18/12/2023 | N/A | Valid | N/A |
| **Chemical Waste Producer Registration** | | | | |
| 5213-961-C4924-01 | 30/01/2024 | N/A | Valid | N/A |
| **Billing Account for Disposal of Construction Waste** | | | | |
| Account No.: 7049565 | 21/12/2023 | N/A | Valid | N/A |
| **Construction Noise Permit** | | | | |
| GW-RS0879-24 | 25/09/2024 | 28/02/2025 | Valid | N/A |

# 3 ENVIRONMENTAL STATUS

3.1 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 3.1.**

**Table 3.1 Summary of Status of Required Submission for EP-588/2021 for the Project**

| EP Condition (EP-588/2021) | Submission | Submission Date |
|---|---|---|
| Condition 1.12 | Commencement Date of Construction | 11 Jun 2021 (1st submission)<br>12 Jul 2021 (2nd submission)<br>12 Aug 2021 (3rd submission) |
| Condition 2.7 | Construction Works Phasing Schedule Proposal | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>29 Dec 2021 (Deposited)<br>9 Oct 2023 (1st Submission with updated Phase 1 works)<br>30 Nov 2023 (Deposited) |
| Condition 2.8 | Environmental Permit Submission Schedule | 12 Aug 2021<br>10 Sep 2021 (Deposited) |
| Condition 2.9 | Management Organization | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>21 Mar 2022 (3rd Submission)<br>9 Aug 2022 (4th Submission)<br>16 Nov 2022 (5th Submission)<br>18 Sep 2023 (6th submission)<br>22 Jan 2024 (7th Submission) |
| Condition 2.10 | Construction Noise Mitigation Plan | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>28 Dec 2021 (Deposited)<br>30 Dec 2022 (1st Submission which covered Phase 1 main works)<br>29 Mar 2023 (2nd Submission which covered Phase 1 main works)<br>18 May 2023 (3rd Submission which covered Phase 1 main works)<br>28 Jul 2023 (4th Submission for Phase 1 works)<br>30 Oct 2023 (5th Submission for Phase 1 works)<br>6 Dec 2023 (6th Submission for Phase 1 works)<br>8 Dec 2023 (Deposited)<br>21 Jun 2024 (7th Submission for Phase 1 works) |
| Condition 2.11 | Noise Mitigation Plan | 31 Mar 2023 (1st submission)<br>31 Jul 2023 (2nd submission)<br>20 Oct 2023 (3rd submission)<br>7 Mar 2024 (4th submission) |

| EP Condition (EP-588/2021) | Submission | Submission Date |
|---|---|---|
| | | 18 Mar 2024 (Approved) |
| Condition 2.13 | Waste Management Plan | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>28 Dec 2021 (Deposited)<br>30 Jun 2023 (1st Submission for Phase 1 work)<br>1 Aug 2023 (2nd Submission for Phase 1 works)<br>31 Aug 2023 (Deposited for Phase 1 works) |
| Condition 2.15 | Landscape and Visual Plan(s) | 27 Apr 2023 (1st Submission)<br>27 Jul 2023 (2nd Submission)<br>20 Oct 2023 (3rd Submission)<br>8 Dec 2023 (Approved) |
| Condition 3.3 | Baseline Monitoring Report | 1 Nov 2021<br>16 Nov 2021 (Deposited) |
| Condition 3.4 | Monthly EM&A Report (September 2024) | Submitted within 10 working days after the end of the reporting month |
| Condition 4.2 | Dedicated Internet Website | 12 Jan 2022<br>25 Jul 2023 (update address)<br>14 Mar 2024 (update address) |

3.2 The drawings showing the project layout and the location of the monitoring station are attached in **Figures 1a, 1b, 1c** and **Figures 2**, respectively. A summary of the monitoring location is shown in **Table 3.2**.

**Table 3.2 Summary of the location of the monitoring station**

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

# 4 MONITORING RESULTS

## Air Quality Monitoring

4.1 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.

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

## Monitoring Equipment and Methodology

**Monitoring Equipment**

4.3 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.

4.4 The proposed use of portable dust meter has been submitted to the IEC and agreement has been obtained from the IEC in accordance with Section 2.2.7 of the approved EM&A Manual.

4.5 **Table 4.1** summarizes the equipment used for 1-hour TSP measurement in the air quality monitoring programme.

**Table 4.1 Construction Dust Monitoring Equipment**

| Measuring Parameter | Monitoring Equipment | Brand and Model | Serial Number | Date of Calibration |
|---|---|---|---|---|
| Digital Dust Indicator | Portable direct reading dust meter (1-hour TSP) | Sibata Digital Dust Monitor (Model No. LD-5R) | 3Y7115 | 29 January 2024 |
| | | | 427235 | 12 April 2024 |

4.6 The portable direct reading dust meter was calibrated annually. Copies of calibration certificates of the portable direct reading dust meter are attached in **Appendix B**.

**Monitoring Methodology**

4.7 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.

4.8 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 programme to facilitate data collection, analysis and reporting.

**Monitoring Location**

4.9 The location of the designated dust monitoring station is described in **Table 4.2.**

**Table 4.2 Construction Dust Monitoring Location**

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

**Result Summary**

4.10 Dust impact monitoring was carried out at the monitoring location on 03, 09, 15, 21, 25 and 31 October 2024 during the reporting period (**Appendix I**). According to the field observations, the major dust sources identified included vehicular emissions from North Lantau Highway and Cheung Tung Road. Gentle wind was recorded throughout the monitoring period, with gentle to strong wind recorded occasionally.

4.11 The results for 1-hour TSP are summarized in **Table 4.3**. The measurement data are presented in **Appendix C**.

**Table 4.3 Summary of 1-hour TSP Monitoring Results**

| Monitoring Location | Range ($\mu g/m^3$) | Action Level ($\mu g/m^3$) | Limit Level ($\mu g/m^3$) | No. of Exceedances |
|---|---|---|---|---|
| DM1 | 7 - 21 | 294.7 | 500 | 0 |

# Waste Management

4.12 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 4.4**. Details of cumulative waste management data are presented as a waste flow table in **Appendix D**.

**Table 4.4 Quantities of waste generated from the Project**

| Reporting period | Quantity | | | | | | |
|---|---|---|---|---|---|---|---|
| | Inert C&D materials (in $m^3$) | Chemical Waste (in '000 kg) | Non-inert C&D materials | | | | |
| | | | Others, e.g., General Refuse disposed of at Landfill (in '000 kg) | Recycled wastes | | | |
| | | | | Paper/ cardboard (in '000 kg) | Plastics (in '000 kg) | Metals (in '000 kg) | Yard Waste (in '000 kg) |
| 1 – 31 October 2024 | 6513.210 | 0 | 120.240 | 0.167 | 0.008 | 6.271 | 0 |

4.13 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 to avoid illegal dumping or landfilling of C&D materials.

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

# 5 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

5.1 The Environmental Complaint Handling Procedure is shown in **Appendix E**.

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

5.3 No Action Level or Limit Level exceedance of 1-hour TSP was recorded during the reporting month.

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

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

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

# 6 ENVIRONMENTAL SITE INSPECTION AND AUDIT

6.1 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, five site inspections were carried out on 02, 08, 15, 22 and 29 October 2024. One joint site inspection with the IEC was also undertaken on 08 October 2024. Observations were reported during the weekly site inspections. Key observations during the site inspections are summarized in **Table 6.1**.

**Table 6.1 Site Observations**

| Parameters | Date | Observation/ Recommendation | Follow-up Status |
|---|---|---|---|
| Air Quality | 08/10/2024 | Observation:<br>The air compressor at W11B was observed generating dark smoke. The contractor was reminded that the air compressor shall be checked and maintained regularly. | Action Taken:<br>The air compressor at W11B has been checked and maintained on 09/10/2024. |
| Waste / Chemical Management | 02/10/2024 | Observation:<br>Chemical bottle at W7 should be placed on the drip tray to prevent oil leakage. | Action Taken:<br>Chemical bottle at W7 has been removed from site on 03/10/2024. |
| | 29/10/2024 | Observation:<br>Oil stain near the Wetsep in W11C was observed on the water body. The contractor should be handled the oil stain properly. | Action Taken:<br>Oil stain has been handled properly on 29/10/2024. |
| NA | 15/10/2024 | No major environmental issue was observed during the site inspection. | NA |
| NA | 22/10/2024 | No major environmental issue was observed during the site inspection. | NA |

6.2 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 H**.

# 7 FUTURE KEY ISSUES

7.1 The construction programme for the Project for the next reporting month is presented in **Appendix A**. Works to be undertaken in the next three reporting months are:

**Construction Activities to be undertaken**

- Continue site clearance, underground utility (UU) detection and diversion, instrumentation & monitoring, trial pit, predrilling works at site;
- Depot: Bored pile installation work, precautionary sheet pile works, pre-bored socket H piles installation and railway protective (RP) fencing installation;
- Test Track: Railway protective fencing installation, excavation and lateral support (ELS) for Overhead Line (OHL) Mast, underground utility (UU) construction and test track removal;
- Oyster Bay Station: Railway protective (RP) fencing installation, mini piles installation;
- Underfloor Wheel Lathe: RC and steel roof structure works, drainage and road works, Overhead Line (OHL) construction and track works;
- Sewage Pump Station: Demolition of AB26, fencing and underground utility (UU) construction, trial trench and predrilling, SSK widening works; and
- Project Manager Office: Civil structure, Architectural Builders' Works and Finishes (ABWF) and BS works.

**Key Issues for the Coming Month**

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

7.3 Since dry and windy season is coming for Hong Kong, the Contractor was reminded that all works shall comply with the statutory environmental requirements. Air quality mitigation measures in the EM&A Manual shall be properly implemented.

**Monitoring Schedule for the Next Month**

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

# 8 CONCLUSION AND RECOMMENDATIONS

## Conclusion

8.1 This 7th monthly EM&A Report presents the EM&A works undertaken during the period from 1 to 31 October 2024 in accordance with the EM&A Manual and the requirement under EP-588/2021.

8.2 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.

8.3 Weekly environmental site inspections were conducted during the reporting period. A joint site inspection with the IEC was carried out on 08 October 2024. Observations were reported during the site inspections. All items are rectified within the reporting period. The environmental performance of the Project was considered satisfactory.

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

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

## Recommendations

*Air Quality*

- Water spraying on haul road and dry site area was provided regularly;
- Where a vehicle leaving the works site is carrying a load of dusty materials, the load has covered entirely with clean impervious sheeting;
- Stockpile of dusty materials shall be covered entirely by green net;
- Before any vehicle leaving the works site, wheel watering has been performed; and
- NRMM Labels should be displayed on the applicable equipment on site by the Contractor.

*Construction Noise*

- Only well-maintained plant should be operated on-site, and plant should be maintained regularly during the construction programme;
- Quality Powered Mechanical Equipment (QPME) should be adopted as far as possible;
- Deploy movable temporary noise barriers along the active works area;
- Use noise enclosure to cover stationary PME such as air compressor and generator;
- Obtain Construction Noise Permit (CNP) for works to be carried out during restricted hours and follow the conditions stipulated in the CNP issued by the Noise Control Authority.

*Water Quality*

- Channels, earth bunds or sandbags barriers should be provided on site to direct storm water/ polluted water to silt removal facilities;
- Exposed slope surfaces should be covered by tarpaulin to reduce muddy surface runoff;
- The site practices outlined in ProPECC Note PN 2/23 should be followed as far as practicable to minimize surface runoff and chance of erosion;
- Water quality mitigation measures as recommended in the EM&A Manual should be fully implemented.

*Chemical and Waste Management*

- Provision of waste disposal points and regular collection of waste;
- to ensure the waste arising from the works are handled, stored, collected, transferred and disposed of in an environmentally acceptable manner;
- Regular cleaning and maintenance programme for drainage system;
- Chemical containers shall be stored with drip tray underneath.
- Chemical waste handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.

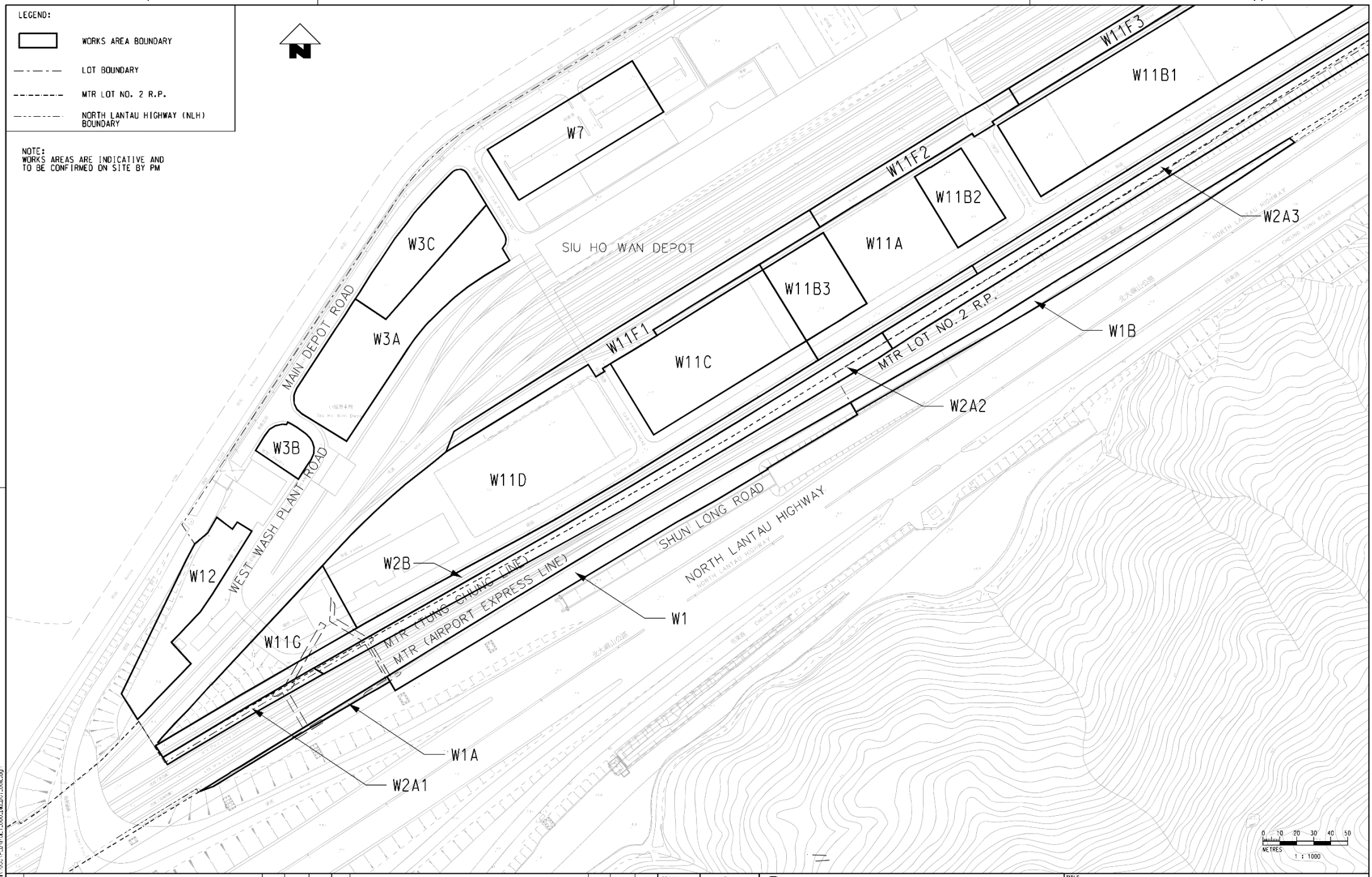
*Landscape & Visual*

- Existing trees within site areas should be well protected and maintained.

*Permits/ Licenses*

- Environmental Permit and effective environmental related licenses should be properly posted on site.

# Figure 1 Alignment and Works Area for Contract No. 1701

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| B | SECOND ISSUE | RT | DEC 22 | DN |
| A | FIRST ISSUE | RT | MAY 22 | DN |

| | |
|---|---|
| DRAWN | PKN |
| DESIGNED | RT |
| CHECKED | RT |
| APPROVED | DN |
| DATE | 09/DEC/2022 |



MTR

OYSTER BAY STATION AND ASSOCIATED WORKS

ORIGINATOR
CAPITAL WORKS BUSINESS UNIT | LAND ADMINISTRATION SECTION

CADD REF. 1701_t_000_pld_p07_001C.dgn

TITLE
CONTRACT 1701
KEY PLAN OF WORKS AREA
Figure 1a

SCALE 1 : 1000 (A1) | DRAWING NO. 1701/T/000/PLD/P07/001 | REV. C

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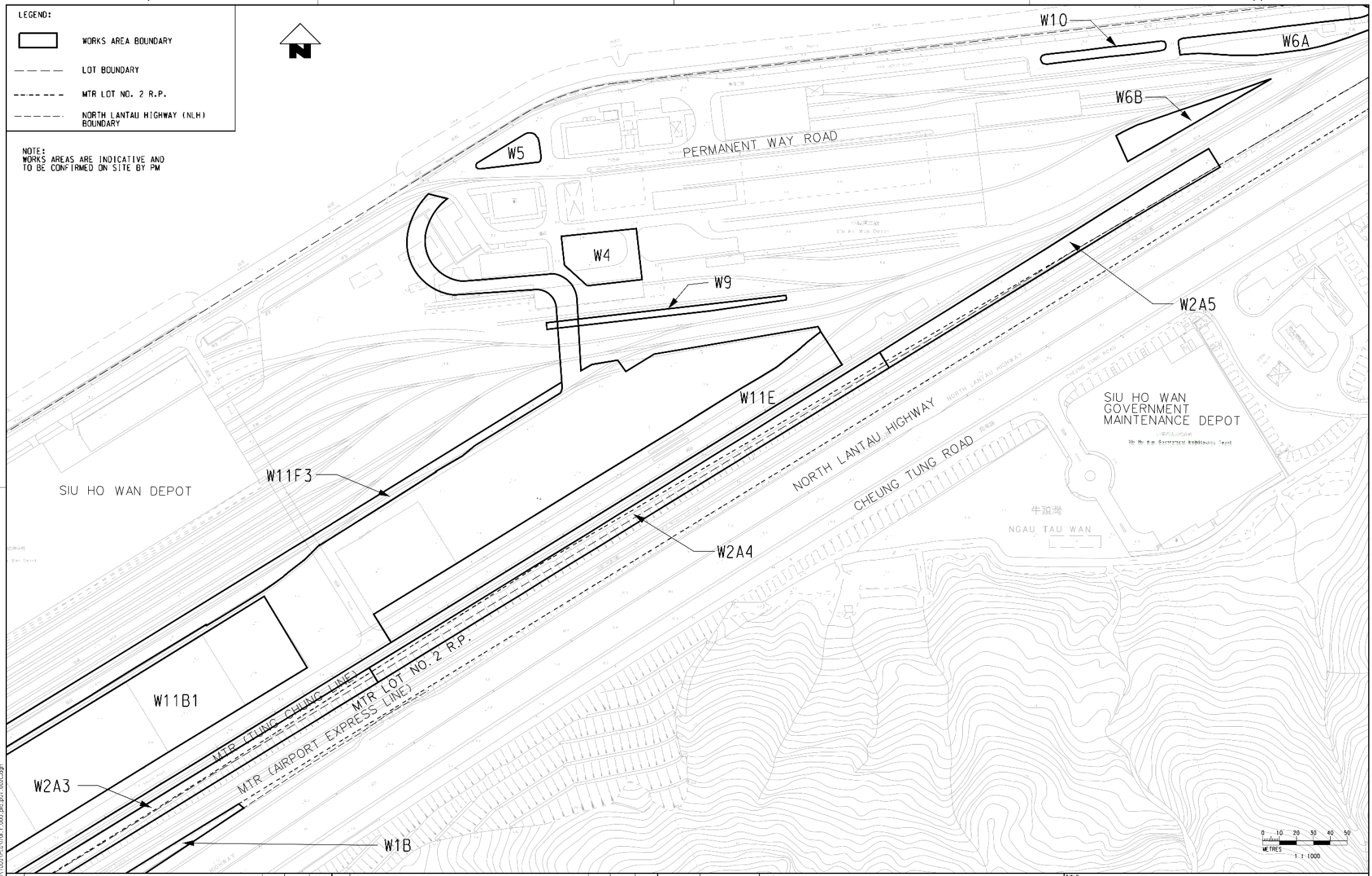


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| B | SECOND ISSUE | RT | FEB 23 | ON |
| A | FIRST ISSUE | RT | MAY 22 | ON |

| | |
|---|---|
| DRAWN | PKN |
| DESIGNED | RT |
| CHECKED | RT |
| APPROVED | ON |
| DATE | 10/MAY/2022 |



MTR

OYSTER BAY STATION AND ASSOCIATED WORKS

ORIGINATOR
CAPITAL WORKS BUSINESS UNIT | LAND ADMINISTRATION SECTION

CADD REF.
1701_t_000_pld_p07_002C.dgn

TITLE
CONTRACT 1701
KEY PLAN OF WORKS EA

Figure 1b

SCALE 1 : 1000 (A1)

DRAWING NO. 1701/T/000/PLD/P07/002

REV. C

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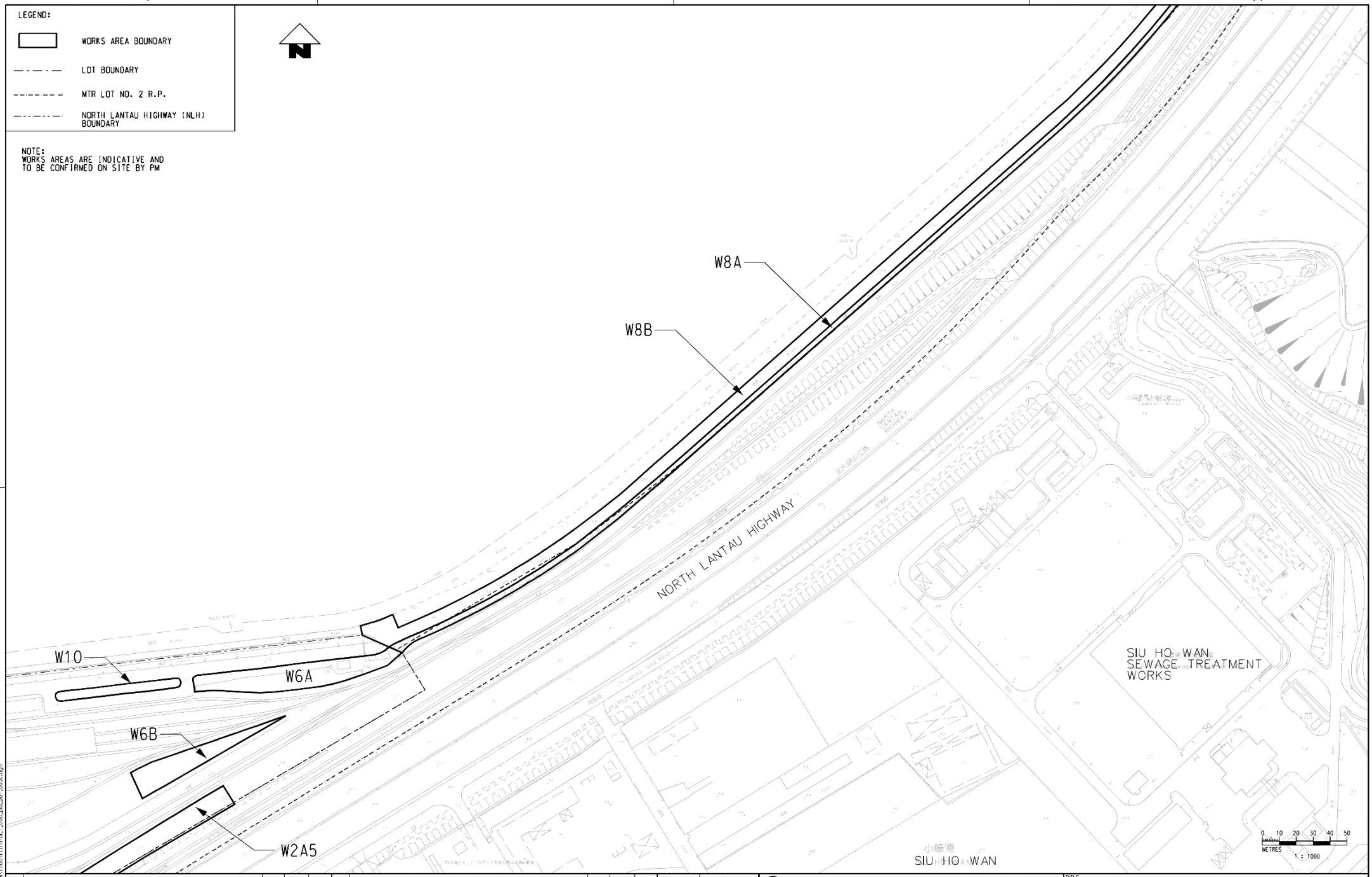
LEGEND:

- WORKS AREA BOUNDARY
- LOT BOUNDARY
- MTR LOT NO. 2 R.P.
- NORTH LANTAU HIGHWAY (NLH) BOUNDARY

NOTE:
WORKS AREAS ARE INDICATIVE AND TO BE CONFIRMED ON SITE BY PM

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| B | SECOND ISSUE | RT | APR 23 | DN |
| A | FIRST ISSUE | RT | MAY 22 | DN |

| | |
|---|---|
| DRAWN | PKN |
| DESIGNED | RT |
| CHECKED | RT |
| APPROVED | DN |
| DATE | 10/MAY/2022 |



MTR

OYSTER BAY STATION AND ASSOCIATED WORKS

ORIGINATOR
CAPITAL WORKS BUSINESS UNIT | LAND ADMINISTRATION SECTION

CADD REF.
1701_t_000_pld_p07_003C.dgn

TITLE
CONTRACT 1701
KEY PLAN OF WORKS AREA

Figure 1c

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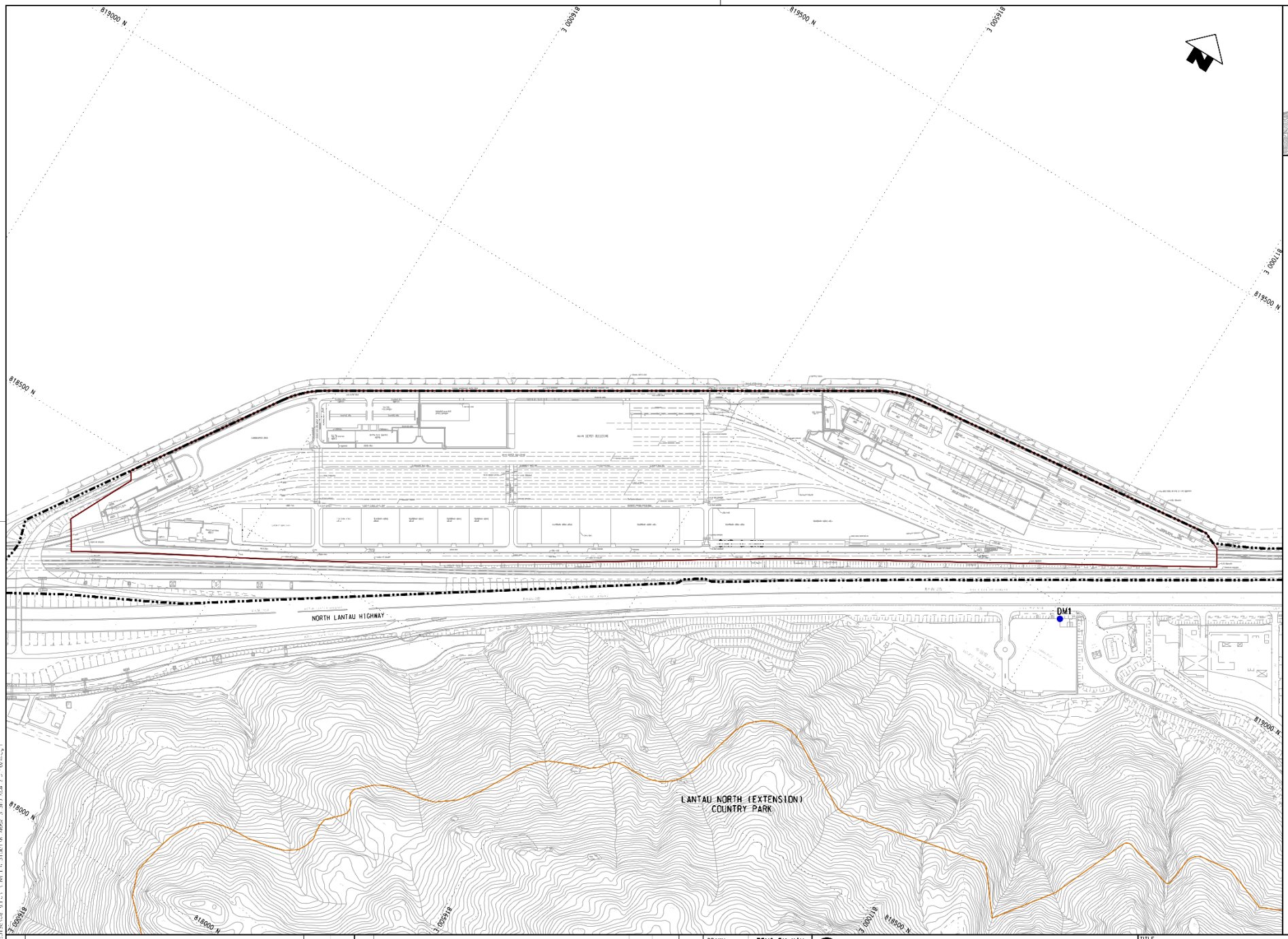
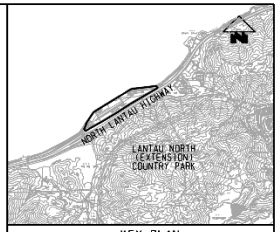
12/05/2023 16:26:52

# Figure 2 Location Plan of Air Quality Monitoring Station




KEY PLAN
(SCALE 1 : 50000)

LEGEND:

- SCHEME BOUNDARY
- EXISTING/REPROVISIONED SHD BOUNDARY
- LANTAU NORTH (EXTENSION) COUNTRY PARK
- DUST MONITORING POINT

0 25 50 75 100 125
METRES
1 : 2500

| REV | DESCRIPTION | BY | DATE | APPROVED |
|---|---|---|---|---|
| A | PRELIMINARY DESIGN REPORT ISSUE | SAM NG | 06SEP21 | HL |

| | |
|---|---|
| DRAWN | ZENG FU XIU |
| DESIGNED | ANTHEA FUNG |
| CHECKED | SAM NG |
| APPROVED | HL |
| DATE | 06/SEP/2021 |



MTR

ORIGINATOR

SIU HO WAN DEPOT

AECOM in association with Aedas

CADD REF. NEX1062_S_SHD_ACM_Z10_402A.dgn

TITLE

# SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS

## LOCATION OF DUST MONITORING POINT

SCALE 1 : 2500 (A1)

DRAWING NO. NEX1062/S/SHD/ACM/Z10/402

REV. A

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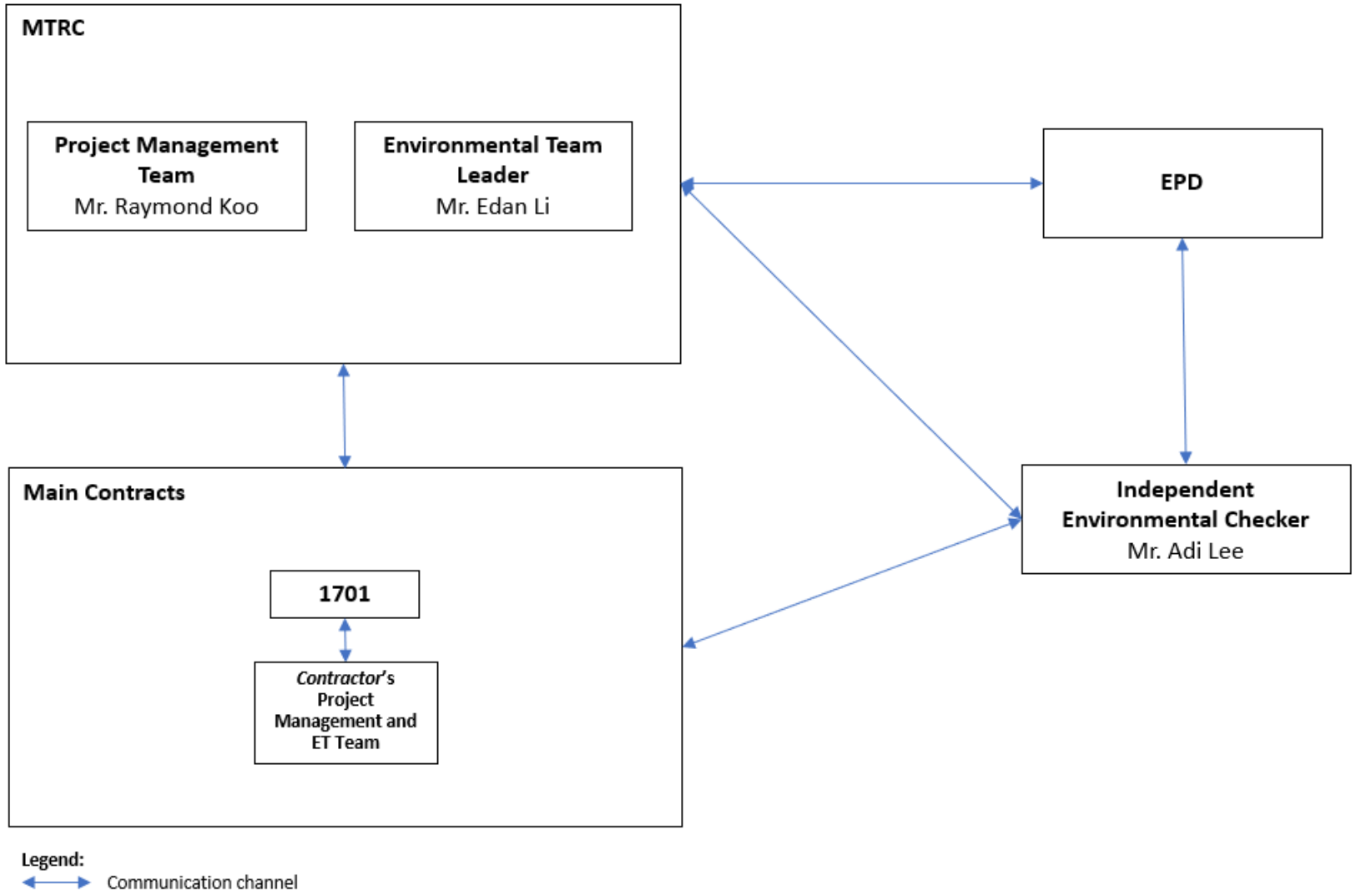
LAYOUT NAME: A1 SIU HO WAN DEPOT (SHD) ACM (Z10) 402A

# Figure 3 Project Organization Chart

# Project O-Chart



MTR's Contact:

| **MTRC - Project Management Team** | | |
|---|---|---|
| **Position** | **Name** | **Telephone** |
| Chief Construction Manager - OYB | Mr. Raymond Koo | 2621 7051 |

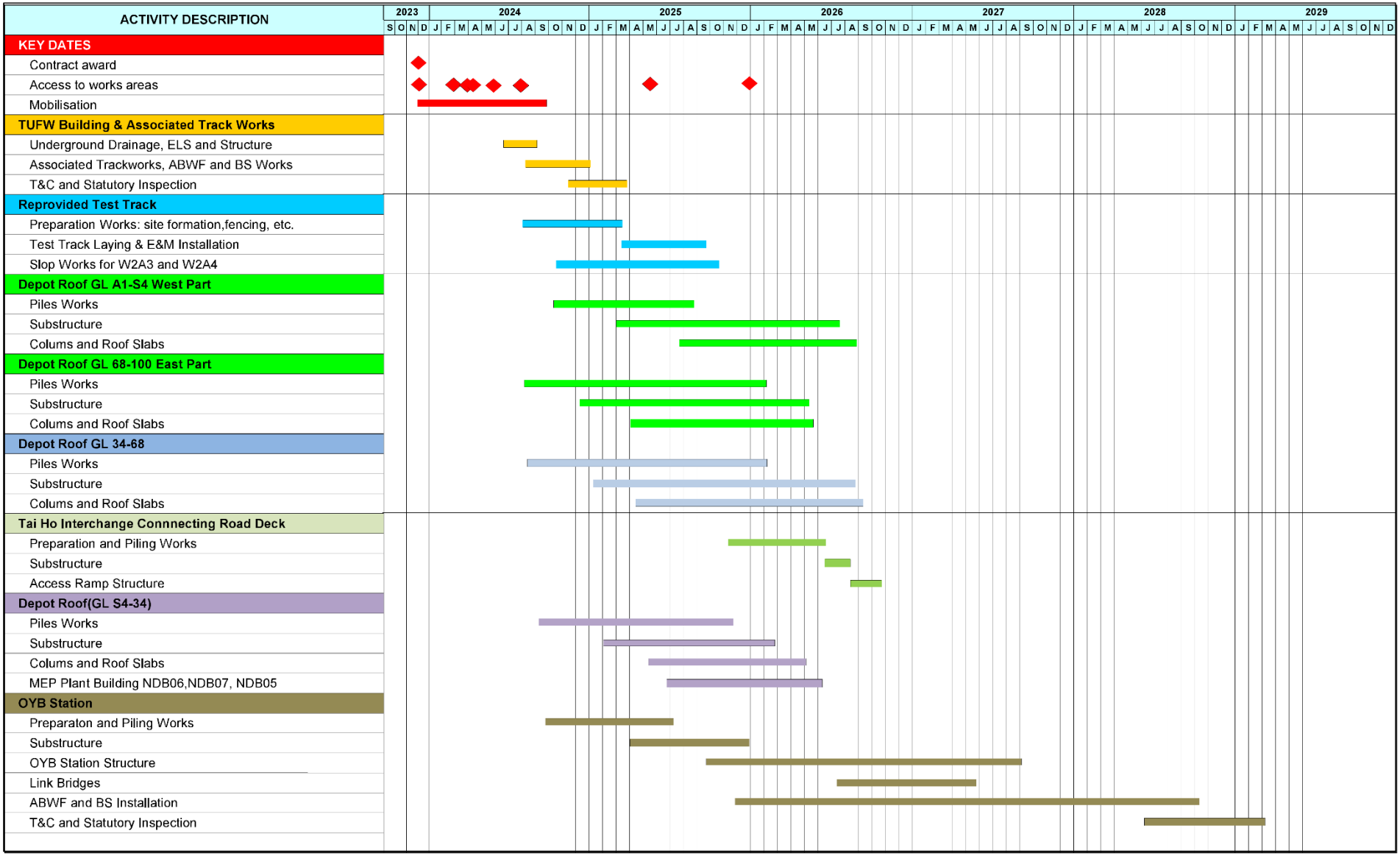
| **MTRC - Environmental Team** | | |
|---|---|---|
| **Position** | **Name** | **Telephone** |
| Environmental Team Leader | Mr. Edan Li | 2688 1179 |
| Environmental Team Member | Mr. Cyrus Lau | 2688 1585 |

| **Meinhardt Infrastructure and Environment Limited- IEC** | | |
|---|---|---|
| **Position** | **Name** | **Telephone** |
| Independent Environmental Checker | Mr. Adi Lee | 2859 5443 |

Contractor's Contact:

| **Main Works Contract** | **Description** | **Contractor** | **Position** | **Name** | **Telephone** |
|---|---|---|---|---|---|
| **1701** | Oyster Bay Station and Associated Works | China State Construction Engineering (HK) Ltd | Project Director | Mr. Eric Fong | 6191 9337 |
| | | | Senior Environmental Manager | Mr. MH Isa | 9884 0810 |
| | | | Environmental Officer | Ms. Iris Ho | 5611 8325 |
| | | | Environmental Team Leader | Dr. F. C. Tsang | 3664 6888 |

# Appendix A Construction Programme




MTR

**1701 Oyster Bay Station and Associated Works**
**CONTRACT SUMMARY PROGRAMME**

Note: Pre-drillling work was commenced on 22 April 2024.

# Appendix B Calibration Certificates (Air Quality Monitoring Equipment)

東業德勤測試顧問有限公司
ETS-TESTCONSULT LTD.™

8/F Block B,
Veristrong Industrial Centre,
34-36 Au Pui Wan Street,
Fo Tan, Hong Kong

T: +852 2695 8318
F: +852 2695 3944
E: etl@ets-testconsult.com
W: www.ets-testconsult.com



# Calibration Certificate

**Certificate No.** : **CSA40398**

Page : 1 of 1

## *Information Provided by Customer*

Customer : China State Construction Engineering (HK) Limited

Address : N/A

## *Information of Unit-under-test (UUT)*

Description : Digital dust indicator

Manufacturer : SIBATA

Type : LD-5R

Equipment I.D. No. : -

Serial No. : 3Y7115

## *Laboratory Information*

Lab. Ref. No. : Q/CAL/24/0453/E

Date of Calibration : 29-Jan-2024

Date of Issue : 5-Feb-2024

Procedure : CQS/054/Z

Date of Receipt : 16-Jan-2024

## *Calibration Condition*

Ambient Temperature : (20±3) °C

Sampling : As received

Relative Humidity : (50±20) %

## *Reference equipment*

- Reference Balance, C-052-03

## *Calibration specification*

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

## *Calibration result (unit in : mg/m$^3$)*

| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0156 | 2965 | 16 | 5.0 | 2.0 |
| 0.0178 | 3419 | 19 | | |
| 0.0200 | 3708 | 21 | | |

## *Remarks*

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration (mg/m$^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.00095
- Correlation coefficient (r): 0.992
- All reported result were obtained from ETL approved sub-contractor.

**Approved By:** _____

**CHAN Chi Wai**

東業德勤測試顧問有限公司
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# Calibration Certificate

**Certificate No.** : **CSA42467**

Page : 1 of 1

***Information Provided by Customer***

Customer : China State Construction Engineering (Hong Kong) Limited
Address : 29/F, China Overseas Building 139 Hennessy Road, Hong Kong

***Information of Unit-under-test (UUT)***

Description : Digital dust indicator
Manufacturer : SIBATA
Type : LD-5R
Equipment I.D. No. : -
Serial No. : 427235

***Laboratory Information***

Lab. Ref. No. : Q/CAL/24/2730/E
Date of Calibration : 12-Apr-2024
Date of Issue : 17-Apr-2024
Procedure : CQS/054/Z
Date of Receipt : 9-Apr-2024

***Calibration Condition***

Ambient Temperature : (20±3) °C
Sampling : As received
Relative Humidity : (50±20) %

***Reference equipment***

- Reference Balance, C-052-03

***Calibration specification***

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

***Calibration result (unit in : mg/m$^3$)***

| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0111 | 2106 | 12 | 5.0 | 2.0 |
| 0.0133 | 2484 | 14 | | |
| 0.0156 | 2804 | 16 | | |

***Remarks***

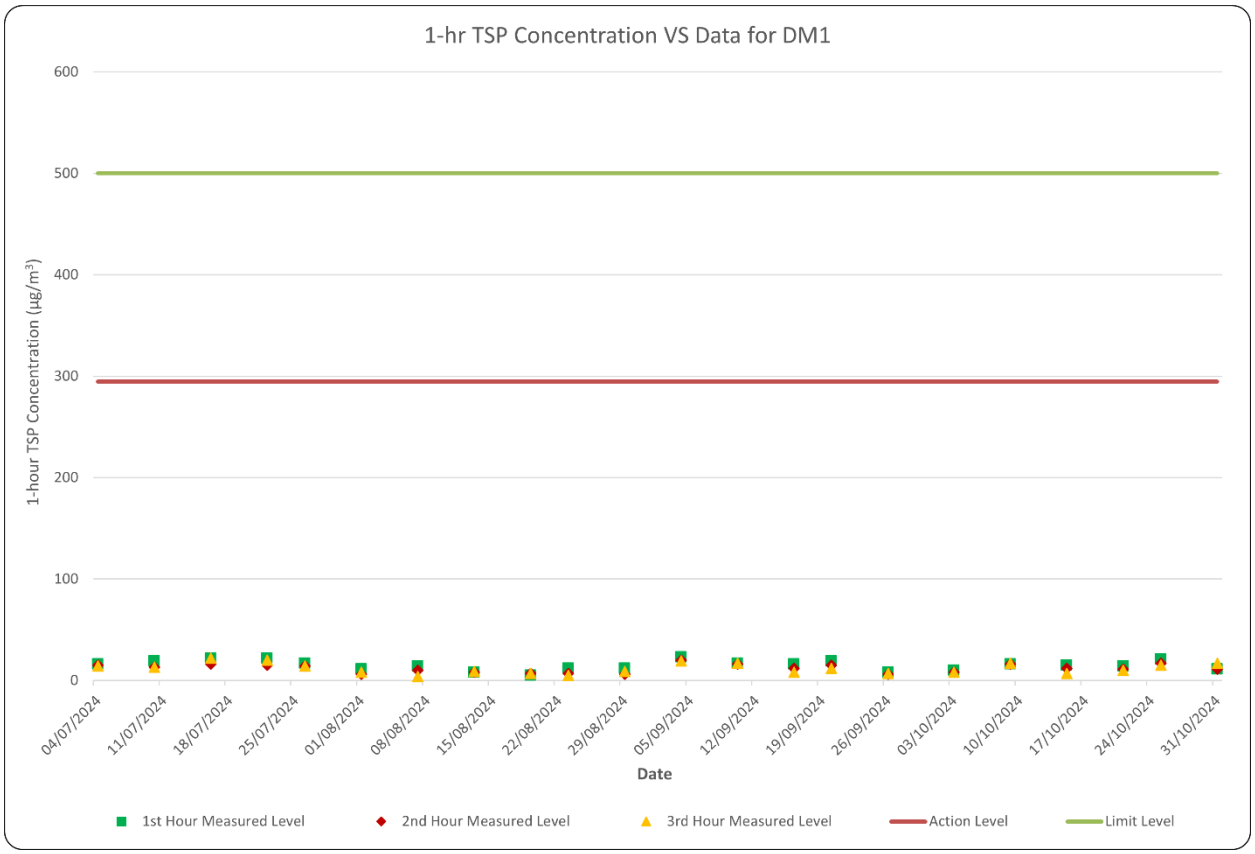
- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration (mg/m$^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.000971
- Correlation coefficient (r): 0.998
- All reported result were obtained from ETL approved sub-contractor.

**Approved By:** _____
**LU Yongyi**

# Appendix C Monitoring Data (Air Quality Monitoring)

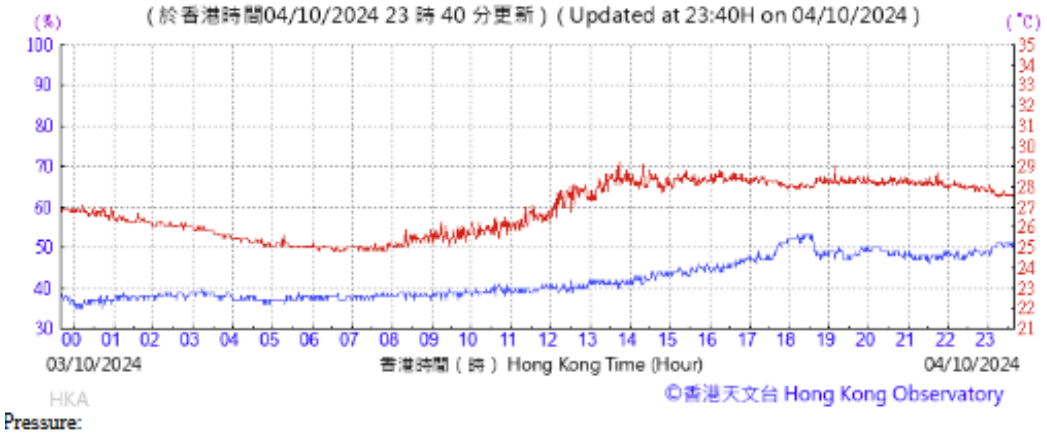
**The Summary of 1-hour TSP Concentration (μg/m³) at Location DM1**

| Date | Weather | Start Time (hh:mm) | 1st Hour μg/m³ | 2nd Hour μg/m³ | 3rd Hour μg/m³ |
|---|---|---|---|---|---|
| 03/10/2024 | Fine | 8:47 | 10 | 8 | 8 |
| 09/10/2024 | Fine | 13:18 | 16 | 16 | 17 |
| 15/10/2024 | Sunny | 8:27 | 15 | 12 | 7 |
| 21/10/2024 | Sunny | 8:30 | 14 | 11 | 10 |
| 25/10/2024 | Sunny | 8:22 | 21 | 17 | 15 |
| 31/10/2024 | Sunny | 13:33 | 11 | 11 | 17 |
| Minimum: 7 μg/m³ | | | Maximum: 21 μg/m³ | | |

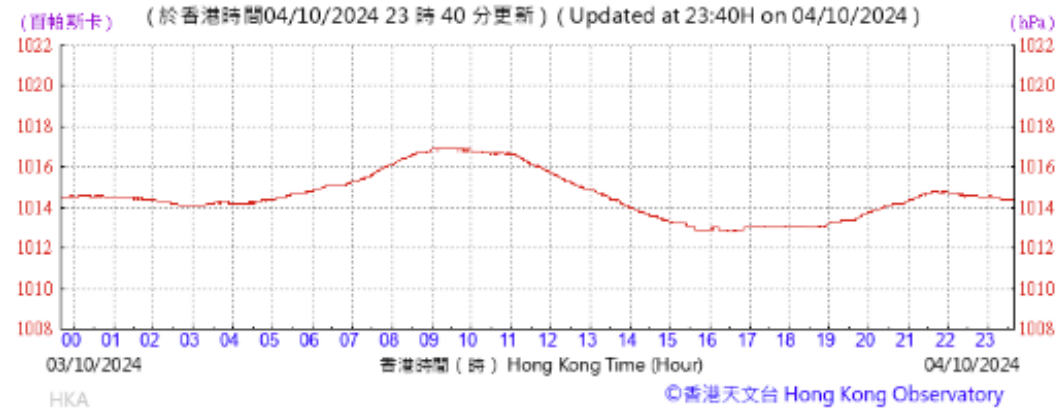


# Extract of Meteorological Observations from Chek Lap Kok Automatic Weather Station on 03 October 2024

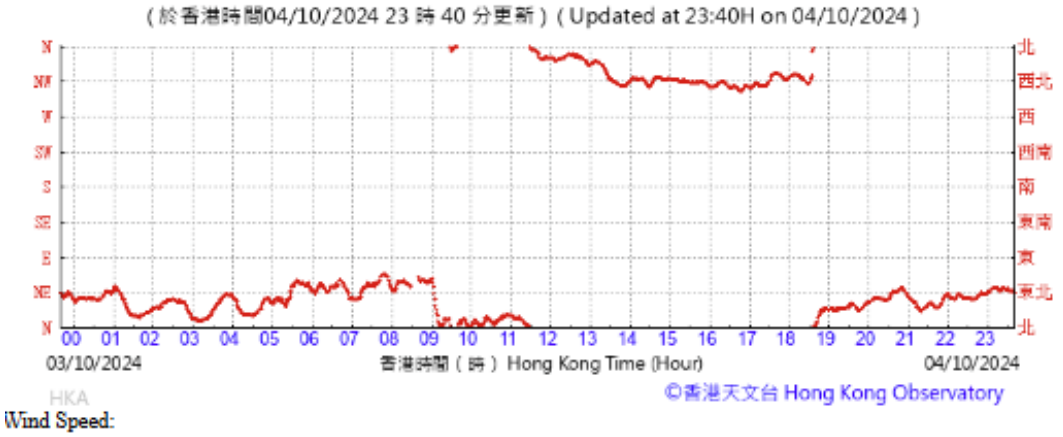
Tempearture/Humidity:




Pressure:



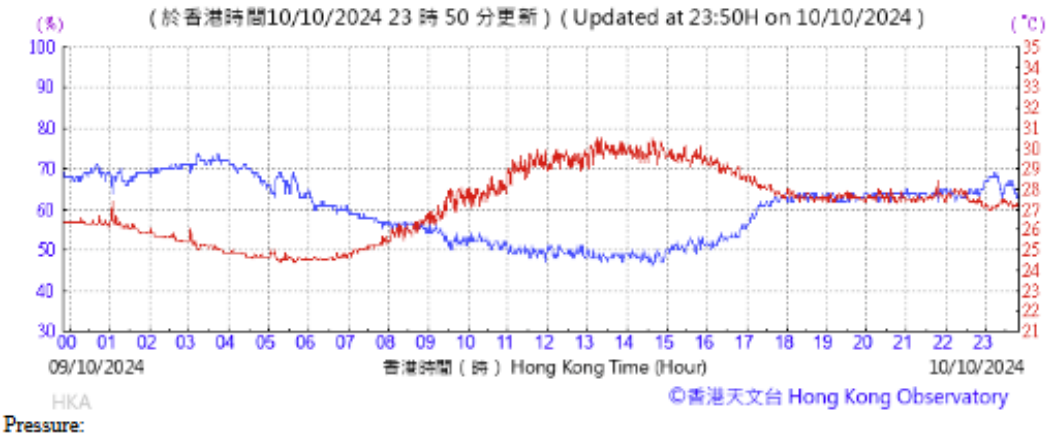

Wind Direction:



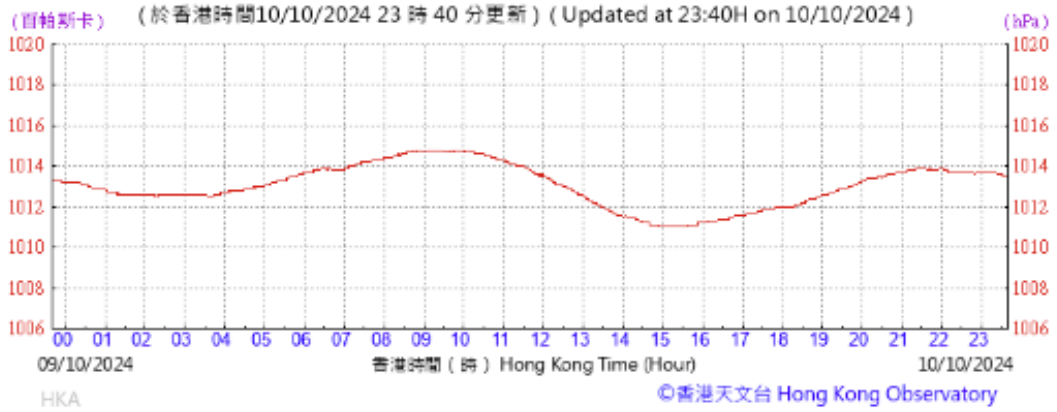

Wind Speed:

# Extract of Meteorological Observations from Chek Lap Kok Automatic Weather Station on 09 October 2024

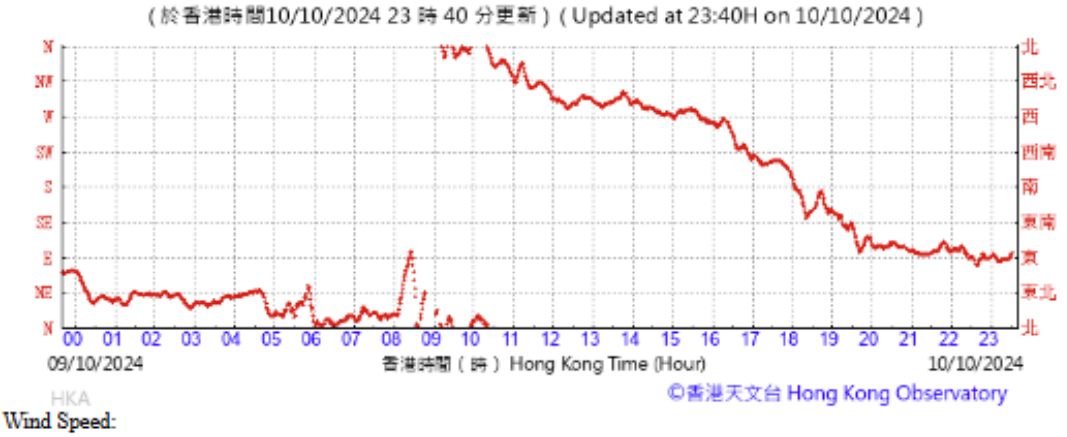
Tempearture/Humidity:



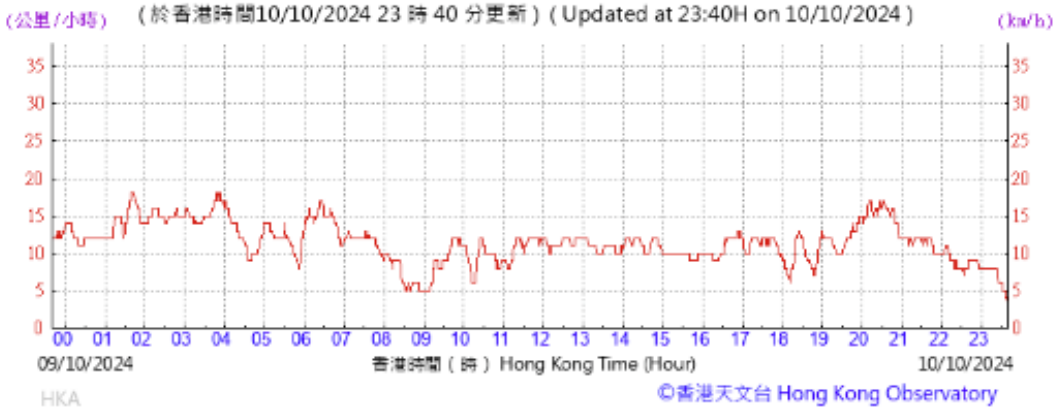

Pressure:




Wind Direction:

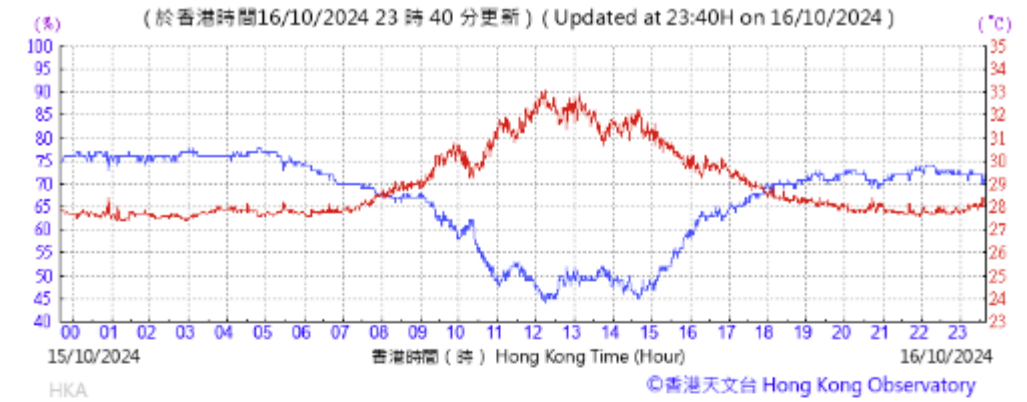



Wind Speed:

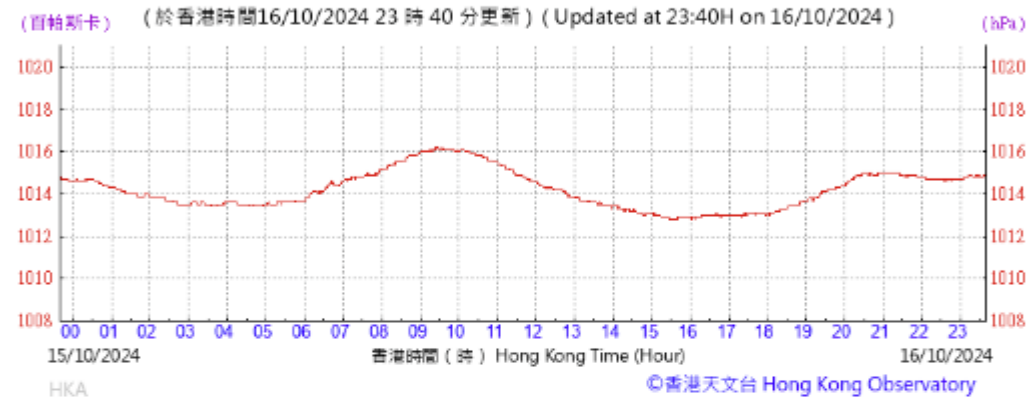


# Extract of Meteorological Observations from Chek Lap Kok Automatic Weather Station on 15 October 2024

Tempearture/Humidity:




Pressure:

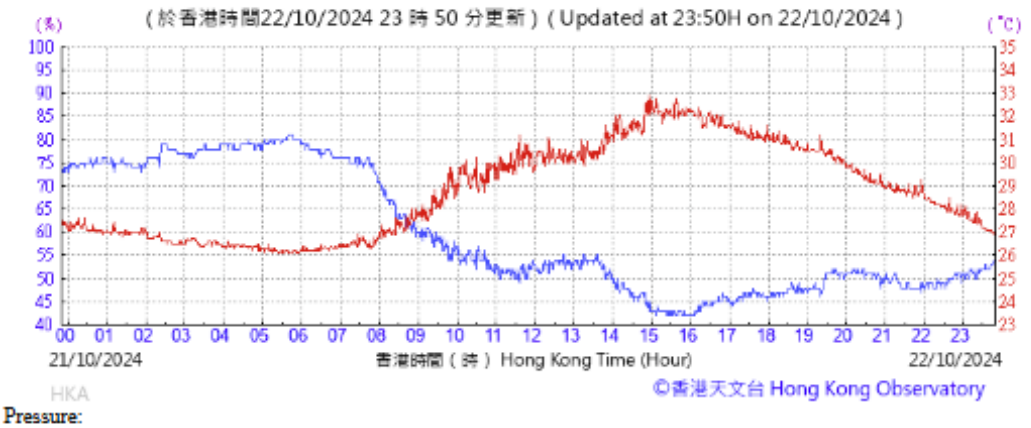



Wind Direction:

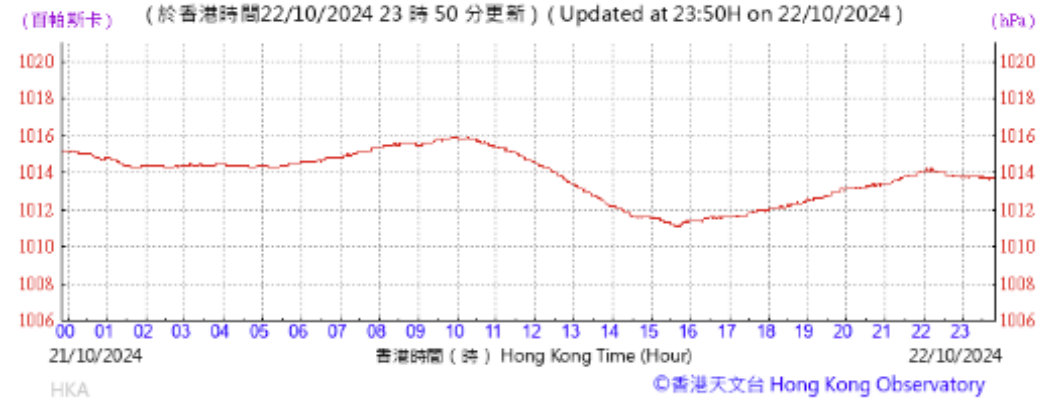

Wind Speed:

# Extract of Meteorological Observations from Chek Lap Kok Automatic Weather Station on 21 October 2024

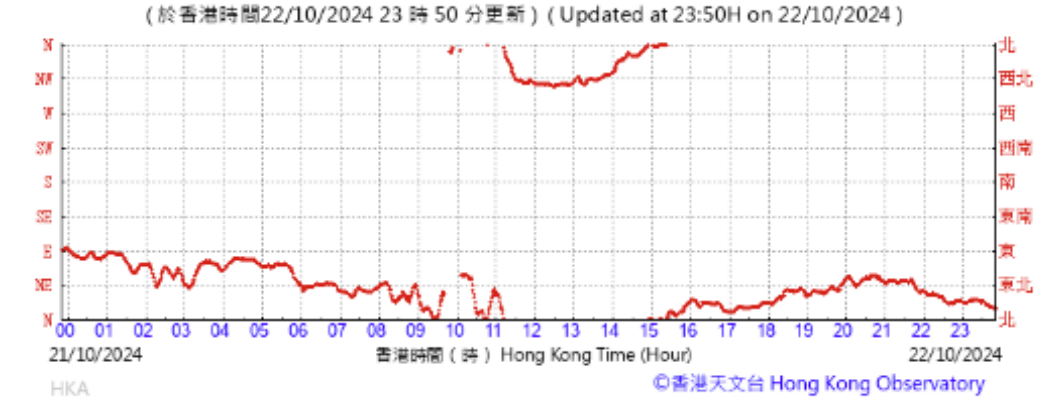
Tempearture/Humidity:




Pressure:



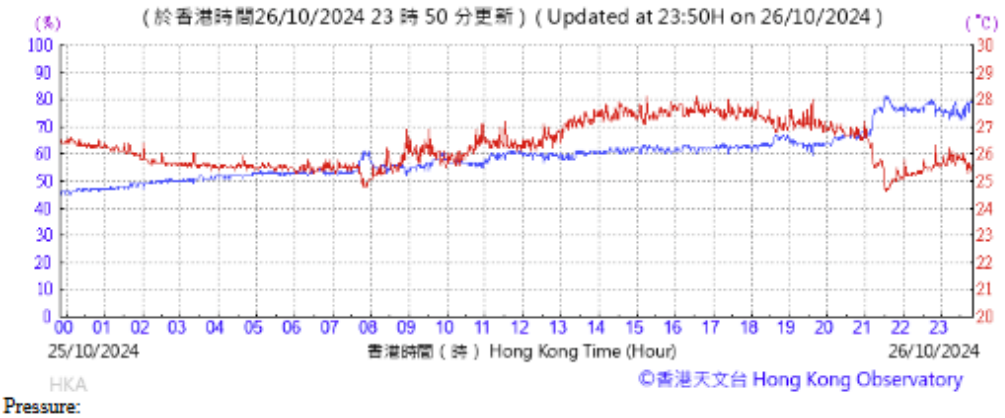

Wind Direction:



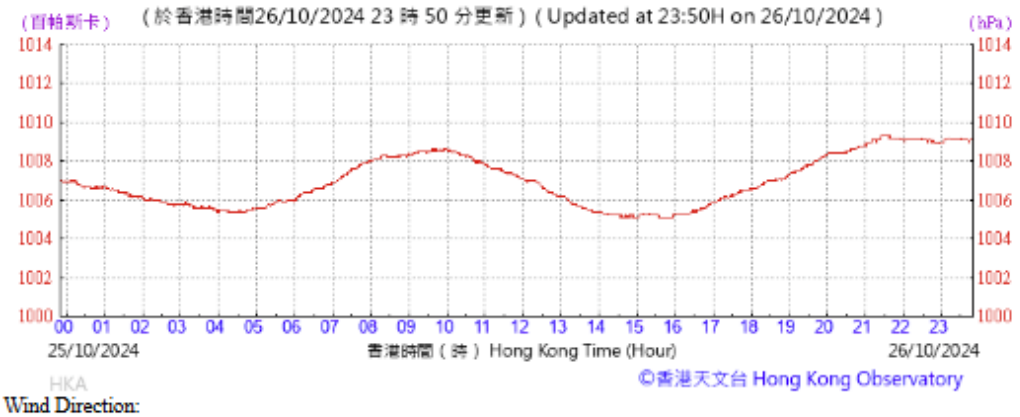

Wind Speed:

# Extract of Meteorological Observations from Chek Lap Kok Automatic Weather Station on 25 October 2024

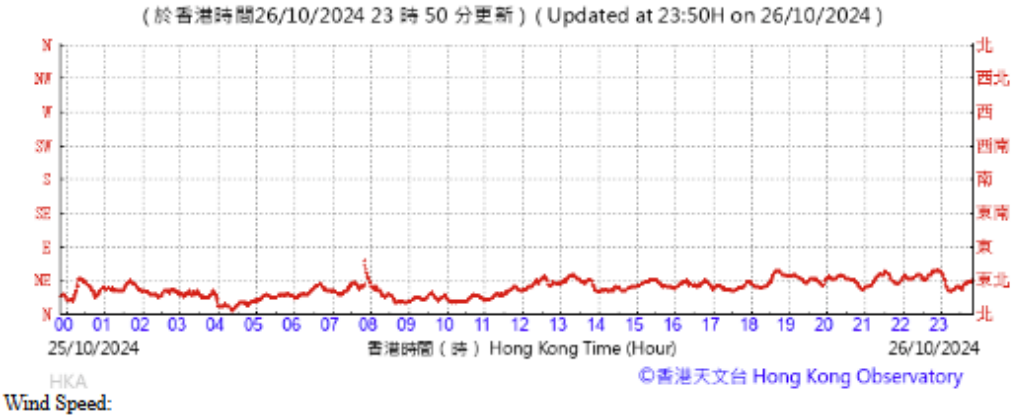
Tempearture/Humidity:



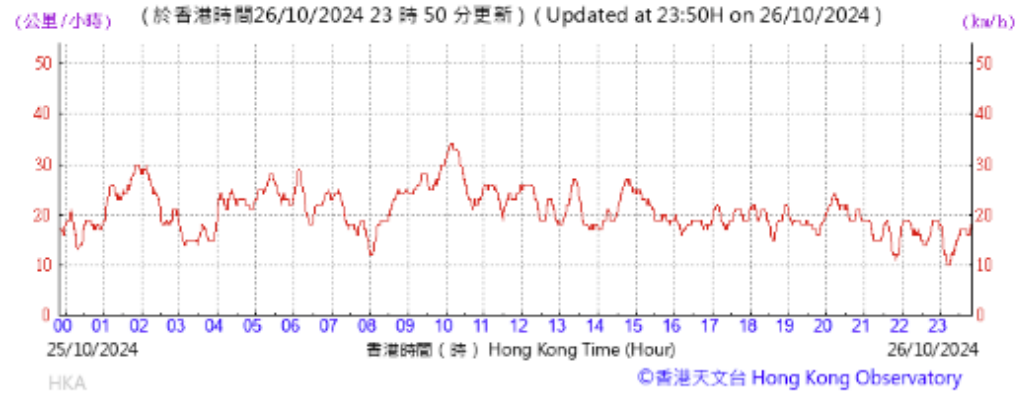

Pressure:




Wind Direction:



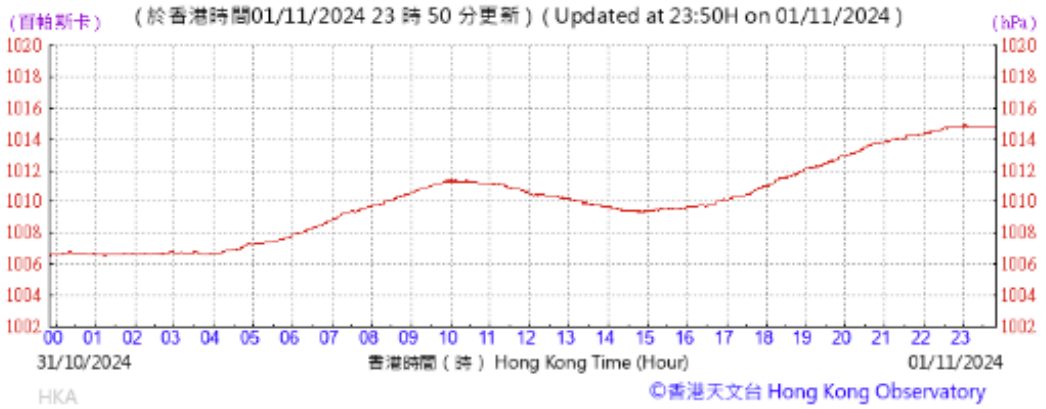

Wind Speed:



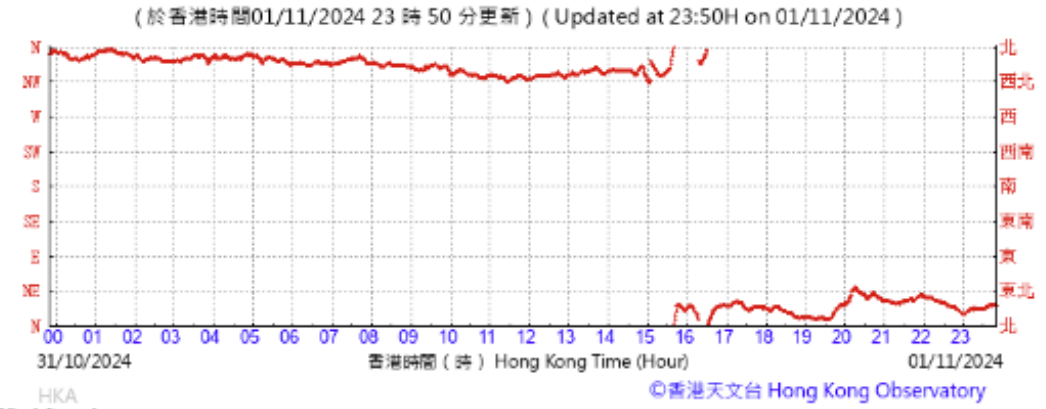
# Extract of Meteorological Observations from Chek Lap Kok Automatic Weather Station on 31 October 2024

Tempearture/Humidity:

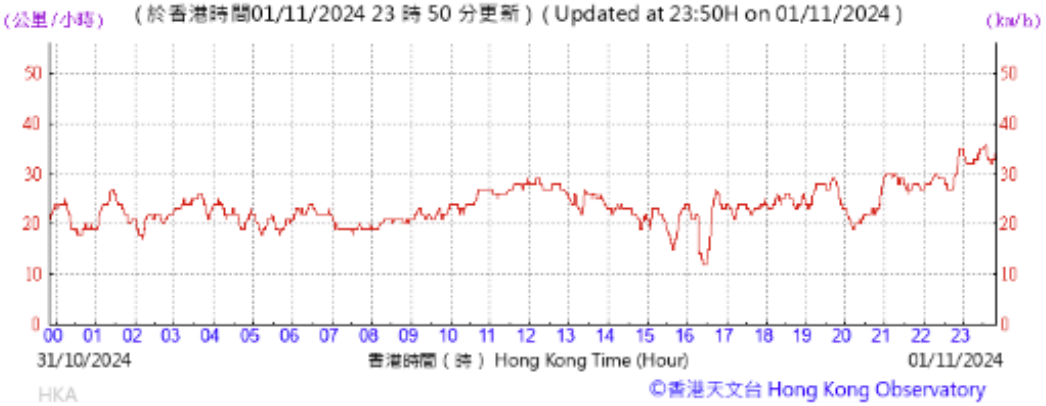

Pressure:




Wind Direction:




Wind Speed:



# Appendix D Waste Flow Table

## Monthly Summary Waste Flow Table for 2024 (year)

Project : Siu Ho Wan Depot Property Development - Oyster Bay Station and Associated Works Contract No.: 1701

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | | Actual Quantities of C&D Wastes Generated Monthly | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Quantity Generated | Hard Rock and Large Broken Concrete (a) (see Note 3) | Reused in the Contract (b) | Reused in other Projects (c) | Disposed as Public Fill (d) | Imported Fill | Metals (see Note 2) | Paper/ cardboard packaging (see Note 2) | Plastics (see Note 2) | Chemical Waste | Others, e.g. general refuse |
| | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) |
| (see note: 6) Jan | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| (see note: 6) Feb | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.153 | 0.000 | 0.000 | 2.680 |
| (see note: 6) Mar | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.135 | 0.000 | 0.000 | 163.430 |
| (see note: 6) 1-21 Apr | 219.150 | 0.000 | 0.000 | 0.000 | 219.150 | 0.000 | 0.000 | 0.133 | 0.000 | 0.000 | 210.460 |
| (see note 5: ) 22-30 Apr | 202.450 | 0.000 | 0.000 | 0.000 | 202.450 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 93.360 |
| May | 52.150 | 0.000 | 0.000 | 0.000 | 52.150 | 0.000 | 13.190 | 0.000 | 0.000 | 0.000 | 253.810 |
| Jun | 672.300 | 0.000 | 0.000 | 0.000 | 672.300 | 0.000 | 17.810 | 0.175 | 0.000 | 0.000 | 97.500 |
| Sub-total | 1146.050 | 0.000 | 0.000 | 0.000 | 1146.050 | 0.000 | 31.000 | 0.596 | 0.000 | 0.000 | 821.240 |
| Jul | 1899.050 | 0.000 | 0.000 | 0.000 | 1899.050 | 0.000 | 8.920 | 0.156 | 0.000 | 0.000 | 202.970 |
| Aug | 2980.600 | 0.000 | 0.000 | 0.000 | 2980.600 | 0.000 | 4.281 | 0.115 | 0.001 | 0.000 | 173.020 |
| Sep | 3224.760 | 0.000 | 0.000 | 0.000 | 3224.760 | 0.000 | 9.961 | 0.135 | 0.001 | 0.000 | 89.000 |
| Oct | 6513.210 | 0.000 | 0.000 | 0.000 | 6513.210 | 0.000 | 6.271 | 0.167 | 0.008 | 0.000 | 120.240 |
| Nov | | | | | | | | | | | |
| Dec | | | | | | | | | | | |
| Sub-total | 14617.620 | 0.000 | 0.000 | 0.000 | 14617.620 | 0.000 | 29.433 | 0.573 | 0.010 | 0.000 | 585.230 |
| Total | 15763.670 | 0.000 | 0.000 | 0.000 | 15763.670 | 0.000 | 60.433 | 1.169 | 0.010 | 0.000 | 1406.470 |

Notes:

(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(2) Plastics refer to plastic bottles/containers, plastic sheets/ foam from packaging materials.

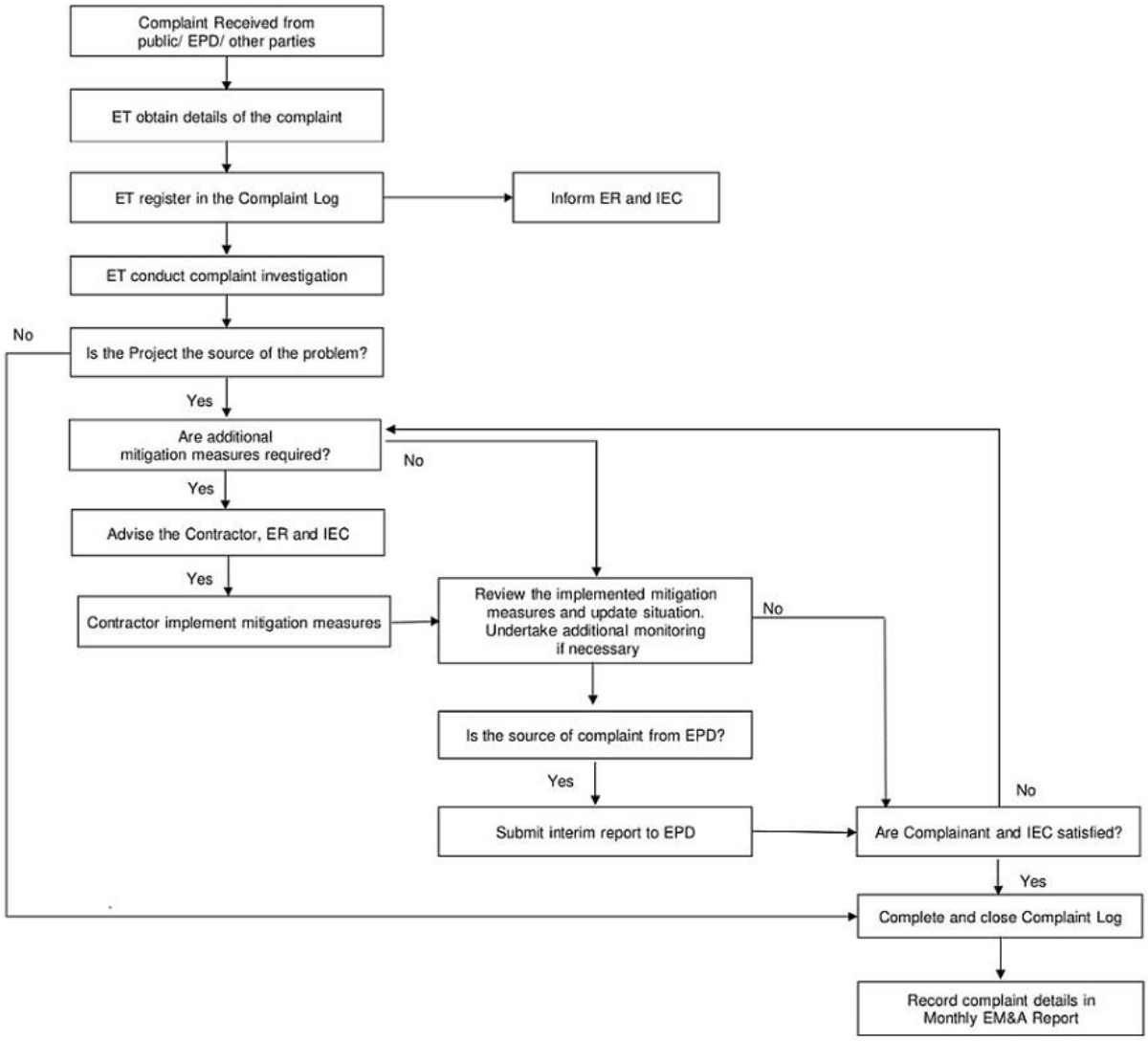
(3) Broken concrete for recycling into aggregates.

(4) Total Quantity Generated = a+b+c+d.

(5) Commencement of EM&A activities : 22 Apr 2024

(6) Waste generated from Jan to Mar and 1-21 April 24 period are from site preparation and site clearance works.

# Appendix E Complaint Handling Procedure


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

# Appendix F Event-Action Plan (Air Quality Monitoring)

# Event and Action Plan for Construction Dust Monitoring

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

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

# Appendix G Statistics on Complaint, Notification of Summons and Successful Prosecution

**Table G1 Statistical Summary of Exceedance**

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

**Table G2 Statistical Summary of Environmental Complaint**

| Reporting Period | Environmental Complaint Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Complaint Nature** |
| 1 October 2024 – 31 October 2024 | 0 | 0 | N/A |

**Table G3 Statistical Summary of Environmental Non-compliance**

| Reporting Period | Environmental Non-compliance Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 – 31 October 2024 | 0 | 0 | N/A |

**Table G4 Statistical Summary of Environmental Summons**

| Reporting Period | Environmental Summons Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 – 31 October 2024 | 0 | 0 | N/A |

**Table G5 Statistical Summary of Environmental Prosecution**

| Reporting Period | Environmental Prosecution Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 – 31 October 2024 | 0 | 0 | N/A |

# Appendix H Environmental Mitigation Implementation Schedule (EMIS)

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| **Air Quality (Construction Phase)** | | | | | | | |
| S3.8.1 | Watering once per hour on active works areas, exposed areas and unpaved haul roads during working hours. | To minimize dust impacts | *Contractor* | All works area | Construction phase | Air Pollution Control Ordinance (APCO) | Implemented |
| S3.8.9 | Implementation of dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices should be carried out to further minimize construction dust impact. | To minimize dust impacts | *Contractor* | All works area | Construction phase | Air Pollution Control Ordinance (APCO) | Implemented after observation |
| | • Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. | | | | | | Implemented |
| | • Use of frequent watering for particularly dusty construction areas and areas close to ASRs. | | | | | | Implemented |
| | • 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. | | | | | | Implemented |
| | • Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. | | | | | | Implemented |
| | • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. | | | | | | Implemented |
| | • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. | | | | | | Implemented |
| | • 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. | | | | | | 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 |
|---|---|---|---|---|---|---|---|
| | • Imposition of speed controls for vehicles on unpaved site roads. 8 kilometres per hour is the recommended limit.<br>• Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.<br>• 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.<br>• 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.<br>• 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. | | | | | | Implemented<br>Implemented<br>Implemented<br>Implemented<br>Implemented |
| **Noise Impact (Construction Phase)** | | | | | | | |
| S4.5.16 | Implement the following good site practices as far as practicable:<br>• Only well-maintained plant should be operated on-site, and plant should be serviced regularly during the construction programme;<br>• Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction programme; | To minimise impacts to surrounding habitats | *Contractor* | All works area | Construction phase | TM-EIAO | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | • Mobile plant, if any, should be sited as far from NSRs as possible;<br>• 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;<br>• 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<br>• Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities. | | | | | | |
| S4.5.17 | Adopting quiet PME is recommended. The type of quiet PME adopted in this assessment is for reference only. The contractors may adopt alternative quiet PME as long as it can be demonstrated that they would not result in construction noise impacts worse than those predicted in this assessment. | To reduce impact to affected NSRs | *Contractor* | All works area | Construction phase | TM-EIAO | Implemented |
| S4.5.19 | Use of noise barriers and noise enclosures to provide screening for construction plant where recommended. | To reduce impact to affected NSRs | *Contractor* | All works area | Construction phase | TM-EIAO | N/A |
| Water Quality Impact (Construction Phase) | | | | | | | |
| S5.8.4 | Surface and road run-off from construction sites should be discharged into storm drains via adequately designed sand/ silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels or earth bunds or sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks. | To minimise impact from construction site run-off | *Contractor* | All works area | Construction phase | Water Pollution Control Ordinance (WPCO), Technical Memorandum on EIA Ordinance (EIAO-TM), ProPECC PN 2/23, Technical Memorandum on Standards for | Implemented |
| S5.8.5 | Silt removal facilities, channels and manholes should be | To minimise | *Contractor* | All works area | Construction phase | | 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 |
|---|---|---|---|---|---|---|---|
| | 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 to provide adequate hydraulic capacity of all drains. | impact from construction site run-off | | | | Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) | |
| 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 | | 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 | | 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, trenches 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 | | N/A |
| 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 | To minimise impact from construction site | *Contractor* | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 2/23 | 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 |
|---|---|---|---|---|---|---|---|
| | 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 2/23 should be closely followed when handling and disposing bentonite slurries. | run-off | | | | | |
| S5.8.10 | Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. | To minimise impact from construction site run-off | *Contractor* | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 2/23, TM-DSS | Implemented |
| S5.8.11 | Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed 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 2/23, TM-DSS | Implemented |
| S5.8.12 | Good site practices should be adopted to remove rubbish and litter from construction sites 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 2/23, 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 |
|---|---|---|---|---|---|---|---|
| S5.8.12 | The following mitigation measures related to the transportation of the sediment should be implemented to minimize the potential water quality impact:<br>• Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.<br>• 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.<br>• Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the Director of Environmental Protection (DEP). | To minimise impact from transportation of sediment | *Contractor* | Barging point and barges | Construction phase | WPCO, EIAO-TM, ProPECC PN 2/23 | N/A |
| S5.8.13 | There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence. | To minimize impact from effluent discharge | *Contractor* | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 2/23, TM-DSS | Implemented |
| S5.8.14 | <u>Water for Bored Piling Works</u><br>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 | To minimise impact from construction site run-off | *Contractor* | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 2/23, 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 |
|---|---|---|---|---|---|---|---|
| | need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities. | | | | | | |
| S5.8.15 | <u>Wheel Washing Water</u><br>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 2/23, TM-DSS | Implemented |
| S5.8.16 | <u>Construction Works near Channelized Watercourse / Ditch</u><br>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 2/23 "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:<br>• The use of less or smaller construction plants may be specified in works area close to the inland water bodies.<br>• 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.<br>• 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.<br>• 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 | To minimise impact from construction site run-off | *Contractor* | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 2/23, TM-DSS, ETWB TC(Works) No. 5/2005 | Implemented<br><br>N/A<br><br>Implemented<br><br>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 properly collected and/ or treated. | | | | | | |
| S5.8.17 – S5.8.19 | <u>Accidental Spillage of Chemicals</u><br>• 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.<br>• 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.<br>• 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:<br>• Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.<br>• Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.<br>• Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. | To minimise impact from accidental spillage | *Contractor* | All works area | Construction phase | WPCO, EIAO-TM, Waste Disposal Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation | Implemented<br>Implemented after observation<br>Implemented<br>Implemented after observation<br>Implemented<br>Implemented |
| S5.8.22 – S5.8.24 | <u>Groundwater from Contaminated Areas, Contaminated Site Runoff and Wastewater from Land Decontamination</u><br>• 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 Note | N/A |

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

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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.<br>• If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells, and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor.<br>• The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater. | | | | | | |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| **Waste Management Implication (Construction Phase)** | | | | | | | |
| S7.5.3 | Recommendations for good site practices during the construction phase include:<br>• 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;<br>• Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures;<br>• Provision of sufficient waste reception/ disposal points, and regular collection of waste;<br>• 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;<br>• Adoption of a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites); and<br>• 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:<br>• 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;<br>• Provide separate labelled bins to segregate recyclable waste such as aluminium cans from other general | To minimize waste generation | *Contractor* | All works areas | Construction phase | WDO | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | refuse generated by the work force, and to encourage collection by individual collectors;<br>• Recycle any unused chemicals or those with remaining functional capacity;<br>• Maximise the use of reusable steel formwork to reduce the amount of C&D materials;<br>• Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials;<br>• Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; and<br>• 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 of 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:<br>• 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;<br>• Covering materials during heavy rainfall;<br>• Locating stockpiles to minimise potential visual impacts;<br>• Minimising land intake of stockpile areas as far as possible; | 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 |
|---|---|---|---|---|---|---|---|
| | • Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials; and<br>• 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 separated 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.<br><br>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.<br><br>The Contractor shall carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins shall also be provided in the sites as reminders. | To avoid and minimize impacts arising from waste management | *Contractor* | All works areas | Construction phase | WDO | Implemented |
| 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 |

| 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 |
|---|---|---|---|---|---|---|---|
| | 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 Chemical Waste Treatment Centre (CWTC), or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.<br><br>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 of excavated sediment.<br><br>Requirements of the Air Pollution Ordinance (Construction Dust) Regulation, where relevant, shall be adhered to during excavation, transportation and disposal of sediments. | To avoid and minimize impacts arising from waste management | *Contractor* | All works areas | Construction phase | APCO WDO | N/A |
| S7.5.15 | To minimise the exposure to contaminated materials, workers shall, when necessary, wear appropriate personal protective equipment (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities shall also be provided on site. | To avoid and minimize impacts arising from waste management | *Contractor* | All works areas | Construction phase | WDO | N/A |

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

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | (a) Instruction of works on work procedures, safe practices, emergency duties, and applicable regulations;<br>(b) Regularly scheduled meetings of the workers in which the possible hazards, problems of the job, and related safe practices are emphasized and discussed;<br>(c) Good housekeeping practices; and<br>(d) Availability of and instruction in the location, use and maintenance of personal protective equipment.<br>• Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils;<br>• Supply of suitable clean backfill material (or treated soil) after excavation;<br>• 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;<br>• 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;<br>• Speed control for the trucks carrying contaminated materials shall be enforced;<br>• Vehicle wheel and body washing facilities at the site exit points shall be established and used; and<br>• Pollution control measures for air emissions (e.g. from biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving | | | | | Land Management"<br><br>"Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)"<br><br>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 |
|---|---|---|---|---|---|---|---|
| | equipment), and water discharges (e.g. runoff control from treatment facility) shall be implemented and complied with relevant regulations and guidelines. | | | | | | |
| **Landscape and Visual Impact (Construction Phase)** | | | | | | | |
| S9.8.1 | Trees unavoidably affected by the works should be transplanted as far as possible in accordance with DEVB TC(W) 7/2015 – Tree Preservation or LAO PN 7/2007 - Tree Preservation and Tree Removal Application for Building Development in Private Projects where applicable. | To transplant affected trees | *Contractor* | All works areas | Construction phase | DEVB TC(W) No. 7/2015 or LAO PN 7/2007 where applicable | N/A |
| S9.8.1 | Control of night-time lighting glare. | To minimize the landscape and visual impact on surrounding setting | *Contractor* | All works areas | Construction phase | TM-EIAO | N/A |
| S9.8.1 | Erection of decorative screen hoarding which should be compatible with the surrounding setting. | | *Contractor* | All works areas | Construction phase | TM-EIAO | N/A |
| S9.8.1 | Management of facilities on work sites by controlling the height and disposition/ arrangement of all facilities on the works site to minimize visual impact to adjacent VSRs. | To minimize visual impact to adjacent VSRs. | *Contractor* | All works areas | Construction phase | - | N/A |
| S9.8.1 | All hard and soft landscape areas disturbed temporarily during construction should be reinstated on like-to-like basis, to the satisfaction of the relevant Government Departments. | To minimize the landscape impact on surrounding setting | *Contractor* | All works areas | Construction phase | - | N/A |

# Appendix I Monitoring Schedule of the Reporting Month

Siu Ho Wan Depot Property Development MTR Contract No.: 1701-Oyster Bay Station And Associated Works

Dust Monitoring Schedule in October 2024

# OCTOBER 2024

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

# Appendix J Monitoring Schedule of the Coming Month

**Siu Ho Wan Depot Property Development MTR Contract No.: 1701-Oyster Bay Station And Associated Works**
**Tentative Dust Monitoring Schedule in November 2024**

# NOVEMBER 2024

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

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

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# Appendix B

Monthly EM&A Report for October 2024
Trial Piles And Site Formation for
Siu Ho Wan Depot Property Development
– Phase 1 Contract 1731

GAMMON CONSTRUCTION LIMITED

# CONTRACT NO. 1731
# TRIAL PILES AND SITE FORMATION FOR SIU HO WAN DEPOT PROPERTY DEVELOPMENT – PHASE 1

## MONTHLY EM&A REPORT (OCTOBER 2024)

OCTOBER 22, 2024

CONFIDENTIAL

# Contract No. 1731 Trial Piles and Site Formation for Siu Ho Wan Depot Property Development – Phase 1

## Monthly EM&A Report

## (October 2024)

FIRST ISSUE
CONFIDENTIAL

PROJECT NO.: 2535700A
DATE: OCTOBER 22, 2024

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# QUALITY MANAGEMENT

| ISSUE/REVISION | FIRST ISSUE | REVISION 1 | REVISION 2 | REVISION 3 |
|---|---|---|---|---|
| Remarks | | | | |
| Date | 22 October 2024 | | | |
| Prepared by | Gloria Chow | | | |
| Signature |  | | | |
| Checked by | Dr Alex Cheung | | | |
| Signature |  | | | |
| Authorised by | Dr Paul Kau | | | |
| Signature |  | | | |
| Project number | 2535700A | | | |
| File reference | | | | |

# SIGNATURES

PREPARED BY

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Site Auditor

REVIEWED BY

Dr. Alex Cheung
Environmental Team Leader

This report was prepared by WSP (Asia) for the account of Gammon Construction Limited, in accordance with the professional services agreement. The disclosure of any information contained in this report is the sole responsibility of the intended recipient. The material in it reflects WSP (Asia) Limited 's best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. WSP (Asia) Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. This limitations statement is considered part of this report.

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# TABLE OF CONTENTS

# Executive Summary

This Environmental Monitoring and Audit (EM&A) report presented the EM&A works carried out during the reporting period from 1 to 10 October 2024.

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

- Site Clearance & Hoarding
- Pile Load Test

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

| Construction dust (1-hour TSP) monitoring | |
|---|---|
| DM1 | 6 times |

Site inspections were conducted on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. Two (2) site inspections were conducted on 2 and 8 October 2024 for this reporting period. One (1) joint inspection with Independent Environmental Checker (IEC) was also conducted on 8 October 2024. The environmental performance of the Project was considered satisfactory.

Details of waste management can be referred to **Section 2.4**.

No Action or Limit Levels exceedance of 1-hour TSP was recorded during this reporting period.

No complaints, notification of summons and prosecutions received during October 2024. Statistics on complaints, notifications of summons and successful prosecutions are presented in **Section 3**.

The construction works for Contract 1731 was completed on 10 October 2024 and no significant environmental impact was anticipated. The proposal to cease EM&A works for 1731 has been submitted to EPD.

# 1 INTRODUCTION

## 1.1 BACKGROUND

1.1.1 The “Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works” (EP-588/2021) project includes:

- Siu Ho Wan Depot (SHD) replanning works, within the existing SHD boundary including construction of concrete slab over the SHD to provide support for future SHD Topside Development;
- Construction of the new Oyster Bay (OYB) Station (formerly named as Siu Ho Wan Station (SHO)) and modification of the associated trackworks of the existing Airport Express Line/Tung Chung Line; and
- Construction of other supporting facilities including the western access, the local accesses and sewerage network outside existing SHD boundary.

1.1.2 The “Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works” Impact Assessment Report (Register No. AEIAR-214/2017) was approved by the Environmental Protection Department (EPD) with conditions on 29 November 2017. The latest Environmental Permit (No. EP-588/2021) was issued by the EPD on 22 March 2021.

1.1.3 WSP (Asia) Ltd. (WSP) is commissioned by Gammon Construction Limited to provide Environmental Team (ET) services during the construction phase of Contract No. 1731 Trial Piles and Site Formation for Siu Ho Wan Depot Property Development – Phase 1 (hereafter as “the Project”).

## 1.2 PROJECT PROGRAMME

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

(1) Site Clearance & Hoarding

(2) Pile Load Test

1.2.2 The construction programme is provided in **Appendix A**.

## 1.3 PURPOSE OF THE REPORT

1.3.1 This is the 22nd monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the reporting period from 1 to 10 October 2024.

1.3.2 The construction works for Contract 1731 was completed on 10 October 2024 and no significant environmental impact was anticipated.

# 2 ENVIRONMENTAL MONITORING AND AUDIT

## 2.1 SUMMARY OF ENVIRONMENTAL LICENSES, NOTIFICATIONS, PERMITS AND DOCUMENTATIONS

2.1.1 A summary of valid permits, licenses, and notifications on environmental protection for this Project are listed in **Table 2.1**.

Table 2.1 Summary of the Status of Valid Environmental Licenses, Notifications, Permits and Documentations

| Permits / Licenses / Notifications / Reference No. | Valid Period | | Status | Remark |
|---|---|---|---|---|
| | From | To | | |
| **Environmental Permit** | | | | |
| EP-588/2021 | 22 Mar 2021 | N/A | Valid | |
| **Billing Account under Waste Disposal (Charges for Disposal of Construction Waste) Regulation** | | | | |
| 7045243 | 6 Oct 2022 | N/A | Valid | |
| **Construction Noise Permit** | | | | |
| GW-RS0564-24 | 5 Jul 2024 | 4 Jan 2025 | Valid | |
| **Notification Pursuant to Section 3(1) of the Air Pollution Control (Construction Dust) Regulation** | | | | |
| 483822 | N/A | N/A | Notified | Notification submitted on 2 Sep 2022 |
| **Register of Chemical Waste Producer** | | | | |
| 5213-961-G2980-01 | 7 Oct 2022 | N/A | Valid | |
| **Water Pollution Discharge License** | | | | |
| WT000463109-2023 | 22 Feb 2023 | 29 Feb 2028 | Valid | |

## 2.2 ENVIRONMENTAL STATUS

2.2.1 Environment Permit (EP) conditions under the Environmental Impact Assessment Ordinance (EIAO), submission status of 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 2.2**.

Table 2.2 Summary of Status of Required Submission for EP-588/2021 for the Project

| EP Condition (EP-588/2021) | Submission | Submission Date |
|---|---|---|
| Condition 1.12 | Commencement Date of Construction | 11 Jun 2021 (1st submission)<br>12 Jul 2021 (2nd submission)<br>12 Aug 2021 (3rd submission) |

| | | |
|---|---|---|
| Condition 2.7 | Construction Works Phasing Schedule Proposal | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>29 Dec 2021 (Deposited)<br>9 Oct 2023 (1st Submission with updated Phase 1 works)<br>30 Nov 2023 (Deposited) |
| Condition 2.8 | Environmental Permit Submission Schedule | 12 Aug 2021<br>10 Sep 2021 (Deposited) |
| Condition 2.9 | Management Organization | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>21 Mar 2022 (3rd Submission)<br>9 Aug 2022 (4th Submission)<br>16 Nov 2022 (5th Submission)<br>18 Sep 2023 (6th Submission)<br>22 Jan 2024 (7th Submission) |
| Condition 2.10 | Construction Noise Mitigation Plan | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>28 Dec 2021 (Deposited)<br>30 Dec 2022 (1st Submission which covered Phase 1 main works)<br>29 Mar 2023 (2nd Submission which covered Phase 1 main works)<br>18 May 2023 (3rd Submission)<br>28 Jul 2023 (4th submission for Phase 1 works)<br>30 Oct 2023 (5th Submission for Phase 1 Works)<br>6 Dec 2023 (6th Submission for Phase 1 works)<br>8 Dec 2023 (Deposited)<br>21 June 2024 (7th Submission for Phase 1 works) |
| Condition 2.11 | Noise Mitigation Plan | 31 Mar 2023 (1st Submission)<br>31 Jul 2023 (2nd submission)<br>20 Oct 2023 (3rd Submission)<br>18 Mar 2024 (Deposited) |
| Condition 2.13 | Waste Management Plan | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>28 Dec 2021 (Deposited)<br>30 Jun 2023 (1st submission for Phase 1 work)<br>1 Aug 2023 (2nd submission for Phase 1 works)<br>31 Aug 2023 (Deposited for Phase 1 works) |
| Condition 2.15 | Landscape & Visual Plan | 27 Apr 2023 (1st Submission) |

| | | |
|---|---|---|
| | | 27 Jul 2023 (2nd Submission)<br>20 Oct 2023 (3rd Submission)<br>8 Dec 2023 (Approved) |
| Condition 3.3 | Baseline Monitoring Report | 1 Nov 2021<br>16 Nov 2021 (Deposited) |
| Condition 3.4 | Monthly EM&A Report<br>(January 2023 – September 2024) | Submitted within 10 working days after the end of the reporting month |
| | Monthly EM&A Report (October 2024) | This report submission |
| Condition 4.2 | Dedicated Internet Website | 12 Jan 2022<br>25 Jul 2023 (update address)<br>14 Mar 2024 (update address) |

## 2.3 AIR QUALITY

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

2.3.2 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.

2.3.3 Portable direct reading dust meter was used to carry out the 1-hour TSP monitoring. Portable direction reading dust meters used for the monitoring were proven to the Independent Environmental Checker (IEC) to be capable of achieving comparable result as that of the High-Volume Sampler (HVS) and thus were used for sampling.

2.3.4 The portable direct reading dust meter used for the 1-hour TSP measurement during this reporting period are summarised in **Table 2.3**.

Table 2.3 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-5R) | 3Y7115<br>427235 | 29 Jan 2024<br>12 Apr 2024 |

2.3.5 The portable direct reading dust meter was calibrated by direct comparison of weight of dust particle trapped in filter paper using HVS for three (3) hours at 25LPM for three (3) times, with the reading of the UUT operated at the same location. Calibration certificate is provided in **Appendix D**.

2.3.6 The 1-hour TSP measurement followed manufacturer's instruction manual. Zeroing the portable direct reading meter was proceed prior to each measurement to ensure maximum accuracy of concentration measurements.

2.3.7 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.

2.3.8 Location of the designated dust monitoring station is described in **Table 2.4** and shown on **Appendix E**.

Table 2.4 Construction Dust Monitoring Location

| **Monitoring Station ID** | **Dust Monitoring Station** |
|---|---|
| DM1 | Siu Ho Wan Government Maintenance Depot |

2.3.9 Dust impact monitoring was carried out on 3 and 9 October 2024 during this reporting period. Schedule of the dust impact monitoring for this reporting period is provided in **Appendix F**. It is observed that major dust sources are from North Lantau Highway and Cheung Tung Road. Results for the 1-hour TSP are summarised in **Table 2.5**. Measurement data are shown in **Appendix G**. The Monitoring will continually carry out through Contract 1701.

Table 2.5 Summary of 1-hour TSP Monitoring Results

| **Monitoring Location** | **Range ($\mu g/m^3$)** | **Action Level ($\mu g/m^3$)** | **Limit Level ($\mu g/m^3$)** | **No. of Exceedances** |
|---|---|---|---|---|
| DM1 | 8.0 – 17.0 | 294.7 | 500.0 | 0 |

## 2.4 WASTE MANAGEMENT

2.4.1 Waste generated from this Project includes inert construction and demolition (C&D) materials and non-inert C&D materials. Non-inert C&D would include, but not limited to general refuse, bamboo, timber, vegetation, paper and plastic that cannot be transported to public fill.

2.4.2 Quantities of different types of waste generated in this reporting month are summarised in **Table 2.6**. Details of cumulative waste management data are shown in **Appendix I**.

Table 2.6 Quantities of Waste Generated during this Reporting Period

| Reporting period | Quantity (tonnes) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Inert C&D Materials | | Chemical Waste | Non-inert C&D Materials | | | | |
| | Disposed as Public Fill | Disposed to Sorting Facilities | | Others, i.e. General Refuse disposed at Landfill | Recycled Materials (tonnes) | | | |
| | | | | | Paper / Cardboard | Plastics | Metals | Yard Waste |
| October 2024 | 0 | 13.37 | 0 | 1.88 | 0 | 0 | 0 | 0 |

2.4.3 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.

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

# 3 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

3.1.1 The Environmental Complaint Handling Procedure is presented in **Appendix J**.

3.1.2 Should non-compliance of the air quality criteria be occurred, action in accordance with the Event and Action Plan in **Appendix K** shall be carried out.

3.1.3 No Action and Limit Levels exceedance of 1-hour TSP was recorded during this reporting period.

3.1.4 No complaints, notification of summons and prosecutions received during October 2024.

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

# 4 EM&A SITE INSPECTION

4.1.1 Site inspections were conducted on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. Two (2) site inspections were conducted on 2 and 8 October 2024 for this reporting period. One (1) joint inspection with IEC was also conducted on 8 October 2024. Key observations during the site inspections are summarized in **Table 4.1**.

Table 4.1 Site Observations

| Date | Observation/ Recommendation | Follow-up Status |
|---|---|---|
| 2 October 2024 | Nil | Nil |
| 8 October 2024 | Nil | Nil |

4.1.2 The mitigation measures detailed in the Environmental Impact Assessment Study Report, Environmental Permit, contract documents and the EM&A Manual are implemented as much as practical during this reporting period. The Implementation Status of the Environmental Mitigation Measures (EMIS) is presented in **Appendix M**.

# 5 CONCLUSION AND RECOMMENDATIONS

5.1.1 This monthly EM&A Report presented the EM&A works carried out during the reporting period from 1 to 10 October 2024.

5.1.2 Air quality impact monitoring was carried out during the report period. No exceedance of the Action and Limit Levels was recorded for air quality impact monitoring during this reporting period.

5.1.3 Two (2) weekly site inspections have been conducted during this reporting period. A joint site inspection with the IEC was conducted on 8 September 2024. Observations were reported in the weekly inspection checklists. The environmental performance of the Project was considered satisfactory.

5.1.4 No complaints, notification of summons and prosecutions received during this reporting period.

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

5.1.6 The regular 1-hour TSP monitoring will be continually carry out through Contract 1701.

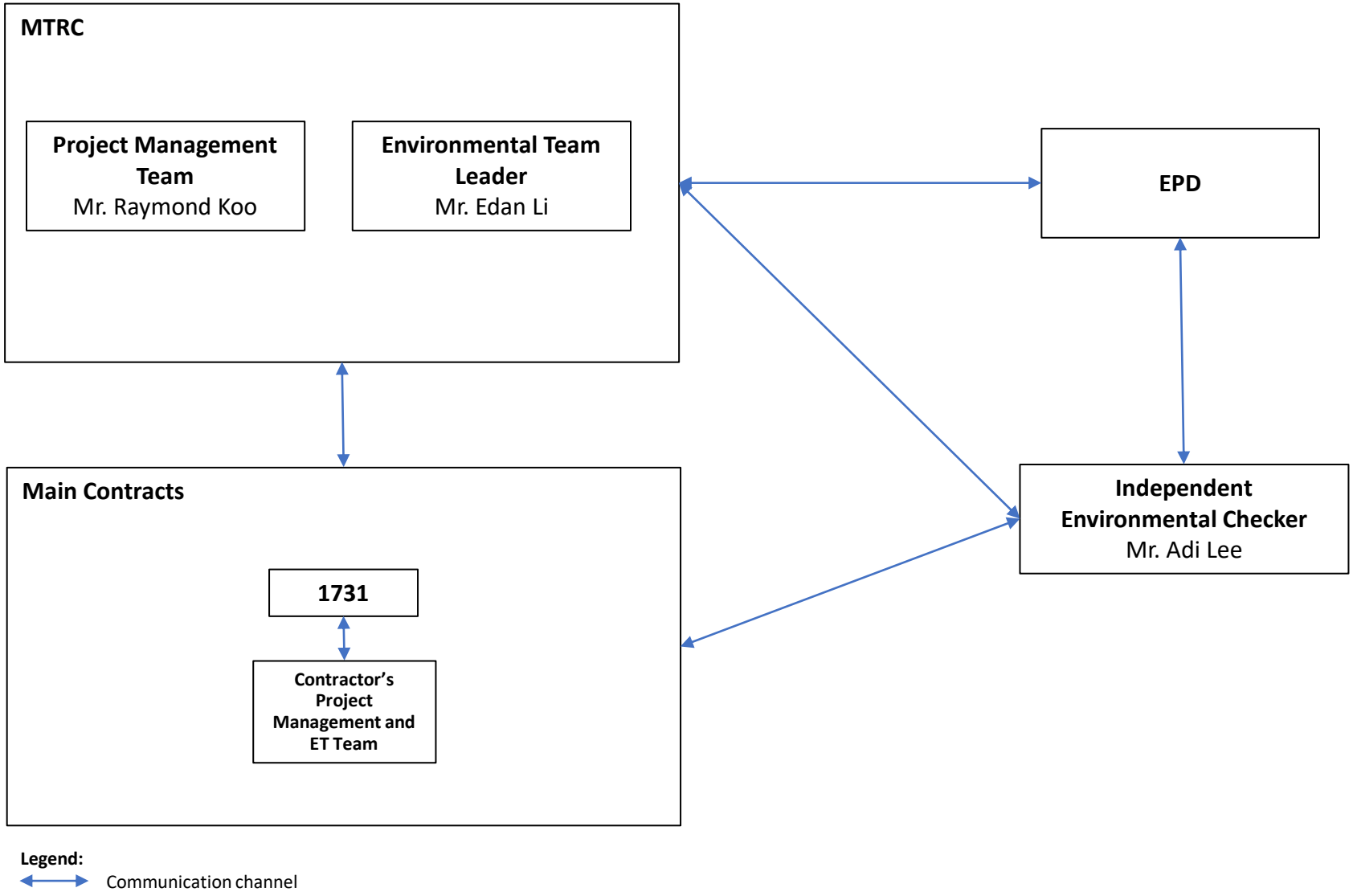
5.1.7 The construction works for Contract 1731 was completed on 10 October 2024 and no significant environmental impact was anticipated. The proposal to cease EM&A works for 1731 has been submitted to EPD.

# **Appendix A** Construction Programme

## Appendix 2.1 Construction Programme

| Construction Activities | ID | 2021 | | | | | | | | | | | | 2022 | | | | | | | | | | | | 2023 | | | | | | | | | | | | 2024 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D |
| **Contract 1731 - Trail Pile for SHD Phase 1** | **1** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Site Clearance & Hoarding* | 1.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Bored Piling Works* | 1.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Pile Load Test* | 1.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# **Appendix B** Project Organisation Chart


MTRC
Project Management Team
Mr. Raymond Koo
Environmental Team Leader
Mr. Edan Li
EPD
Main Contracts
1731
Contractor's Project Management and ET Team
Independent Environmental Checker
Mr. Adi Lee
Legend:
Communication channel

| **MTRC - Project Management Team** | | |
|---|---|---|
| *Position* | *Name* | *Telephone* |
| Chief Construction Manager - OYB | Mr. Raymond Koo | 2621 7051 |

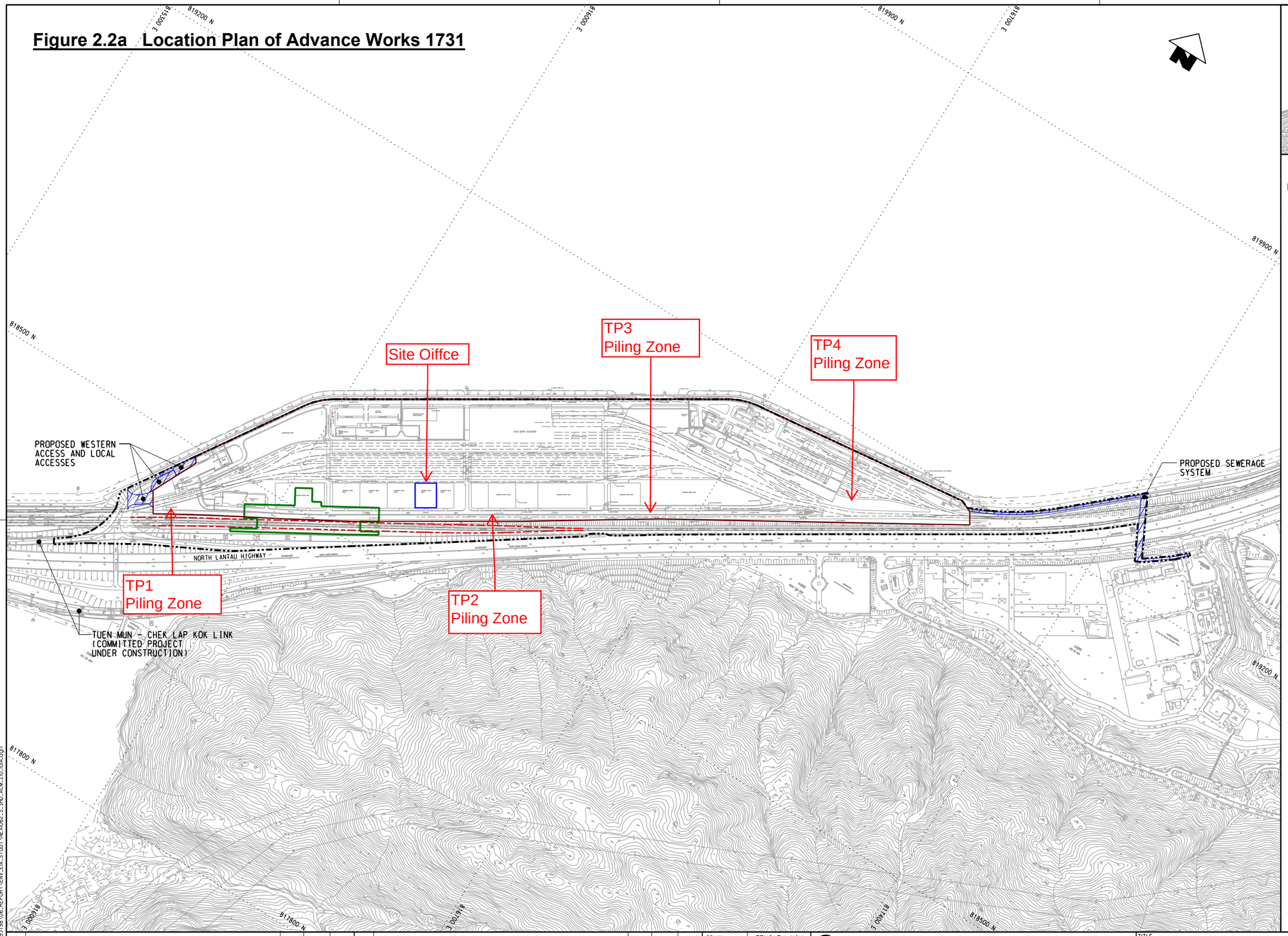
| **MTRC - Environmental Team** | | |
|---|---|---|
| *Position* | *Name* | *Telephone* |
| Environmental Team Leader | Mr. Edan Li | 2621 7194 |
| Environmental Team Member | Mr. Cyrus Lau | 2621 7219 |

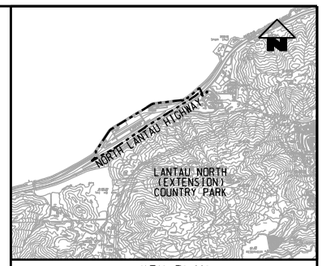
| **Meinhardt Infrastructure and Environment Limited - IEC** | | |
|---|---|---|
| *Position* | *Name* | *Telephone* |
| Independent Environmental Checker | Mr. Adi Lee | 2859 5443 |
| IEC Team Member | Mr. Sylar Tsui | 2859 0143 |

| **Main Works Contract** | **Description** | **Contractor** | **Position** | **Name** | **Telephone** |
|---|---|---|---|---|---|
| **1731** | Trail piles and site formation for Siu Ho Wan Depot Property | Gammon Construction Ltd | Senior Project Manager | Carl Chan | 9275 9207 |
| | | | Environmental Officer | Chris Tse | 9127 7571 |
| | | | Environmental Team Leader | Alex Cheung | 9832 5750 |

# Appendix C Location Plan

# Figure 2.2a Location Plan of Advance Works 1731




KEY PLAN
(SCALE 1 : 50000)

LEGEND:

- EXISTING/REPROVISIONED SHD BOUNDARY
- SCHEME BOUNDARY
- MODIFIED TCL/AEL ALIGNMENT
- PROPOSED SHO (INDICATIVE)
- SUPPORTING FACILITY

0 35 70 105 140 175
METRES
1 : 3500

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| REV | DESCRIPTION | BY | DATE | APPROVED |
|---|---|---|---|---|
| A | PRELIMINARY DESIGN REPORT ISSUE | SN | 18AUG16 | HL |

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|---|---|
| DRAWN | ZENG FU XIU |
| DESIGNED | ANTHEA FUNG |
| CHECKED | SAM NG |
| APPROVED | HL |
| DATE | 18/AUG/2016 |



MTR

SIU HO WAN DEPOT

ORIGINATOR
AECOM in association with Aedas

CADD REF.
NEX1062_S_SHD_ACM_Z10_101A.dgn

TITLE
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
SCOPE OF PROJECT

| SCALE | DRAWING NO. | REV. |
|---|---|---|
| 1 : 3500 @ A1 | NEX1062/S/SHD/ACM/Z10/101 | A |

# Appendix D Calibration Certification of Portable Direct Reading Dust Meters

東業德勤測試顧問有限公司
ETS-TESTCONSULT LTD.™

8/F Block B,
Veristrong Industrial Centre,
34-36 Au Pui Wan Street,
Fo Tan, Hong Kong

T: +852 2695 8318
F: +852 2695 3944
E: etl@ets-testconsult.com
W: www.ets-testconsult.com



# Calibration Certificate

**Certificate No.** : **CSA40398**

Page : 1 of 1

## *Information Provided by Customer*

Customer : China State Construction Engineering (HK) Limited

Address : N/A

## *Information of Unit-under-test (UUT)*

Description : Digital dust indicator

Manufacturer : SIBATA

Type : LD-5R

Equipment I.D. No. : -

Serial No. : 3Y7115

## *Laboratory Information*

Lab. Ref. No. : Q/CAL/24/0453/E

Date of Calibration : 29-Jan-2024

Date of Issue : 5-Feb-2024

Procedure : CQS/054/Z

Date of Receipt : 16-Jan-2024

## *Calibration Condition*

Ambient Temperature : (20±3) °C

Sampling : As received

Relative Humidity : (50±20) %

## *Reference equipment*

- Reference Balance, C-052-03

## *Calibration specification*

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

## *Calibration result (unit in : mg/m$^3$)*

| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0156 | 2965 | 16 | 5.0 | 2.0 |
| 0.0178 | 3419 | 19 | | |
| 0.0200 | 3708 | 21 | | |

## *Remarks*

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration (mg/m$^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.00095
- Correlation coefficient (r): 0.992
- All reported result were obtained from ETL approved sub-contractor.

**Approved By:** _____

**CHAN Chi Wai**

東業德勤測試顧問有限公司
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E: etl@ets-testconsult.com
W: www.ets-testconsult.com



# Calibration Certificate

**Certificate No.** : **CSA42467**



## *Information Provided by Customer*

Customer : China State Construction Engineering (Hong Kong) Limited
Address : 29/F, China Overseas Building 139 Hennessy Road, Hong Kong

## *Information of Unit-under-test (UUT)*

Description : Digital dust indicator
Manufacturer : SIBATA
Type : LD-5R
Equipment I.D. No. : -
Serial No. : 427235

## *Laboratory Information*

Lab. Ref. No. : Q/CAL/24/2730/E
Date of Calibration : 12-Apr-2024
Date of Issue : 17-Apr-2024
Procedure : CQS/054/Z
Date of Receipt : 9-Apr-2024

## *Calibration Condition*

Ambient Temperature : (20±3) °C
Sampling : As received
Relative Humidity : (50±20) %

## *Reference equipment*

- Reference Balance, C-052-03

## *Calibration specification*

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

## *Calibration result (unit in : $mg/m^3$)*

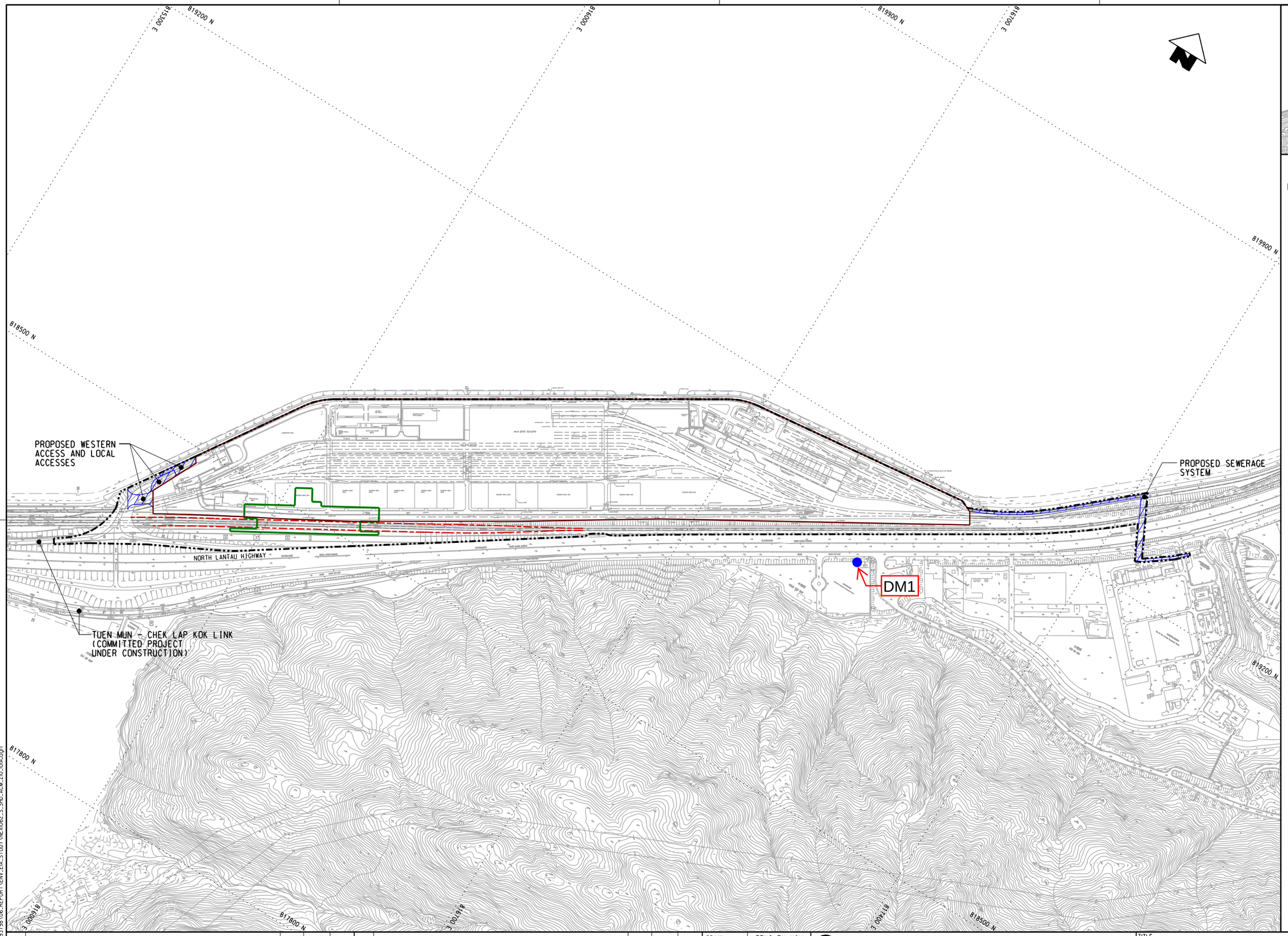
| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0111 | 2106 | 12 | 5.0 | 2.0 |
| 0.0133 | 2484 | 14 | | |
| 0.0156 | 2804 | 16 | | |

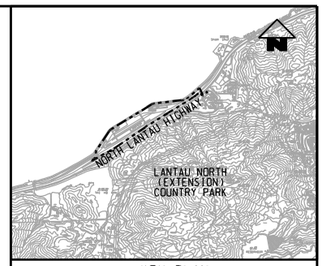
## *Remarks*

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration ($mg/m^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.000971
- Correlation coefficient (r): 0.998
- All reported result were obtained from ETL approved sub-contractor.

**Approved By:** _____
**LU Yongyi**

# **Appendix E** Location Plan of Air Quality Monitoring Station




## KEY PLAN
(SCALE 1 : 50000)

**LEGEND:**

- EXISTING/REPROVISIONED SHD BOUNDARY
- SCHEME BOUNDARY
- MODIFIED TCL/AEL ALIGNMENT
- PROPOSED SHO (INDICATIVE)
- SUPPORTING FACILITY

0 35 70 105 140 175
METRES
1 : 3500

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| REV | DESCRIPTION | BY | DATE | APPROVED |
|---|---|---|---|---|
| A | PRELIMINARY DESIGN REPORT ISSUE | SN | 18AUG16 | HL |

| | |
|---|---|
| DRAWN | ZENG FU XIU |
| DESIGNED | ANTHEA FUNG |
| CHECKED | SAM NG |
| APPROVED | HL |
| DATE | 18/AUG/2016 |



MTR

SIU HO WAN DEPOT

ORIGINATOR
AECOM in association with Aedas

CADD REF.
NEX1062_S_SHD_ACM_Z10_101A.dgn

TITLE
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
SCOPE OF PROJECT

| SCALE | DRAWING NO. | REV. |
|---|---|---|
| 1 : 3500 @ A1 | NEX1062/S/SHD/ACM/Z10/101 | A |

# **Appendix F** Monitoring Schedule of This Reporting Period

Dust Monitoring Schedule in October 2024

# OCTOBER 2024

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

# Appendix G Air Quality Monitoring Data

**Impact Air Quality Monitoring Results**

**1-hour TSP Monitoring Results at Station - DM1**
**Siu Ho Wan Government Maintenance Deport**

| Date | Start Time (hh:mm) | 1st Hour Conc. (μg/m3) | 2nd Hour Conc. (μg/m3) | 3rd Hour Conc. (μg/m3) | Action Level Conc. (μg/m3) | Limit Level Conc. (μg/m3) | Exceedance (Y/N) |
|---|---|---|---|---|---|---|---|
| 3-Oct-24 | 8:47 | 10.0 | 8.0 | 8.0 | 294.7 | 500.0 | N |
| 9-Oct-24 | 13:18 | 16.0 | 16.0 | 17.0 | | | N |
| | | | Average | 12.5 | | | |
| | | | Min | 8.0 | | | |
| | | | Max | 17.0 | | | |

# Appendix I Waste Flow Table

Monthly Summary Waste Flow Table

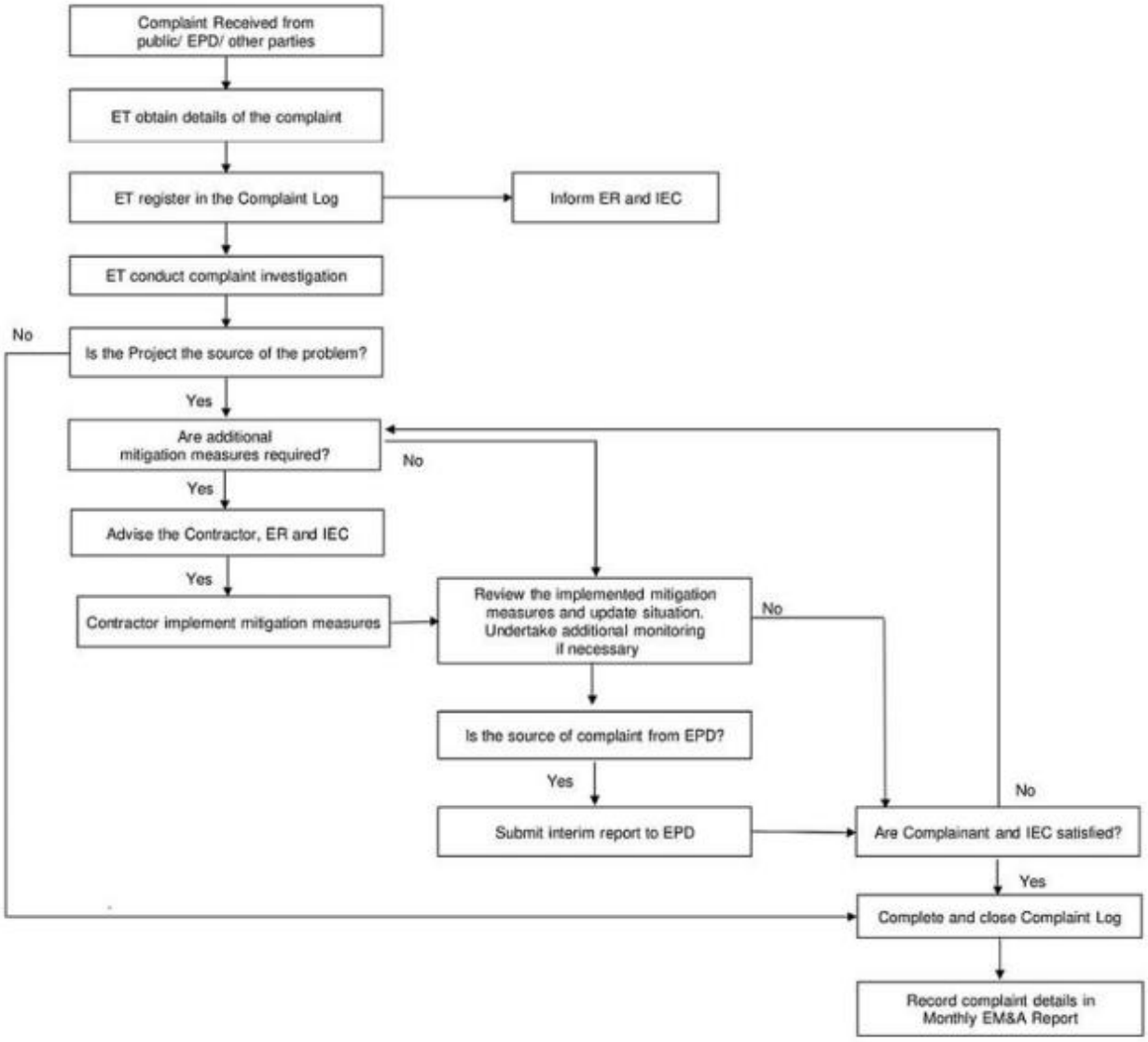
Project: Contract No. 1731 Trial Piles and Site Formation for Siu Ho Wan Depot Property Development - Phase 1

| Month | (a) Total Quantity Generated | Actual Quantities of Inert C&D Materials Generated | | | | | | Actual Quantities of Non-inert C&D Materials 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) Disposed in Sorting Facilities | (g) Imported Fill | (h) Metals | (i) Paper / cardboard packaging | (j) Plastics | (k) Chemical Waste | (l) Recyclable Yard Waste | (m) Others, i.e. General Refuse disposed of at Landfill |
| | (tonnes) | ($m^3$) | ($m^3$) | ($m^3$) | (tonnes) | (tonnes) | ($m^3$) | (tonnes) | (tonnes) | (tonnes) | (tonnes) | (tonnes) | (tonnes) |
| Jan-23 | 1.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.78 |
| Feb-23 | 3.17 | 0.00 | 0.00 | 0.00 | 3.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mar-23 | 38.11 | 0.00 | 0.00 | 0.00 | 37.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 |
| Apr-23 | 210.97 | 0.00 | 0.00 | 0.00 | 210.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.81 |
| May-23 | 42.00 | 0.00 | 0.00 | 0.00 | 40.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.66 |
| Jun-23 | 264.55 | 0.00 | 0.00 | 0.00 | 192.85 | 67.46 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.24 |
| Jul-23 | 247.19 | 0.00 | 0.00 | 0.00 | 238.99 | 7.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 |
| Aug-23 | 426.08 | 0.00 | 0.00 | 0.00 | 417.46 | 7.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.21 |
| Sep-23 | 270.42 | 0.00 | 0.00 | 0.00 | 269.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.34 |
| Oct-23 | 172.46 | 0.00 | 0.00 | 0.00 | 171.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 |
| Nov-23 | 910.88 | 0.00 | 0.00 | 0.00 | 907.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.78 |
| Dec-23 | 258.10 | 0.00 | 0.00 | 0.00 | 239.00 | 0.00 | 0.00 | 17.31 | 0.00 | 0.00 | 0.00 | 0.00 | 1.79 |
| Year 2023 Total | 2845.71 | 0.00 | 0.00 | 0.00 | 2727.13 | 81.87 | 0.00 | 17.31 | 0.00 | 0.00 | 0.00 | 0.00 | 19.40 |
| Jan-24 | 44.40 | 0.00 | 0.00 | 0.00 | 27.34 | 7.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.37 |
| Feb-24 | 371.61 | 0.00 | 0.00 | 0.00 | 360.34 | 5.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.79 |
| Mar-24 | 768.26 | 0.00 | 0.00 | 0.00 | 763.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.79 |
| Apr-24 | 8.84 | 0.00 | 0.00 | 0.00 | 7.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.73 |
| May-24 | 96.08 | 0.00 | 0.00 | 0.00 | 82.10 | 11.79 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.19 |
| Jun-24 | 113.07 | 0.00 | 0.00 | 0.00 | 111.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.30 |
| Jul-24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Aug-24 | 71.76 | 0.00 | 0.00 | 0.00 | 43.56 | 25.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.14 |
| Sep-24 | 32.45 | 0.00 | 0.00 | 0.00 | 9.88 | 21.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.23 |
| Oct-24 | 15.25 | 0.00 | 0.00 | 0.00 | 0.00 | 13.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.88 |
| Year 2024 Total | 1521.72 | 0.00 | 0.00 | 0.00 | 1405.57 | 84.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 31.42 |

Note: The cut-off date of waste flow table in this reporting month is 10 October 2024.

# **Appendix J** Complaint Handling Procedure

# Complaint Handling Procedure



# **Appendix K** Event and Action Plan for Air Quality Monitoring

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

| Event | Action | | | |
|---|---|---|---|---|
| | **Environmental Team** | **Independent Environmental Checker** | **Engineer's Representative** | **CONTRACTOR** |
| **LIMIT LEVEL** | | | | |
| Exceedance for one sample | 1. Repeat measurement to confirm findings;<br>2. If exceedance is confirmed, inform the Contractor, IEC, EPD and ER;<br>3. Identify source(s), investigate the causes of exceedance and propose remedial;<br>4. Increase monitoring frequency to daily; and<br>5. Discuss with the ER, IEC and Contractor on the remedial measures and assess effectiveness. | 1. Check monitoring data submitted by the ET;<br>2. Check Contractor's working method;<br>3. Discuss with the ET, ER and Contractor on possible remedial measures;<br>4. Review and advise the ET and ER on the effectiveness of the proposed remedial measures; and<br>5. Supervise implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Review and agree on the remedial measures proposed by the Contractor; and<br>3. Ensure remedial measures properly implemented. | 1. Identify source(s) and investigate the causes of exceedance;<br>2. Take immediate action to avoid further exceedance;<br>3. Submit proposals for remedial measures to ER, ET and IEC within three working days of notification for agreement;<br>4. Implement the agreed proposals; and<br>5. Amend proposal if appropriate. |
| Exceedance for two or more consecutive samples | 1. Repeat measurement to confirm findings;<br>2. If exceedance is confirmed, inform IEC, ER, Contractor and EPD;<br>3. Identify source(s), investigate the causes of exceedance and propose remedial measures;<br>4. Increase monitoring frequency to daily;<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;<br>6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken;<br>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and<br>8. If exceedance stops, cease additional monitoring. | 1. Check monitoring data submitted by the ET;<br>2. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and<br>4. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented;<br>3. Supervise the implementation of remedial measures; and<br>4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. | 1. Identity source(s) and investigate the causes of exceedance;<br>2. Take immediate action to avoid further exceedance;<br>3. Submit proposals for remedial measures to the ER, IEC and ET within three working days of notification for agreement;<br>4. Implement the agreed proposals;<br>5. Revise and resubmit proposals if problem still not under control; and<br>6. Stop the relevant portion of works as determined by the ER until the exceedance is abated. |

## **Appendix L** Statistics on Complaint, Notification of Summons and Successful Prosecution

## Statistics on Complaints, Notification of Summons and Successful Prosecution

Table L1 Statistical Summary of Environmental Complaint

| Reporting Period | Environmental Complaint Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Complaint Nature** |
| 1 October 2024 to 10 October 2024 | 0 | 0 | N/A |

Table L2 Statistical Summary of Environmental Non-compliance

| Reporting Period | Environmental Non-compliance Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 to 10 October 2024 | 0 | 0 | N/A |

Table L3 Statistical Summary of Environmental Summons

| Reporting Period | Environmental Summons Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 to 10 October 2024 | 0 | 0 | N/A |

Table L4 Statistical Summary of Environmental Prosecution

| Reporting Period | Environmental Prosecution Statistics | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 to 10 October 2024 | 0 | 0 | N/A |

# **Appendix M** Environmental Mitigation Implementation Schedule

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| Air Quality (Construction Phase) | | | | | | | |
| S3.8.1 | Watering once per hour on active works areas, exposed areas and unpaved haul roads during working hours. | To minimize dust impacts | Contractor | All works area | Construction phase | Air Pollution Control Ordinance (APCO) | Implemented |
| S3.8.9 | Implementation of dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices should be carried out to further minimize construction dust impact:<br>• Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.<br>• Use of frequent water for particularly dusty construction areas and areas close to ASRs.<br>• 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.<br>• Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.<br>• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.<br>• Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.<br>• Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading | 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 and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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.<br>• Imposition of speed controls for vehicles on unpaved site roads. 8 kilometres per hour is the recommended limit.<br>• Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.<br>• 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.<br>• 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.<br>• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system. | | | | | | |
| Noise Impact (Construction Phase) | | | | | | | |
| S4.5.16 | Implement the following good site practices as far as practicable:<br>• Only well-maintained plant should be operated on-site and plant should be | To minimise impacts to surrounding habitats | Contractor | All works area | Construction phase | TM-EIAO | Implemented |

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

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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. | construction site run-off | | | | Ordinance (WPCO), Technical Memorandum on EIA Ordinance (EIAO-TM), ProPECC PN 1/94, Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) | |
| S5.8.5 | Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAOTM, ProPECC PN 1/94, TMDSS | Implemented |
| S5.8.6 | Construction works should be programmed to minimize soil excavation works in rainy seasons (April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAOTM, ProPECC PN 1/94, TMDSS | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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. | | | | | | |
| 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, EIAOTM, ProPECC PN 1/94, TMDSS | 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, EIAOTM, ProPECC PN 1/94, TMDSS | Implemented |
| S5.8.9 | If bentonite slurries are required for any construction works, they should be reconditioned and reused wherever practicable to minimise the disposal volume of used bentonite slurries. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAOTM, ProPECC PN 1/94 | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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. | | | | | | |
| S5.8.10 | Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAOTM, ProPECC PN 1/94, TMDSS | 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, EIAOTM, ProPECC PN 1/94, TMDSS | 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, EIAOTM, ProPECC PN 1/94, TMDSS | 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:<br>• 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, EIAOTM, ProPECC PN 1/94 | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | • 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.<br>• 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). | | | | | | |
| 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 TMDSS. The beneficial uses of the treated effluent for other onsite 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, EIAOTM, ProPECC PN 1/94, TMDSS | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| S5.8.14 | *Water for Bored Piling Works*<br>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, EIAOTM, ProPECC PN 1/94, TMDSS | Implemented |
| S5.8.15 | *Wheel Washing Water*<br>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, EIAOTM, ProPECC PN 1/94, TMDSS | Implemented |
| S5.8.16 | *Construction Works near Channelized Watercourse / Ditch*<br>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:<br>• The use of less or smaller construction plants may be specified in works area close to the inland water bodies. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAOTM, ProPECC PN 1/94, TMDSS | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | • 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.<br>• Stockpiling of construction materials and dusty materials should be covered and located away from any watercourse/ditch.<br>• 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.<br>• Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the watercourse/ditch, where practicable.<br>• Construction effluent, site run-off and sewage should be properly collected and / or treated | | | | | | |
| S5.8.17 – S5.8.19 | *Accidental Spillage of Chemicals*<br>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.<br>• Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be | To minimise impact from accidental spillage | Contractor | All works area | Construction phase | WPCO, EIAOTM, Waste Disposal Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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.<br>• 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:<br>o Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.<br>o Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.<br>o Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. | | | | | | |
| S5.8.20 – S5.8.21 | *Sewerage Effluent from Construction Workforce*<br>• No discharge of sewage to the storm water system and marine water will be allowed. Adequate and sufficient portable chemical toilets should be provided in the works areas to | To minimise impact from workforces sewage effluent | Contractor | All works area | Construction phase | WPCO, EIAO-TM, TM-DSS | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | handle sewage from construction workforce.<br>• A licensed waste collector should be employed to clean and maintain the chemical toilets on a regular basis.<br>• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. | | | | | | |
| S5.8.22 – S5.8.24 | *Groundwater from Contaminated Areas, Contaminated Site Runoff and Wastewater from Land Decontamination*<br>• 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 | 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, EIAOTM, TM-DSS, Guidance Note for Contaminated Land Assessment | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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.<br>• No direct discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas, the baseline groundwater quality in these areas should be reviewed based on the past relevant site investigation data and any additional groundwater quality measurements to be performed with reference to Guidance Note for Contaminated Land Assessment and Remediation and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances | | | | | | |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | (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.<br>• If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells, and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. | | | | | | |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | • The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater | | | | | | |
| Waste Management Implication (Construction Phase) | | | | | | | |
| S7.5.3 | Recommendations for good site practices during the construction phase include:<br>• 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.<br>• Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures.<br>• Provision of sufficient waste reception/ disposal points, and regular collection of waste.<br>• 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.<br>• Provision of regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.<br>• Adoption of a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites). | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | Waste Disposal Ordinance (WDO) and Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK) | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | • 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:<br>• 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.<br>• 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.<br>• Recycle any unused chemicals or those with remaining functional capacity.<br>• Maximise the use of reusable steel formwork to reduce the amount of C&D materials.<br>• Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials.<br>• Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated.<br>• Minimize over ordering and wastage through careful planning during purchasing of construction materials. | To minimize waste generation | Contractor | All works area | Construction phase | WDO | Implemented |
| S7.5.6 | To minimise the impact resulting from collection and transportation of C&D materials as far as practicable, C&D | To minimise the disposal of C&D waste | Contractor | All works area | Construction phase | WDO | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | 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. | | | | | | |
| S7.5.6 | Within the stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance:<br>• 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.<br>• Covering materials during heavy rainfall.<br>• Locating stockpiles to minimise potential visual impacts.<br>• Minimising land intake of stockpile areas as far as possible.<br>• Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials.<br>• 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 | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | WDO | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| S7.5.7 – S7.5.9 | General refuse should be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light materials.<br><br>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.<br><br>The Contractor shall carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins shall also be provided in the sites as reminders. | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | WDO | Implemented |
| S7.5.10 – 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, | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | WDO | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | Labelling and Storage of Chemical Wastes.<br><br>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 – S7.5.14 | The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. For minimization of sediment disposal, beneficial reuse will be considered on site as far as practicable during the construction stage before the disposal of excavated sediment.<br><br>Requirements of the Air Pollution Ordinance (Construction Dust) Regulation, where relevant, shall be adhered to during excavation, transportation and disposal of sediments. | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | APCO EDO | N/A |
| S7.5.15 | In order to minimise the exposure to contaminated materials, workers shall, when necessary, wear appropriate | To avoid and minimize impacts arising from | Contractor | All works area | Construction phase | WDO | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities shall also be provided on site. | waste management | | | | | |
| S7.5.16 | For off-site disposal, the basic requirements and procedures specified under PNAP No. 252 (ADV-21) shall be followed. Marine Fill Committee (MFC) of CEDD is managing the disposal facilities in Hong Kong for the excavated sediment, while EPD is the authority of issuing marine dumping permit under the Dumping at Sea Ordinance (DASO). | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | WDO, DASO, ADV-21 | N/A |
| S7.5.17 | For the purpose of site allocation and application of marine dumping permit and if considered necessary by EPD (Marine Dumping Section), separate SSTP shall be submitted to EPD for agreement under DASO. Additional SI works, based on the SSTP, shall then be carried out in order to confirm the disposal arrangements of the excavated sediment. A Sediment Quality Report (SQR), reporting the chemical and biological screening results and the estimated quantities of sediment under different disposal options, shall then be submitted to EPD for agreement under DASO. | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | WDO, DASO, ADV-21 | N/A |
| S7.5.18 | To ensure disposal space is allocated for the Project, the Project Proponent should be responsible for obtaining agreement from MFC on the allocation of the disposal site. The contractor(s), on the other hand, should be responsible for the application of the marine dumping permit under DASO from EPD for the sediment disposal. | To avoid and minimize impacts arising from waste management | Project Proponent and Contractor | All works area | Construction phase | WDO, DASO, ADV-21 | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| S7.5.19 | The excavated sediments is expected to be loaded onto the barge at public barging point of which the exact location will be determined by the contractor(s) and agreed by EPD/CEDD and transported to the designated disposal sites allocated by MFC. The excavated sediment would be disposed of according to its determined disposal options and PNAP No. 252 (ADV-21). | To avoid and minimize impacts arising from waste management | Project Proponent and Contractor | All works area | Construction phase | WDO, DASO, ADV-21 | 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 area | 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 | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | WDO, APCO | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | overflowing of the sediment slurry to the surrounding water. | | | | | | |
| S7.5.22 | 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. In addition, 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 DEP. | To avoid and minimize impacts arising from waste management | Contractor | All works area | Construction phase | WSO | N/A |
| Land Contamination | | | | | | | |
| S8.9.3 | To minimise environmental impacts arising from the handling of potentially contaminated materials, the following environmental precautionary measures are recommended to be utilised during the course of any required site remediation:<br>• Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety.<br>• Establish and maintain a Health and Safety Plan with the information below before commencement of the SI:<br>(a) Instruction of works on work procedures, safe practices, emergency duties, and applicable regulations;<br>(b) Regularly scheduled meetings of the workers in which the possible hazards, problems of the job, | To control land remediation work | Contractor | Area identified with land contamination | Prior to the commencement of construction works at the contaminated areas | "Guidance Note for Contaminated Land Assessment And Remediation", "Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management", "Public Cleansing and Prevention of Nuisances | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | and related safe practices are emphasized and discussed;<br>(c) Good housekeeping practices; and<br>(d) Availability of and instruction in the location, use and maintenance of personal protective equipment.<br>• Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils.<br>• Supply of suitable clean backfill material (or treated soil) after excavation.<br>• 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.<br>• 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.<br>• Speed control for the trucks carrying contaminated materials shall be enforced. | | | | | Regulation (Cap. 132BK)", APCO, WDO and WPCO | |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | • Vehicle wheel and body washing facilities at the site's exist points shall be established and used.<br>• 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 area | 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 area | 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 area | 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 area | Construction phase | - | Implemented |
| S9.8.1 | All hard and soft landscape areas disturbed temporarily during construction should be reinstated on like-to-like basis, | To minimize the landscape impact | Contractor | All works area | Construction phase | - | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures and Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | to the satisfaction of the relevant Government Departments. | on surrounding setting | | | | | |
| Hazard to Life | | | | | | | |
| S10.7.2 | Precautionary measures for chlorine released from SHWWTW such as provision of emergency plan for efficient evacuation including good practice (i.e. adequate training and drills for construction workers) during construction phase shall be implemented to further reduce the risk level. | To further reduce the risk level | Contractor | All works area | Construction phase | TM-EIAO | N/A |

# Appendix C

Monthly EM&A Report for October 2024
Cable Bridges and Associated Civil Works
for Cable Diversion Works Contract 1732

# MTR Corporation Limited

# Siu Ho Wan Depot Property Development -

# Cable Bridges and Associated Civil Works for Cable Diversion

# Monthly EM&A Report

(Period from 1 to 31 October 2024)

| | Name | Signature |
|---|---|---|
| Prepared by | Andre C. Chui |  |
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# LIST OF APPENDICES

# EXECUTIVE SUMMARY

A.1 This is the 35th monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the reporting period from 1 October to 31 October 2024.

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

| **Construction activities undertaken** |
|---|
| • Instrumentation monitoring<br>• EVA watermain installation<br>• Cable bridge E&M works and finishing works |

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

**Construction dust (1-hour TSP) monitoring**

| | |
|---|---|
| DM1 | 18 times |

A.4 Weekly environmental site inspections were conducted during the reporting period. A joint site inspection with the IEC was carried out on 7 October 2024. Observations were reported during the site inspections. All items are rectified within the reporting period. The environmental performance of the Project was considered satisfactory.

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

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

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

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

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

A.10 All major construction works have been completed and only minor defect fixing works remain, which will be short-term and minor in nature. In which, no significant environmental impact is anticipated.

# 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 Oyster Bay Station (OYB, formerly named as Siu Ho Wan Station (SHO)).

1.1.2. The (AEIAR-214/2017) "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 October to 31 October 2024) 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 |
|---|
| • Instrumentation monitoring<br>• EVA watermain installation<br>• Cable bridge E&M works and finishing works |

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

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

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

| Permit/ Licences/ Notification/ Reference No. | Valid Period | | Status | Remark |
|---|---|---|---|---|
| | From | To | | |
| **Environmental Permit** | | | | |
| EP-588/2021 | 22 Mar 2021 | N/A | Valid | - |
| **Wastewater Discharge License** | | | | |
| WT00040639-2022 | 23 Mar 2022 | 31 Mar 2027 | Valid | - |
| **Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation** | | | | |
| Ref. 472845 | N/A | N/A | Notified | Notification submitted on 19 Oct 2021 |
| **Chemical Waste Producer Registration** | | | | |
| WPN5213-961-P3457-01 | 19 Nov 2021 | N/A | Valid | - |
| **Billing Account for Disposal of Construction Waste** | | | | |
| 7042328 | 25 Nov 2021 | N/A | Valid | - |
| **Construction Noise Permit** | | | | |
| GW-RS0785-24 | 1 Oct 2024 | 31 Dec 2024 | Valid | Site office, main works at AB11 area defect works |

# 2. ENVIRONMENTAL STATUS

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

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

| EP Condition (EP-588/2021) | Submission | Submission date |
|---|---|---|
| 1.12 | Commencement Date of Construction | 11 June 2021 (1st submission)<br>12 July 2021 (2nd submission)<br>12 August 2021 (3rd submission) |
| 2.7 | Construction Works Phasing Schedule | 1 November 2021 (1st submission)<br>20 December 2021 (2nd submission)<br>29 December 2021 (Deposited)<br>9 October 2023 (1st submission with updated Phase 1 work)<br>30 November 2023 (Deposited) |
| 2.8 | Environmental Permit Submission Schedule | 12 August 2021<br>10 September 2021 (Deposited) |
| 2.9 | Management Organization | 1 November 2021 (1st submission)<br>20 December 2021 (2nd submission)<br>21 April 2022 (3rd submission)<br>9 August 2022 (4th submission)<br>16 November 2022 (5th submission)<br>18 September 2023 (6th submission)<br>22 January 2024 (7th submission) |

| EP Condition (EP-588/2021) | Submission | Submission date |
|---|---|---|
| 2.10 | Construction Noise Mitigation Plan | 1 November 2021 (1st submission)<br>20 December 2021 (2nd submission)<br>28 December 2021 (Deposited)<br>30 December 2022 (1st submission for Phase 1 work)<br>29 March 2023 (2nd submission for Phase 1 work)<br>18 May 2023 (3rd submission for Phase 1 work)<br>28 July 2023 (4th submission for Phase 1 work)<br>30 October 2023 (5th submission for Phase 1 work)<br>6 December 2023 (6th submission for Phase 1 work)<br>8 December 2023 (Deposited)<br>21 June 2024 (7th submission for Phase 1 work) |
| 2.11 | Noise Mitigation Plan | 31 March 2023 (1st submission)<br>31 July 2023 (2nd submission)<br>20 October 2023 (3rd submission)<br>7 March 2024 (4th submission)<br>18 March 2024 (Approved) |
| 2.13 | Waste Management Plan | 1 November 2021 (1st submission)<br>20 December 2021 (2nd submission)<br>28 December 2021 (Deposited)<br>30 June 2023 (1st submission for Phase 1 work)<br>1 August 2023 (2nd submission for Phase 1 work)<br>31 August 2023 (Deposited for Phase 1 work) |
| 2.15 | Landscape and Visual Plan(s) | 27 April 2023 (1st submission)<br>27 July 2023 (2nd submission)<br>20 October 2023 (3rd submission)<br>8 December 2023 (Approved) |
| 3.3 | Baseline Monitoring Report | 1 November 2021<br>16 November 2021 (Deposited) |
| 3.4 | Monthly EM&A Report (Dec 2021 – Sep 2024) | Submitted within 10 working days after the end of the reporting month |

| EP Condition (EP-588/2021) | Submission | Submission date |
|---|---|---|
| 3.4 | Monthly EM&A Report (October 2024) | This report submission |
| 4.2 | Dedicated Internet Website | 12 January 2022<br>25 July 2023 (updated address)<br>14 March 2024 (updated address) |

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

**Table 2.2 Summary of the location of the monitoring station**

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

# 3. MONITORING RESULTS

## 3.1. Monitoring Parameters

**Air Quality**

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

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

## 3.2. Monitoring Equipment and Methodology

**Monitoring Equipment**

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

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

**Table 3.1 Construction Dust Monitoring Equipment**

| Measuring Parameter | Monitoring Equipment | Brand and Model | Serial Number | Date of Calibration |
|---|---|---|---|---|
| 1-hour TSP | Portable direct reading dust meter (1-hour TSP) | Sibata Digital Dust Monitor (Model No. LD-5R) | 3Y7115 | 29 Jan 2024 |
| 1-hour TSP | Portable direct reading dust meter (1-hour TSP) | Sibata Digital Dust Monitor (Model No. LD-5R) | 427235 | 12 Apr 2024 |

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

**Monitoring Methodology**

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

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

## 3.3. Monitoring Location

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

**Table 3.2 Construction Dust Monitoring Location**

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

## 3.4. Result Summary

3.4.1. Dust impact monitoring was carried out at DM1 on 3, 9, 15, 21, 25 and 31 October 2024 during the reporting month (**Appendix L**). According to the field observations, the major dust sources identified included vehicular emissions from North Lantau Highway and Cheung Tung Road. Gentle wind was recorded throughout the monitoring period, with gentle to strong wind recorded occasionally.

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

**Table 3.3 Summary of 1-hour TSP Monitoring Results**

| Monitoring Location | Range ($\mu g/m^3$) | Action Level ($\mu g/m^3$) | Limit Level ($\mu g/m^3$) | No. of Exceedances |
|---|---|---|---|---|
| DM1 | 7.0 – 21.0 | 294.7 | 500 | 0 |

**Waste management**

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

**Table 3.4 Quantities of waste generated from the Project**

| Reporting period | Quantity | | | | | | |
|---|---|---|---|---|---|---|---|
| | Inert C&D materials (in $m^3$) | Chemical Waste (in '000 kg) | Non-inert C&D materials | | | | |
| | | | Others, e.g., General Refuse disposed at Landfill (in '000 kg) | Recycled wastes | | | |
| | | | | Paper/ cardboard (in '000 kg) | Plastics (in '000 kg) | Metals (in '000 kg) | Yard Waste (in '000 kg) |
| October 2024 | 0.000 | 0.000 | 1.790 | 0.000 | 0.000 | 0.000 | 0.000 |

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

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

# 4. SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

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

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

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

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

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

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

# 5. EM&A SITE INSPECTION

5.1.1. Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, four (4) site inspections were carried out on 7, 14, 21 and 28 October 2024. One joint site inspection with the IEC was also undertaken on 7 October 2024. Observations 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 |
|---|---|---|
| 7 October 2024 | None | None |
| 14 October 2024 | None | None |
| 21 October 2024 | None | None |
| 28 October 2024 | None | 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. All major construction works have been completed and only minor defect fixing works remain, which will be short-term and minor in nature. In which, no significant environmental impact is anticipated.

6.1.2. Confirmed by the Contractor remaining works will be minor in nature, it is anticipated no significant environmental impacts (dust impact, noise impact, and waste management) will arise.

6.1.3. The 1-hour TSP monitoring will be continually carried out through Contract 1701.

6.1.4. Major construction works under Contract 1732 have been completed, and a proposal for cessation of the EM&A programme for Contract 1732 has been submitted to EPD.

# 7. CONCLUSION AND RECOMMENDATIONS

7.1.1. This 35th monthly EM&A Report presents the EM&A works undertaken during the period from 1 October to 31 October 2024 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 7 October 2024. Observations were reported during the site inspections. All items are rectified within the reporting period. The environmental performance of the Project was considered satisfactory.

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

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

7.1.6. The ET has been keeping 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.

7.1.9. Major construction works under Contract 1732 have been completed, and a proposal for cessation of the EM&A programme has been submitted to EPD, subjected EPD's approval. A Final EM&A Report will be submitted according.

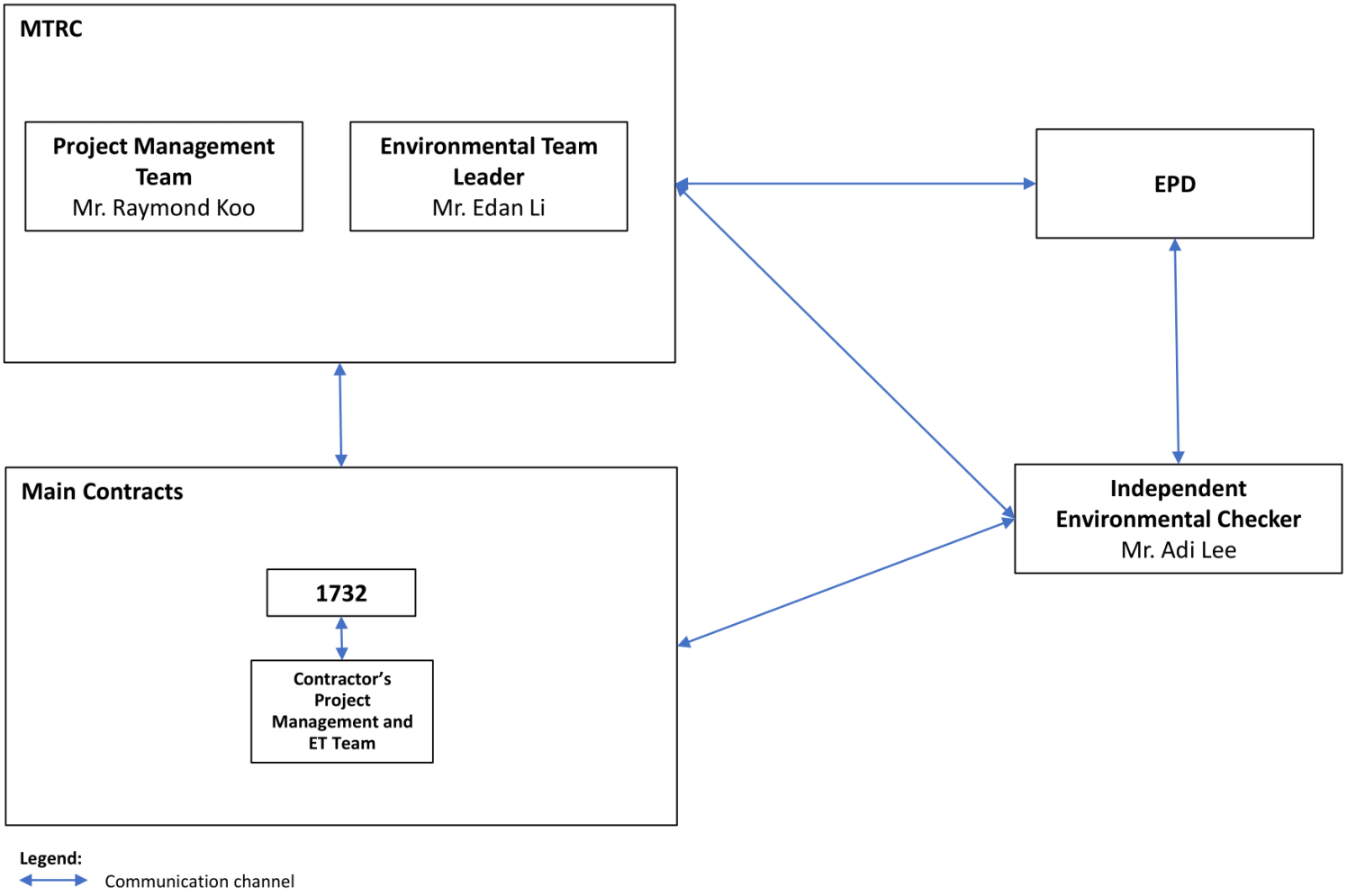
# Appendix A
# Construction Programme

**Appendix A Construction Programme**

| Construction Activities | ID | 2021 | | | | | | | | | | | | 2022 | | | | | | | | | | | | 2023 | | | | | | | | | | | | 2024 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D |
| **Contract 1732 - Cable Bridge and Associated Civil Works for Cable Diversion** | **2** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Site Clearance & Hoarding / UU / Cable Trenches* | 2.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *H-piling* | 2.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Excavation (Soil)* | 2.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Substructure (footing, pile caps, columns)* | 2.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Backfilling* | 2.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *Superstructure (Cable Bridges)* | 2.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# Appendix B
# Project Organization Chart

# Project O-Chart



MTR's Contact:

| **MTRC - Project Management Team** | | |
|---|---|---|
| **Position** | **Name** | **Telephone** |
| Chief Construction Manager - OYB | Mr. Raymond Koo | 2621 7051 |

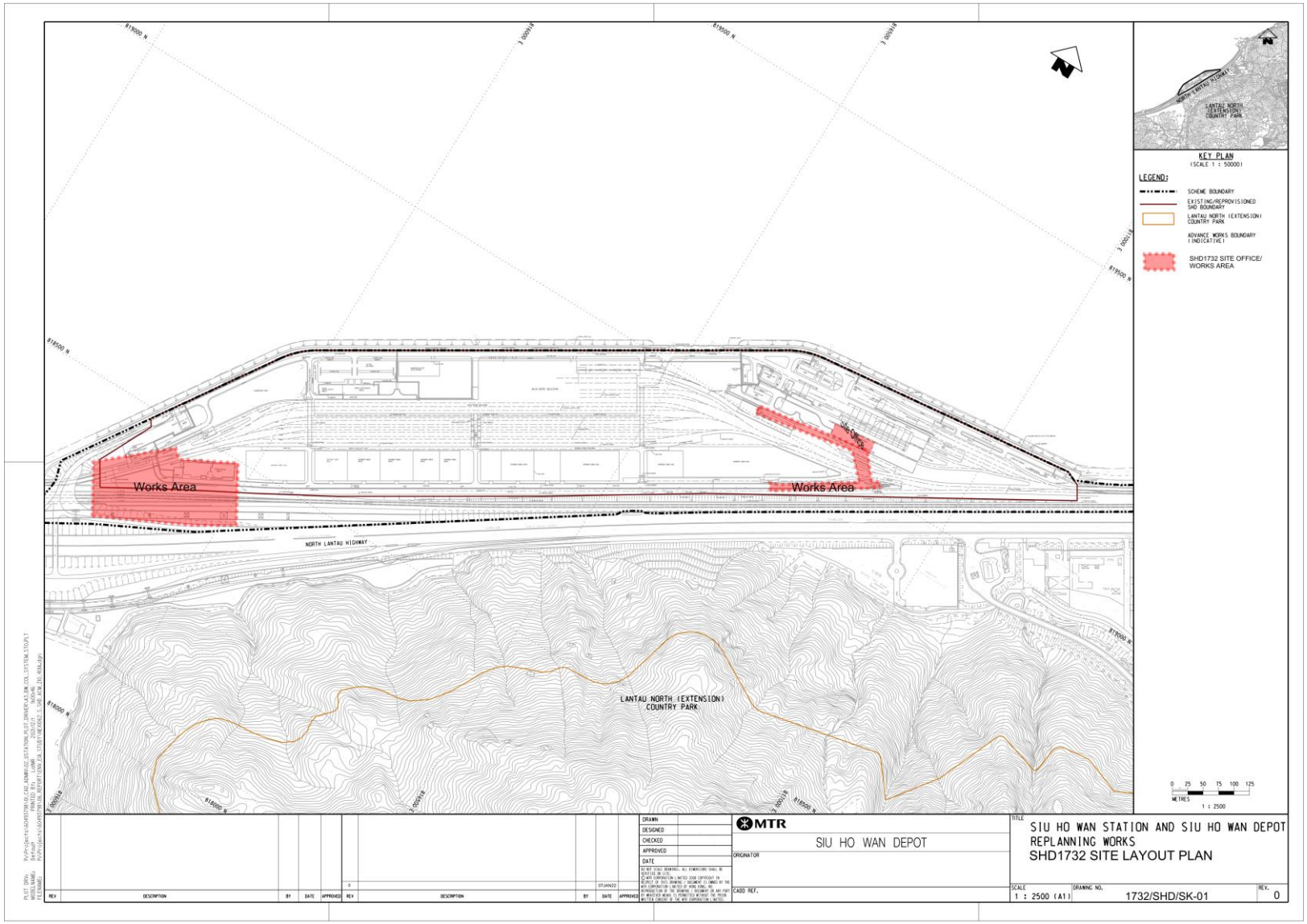
| **MTRC - Environmental Team** | | |
|---|---|---|
| **Position** | **Name** | **Telephone** |
| Environmental Team Leader | Mr. Edan Li | 2621 7194 |
| Environmental Team Member | Mr. Cyrus Lau | 2621 7219 |

| **Meinhardt Infrastructure and Environment Limited- IEC** | | |
|---|---|---|
| **Position** | **Name** | **Telephone** |
| Independent Environmental Checker | Mr. Adi Lee | 2859 5443 |
| IEC Team Member | Mr. Sylar Tsui | 2589 0143 |

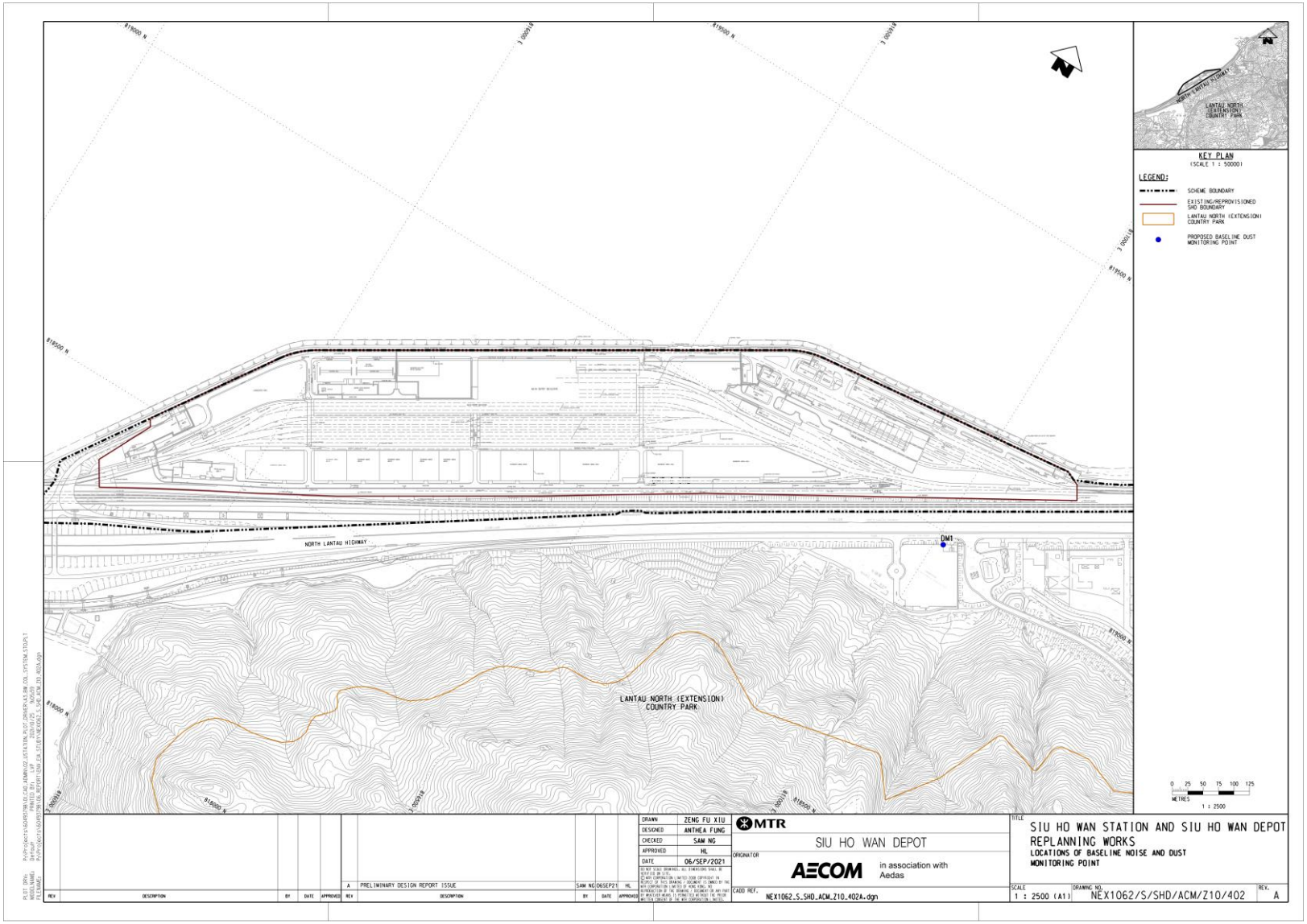
Contractor's Contact:

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

# Appendix C
# Alignment and Works Area for Contract No. 1732


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

# Appendix D
# Location Plan of Air Quality Monitoring Station


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

# Appendix E
# Calibration Certificates
# (Air Quality Monitoring Equipment)

東業德勤測試顧問有限公司
ETS-TESTCONSULT LTD.™

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Veristrong Industrial Centre,
34-36 Au Pui Wan Street,
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E: etl@ets-testconsult.com
W: www.ets-testconsult.com

Form Q/MX/C/58 Issue 1(1/1) [08/21]

# Calibration Certificate

**Certificate No.** : CSA40398
Page : 1 of 1

***Information Provided by Customer***

Customer : China State Construction Engineering (HK) Limited
Address : N/A

***Information of Unit-under-test (UUT)***

Description : Digital dust indicator
Manufacturer : SIBATA
Type : LD-5R
Equipment I.D. No. : -
Serial No. : 3Y7115

***Laboratory Information***

Lab. Ref. No. : Q/CAL/24/0453/E
Date of Calibration : 29-Jan-2024
Date of Issue : 5-Feb-2024
Procedure : CQS/054/Z
Date of Receipt : 16-Jan-2024

***Calibration Condition***

Ambient Temperature : (20±3) °C
Sampling : As received
Relative Humidity : (50±20) %

***Reference equipment***

- Reference Balance, C-052-03

***Calibration specification***

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

***Calibration result (unit in : mg/m$^3$)***

| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0156 | 2965 | 16 | 5.0 | 2.0 |
| 0.0178 | 3419 | 19 | | |
| 0.0200 | 3708 | 21 | | |

***Remarks***

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration (mg/m$^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.00095
- Correlation coefficient (r): 0.992
- All reported result were obtained from ETL approved sub-contractor.

Approved By: _____
CHAN Chi Wai

The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards.

東業德勤測試顧問有限公司
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W: www.ets-testconsult.com

Form Q/MX/C/58 Issue 1(1/1) [08/21]

# Calibration Certificate

**Certificate No.** : CSA42467
Page : 1 of 1

***Information Provided by Customer***

Customer : China State Construction Engineering (Hong Kong) Limited
Address : 29/F, China Overseas Building 139 Hennessy Road, Hong Kong

***Information of Unit-under-test (UUT)***

Description : Digital dust indicator
Manufacturer : SIBATA
Type : LD-5R
Equipment I.D. No. : -
Serial No. : 427235

***Laboratory Information***

Lab. Ref. No. : Q/CAL/24/2730/E
Date of Calibration : 12-Apr-2024
Date of Issue : 17-Apr-2024
Procedure : CQS/054/Z
Date of Receipt : 9-Apr-2024

***Calibration Condition***

Ambient Temperature : (20±3) °C
Sampling : As received
Relative Humidity : (50±20) %

***Reference equipment***

- Reference Balance, C-052-03

***Calibration specification***

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

***Calibration result (unit in : mg/m$^3$)***

| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0111 | 2106 | 12 | 5.0 | 2.0 |
| 0.0133 | 2484 | 14 | | |
| 0.0156 | 2804 | 16 | | |

***Remarks***

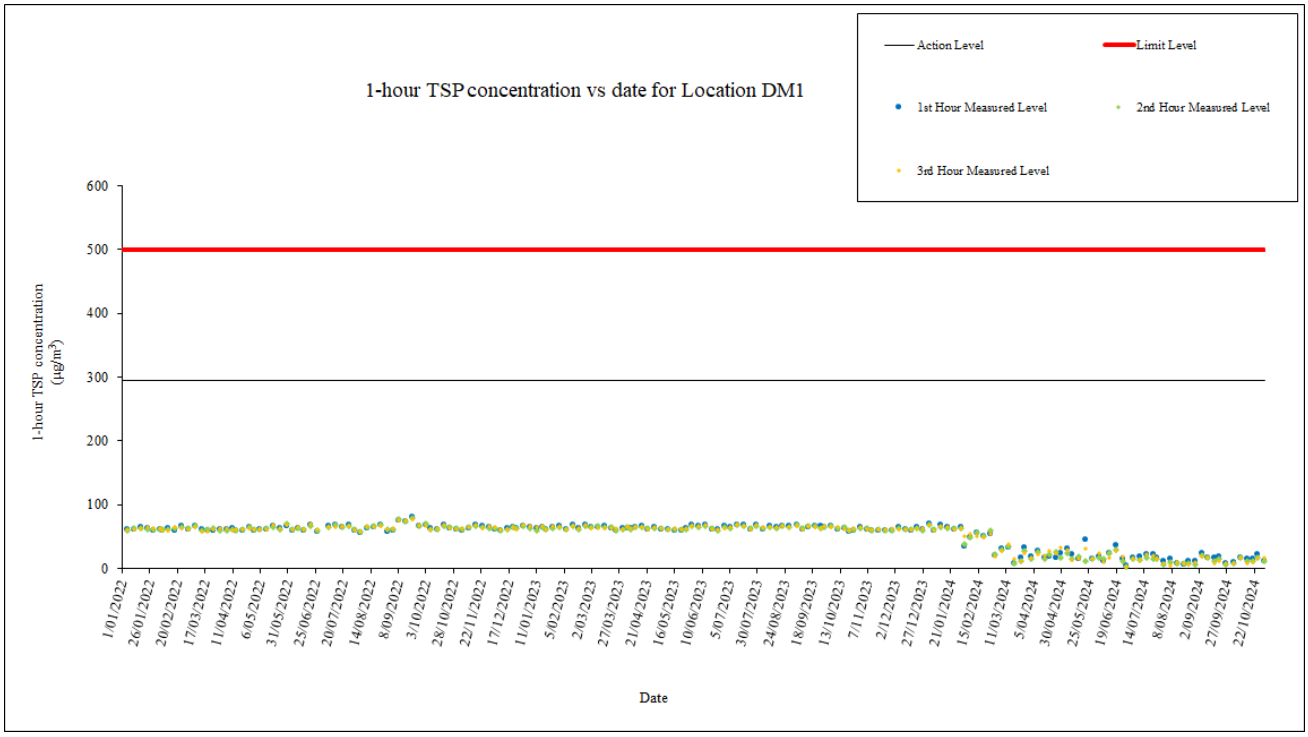
- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration (mg/m$^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.000971
- Correlation coefficient (r): 0.998
- All reported result were obtained from ETL approved sub-contractor.

Approved By: _____
LU Yongyi

# Appendix F
# Monitoring Data (Air Quality Monitoring)

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

| Date | Weather | Start Time (hh:mm) | 1st Hour μg/m$^3$ | 2nd Hour μg/m$^3$ | 3rd Hour μg/m$^3$ |
|---|---|---|---|---|---|
| 03/10/2024 | Fine | 08:47 | 10.0 | 8.0 | 8.0 |
| 09/10/2024 | Fine | 13:18 | 16.0 | 16.0 | 17.0 |
| 15/10/2024 | Sunny | 08:27 | 15.0 | 12.0 | 7.0 |
| 21/10/2024 | Sunny | 08:30 | 14.0 | 11.0 | 10.0 |
| 25/10/2024 | Sunny | 08:22 | 21.0 | 17.0 | 16.0 |
| 31/10/2024 | Sunny | 13:33 | 11.0 | 11.0 | 17.0 |
| Minimum: 7.0 μg/m$^3$ | | | Maximum: 21.0 μg/m$^3$ | | |



# Appendix G
# Waste Flow Table

## Monthly Summary Waste Flow Table

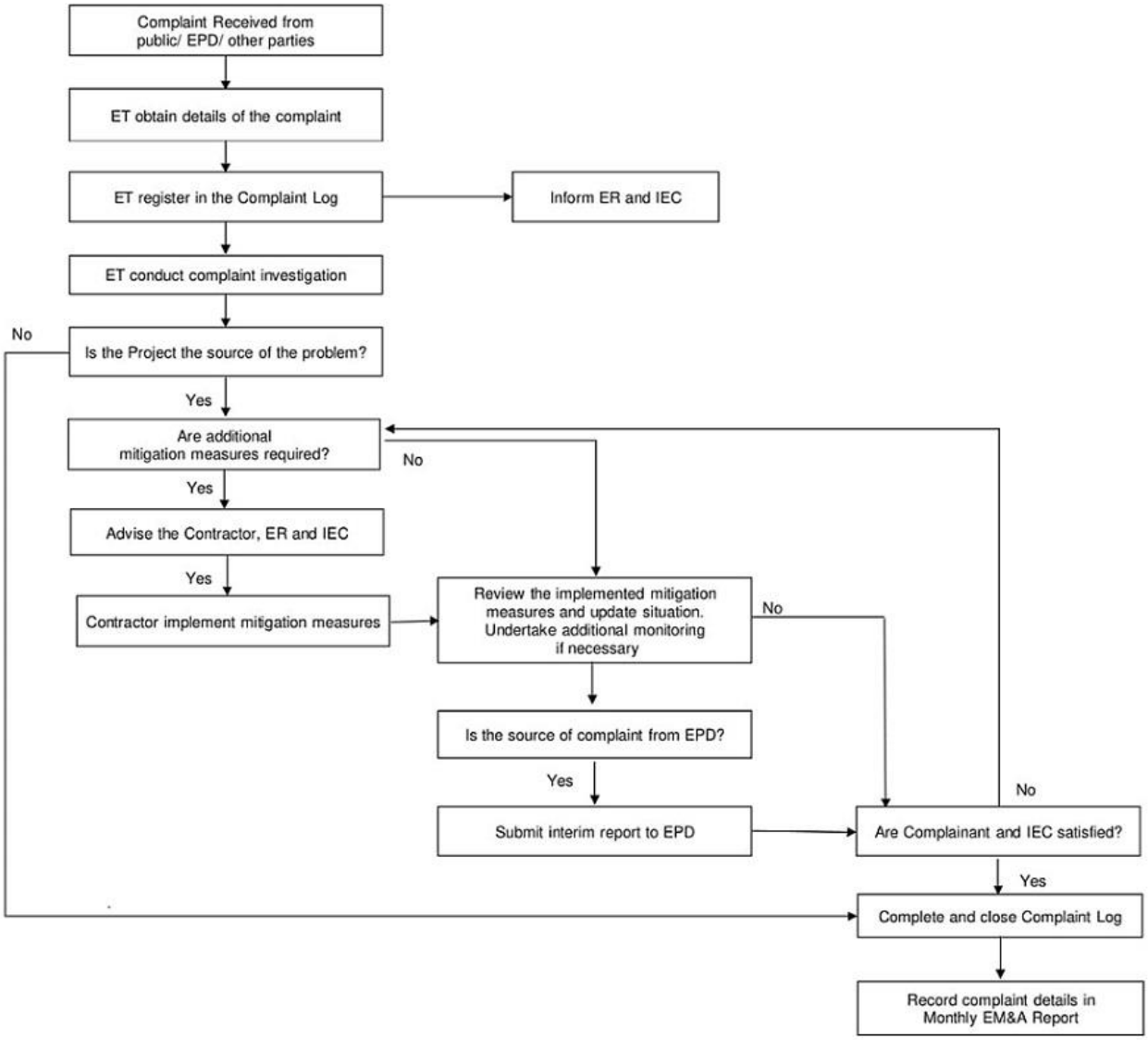
**Name of Department: MTR Contract No. / Works Order No.: 1732**

**Monthly Summary Waste Flow Table for October 2024**

| Month | Actual Quantities of Inert Construction Materials Generated Monthly | | | | | |
|---|---|---|---|---|---|---|
| | (a) Total Quantity Generated | (b) Hard Rock and Large Broken Concrete | (c) Reused in the Contract | (d) Reused in other Projects | (e) Disposed of as Public Fill | (f) Imported Fill |
| | (in $m^3$) | (in $m^3$) | (in $m^3$) | (in $m^3$) | (in $m^3$) | (in $m^3$) |
| Jan-24 | 385.640 | 0.000 | 0.000 | 0.000 | 385.640 | 0.000 |
| Feb-24 | 41.895 | 0.000 | 0.000 | 0.000 | 41.895 | 0.000 |
| Mar-24 | 214.785 | 0.000 | 0.000 | 0.000 | 214.785 | 0.000 |
| Apr-24 | 476.380 | 0.000 | 0.000 | 0.000 | 476.380 | 0.000 |
| May-24 | 478.545 | 0.000 | 0.000 | 0.000 | 478.545 | 0.000 |
| Jun-24 | 270.680 | 0.000 | 0.000 | 0.000 | 270.680 | 0.000 |
| Sub-total | 1867.925 | 0.000 | 0.000 | 0.000 | 1867.925 | 0.000 |
| Jul-24 | 43.785 | 0.000 | 0.000 | 0.000 | 43.785 | 0.000 |
| Aug-24 | 7.635 | 0.000 | 0.000 | 0.000 | 7.635 | 0.000 |
| Sep-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Oct-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Nov-24 | -- | -- | -- | -- | -- | -- |
| Dec-24 | -- | -- | -- | -- | -- | -- |
| Total | 1919.345 | 0.000 | 0.000 | 0.000 | 1919.345 | 0.000 |
| 2021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 2022 | 1226.473 | 72.128 | 0.000 | 0.000 | 1154.345 | 0.000 |
| 2023 | 4832.103 | 535.988 | 0.000 | 0.000 | 4296.115 | 0.000 |
| Accumulated Total | 7977.921 | 608.116 | 0.000 | 0.000 | 7369.805 | 0.000 |

| Month | Actual Quantities of Non-inert Construction Materials Generated Monthly | | | | | |
|---|---|---|---|---|---|---|
| | (g) Metals | (h) Paper/ cardboard packaging | (i) Plastics | (j) Chemical Waste | (k) Recyclable Yard Waste | (l) Others, e.g. General Refuse disposed of at Landfill |
| | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) |
| | generated | generated | generated | generated | generated | generated |
| Jan-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.260 |
| Feb-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.860 |
| Mar-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 26.690 |
| Apr-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 29.860 |
| May-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 13.160 |
| Jun-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 6.880 |
| Sub-total | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 121.710 |
| Jul-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 15.160 |
| Aug-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 2.440 |
| Sep-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.320 |
| Oct-24 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.790 |
| Nov-24 | -- | -- | -- | -- | -- | -- |
| Dec-24 | -- | -- | -- | -- | -- | -- |
| Total | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 142.340 |
| 2021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 2022 | 0.200 | 0.277 | 0.300 | 0.010 | 93.660 | 393.380 |
| 2023 | 0.000 | 0.0125 | 0.000 | 0.000 | 0.000 | 246.220 |
| Accumulated Total | 0.200 | 0.2895 | 0.300 | 0.010 | 93.660 | 781.910 |

# Appendix H
# Complaint Handling Procedure


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

# Appendix I
# Event-Action Plan (Air Quality Monitoring)

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

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

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

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

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

**Table J1 Statistical Summary of Exceedance**

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

**Table J2 Statistical Summary of Environmental Complaint**

| **Reporting Period** | **Environmental Complaint Statistics** | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Complaint Nature** |
| 1 October 2024 - 31 October 2024 | 0 | 0 | N/A |

**Table J3 Statistical Summary of Environmental Non-compliance**

| **Reporting Period** | **Environmental Non-compliance Statistics** | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 - 31 October 2024 | 0 | 0 | N/A |

**Table J4 Statistical Summary of Environmental Summons**

| **Reporting Period** | **Environmental Summons Statistics** | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 - 31 October 2024 | 0 | 0 | N/A |

**Table J5 Statistical Summary of Environmental Prosecution**

| **Reporting Period** | **Environmental Prosecution Statistics** | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Details** |
| 1 October 2024 - 31 October 2024 | 0 | 0 | N/A |

# Appendix K
# Environmental Mitigation Implementation Schedule (EMIS)

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| **Air Quality (Construction Phase)** | | | | | | | |
| S3.8.1 | Watering once per hour on active works areas, exposed areas and unpaved haul roads during working hours. | To minimize dust impacts | Contractor | All works area | Construction phase | Air Pollution Control Ordinance (APCO) | Implemented |
| S3.8.9 | Implementation of dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices should be carried out to further minimize construction dust impact.<br>• Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.<br>• Use of frequent watering for particularly dusty construction areas and areas close to ASRs.<br>• 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.<br>• Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.<br>• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.<br>• Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. | To minimize dust impacts | Contractor | All works area | Construction phase | Air Pollution Control Ordinance (APCO) | Implemented |

| 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.<br>• Imposition of speed controls for vehicles on unpaved site roads. 8 kilometres per hour is the recommended limit.<br>• Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.<br>• 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.<br>• 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.<br>• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system. | | | | | | |

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

| 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 Quality Impact (Construction Phase) | | | | | | | |
| S5.8.4 | Surface and road run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels or earth bunds or sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | Water Pollution Control Ordinance (WPCO), Technical Memorandum on EIA Ordinance (EIAO-TM), ProPECC PN 1/94, Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS) | Implemented |
| S5.8.5 | Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re- alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | | Implemented |
| S5.8.6 | Construction works should be programmed to minimize soil excavation works in rainy seasons (April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g., by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g., along the crest / edge of excavation) to 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 | | 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 |
|---|---|---|---|---|---|---|---|
| S5.8.7 | Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | | Implemented |
| S5.8.8 | Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | | Implemented |
| S5.8.9 | If bentonite slurries are required for any construction works, they should be reconditioned and reused wherever practicable to minimise the disposal volume of used bentonite slurries. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after the related construction activities are completed. Requirements as stipulated in ProPECC Note PN 1/94 should be closely followed when handling and disposing bentonite slurries. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 1/94 | N/A |
| S5.8.10 | Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS | Implemented |
| 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 |

| 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 |
|---|---|---|---|---|---|---|---|
| S5.8.12 | 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:<br>• Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.<br>• 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.<br>• Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the Director of Environmental Protection (DEP). | To minimise impact from transportation of sediment | Contractor | Barging point and barges | Construction phase | WPCO, EIAO-TM, ProPECC PN 1/94 | N/A |
| 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 | To minimize impact from effluent discharge | Contractor | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS | Approved |

| 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 |
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| | during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence. | | | | | | |
| S5.8.14 | Water for Bored Piling Works<br>Water used in ground boring and drilling for site investigation or rock / soil anchoring should be re-circulated as far as practicable after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS | Implemented |
| S5.8.15 | Wheel Washing Water<br>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<br>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:<br>• The use of less or smaller construction plants may be specified in works area close to the inland water bodies.<br>• 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 | 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 |

| 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 |
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| | materials and dusty materials should be covered and located away from any watercourse/ditch.<br>• 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.<br>• 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. | | | | | | |
| S5.8.17 – S5.8.19 | <u>Accidental Spillage of Chemicals</u><br>• 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.<br>• 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.<br>• 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:<br>• Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during | To minimise impact from accidental spillage | Contractor | All works area | Construction phase | WPCO, EIAO-TM, Waste Disposal Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | storage, handling and transport.<br>• Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.<br>• Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. | | | | | | |
| S5.8.22 – S5.8.24 | <u>Groundwater from Contaminated Areas, Contaminated Site Runoff and Wastewater from Land Decontamination</u><br>• 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.<br>• 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 | 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 |
|---|---|---|---|---|---|---|---|
| | any additional groundwater quality measurements to be performed with reference to Guidance Note for Contaminated Land Assessment and Remediation and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution 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.<br>• 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 | | | | | | |

| 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 |
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| | 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.<br>• The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater. | | | | | | |
| **Waste Management Implication (Construction Phase)** | | | | | | | |
| S7.5.3 | Recommendations for good site practices during the construction phase include:<br>• 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;<br>• Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures;<br>• Provision of sufficient waste reception/ disposal points, and regular collection of waste;<br>• 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;<br>• Adoption of a recording system for the amount of wastes generated, recycled and disposed (including the | 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 |

| 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 |
|---|---|---|---|---|---|---|---|
| | disposal sites); and<br>• 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:<br>• 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;<br>• 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;<br>• Recycle any unused chemicals or those with remaining functional capacity;<br>• Maximise the use of reusable steel formwork to reduce the amount of C&D materials;<br>• Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials;<br>• Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; and<br>• Minimize over ordering and wastage through careful planning during purchasing of construction materials. | To minimize waste generation | Contractor | All works areas | Construction phase | WDO | Implemented |
| S7.5.6 | To minimise the impact resulting from collection and transportation of C&D materials as far as practicable, C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed to landfill. A suitable area should be designated within the site for temporary stockpiling of C&D materials and to facilitate the sorting process. | To minimise the disposal of C&D waste | Contractor | All works areas | Construction phase | WDO | Implemented |

| 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 |
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| S7.5.6 | Within the stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance:<br>• 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;<br>• Covering materials during heavy rainfall;<br>• Locating stockpiles to minimise potential visual impacts;<br>• Minimising land intake of stockpile areas as far as possible;<br>• Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials; and<br>• 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. | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | WDO | Implemented |
| S7.5.7 to S7.5.9 | General refuse should be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light materials.<br><br>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 | 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 |
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| | be set up by the Contractor. The Contractor shall also be responsible for arranging recycling companies to collect these materials.<br><br>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.<br><br>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.<br><br>Any unused chemicals or those with remaining functional capacity should be collected for reuse as far as practicable. | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | WDO | Implemented |
| S7.5.13 to S7.5.14 | The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. For minimization of sediment disposal, beneficial reuse will be considered on site as far as practicable during the construction stage before the disposal of excavated sediment. | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | APCO WDO | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
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| | 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 sandbags to prevent leachate from entering the ground, nearby drains and/or surrounding water bodies. The stockpiles shall be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas shall be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, shall be collected and discharged according to the Water Pollution Control Ordinance (WPCO). | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | WPCO | N/A |
| S7.5.21 | In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | WDO APCO | N/A |

| 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 |
|---|---|---|---|---|---|---|---|
| **Land Contamination** | | | | | | | |
| S8.9.3 | To minimise environmental impacts arising from the handling of potentially contaminated materials, the following environmental precautionary measures are recommended to be utilised during the course of any required site remediation:<br>• Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety;<br>• Establish and maintain a Health and Safety Plan with the information below before commencement of the SI:<br>(a) Instruction of works on work procedures, safe practices, emergency duties, and applicable regulations;<br>(b) Regularly scheduled meetings of the workers in which the possible hazards, problems of the job, and related safe practices are emphasized and discussed;<br>(c) Good housekeeping practices; and<br>(d) Availability of and instruction in the location, use and maintenance of personal protective equipment.<br>• Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils;<br>• Supply of suitable clean backfill material (or treated soil) after excavation;<br>• 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 | To control land remediation work | Contractor | Area identified with land contamination | Prior to the commencement of construction works at the contaminated areas | "Guidance Note for Contaminated Land Assessment and Remediation"<br><br>"Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management<br><br>"Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)"<br><br>APCO, WDO and WPCO | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | contaminated runoff;<br>• 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;<br>• Speed control for the trucks carrying contaminated materials shall be enforced;<br>• Vehicle wheel and body washing facilities at the site exist points shall be established and used; and<br>• Pollution control measures for air emissions (e.g. from biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving equipment), and water discharges (e.g. runoff control from treatment facility) shall be implemented and complied with relevant regulations and guidelines. | | | | | | |
| **Landscape and Visual Impact (Construction Phase)** | | | | | | | |
| S9.8.1 | Trees unavoidably affected by the works should be transplanted as far as possible in accordance with DEVB TC(W) 7/2015 – Tree Preservation or LAO PN 7/2007 - Tree Preservation and Tree Removal Application for Building Development in Private Projects where applicable. | To transplant affected trees | Contractor | All works areas | Construction phase | DEVB TC(W) No. 7/2015 or LAO PN 7/2007 where applicable | N/A |
| S9.8.1 | Control of night-time lighting glare. | To minimize the Landscape and visual impact on surrounding setting | Contractor | All works areas | Construction phase | TM-EIAO | N/A |
| S9.8.1 | Erection of decorative screen hoarding which should be compatible with the surrounding setting. | | 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 | - | 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 |
|---|---|---|---|---|---|---|---|
| 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 | - | Implemented |

# Appendix L
# Monitoring Schedule of the Reporting Month

**Siu Ho Wan Depot Property Development MTR Contract No.: 1732 Oyster Bay Station and Associated Works**

**Dust Monitoring Schedule in October 2024**

# OCTOBER 2024

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

# Appendix D

Monthly EM&A Report for October 2024
Vehicular Access Bridge, Demolition of Paint Shop
and Construction of EV Stabling Tracks
Works Contract 1733

HKES241000006863

# 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 31 October 2024)

Prepared by

**SGS Hong Kong Limited**

**MTR Corporation Limited**

**Issue and Revision Record**

| Revision | Description | Prepared by | Checked by | Approved by | Date |
|---|---|---|---|---|---|
| 01 | Submission | Various | Roy Hung | Grace Fung | Nov 2024 |

## TABLE OF CONTENT

## EXECUTIVE SUMMARY

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

This is the 31st 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 31 October 2024.

### Exceedance of Action and Limit Levels

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

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

### Waste Management

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

### Record of Complaints

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

### Record of Notification of Summons and Successful Prosecutions

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

### Reporting Changes

There are no reporting changes.

### Site inspection

Weekly environmental site inspections were conducted during the reporting period. A joint site inspection with the IEC was carried out on 7 October 2024. Non-compliance was not observed. Observation and recommendation were reported during the site inspection. Items are rectified accordingly in the reporting period. The environmental performance of the Project was therefore considered satisfactory.

### Future Key Issues

The major construction works had been completed, minor defect fixing remains with no significant environmental impacts anticipated for Contract 1733.

# 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 (AEIAR-214/2017) "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
- Substructure
- Backfilling
- Superstructure
- 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 31 October 2024) is shown in below:

- Tree Felling

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

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

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

| Type of Permit/ License | Permit No. / Account No. | Valid From | Expiry Date | Status |
|---|---|---|---|---|
| Environmental Permit | EP-588/2021 | 22 Mar 2021 | N/A | Valid |
| Wastewater Discharge License | WT00041829-2022 | 31 Aug 2022 | 31 Aug 2027 | Valid |
| Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation | Ref.: 477410 | N/A | N/A | Notification submitted on 3 Mar 2022 |
| Chemical Waste Producer Registration | WPN5213-961-B2653-01 | 15 Feb 2022 | N/A | Valid |
| Billing Account for Disposal of Construction Waste | 7043460 | 18 Mar 2022 | N/A | Valid |
| Construction Noise Permit | GW-RS0775-24 | 29 Aug 2024 | 27 Feb 2025 | Valid |

## 2. ENVIRONMENTAL STATUS

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

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

| EP Condition | Submission | Submission Date |
|---|---|---|
| 1.12 | Commencement Date of Construction | 11 Jun 2021 (1st submission)<br>12 Jul 2021 (2nd submission)<br>12 Aug 2021 (3rd submission) |
| 2.7 | Construction Works Phasing Schedule | 1 Nov 2021 (1st submission)<br>20 Dec 2021 (2nd submission)<br>29 Dec 2021 (Deposited)<br>9 Oct 2023 (1st submission with updated Phase 1 works) |
| 2.8 | Environmental Permit Submission Schedule | 12 Aug 2021<br>10 Sep 2021 (Deposited) |
| 2.9 | Management Organization | 1 Nov 2021 (1st Submission)<br>20 Dec 2021 (2nd Submission)<br>21 Mar 2022 (3rd Submission)<br>9 Aug 2022 (4th Submission)<br>16 Nov 2022 (5th Submission)<br>18 Sep 2023 (6th submission)<br>22 Jan 2024 (7th Submission) |
| 2.10 | Construction Noise Mitigation Plan | 1 Nov 2021 (1st submission for advanced work) |

| | | |
|---|---|---|
| | | 20 Dec 2021 (2nd submission for advanced work)<br><br>28 Dec 2021 (3rd submission for advanced work)<br><br>30 Dec 2022 (1st submission for Phase 1 work)<br><br>29 Mar 2023 (2nd submission for Phase 1 work)<br><br>18 May 2023 (3rd submission for Phase 1 work)<br><br>28 Jul 2023 (4th submission for Phase 1 works)<br><br>30 Oct 2023 (5th submission for Phase 1 works)<br><br>6 Dec 2023 (6th submission for Phase 1 works)<br><br>8 Dec 2023 (Deposited)<br><br>21 June 2024 (7th submission for Phase 1 work) |
| 2.11 | Noise Mitigation Plan | 31 Mar 2023 (1st submission)<br><br>31 Jul 2023 (2nd submission)<br><br>20 Oct 2023 (3rd submission)<br><br>7 March 2024 (4th Submission)<br><br>18 March 2024 (Approved) |
| 2.13 | Waste Management Plan | 1 Nov 2021 (1st submission)<br><br>20 Dec 2021 (2nd submission)<br><br>28 Dec 2021 (Deposited)<br><br>30 Jun 2023 (1st submission for Phase 1 work) |

| | | |
|---|---|---|
| | | 1 Aug 2023 (2nd submission for Phase 1 works)<br>31 Aug 2023 (Deposited for Phase 1 works)<br>31 Aug 2023 (Deposited for Phase 1 work) |
| 2.15 | Landscape and Visual Plan | 27 Apr 2023 (1st submission)<br>27 Jul 2023 (2nd submission)<br>20 Oct 2023 (3rd submission)<br>8 Dec 2023 (Approved) |
| 3.3 | Baseline Monitoring Report | 1 Nov 2021<br>16 Nov 2021 (Deposited) |
| 3.4 | Monthly EM&A Report (Apr 2022 – September 2024) | Submitted within 10 working days after the end of the reporting month |
| | Monthly Monitoring Report (October 2024) | This report submission |
| 4.2 | Dedicated Internet Website | 12 Jan 2022<br>25 Jul 2023 (Update address)<br>14 Mar 2024 (Update address) |

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

**Table 2.2 Summary of the location of the monitoring station**

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

# 3. AIR QUALITY MONITORING

## MONITORING REQUIREMENTS, FREQUENCY AND DURATION

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

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

**Monitoring Equipment**

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

**Table 3.1 Construction Dust Monitoring Equipment**

| Measuring Parameter | Monitoring Equipment | Brand | Model No. | Calibration Date |
|---|---|---|---|---|
| 1-hour TSP | Portable direct reading dust meter (1-hour TSP) | Sibata | LD-5R (S/N: 3Y7115) | 29 Jan 2024 |
| 1-hour TSP | Portable direct reading dust meter (1-hour TSP) | Sibata | LD-5R (S/N: 427235) | 12 Apr 2024 |

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

**Field Monitoring Methodology**

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

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

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

**Monitoring Location**

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

**Table 3.2 Location of the designated dust monitoring station**

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

**Result Summary**

Dust impact monitoring was carried out at DM1 on 3, 9, 15, 21, 25 & 31 October 2024 during the reporting month (**Appendix L**). According to our field observations, the major dust sources identified included vehicular emissions from North Lantau Highway and Cheung Tung Road. Gentle wind was recorded throughout the monitoring period, with gentle to strong wind recorded occasionally.

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

**Table 3.3 Summary of 1-hour TSP Monitoring Results**

| Monitoring Location | Range (µg/m3) | Action Level (µg/m3 ) | Limit Level (µg/m3 ) | No. of Exceedances |
|---|---|---|---|---|
| DM1 | 7 – 21 | 294.7 | 500 | 0 |

## 4. WASTE MANAGEMENT

The waste generated from this Project includes inert C&D materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/ cardboard packaging waste. Metals 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 Materials Generated Monthly | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Quantity Generated | Hard Rock and Large Broken Concrete | Reused in the Contract | Reused in other Projects | Disposal as Public Fill | Imported Fill | Metals | Paper / Cardboard Packaging | Plastics (See note 3) | Chemical Waste | Other, e.g. general refuse |
| | [in Tonne] | [in Tonne] | [in Tonne] | [in Tonne] | [in Tonne] | [in Tonne] | [in Tonne] | [in kg] | [in kg] | [in kg] | [in Tonne] |
| **October** | 117.86 | 0.00 | 0.00 | 0.00 | 117.86 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.41 |

*Data extracted from construction waste transaction record from EPD website.

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

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

## 5. SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

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

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

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

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

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

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

## 6. EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, four (4) site inspections were carried out on 7, 14, 21 & 28 October 2024. One joint site inspection with the IEC also undertaken on 7 October 2024 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 |
|---|---|---|
| 7 October 2024 | No particular findings during inspection. | N/A |
| 14 October 2024 | No particular findings during inspection. | N/A |
| 21 October 2024 | No particular findings during inspection. | N/A |
| 28 October 2024 | No particular findings during inspection. | N/A |

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

## 7. FUTURE KEY ISSUES

The major construction works had been completed, minor defect fixing remains with no significant environmental impacts anticipated for Contract 1733.

The regular 1-hour TSP monitoring will be carried out through Contract 1701.

## 8. CONCLUSION AND RECOMMENDATION

This 31st monthly EM&A Report presents the EM&A works undertaken during the period from 1 October to 31 October 2024 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 7 October 2024. Non-compliance was not observed. Observation and recommendation were reported during the site inspection. Items are rectified accordingly in the reporting period. The environmental performance of the Project was therefore considered satisfactory.

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

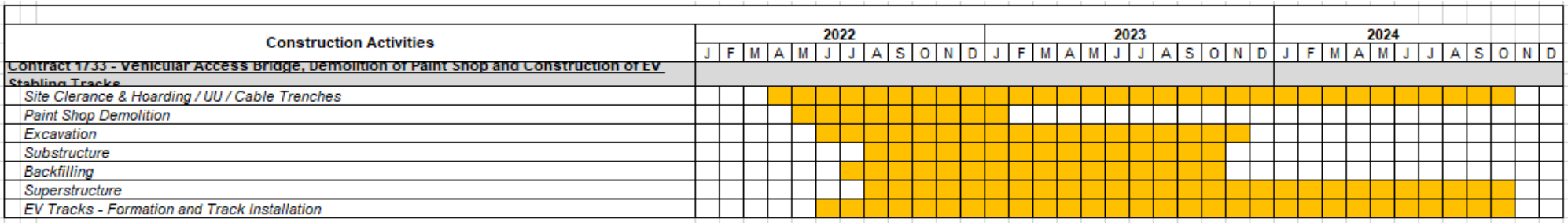
No notification of summons or prosecution was received in the reporting month.

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

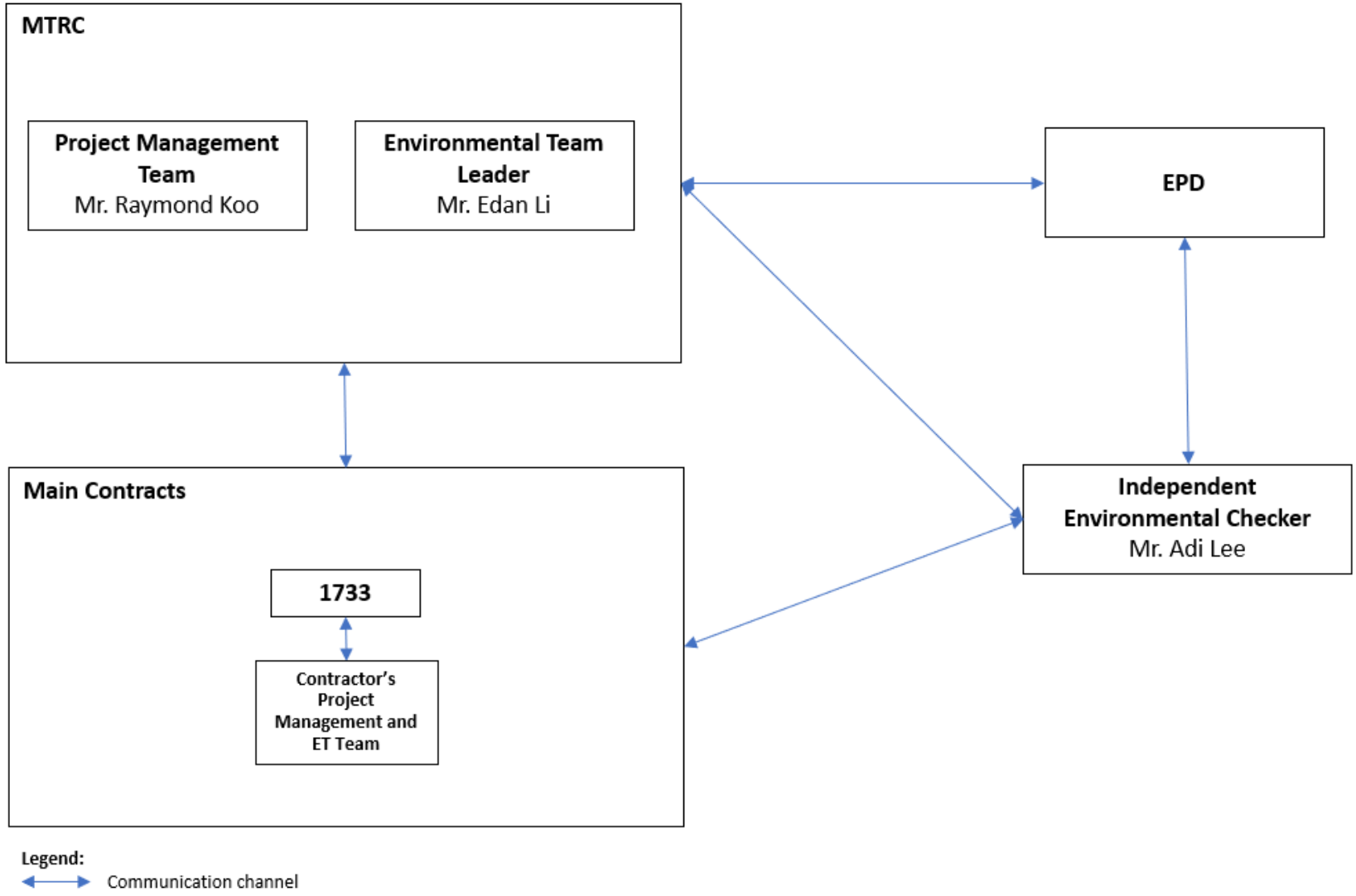
The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.

The major construction works had been completed, minor defect fixing remains with no significant environmental impacts anticipated for Contract 1733. The proposal to cease EM&A works for 1733 has been submitted to EPD.

# APPENDIX A – CONSTRUCTION PROGRAMME


Construction Activities
2022
2023
2024
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
Contract 1733 - Vehicular Access Bridge, Demolition of Paint Shop and Construction of EV Stabling Tracks
Site Clearance & Hoarding / UU / Cable Trenches
Paint Shop Demolition
Excavation
Substructure
Backfilling
Superstructure
EV Tracks - Formation and Track Installation

# APPENDIX B – PROJECT ORGANIZATION CHART


MTRC
Project Management Team
Mr. Raymond Koo
Environmental Team Leader
Mr. Edan Li
EPD
Main Contracts
1733
Contractor's Project Management and ET Team
Independent Environmental Checker
Mr. Adi Lee
Legend:
Communication channel

MTR's Contact:

| **MTRC - Project Management Team** | | |
|---|---|---|
| *Position* | *Name* | *Telephone* |
| Chief Construction Manager - OYB | Mr. Raymond Koo | 2621 7051 |

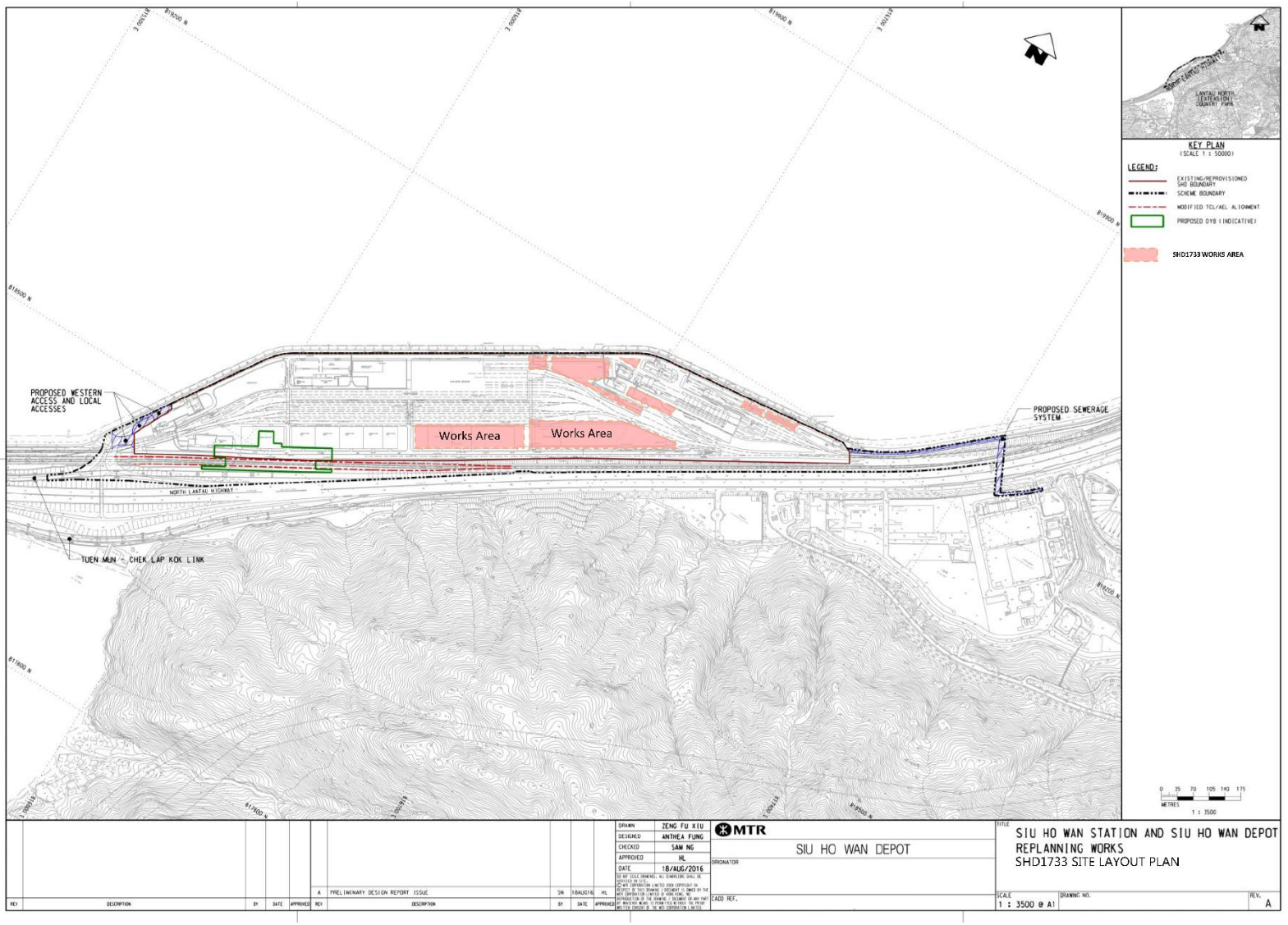
| **MTRC - Environmental Team** | | |
|---|---|---|
| *Position* | *Name* | *Telephone* |
| Environmental Team Leader | Mr. Edan Li | 2621 7194 |
| Environmental Team Member | Mr. Cyrus Lau | 2621 7219 |

| **Meinhardt Infrastructure and Environment Limited - IEC** | | |
|---|---|---|
| *Position* | *Name* | *Telephone* |
| Independent Environmental Checker | Mr. Adi Lee | 2859 5443 |
| IEC Team Member | Mr. Sylar Tsui | 2589 0143 |

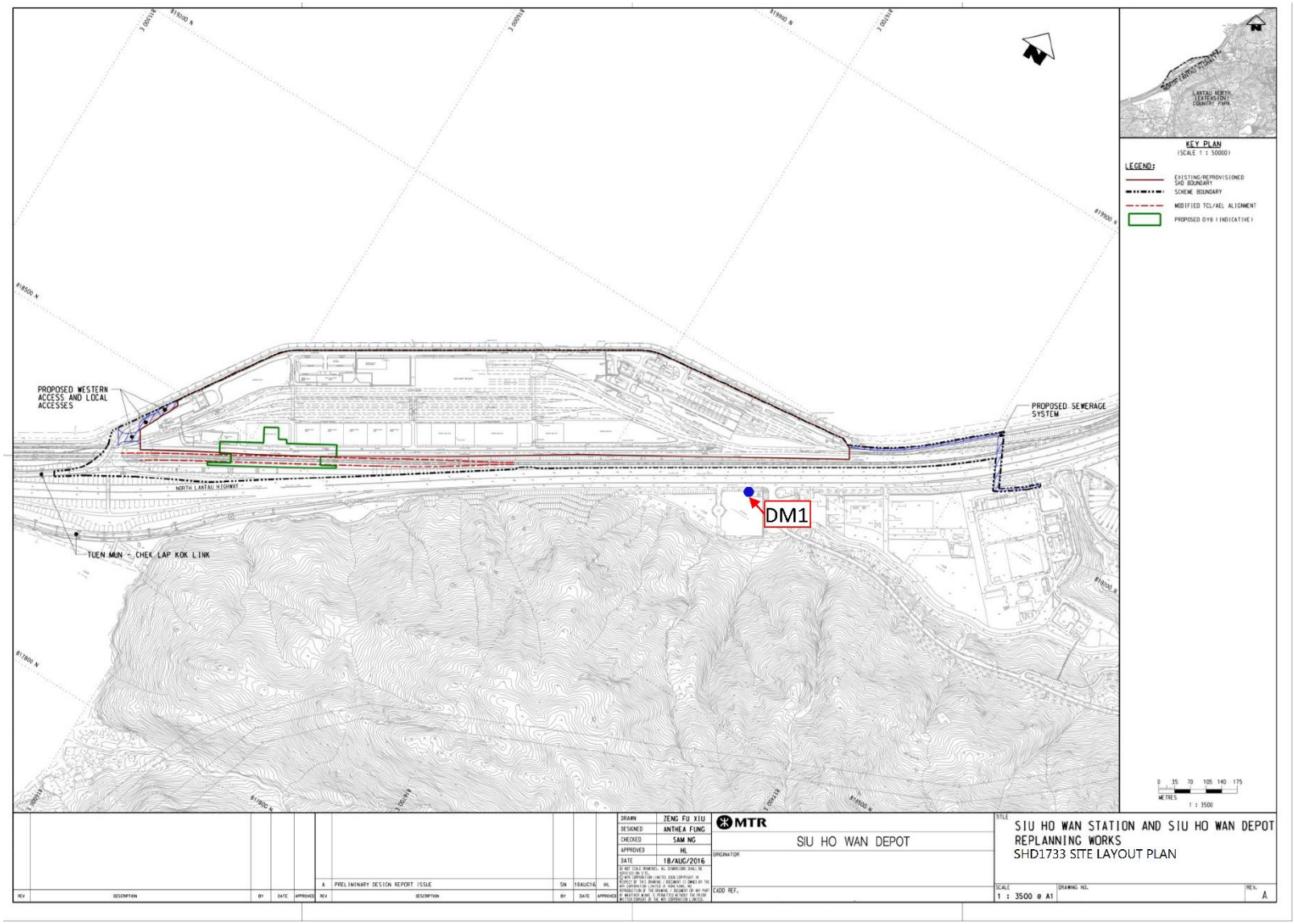
Contractor's Contact

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

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


KEY PLAN
(SCALE 1 : 50000)
LEGEND:
EXISTING/REPROVISIONED SHD BOUNDARY
SCHEME BOUNDARY
MODIFIED TCL/AEL ALIGNMENT
PROPOSED DYB (INDICATIVE)
SHD1733 WORKS AREA
PROPOSED WESTERN ACCESS AND LOCAL ACCESSES
Works Area
Works Area
PROPOSED SEWERAGE SYSTEM
NORTH LANTAU HIGHWAY
TUEN MUN - CHEK LAP KOK LINK
METRES
1 : 3500
MTR
SIU HO WAN DEPOT
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
SHD1733 SITE LAYOUT PLAN
DRAWN ZENG FU XIU
DESIGNED ANTHEA FUNG
CHECKED SAM NG
APPROVED HL
DATE 18/AUG/2016
SCALE 1 : 3500 @ A1
REV. A

# APPENDIX D - LOCATION PLAN OF AIR QUALITY MONITORING STATION


PROPOSED WESTERN ACCESS AND LOCAL ACCESSES
PROPOSED SEWERAGE SYSTEM
NORTH LANTAU HIGHWAY
TUEN MUN - CHEK LAP KOK LINK
DM1
KEY PLAN
LEGEND:
EXISTING/REPROVISIONED SHD BOUNDARY
SCHEME BOUNDARY
MODIFIED TCL/AEL ALIGNMENT
PROPOSED OYB (INDICATIVE)
SIU HO WAN DEPOT
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
SHD1733 SITE LAYOUT PLAN
1 : 3500 @ A1
A
PRELIMINARY DESIGN REPORT ISSUE

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

東業德勤測試顧問有限公司
ETS-TESTCONSULT LTD.™

8/F Block B,
Veristrong Industrial Centre,
34-36 Au Pui Wan Street,
Fo Tan, Hong Kong

T: +852 2695 8318
F: +852 2695 3944
E: etl@ets-testconsult.com
W: www.ets-testconsult.com

Form Q/MX/C/58 Issue 1(1/1) [08/21]

## Calibration Certificate

**Certificate No.** : **CSA40398**

Page : 1 of 1

***Information Provided by Customer***

Customer : China State Construction Engineering (HK) Limited

Address : N/A

***Information of Unit-under-test (UUT)***

Description : Digital dust indicator

Manufacturer : SIBATA

Type : LD-5R

Equipment I.D. No. : -

Serial No. : 3Y7115

***Laboratory Information***

Lab. Ref. No. : Q/CAL/24/0453/E

Date of Calibration : 29-Jan-2024

Date of Issue : 5-Feb-2024

Procedure : CQS/054/Z

Date of Receipt : 16-Jan-2024

***Calibration Condition***

Ambient Temperature : (20±3) °C

Sampling : As received

Relative Humidity : (50±20) %

***Reference equipment***

- Reference Balance, C-052-03

***Calibration specification***

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

***Calibration result*** ***(unit in : mg/m$^3$)***

| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0156 | 2965 | 16 | 5.0 | 2.0 |
| 0.0178 | 3419 | 19 | | |
| 0.0200 | 3708 | 21 | | |

***Remarks***

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration (mg/m$^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.00095
- Correlation coefficient (r): 0.992
- All reported result were obtained from ETL approved sub-contractor.

**Approved By:** _____
**CHAN Chi Wai**

The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards.

東業德勤測試顧問有限公司
ETS-TESTCONSULT LTD.™

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Veristrong Industrial Centre,
34-36 Au Pui Wan Street,
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E: etl@ets-testconsult.com
W: www.ets-testconsult.com

Form Q/MX/C/58 Issue 1(1/1) [09/21]

## Calibration Certificate

**Certificate No.** : **CSA42467**
Page : 1 of 1

***Information Provided by Customer***

Customer : China State Construction Engineering (Hong Kong) Limited
Address : 29/F, China Overseas Building 139 Hennessy Road, Hong Kong

***Information of Unit-under-test (UUT)***

Description : Digital dust indicator
Manufacturer : SIBATA
Type : LD-5R
Equipment I.D. No. : -
Serial No. : 427235

***Laboratory Information***

Lab. Ref. No. : Q/CAL/24/2730/E
Date of Calibration : 12-Apr-2024
Date of Issue : 17-Apr-2024
Procedure : CQS/054/Z
Date of Receipt : 9-Apr-2024

***Calibration Condition***

Ambient Temperature : (20±3) °C
Sampling : As received
Relative Humidity : (50±20) %

***Reference equipment***

- Reference Balance, C-052-03

***Calibration specification***

- By direct comparison of weight of dust particle trapped in a filter paper using high volume sampler for 3 hours at 25LPM for three times, with the reading of the UUT operated at the same location.

***Calibration result (unit in : mg/m$^3$)***

| Reference concentration | UUT reading (Total count for 3 hours) | CPM (Count per minute) | Expanded Uncertainty (%) | Coverage Factor |
|---|---|---|---|---|
| 0.0111 | 2106 | 12 | 5.0 | 2.0 |
| 0.0133 | 2484 | 14 | | |
| 0.0156 | 2804 | 16 | | |

***Remarks***

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement
- The interpolation equation: Concentration (mg/m$^3$) = K x UUT reading (CPM) where K(Sensitivity) = 0.000971
- Correlation coefficient (r): 0.998
- All reported result were obtained from ETL approved sub-contractor.

Approved By: _____
LU Yongyi

The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards.
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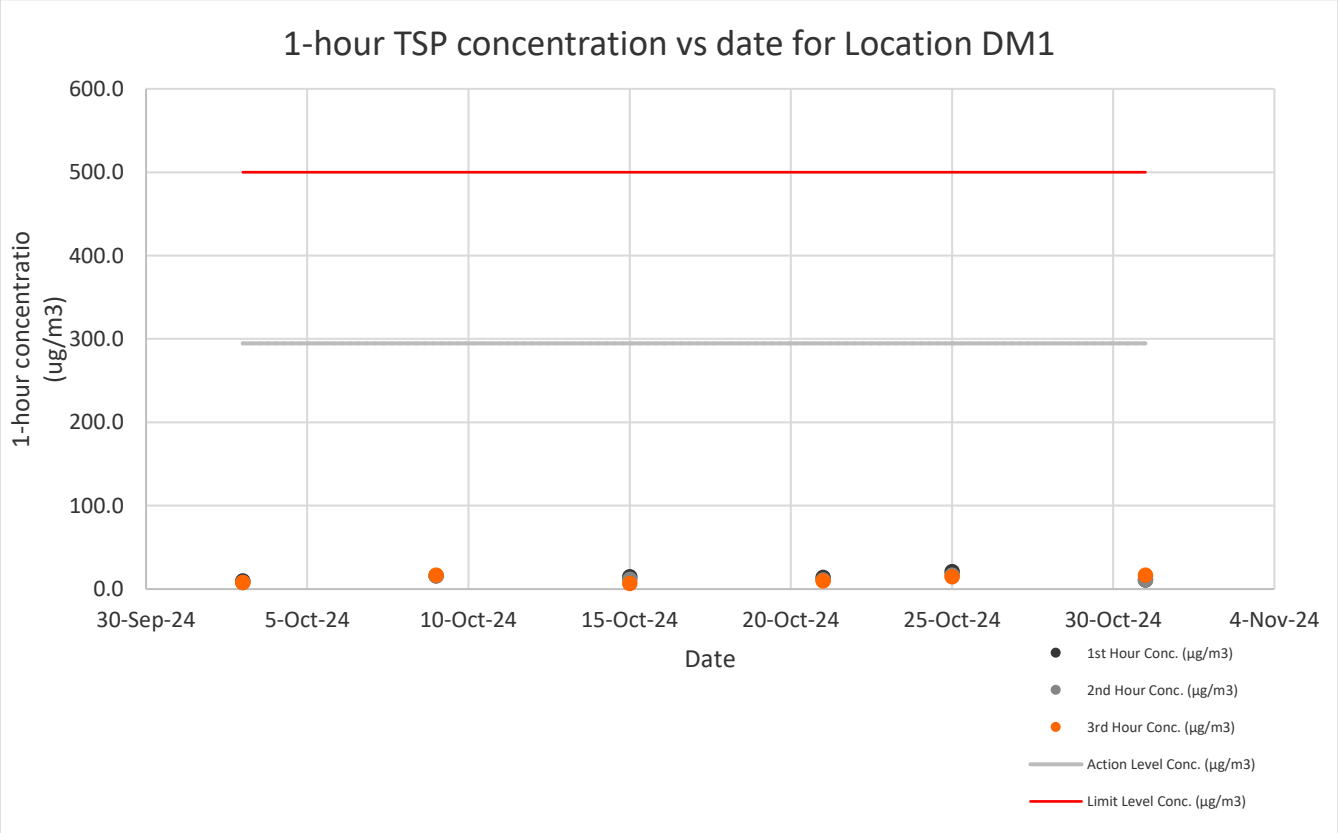
# APPENDIX F – MONITORING DATA (AIR QUALITY MONITORING)

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

| Date | Start Time (hh:mm) | 1st Hour Conc. (μg/m³) | 2nd Hour Conc. (μg/m³) | 3rd Hour Conc. (μg/m³) | Action Level Conc. (μg/m³) | Limit Level Conc. (μg/m³) | Exceedance (Y/N) |
|---|---|---|---|---|---|---|---|
| 3-Oct-24 | 8:47 | 10.0 | 8.0 | 8.0 | 294.7 | 500 | N |
| 9-Oct-24 | 13:18 | 16.0 | 16.0 | 17.0 | 294.7 | 500 | N |
| 15-Oct-24 | 8:27 | 15.0 | 12.0 | 7.0 | 294.7 | 500 | N |
| 21-Oct-24 | 8:30 | 14.0 | 11.0 | 10.0 | 294.7 | 500 | N |
| 25-Oct-24 | 8:22 | 21.0 | 17.0 | 15.0 | 294.7 | 500 | N |
| 31-Oct-24 | 13:33 | 11.0 | 11.0 | 17.0 | 294.7 | 500 | N |
| | | | Average | 13.1 | | | |
| | | | Min | 7.0 | | | |
| | | | Max | 21.0 | | | |



# APPENDIX G – WASTE FLOW TABLE

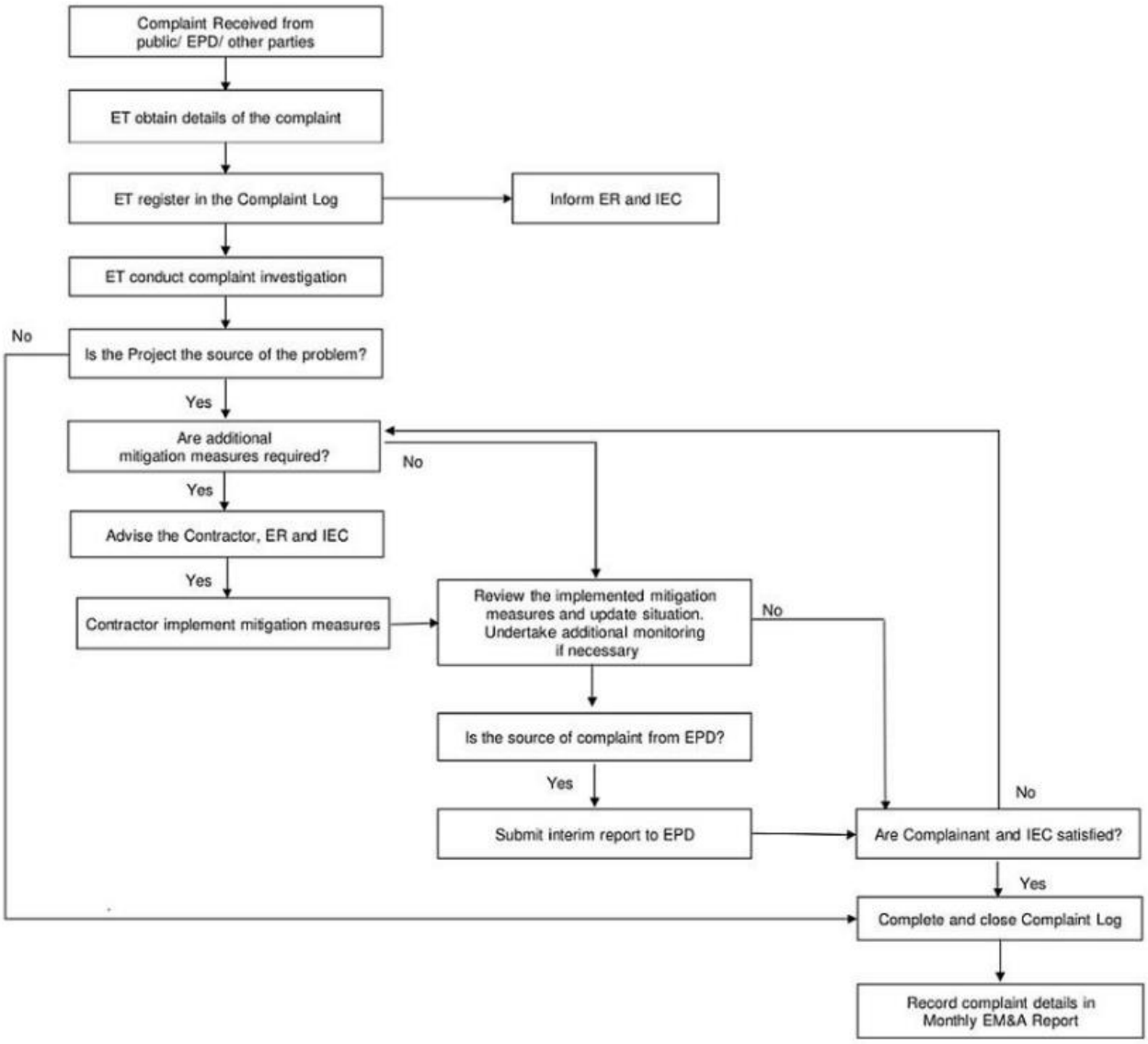
# Monthly Summary Waste Flow Table for 2024 Year

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | | Actual Quantities of Non-inert C&D Materials Generated Monthly | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Quantity Generated | Hard Rock and Large Broken Concrete | Reused in the Contract | Reused in other Projects | Disposal as Public Fill | Imported Fill | Metals | Paper / Cardboard Packaging | Plastics | 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 | 40.67 | 0.00 | 0.00 | 0.00 | 40.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.19 |
| Feb | 156.48 | 0.00 | 0.00 | 0.00 | 156.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.63 |
| Mar | 184.26 | 0.00 | 0.00 | 0.00 | 184.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.55 |
| Apr | 685.56 | 0.00 | 0.00 | 0.00 | 685.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.46 |
| May | 573.99 | 0.00 | 0.00 | 0.00 | 573.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.41 |
| June | 160.40 | 0.00 | 0.00 | 0.00 | 160.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.55 |
| SUB-TOTAL | 1801.36 | 0.00 | 0.00 | 0.00 | 1801.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.79 |
| Jul | 80.15 | 0.00 | 0.00 | 0.00 | 80.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.40 |
| Aug | 117.11 | 0.00 | 0.00 | 0.00 | 117.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.70 |
| Sep | 87.11 | 0.00 | 0.00 | 0.00 | 87.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.80 |
| Oct | 117.86 | 0.00 | 0.00 | 0.00 | 117.86 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.41 |
| Nov | | | | | | | | | | | |
| Dec | | | | | | | | | | | |
| TOTAL | 2203.59 | 0.00 | 0.00 | 0.00 | 2203.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 129.10 |

**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
*Data extracted from construction waste transaction record from EPD website.

# APPENDIX H - COMPLAINT HANDLING PROCEDURE


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

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

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

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

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

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

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

Statistic Summary of Exceedance

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

Statistical Summary of Environmental Complaint

| **Reporting Period** | **Environmental Complaint Statistics** | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Complaint Nature** |
| 1 October 2024 – 31 October 2024 | 0 | 0 | 0 |

Statistical Summary of Environmental Non-compliance

| **Reporting Period** | **Environmental Non-compliance Statistics** | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Complaint Nature** |
| 1 October 2024 – 31 October 2024 | 0 | 0 | 0 |

Statistical Summary of Environmental Summons

| **Reporting Period** | **Environmental Summons Statistics** | | |
|---|---|---|---|
| | **Frequency** | **Cumulative** | **Complaint Nature** |
| 1 October 2024 – 31 October 2024 | 0 | 0 | 0 |

Statistical Summary of Environmental Prosecution

| Reporting Period | Environmental Prosecution Statistics | | |
|---|---|---|---|
| | Frequency | Cumulative | Complaint Nature |
| 1 October 2024 – 31 October 2024 | 0 | 0 | 0 |

# APPENDIX K - ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| **Air Quality (Construction Phase)** | | | | | | | |
| S3.8.1 | Watering once per hour on active works areas, exposed areas and unpaved haul roads during working hours. | To minimize dust impacts | Contractor | All works area | Construction phase | Air Pollution Control Ordinance (APCO) | Implemented |
| S3.8.9 | Implementation of dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices should be carried out to further minimize construction dust impact.<br>• Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.<br>• Use of frequent watering for particularly dusty construction areas and areas close to ASRs.<br>• 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.<br>• Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.<br>• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.<br>• Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.<br>• Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points, | To minimize dust impacts | Contractor | All works area | Construction phase | Air Pollution Control Ordinance (APCO) | Implemented |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods.<br>• Imposition of speed controls for vehicles on unpaved site roads. 8 kilometres per hour is the recommended limit.<br>• Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.<br>• 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.<br>• 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.<br>• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system. | | | | | | |
| **Noise Impact (Construction Phase)** | | | | | | | |
| S4.5.16 | Implement the following good site practices as far as practicable:<br>• Only well-maintained plant should be operated on-site, and plant should be serviced regularly during the | To minimise impacts to surrounding habitats | Contractor | All works area | Construction phase | TM-EIAO | Implemented |

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

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

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm. | | | | | | |
| S5.8.7 | Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS | 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 needs to be transported away after the related construction activities are completed. Requirements as stipulated in ProPECC Note PN 1/94 should be closely followed when handling and disposing bentonite slurries. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO- TM, ProPECC PN 1/94 | implemented |
| S5.8.10 | Open stockpiles of construction materials (e.g. aggregates, | To minimise | Contractor | All works area | Construction | 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 |
|---|---|---|---|---|---|---|---|
| | sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. | impact from construction site run-off | | | phase | EIAO- TM, ProPECC PN 1/94, TM-DSS | implemented |
| S5.8.11 | Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS | Implemented |
| S5.8.12 | Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS | Implemented |
| S5.8.12 | The following mitigation measures related to the transportation of the sediment should be implemented to minimize the potential water quality impact:<br>Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.<br>• 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.<br>• Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as | To minimise impact from transportation of sediment | Contractor | Barging point and barges | Construction phase | WPCO, EIAO- TM, ProPECC PN 1/94 | N/A |

| EIA Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concern to Address | Implementation Agent | Location of the Measures | Implementation Stage | Requirements | Implementation Status |
|---|---|---|---|---|---|---|---|
| | specified by the Director of Environmental Protection (DEP). | | | | | | |
| S5.8.13 | There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on- site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence. | To minimize impact from effluent discharge | Contractor | All works area | Construction phase | WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS | implemented |
| S5.8.14 | Water for Bored Piling Works<br>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 | N/A |
| S5.8.15 | Wheel Washing Water<br>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 |

| 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 | <u>Construction Works near Channelized Watercourse / Ditch</u><br>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:<br>• The use of less or smaller construction plants may be specified in works area close to the inland water bodies.<br>• 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.<br>• 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.<br>• Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the watercourse/ditch, where practicable. Construction effluent, site run-off and sewage should be properly collected and / or treated. | To minimise impact from construction site run-off | Contractor | All works area | Construction phase | WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS, ETWB TC(Works) No. 5/2005 | Implemented |
| S5.8.17 – S5.8.19 | <u>Accidental Spillage of Chemicals</u><br>• The Contractor should register as a chemical waste producer if chemical wastes would be produced from | To minimise impact from accidental spillage | Contractor | All works area | Construction phase | WPCO, EIAO-TM, Waste Disposal | |

| 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.<br>• 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.<br>• 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<br>Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows:<br>• Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.<br>• Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.<br>• 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 | Implemented |
| S5.8.22 – S5.8.24 | <u>Groundwater from Contaminated Areas, Contaminated Site Runoff and Wastewater from Land Decontamination</u><br>• Remediation of contaminated land should be properly | To minimise impact from groundwater from | Contractor | All works area confirmed with land | Construction phase | WPCO, EIAO-TM, TM-DSS, Guidance | N/A |

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

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| | 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.<br>• If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells, and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. | | | | | | |

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| | • The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater. | | | | | | |
| **Waste Management Implication (Construction Phase)** | | | | | | | |
| S7.5.3 | Recommendations for good site practices during the construction phase include:<br>• 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;<br>• Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures;<br>• Provision of sufficient waste reception/ disposal points, and regular collection of waste;<br>• 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;<br>• Adoption of a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites); and<br>• 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:<br>• Segregate and store different types of construction | To minimize waste generation | Contractor | All works areas | Construction phase | WDO | Implemented |

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| | related waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;<br>• 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;<br>• Recycle any unused chemicals or those with remaining functional capacity;<br>• Maximise the use of reusable steel formwork to reduce the amount of C&D materials;<br>• Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials;<br>• Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; and<br>• 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 material, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed to landfill. A suitable area should be designated within the site for temporary stockpiling of C&D materials and to facilitate the sorting process. | To minimise the disposal of C&D waste | Contractor | All works areas | Construction phase | WDO | Implemented |
| S7.5.6 | Within the stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance: | To avoid and minimize impacts | Contractor | All works areas | Construction phase | WDO | Implemented |

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| | • 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;<br>• Covering materials during heavy rainfall;<br>• Locating stockpiles to minimise potential visual impacts;<br>• Minimising land intake of stockpile areas as far as possible;<br>• Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials; and<br>• Keeping record and analysis of data collected by GPS or equivalent system related to travel routings and parking locations of dump trucks engaged on site. | arising from waste management | | | | | |
| S7.5.7 to S7.5.9 | General refuse should be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light materials.<br><br>The recyclable component of general refuse, such as aluminium cans, paper and cleansed plastic containers shall be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste shall be | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | WDO | Implemented |

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| | set up by the Contractor. The Contractor shall also be responsible for arranging recycling companies to collect these materials.<br><br>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.<br><br>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.<br><br>Any unused chemicals or those with remaining functional capacity should be collected for reuse as far as practicable. | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | WDO | Implemented |
| S7.5.13 to S7.5.14 | The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. For minimization of sediment disposal, beneficial reuse will be considered on site as far as practicable during the construction stage before the disposal | To avoid and minimize impacts arising from waste management | Contractor | All works areas | Construction phase | APCO WDO | N/A |

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

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

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| | watering shall be applied. However, watering shall be avoided on stockpiles of contaminated soil to minimise contaminated runoff;<br>• 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;<br>• Speed control for the trucks carrying contaminated materials shall be enforced;<br>• Vehicle wheel and body washing facilities at the site's exist points shall be established and used; and<br>• 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 | Implemented |
| 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 | Implemented |
| S9.8.1 | Erection of decorative screen hoarding which should be compatible with the surrounding setting. | To minimize the Landscape and visual impact on | Contractor | All works areas | Construction phase | TM-EIAO | Implemented |

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| | | 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 | - | Implemented |
| 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 | - | N/A |

# APPENDIX L - MONITORING SCHEDULE OF THE REPORTING MONTH

# OCTOBER 2024

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