87th Consolidated Monthly EM&A Report (January 2024)

0087/16/ED/1215 [00]

Contact No. KLN/2016/05 - Independent Environmental Checker for Contract No. KL/2015/02 Kai Tak Development- Stage 5A Infrastructure at Former North Apron Area

Document Control

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Client Information

Client	Civil Engineering and Development Department
Client Address	East Development Office, East Division 4, 8/F, South Tower, West Kowloon Government Offices, 11 Hoi Ting Road, Yau Ma Tei, Kowloon

Project Team

Initials	Name	Role	Signature
CL	Calvin M.P. Leung	Independent Environmental Checker	
WS	Wingo H.W. So	Environmental Consultant	

Contents

Appendices

Executive Summary

i. This is the 87th Consolidated Monthly EM&A Report which summaries the EM&A works undertaken by respective contract under EP-337/2009 within the period between 1 January and 31 January 2024.

ii. The construction activities undertaken in the reporting month are summarized as follow:

Contract No. KL/2015/02:

- Reinstatement of PERE central Divider
- Modification work of Subway SW6 staircase hand railing
- Construction of Subway SW6 Lift LT2 concrete structure

Breaches of the Action and Limit Levels

iii. No Action / Limit Level exceedance was recorded for 24-hr TSP monitoring in the reporting month.

iv. No Action / Limit Level exceedance was recorded for 1-hr TSP monitoring in the reporting month.

v. No Limit Level exceedance was recorded for noise monitoring in the reporting month.

Complaint, Notification of Summons and Successful Prosecution

vi. No complaint, notification of summons or prosecution was received for Contract No. Contract No. KL/2015/02 in this reporting month .

Reporting Changes

vii. There was no reporting change in the reporting month.

Future Key Issues

viii. The potential environmental impacts for the coming month and the control measures are shown in Table I:

Table I Summary of Key Issues for the Coming Month and Control Measures

Major Environmental Impact	Control Measures
Contract No. KL/2015/02:	
Noise, dust impact, water quality and waste generation	Air quality impact (dust) • Frequent watering of haul road and unpaved/exposed areas; • Frequent watering or covering stockpiles with impervious materials or maintained wet; and • Watering of any earth moving activities.

Major Environmental Impact	Control Measures
	Water quality impact (surface runoff) • Diversion of the collected effluent to de-silting facilities for treatment prior to discharge to public storm water drains; • Provision of adequate de-silting facilities for treating surface run-off and other collected effluents prior to discharge; • Provision of perimeter protection such as sealing of hoarding footings to avoid run-off from entering the existing storm water drainage system via public road; and Noise Impact • Machines and Plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Regular maintenance of machines; and • Use of movable noise barriers if necessary. Waste /Chemical Management • Avoided oil leakage from PME • Provided drip tray with adequate capacity and well maintained to chemical and oil containers

1. Introduction

1.1 Background

1.1.1 The Kai Tak Development is located in the south-eastern part of Kowloon Peninsula of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling.

1.1.2 A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, waste, land contamination, cultural heritage and landscape and visual impact, and identify possible mitigation measures associated with the works. EIA Report (Register No. AEIAR-130/2009) was approved by the Environmental Protection Department (EPD) on 4 March 2009.

1.1.3 The EP-337/2009 was issued on 23 April 2009 for the new distributor roads serving the planned Kai Tak Development to the following scale and slope:

a. Road D1 – a dual 2-lane carriageway of approximately 1.3 km long.
b. Road D2 – a dual 3-lane carriageway of approximately 1.1 km long.
c. Road D3 – a dual 2-lane carriageway of approximately 2.3 km long.
d. Road D4 – a dual 2-lane carriageway of approximately 0.9 km long.

1.1.4 The Civil Engineering and Development Department HKSAR has appointed Fugro Technical Services Limited (FTS) to undertake the role of Independent Environmental Checker (IEC) for the Contract No. KL/2015/02.

1.1.5 This is the 87th Consolidated Monthly EM&A Report which summaries the EM&A works undertaken by respective contract under EP-337/2009 within the period between 1 January and 31 January 2024.

1.2 Summary of relevant Contract Information of Key Personnel

Party	Position	Name	Telephone	Fax/ E-mail
Contract No. KL/2015/02:				
Project Proponent (CEDD)	Senior Engineer	Mr. Ricky Chan	2116 3753	2116 0714
Engineer's Representative (AECOM)	SRE	Mr. Vincent Lee	2798 0771	2210 6110
IEC (FTS)	IEC	Mr. Calvin Leung	3565 4441	2450 8032
ET (Cinotech)	ET Leader	Mr. K.S Lee	2151 2091	3107 1388
	Audit Team Leader	Ms. Betty Choy	2151 2072	
Main Contractor (PWHJV)	Deputy Site Agent	Mr. W. M. Chen	9736 4284	2398 8301

1.3 Summary of Construction Programme and Activities

1.3.1 The construction programme of each Contract is summarized in the appendices of the corresponding Monthly EM&A report.

1.3.2 The major construction activities undertaken in the reporting month are summarized as follow:

Contract No. KL/2015/02:

- Reinstatement of PERE central Divider
- Modification work of Subway SW6 staircase hand railing
- Construction of Subway SW6 Lift LT2 concrete structure

1.4 Summary of Inter-relationship with the environmental protection/ mitigation measures with the construction programme

1.4.1 The summary of inter-relationship with environmental protection/mitigation measures are presented as follow:

Major Environmental Impact	Control Measures
Contract No. KL/2015/02:	
Noise, dust impact, water quality and waste generation	• Sufficient watering of the works site with active dust emitting activities; • Properly cover the stockpiles by impervious materials; • On-site waste sorting and implementation of trip ticket system • Appropriate desilting/sedimentation devices provided on site for treatment before discharge; • Use of quiet plant and well-maintained construction plant; • Provide movable noise barrier to enclose the noisy plant; • Well maintain the drainage system to prevent the spillage of wastewater during heavy rainfall; • Provide drip trays with adequate capacity and well maintained to chemicals • Provide sufficient mitigation measures as recommended in Approved EIA Report/Lease requirement.

1.5 Summary Status of Environmental Licences, Notifications and Permits

1.5.1 Detailed relevant environmental licenses, permits and/or notifications on environmental protection for this EP are presented in the appendices of the corresponding Monthly EM&A report.

2. Environmental Monitoring and Audit

2.1 Results and Observations

Air Quality

2.1.1 The schedule of air quality monitoring in reporting month is provided in the appendices of the corresponding Monthly EM&A report.

2.1.2 The weather conditions during the monitoring are provided in the appendices of the corresponding Monthly EM&A report.

2.1.3 The monitoring data of 24-hr TSP and 1 hour TSP are summarized in Table 2.1. Detailed monitoring data are presented in the appendices of the corresponding Monthly EM&A report.

Table 2.1 Summary of 24-hr and 1 hour TSP Monitoring Results

Parameter	Monitoring Station	Average ($\mu g/m^3$)	Range ($\mu g/ m^3$)	Action Level ($\mu g/ m^3$)	Limit Level ($\mu g/ m^3$)
Contract No. KL/2015/02:					
1-hr TSP	AM2	57.7	22.8 – 142.2	346	500
24-hr TSP	AM2(A)	73.1	36.0 – 113.3	157	260

2.1.4 No Action / Limit Level exceedance was recorded for 24-hr TSP monitoring in the reporting month.

2.1.5 No Action / Limit Level exceedance was recorded for 1-hr TSP monitoring in the reporting month.

2.1.6 The monitoring data of 24-hr TSP was compared with the EIA predictions are presented in the appendices of the corresponding Monthly EM&A report.

2.1.7 The Event and Action Plan for air quality is given in the appendices of the corresponding Monthly EM&A report.

Noise

2.1.8 The schedule of noise monitoring in reporting month is provided in in the appendices of the corresponding Monthly EM&A report.

2.1.9 The noise monitoring data are summarized in Table 2.2. Detailed monitoring data are presented in the appendices of the corresponding Monthly EM&A report.

Table 2.2 Summary of Noise Impact Monitoring Results

Monitoring Stations	Construction Noise Level Leq $_{(30min)}$ dB(A) (Range)	Action Level	Limit Level dB (A)
Contract No. KL/2015/02:		When one documented	
M3(A)	58.2 – 76.9 #		75
M4	72.3 – 76.0 #		70*

Monitoring Stations	Construction Noise Level Leq $_{(30min)}$ dB(A) (Range)	Action Level	Limit Level dB (A)
M5(C)	69.6 – 79.0 #	complaint is received.	75

(*) Noise Limit Level is 65 dB(A) during school examination periods.

(#) Measured noise level ≦ background / baseline noise level, detailed data refer to the corresponding Monthly EM&A report.

2.1.10 The noise monitoring data was compared with the EIA predictions are presented in the appendices of the corresponding Monthly EM&A report.

2.1.11 No Action / Limit Level exceedance was recorded for noise monitoring in the reporting month.

2.1.12 The Event and Action Plan for noise is given in in the appendices of the corresponding Monthly EM&A report.

Landscape and Visual

2.1.13 Site audits were carried out on a weekly basis to monitor and audit the landscape and visual mitigation measures within the site boundaries of this Project. Detailed of observations are presented in the appendices of the corresponding Monthly EM&A report.

3. Site Inspection

3.1 Site Inspection

3.1.1 Site inspections were carried out weekly to monitor the implementation of proper environmental pollution control and mitigation measures for the Project.

3.1.2 Detailed of observation, recommendation of site inspections and summary of the mitigation measures implementation schedule is provided in the appendices of the corresponding Monthly EM&A Report.

4. Environmental Complaint and Non-Compliance

4.1 Complaints, Notification of Summons and Prosecution

4.1.1 The summary of complaints, notification of summons and prosecution in the reporting month are shown as Table 4.1.

Table 4.1 Summary of Complaints, Notification of Summons and Prosecution

Event	No. of Event This Month	Remark
Contract No. KL/2015/02:		
Complaint received	0	NA
Notifications of any summons & prosecutions received	0	NA

4.1.2 Detailed records are presented in the appendices of the corresponding Monthly EM&A report.

5. Implementation Status of Environmental Mitigation Measures

5.1 Implementation Status

5.1.1 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and the EM&A Manuals. The implementation status of the mitigation measures during the reporting month are presented in the appendices of the corresponding Monthly EM&A report.

5.2 Waste Management

5.2.1 The amount of wastes generated of this Project during the reporting month is shown in the appendices of the corresponding Monthly EM&A report.

6. Future Key Issues

6.1 Construction Programme for the Next Two Months

6.1.1 The major site activities undertaken for the coming two months are summarized in follow:

Contract No. KL/2015/02:

- Reinstatement of PERE central Divider;
- Construction of Subway SW6 staircase ST2 and Lift LT2 concrete structure
- Modification works of SKLRP footway paving block
- Reinstatement work of Bridge K73 structure.

6.1.2 The potential environmental impacts arising from the above construction activities and the control measures are shown in Table 6.1:

Table 6.1 Summary of Key Issues for the Coming Month and Control Measures

Major Environmental Impact	Control Measures
Contract No. KL/2015/02:	
Noise, dust impact, water quality and waste generation	Air quality impact (dust) • Frequent watering of haul road and unpaved/exposed areas; • Frequent watering or covering stockpiles with impervious materials or maintained wet; and • Watering of any earth moving activities. Water quality impact (surface runoff) • Diversion of the collected effluent to de-silting facilities for treatment prior to discharge to public storm water drains; • Provision of adequate de-silting facilities for treating surface run-off and other collected effluents prior to discharge; • Provision of perimeter protection such as sealing of hoarding footings to avoid run-off from entering the existing storm water drainage system via public road; and Noise Impact • Machines and Plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Regular maintenance of machines; and • Use of movable noise barriers if necessary. Waste /Chemical Management • Avoided oil leakage from PME • Provided drip tray with adequate capacity and well maintained to chemical and oil containers

6.2 Monitoring Schedules for the Next Month

6.2.1 The tentative schedules for environmental monitoring in the coming month are provided in the appendices of the corresponding Monthly EM&A.

7. Conclusions

7.1.1 No Action / Limit Level exceedance was recorded for 24-hr TSP monitoring in the reporting month.

7.1.2 No Action / Limit Level exceedance was recorded for 1-hr TSP monitoring in the reporting month.

7.1.3 No Limit Level exceedance was recorded for noise monitoring in the reporting month.

7.1.4 No complaint, notification of summons or prosecution was received for Contract No. Contract No. KL/2015/02 in this reporting month.

7.1.5 The potential environmental impacts arising from the coming two months of major construction activities and the control measures are shown in Table 6.1.

Appendix A

Monthly EM&A Report For Contract No. KL/2015/02 Kai Tak Development - Stage 5A Infrastructure at Former North Apron Area

Civil Engineering and Development Department

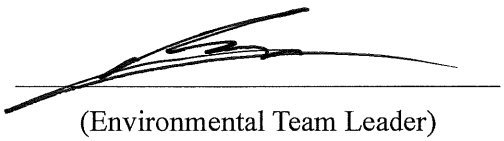
EP-337/2009 – New Distributor Roads Serving the Planned KTD

Contract No. KLN/2016/04
Environmental Monitoring Works for
Contract No. KL/2015/02
Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area

Monthly EM&A Report

January 2024

(Version 1.1)

Certified By 

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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FUGRO TECHNICAL SERVICES LIMITED
19/F, Fugro House – KCC2
1 Kwai On Road, Kwai Chung
New Territories, Hong Kong

Date 9 February 2024
Our Ref. MCL/ED/0062/2024/C

Cinotech Consultants Limited
Rm 1710, Technology Park,
18 On Lai Street, Shatin,
New Territories,
Hong Kong

BY EMAIL

Attn.: Mr. K.S Lee

Dear Sir,

Contract No. KL/2015/02
Kai Tak Development –Stage 5A Infrastructure at Former North Apron
Verification of Monthly EM&A Report for January 2024

We refer to your emails dated 7 and 8 February 2024 for the captioned report prepared by the ET.

We have no further comment and hereby verify the Report in accordance with Clause 3.3 of Environmental Permit no. EP-337/2009.

Should you require further information, please do not hesitate to contact the undersigned at 3565 4441.

Assuring you of our best attention at all times.

Yours faithfully,
For and on behalf of
FUGRO TECHNICAL SERVICES LIMITED

Calvin Leung
Independent Environmental Checker

CL/ ws

c.c. CEDD – Attn.: Mr. Ricky Chan
Attn.: Mr. Michael So
AECOM – Attn.: Mr. Vincent Lee
Attn.: Mr. Teddy Shih

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

EXECUTIVE SUMMARY

Introduction

1. This is the 85th Monthly Environmental Monitoring and Audit Report prepared by Cinotech Consultants Ltd. for "Contract No. KL/2015/02 - Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area" (Hereafter referred to as "the Project"). This contract comprises one Schedule 2 designated project (DP), namely the new distributor road D1 serving the planned KTD. The DP is part of the designated project under Environmental Permit (EP) No.: EP-337/2009 ("New distributor roads serving the planned Kai Tak Development") respectively. This report documents the findings of EM&A Works conducted during January 2024.

2. With reference to the same principle of EIA report of the Project, air quality monitoring stations within 500m and noise monitoring stations within 300m from the boundary of this Project are considered as relevant monitoring locations. In such regard, the relevant air quality and noise monitoring locations are tabulated in **Table I** (see **Figure 2 and 3** for their locations).

Table I – Air Quality and Noise Monitoring Stations for this Project

Locations	Monitoring Stations In accordance with EM&A Manual	Alternative Monitoring Stations
Air Quality Monitoring Stations		
AM2 - Lee Kau Yan Memorial School	Yes (1-hour TSP)	N/A
	No (24-hour TSP)	AM2(A) – Ng Wah Catholic Secondary School
Noise Monitoring Stations		
M3 - Cognitio College	No	M3(A) – The Bridge connecting The Latitude
M4 - Lee Kau Yan Memorial School	Yes	N/A
M5 – Nam Yuen	No	M5(C) – Mercy Grace's Home

3. The major site activities undertaken in the reporting month included:

- Reinstatement of PERE central Divider
- Modification work of Subway SW6 staircase hand railing
- Construction of Subway SW6 Lift LT2 concrete structure

Environmental Monitoring Works

4. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

5. Summary of the non-compliance in the reporting month for the Project is tabulated in **Table II**.

Table II Non-compliance Recorded for the Project in the Reporting Month

Parameter	No. of Project-related Exceedance		Action Taken
	Action Level	Limit Level	
1-hr TSP	0	0	N/A
24-hr TSP	0	0	N/A
Noise	0	0	N/A

1-hour & 24-hour TSP Monitoring

6. All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

7. All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

8. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Environmental Licenses and Permits

9. Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, EP-337/2009 issued on 23 April 2009. All valid Licenses/Permits for this Project are shown in **Table 6.1**.

- Billing Account for Construction Waste Disposal (A/C# 7026164).
- Effluent Discharge License (WT00041367-2022).
- Registration of Chemical Waste Producer (WPN5213-286-P3271-01).

Key Information in the Reporting Month

10. Summary of key information in the reporting month is tabulated in **Table III**.

Table III Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	---	---	N/A	N/A	---
Reporting Changes	---	---	N/A	N/A	---
Notifications of any summons & prosecutions received	---	---	N/A	N/A	---

Future Key Issues

11. The future key environmental issues in the coming two months include:

- Stagnant water on the unused and damaged water-filled barriers & uncovered containers and manhole;
- Silt, construction materials or debris being washed through manhole into the drainage system
- Noise generated from operation of the equipment, especially for breaking activities;
- Dust generation from excavation works, stockpile storage & rock breaking activities;
- Oil leakage from equipment and mobile plants;

1 INTRODUCTION

Background

1.1. The Kai Tak Development (KTD) is located in the south-eastern part of Kowloon Peninsula, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. It covers a land area of about 328 hectares. Stage 5A Infrastructure at Former North Apron Area is one of the construction stages of KTD. It contains one Schedule 2 DP including new distributor roads serving the planned KTD. The general layout of the Project is shown in **Figure 1.**

1.2. An Environmental Permit (EP) No. EP-337/2009 was issued on 23 April 2009 for new distributor roads serving the planned KTD to Civil Engineering and Development Department as the Permit Holder.

1.3. A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, waste, land contamination, cultural heritage and landscape and visual impact, and identify possible mitigation measures associated with the works. An EIA Report (Register No. AEIAR-130/2009) was approved by the Environmental Protection Department (EPD) on 4 April 2009.

1.4. Cinotech Consultants Limited (Cinotech) was commissioned by Civil Engineering and Development Department (CEDD) to undertake the role of the Environmental Team (ET) for the Contract No. KL/2015/02 – Stage 5A Infrastructure at Former North Apron Area. The construction work under KL/2015/02 comprises the construction of part of the Road D1 under the EP (EP-337/2009).

1.5. Cinotech Consultants Limited was commissioned by Civil Engineering and Development Department (CEDD) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The commencement date of construction of Road D1 (part) under this Contract was on 16 January 2017.

Project Organizations

1.6. Different parties with different levels of involvement in the project organization include:

- Project Proponent – Civil Engineering and Development Department (CEDD).
- The Engineer and the Engineer's Representative (ER) – AECOM Asia Co. Ltd (AECOM).
- Environmental Team (ET) – Cinotech Consultants Limited (Cinotech).
- Independent Environmental Checker (IEC) – Fugro Technical Services Limited (FTS).
- Contractor – Peako - Wo Hing Joint Venture (PWHJV).

1.7. The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Position	Phone No.	Fax No.
CEDD	Project Proponent	Mr. CHAN Wai Kit, Ricky	Senior Engineer	2116 3753	2116 0714
AECOM	Engineer's Representative	Mr. Vincent Lee	Senior Resident Engineer	2798 0771	2210 6110
Cinotech	Environmental Team	Mr. K.S Lee	Environmental Team Leader	2151 2091	3107 1388
		Ms. Betty Choi	Audit Team Leader	2151 2072	
FTS	Independent Environmental Checker	Mr. Calvin Leung	Independent Environmental Checker	3565 4441	2450 8032
PWHJV	Contractor	Mr. W.M. Chen	Deputy Site Agent	9736 4284	2398 8301

Construction Activities undertaken during the Reporting Month

1.8. The site activities undertaken in the reporting month included:

- Reinstatement of PERE central Divider
- Modification work of Subway SW6 staircase hand railing
- Construction of Subway SW6 Lift LT2 concrete structure

1.9. The construction programme for the Project is shown in **Appendix N**.

1.10. The construction programme showing the inter-relationship with environmental protection/mitigation measures are presented in **Table 1.2**.

Table 1.2 Construction Programme Showing the Inter-Relationship with Environmental Protection/Mitigation Measures

Construction Works	Major Environmental Impact	Control Measures
Refer to Section 1.8	Noise, dust impact, water quality and waste generation	• Sufficient watering of the works site with active dust emitting activities; • Properly cover the stockpiles by impervious materials; • On-site waste sorting and implementation of trip ticket system • Appropriate desilting/sedimentation devices provided on site for treatment before discharge; • Use of quiet plant and well-maintained construction plant; • Provide movable noise barrier to enclose the noisy plant; • Well maintain the drainage system to prevent the spillage of wastewater during heavy rainfall; • Provide drip trays with adequate capacity and well maintained to chemicals • Provide sufficient mitigation measures as recommended in Approved EIA Report/Lease requirement.

Summary of EM&A Requirements

1.11. The EM&A programme requires construction noise monitoring, air quality monitoring, landscape and visual monitoring and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event Action Plans;
- Environmental requirements and mitigation measures, as recommended in the EM&A Manual under the EP.

1.12. The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 6 of this report.

1.13. This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely air quality and noise levels and audit works for the Project during the reporting month.

2 AIR QUALITY

Monitoring Requirements

2.1. According to EM&A Manual under the EP, 1-hour and 24-hour TSP monitoring were conducted to monitor the air quality for this Project. For regular impact monitoring, a sampling frequency of at least once in every six days at all of the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days shall be undertaken when the highest dust impact occurs. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

2.2. 1-hour TSP impact dust monitoring was conducted at the air quality monitoring station, AM2 - Lee Kau Yan Memorial School and 24-hour TSP impact dust monitoring were conducted at the air quality monitoring station, AM2(A) - Ng Wah Catholic Secondary School in the reporting month. No Action/Limit Level exceedance was recorded.

2.3. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 2**.

Table 2.1 Locations for Air Quality Monitoring

Monitoring Stations	Locations	Location of Measurement
AM2 (1-hour TSP)	Lee Kau Yan Memorial School	Rooftop (about 8/F) Area
AM2(A) (24-hour TSP)	Ng Wah Catholic Secondary School	Rooftop (about 8/F) Area

Monitoring Equipment

2.4. **Table 2.2** summarizes the equipment used in the impact air monitoring programme. Copies of calibration certificates are attached in **Appendix B**.

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Calibrator	• TISCH TE-5025A	1
1-hour TSP Dust Meter	• Sibata Scientific Technology LD-5R	2
HVS Sampler	• TE-5170 c/w of TSP sampling inlet	1
Wind Anemometer	• Davis Instruments 6152	1

Monitoring Parameters, Frequency and Duration

2.5. **Table 2.3** summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period. The air quality monitoring schedule for the reporting month is shown in **Appendix D**.

Table 2.3 Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times / 6 days
24-hr TSP	Once / 6 days

Monitoring Methodology and QA/QC Procedure

1-hour TSP Monitoring

Measuring Procedures

2.6. The measuring procedures of the 1-hour dust meters were in accordance with the Manufacturer's Instruction Manual as follows:

(Equipment: Sibata Scientific Technology; Model no. LD-3B, LD-5R)

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Set POWER to "ON" and make sure that the battery level was not flash or in low level.
- Allow the instrument to stand for about 3 minutes and then the cap of the air sampling inlet has been released.
- Push the knob at MEASURE position.
- Set time/mode setting to [BG] by pushing the time setting switch. Then, start the background measurement by pushing the start/stop switch once. It will take 6 sec. to complete the background measurement.
- Push the time setting switch to change the time setting display to [MANUAL] at the bottom left of the liquid crystal display.
- Finally, push the start/stop switch to stop the measuring after 1 hour sampling.

- Information such as sampling date, time, count value and site condition were recorded during the monitoring period.

Maintenance/Calibration

2.7. The following maintenance/calibration was required for the direct dust meters:

Check the meter at a 3-month interval and calibrate the meter at a 1-year interval throughout all stages of the air quality monitoring.

24-hour TSP Monitoring

Instrumentation

2.8. High volume (HVS) samplers (Model TE-5170), completed with appropriate sampling inlets, were employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in section 2.5 of the updated EM&A Manual.

Operating/Analytical Procedures

2.9. Operating/analytical procedures for the operation of HVS were as follows:

- A horizontal platform was provided with appropriate support to secure the samplers against gusty wind.
- No two samplers were placed less than 2 meters apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.
- Airflow around the sampler was unrestricted.
- The sampler was more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.

2.10. Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m^3/min. and 1.4 m^3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

2.11. For TSP sampling, fiberglass filters have a collection efficiency of > 99% for particles of 0.3μm diameter were used.

2.12. The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.

2.13. The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

2.14. The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

2.15. The shelter lid was closed and secured with the aluminium strip.

2.16. The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).

2.17. After sampling, the filter was removed and sent to the HOKLAS laboratory (High Precision Chemical Testing Ltd.) for weighing. The elapsed time was also recorded.

2.18. Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.

Maintenance/Calibration

2.19. The following maintenance/calibration was required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
- High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit through\hout all stages of the air quality monitoring.

Results and Observations

2.20. All 1-hour & 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

2.21. The weather information for the reporting month is summarized in **Appendix C.**

2.22. The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendices E and F** respectively.

2.23. The summary of exceedance record in reporting month is shown in **Appendix H**. No exceedance was recorded for the air quality monitoring.

2.24. According to our field observations during the monitoring, the major dust source identified at the two designated air quality monitoring stations are road traffic dust, exposed site area and open stockpiles, excavation works and site vehicle movements.

2.25. The summary of 1-hour and 24-hour TSP air quality monitoring results during the reporting month are shown in **Appendix E** and **Appendix F** respectively.

3 NOISE

Monitoring Requirements

3.1. According to EM&A Manuals under the EP, construction noise monitoring was conducted to monitor the construction noise arising from the construction activities within KTD. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.2. Three designated monitoring stations were selected for noise monitoring programme. Noise monitoring was conducted at three designated monitoring stations (M3(A), M4, and M5(C)). **Figure 3** shows the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Stations	Locations	Location of Measurement
M3(A)	The Bridge connecting The Latitide	In the middle of the foot bridge connecting The Latitude
M4	Lee Kau Yan Memorial School	Rooftop (about 7/F) Area
M5(C)	Mercy Grace's Home	Ground in front of the building entrance facing Prince Edward Road East (noise monitoring is not allowed on the rooftop from 27 February 2020, due to the coronavirus countermeasure in Mercy Grace's Home)

Monitoring Equipment

3.3. **Table 3.2** summarizes the noise monitoring equipment. Copies of calibration certificates are provided in **Appendix B**.

Table 3.2 Noise Monitoring Equipment

Equipment	Model and Make	Qty.
Integrating Sound Level Meter	• BSW Atech BSWA 308 • SVAN 979	3
Calibrator	• SV 30A • B&K 4231	2

Monitoring Parameters, Frequency and Duration

3.4. **Table 3.3** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix D**.

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

Monitoring Stations	Parameter	Period	Frequency	Measurement
M3(A) M4 M5(C)	L_{10}(30 min.) dB(A) L_{90}(30 min.) dB(A) L_{eq}(30 min.) dB(A)	0700-1900 hrs on normal weekdays	Once per week	Façade

Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was set on a tripod at a height of 1.2 m above the ground.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : 30 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the L_{eq}, L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise measurement was paused temporarily during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

Maintenance and Calibration

3.5. The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.

3.6. The sound level meter and calibrator were checked and calibrated at yearly intervals.

3.7. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Results and Observations

3.8. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. The summary of exceedance record in reporting month is shown in **Appendix H**.

3.9. The baseline noise level and the Noise Limit Level at each designated noise monitoring station are presented in **Table 3.5**.

3.10. Noise monitoring results and graphical presentations are shown in **Appendix G**.

3.11. The major noise source identified at the designated noise monitoring stations are shown in **Table 3.4**.

Table 3.4 Major Noise Source identified at the Designated Noise Monitoring Stations

Monitoring Stations	Locations	Major Noise Source
M3(A)	The Bridge connecting The Latitude	Traffic Noise Site vehicle movement
M4	Lee Kau Yan Memorial School	Traffic Noise Site vehicle movement Excavation works Daily school activities
M5(C)	Mercy Grace's Home	Traffic Noise Site vehicle movement

Table 3.5 Baseline Noise Level and Noise Limit Level for Monitoring Stations

Station	Baseline Noise Level, dB (A)	Noise Limit Level, dB (A)
M3(A)	N/A(1) (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)
M4	76.7(2) (at 0700 – 1900 hrs on normal weekdays)	70(*) (at 0700 – 1900 hrs on normal weekdays)
M5(C)	N/A(1) (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)

(*) Noise Limit Level is 65 dB(A) during school examination periods.

Note (1): The background Noise Level was recorded during the Lunch Hour of Construction Site (i.e. 12:00-13:00) and to be used as the referencing value for compliance checking for Noise Action and Limit Level.

Note (2): The noise level due to the construction work (CNL) was calculated by the following formula:

$$\mathbf{CNL = 10 \log (10^{MNL/10} - 10^{BNL/10})}$$

Remarks: MNL = Measured Noise Level, BNL = Baseline Noise Level

4 COMPARISON OF EM&A RESULTS WITH EIA PREDICTIONS

4.1. The EM&A data was compared with the EIA predictions as summarized in **Tables 4.1** to **4.3**.

Table 4.1 Comparison of 1-hr TSP data with EIA predictions

Station	Predicted 1-hr TSP conc.		Measured 1-hr TSP conc.	
	Scenario1 (Mid 2009 to Mid-2013), µg/m^3	Scenario2 (Mid 2013 to Late 2016), µg/m^3	Reporting Month (January 2024), µg/m^3	
			Average	Range
AM2 – Lee Kau Yan Memorial School	290	312	57.7	22.8 – 142.2

Table 4.2 Comparison of 24-hr TSP data with EIA predictions

Station	Predicted 24-hr TSP conc.		Measured 24-hr TSP conc.	
	Scenario1 (Mid 2009 to Mid-2013), µg/m^3	Scenario2 (Mid 2013 to Late 2016), µg/m^3	Reporting Month (January 2024), µg/m^3	
			Average	Range
AM2(A) – Ng Wah Catholic Secondary School	145	169	73.1	36.0 – 113.3

Table 4.3 Comparison of Noise Monitoring Data with EIA predictions

Stations	Predicted Mitigated Construction Noise Levels during Normal Working Hour ($L_{eq\ (30min)}$ dB(A))	Reporting Month (January 2024), $L_{eq\ (30min)}$ dB(A)
M3(A) – The Bridge connecting The Latitude	Not predicted in EIA Report	58.2 – 76.9 (2)
M4 – Lee Kau Yan Memorial School	47 – 74	72.3 – 76.0 (1)
M5(C) – Mercy Grace's Home	Not predicted in EIA Report	69.6 – 79.0 (2)

Remarks:
(1) Since the baseline noise level was higher than those recorded during the construction period, the recorded noise levels were considered non-valid exceedance of Noise Limit Level.
(2) Since the background noise level was higher than those recorded during the construction period, the recorded noise levels were considered non-valid exceedance of Noise Limit Level.

4.2. The average 1-hour TSP concentrations at AM2 in the reporting month were below the prediction in the approved Environmental Impact Assessment (EIA) Report.

4.3. The average 24-hour TSP concentrations at AM2(A) in the reporting month were below the prediction in the approved EIA Report.

4.4. The noise monitoring results in the reporting month from M4 were slightly higher than the range of the predicted mitigated constriction noise levels in the EIA Report.

4.5. Construction noise levels at M3(A) and M5(C) were not predicted in EIA Report.

5 LANDSCAPE AND VISUAL

Monitoring Requirements

5.1. According to EM&A Manual of the Kai Tak Development EIA Study, ET shall monitor and audit the contractor's operation during the construction period on a weekly basis, and to report on the contractor's compliance.

Results and Observations

5.2. Site audits were conducted on a weekly basis to monitor the timely implementation of landscape and visual mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix I**.

5.3. No non-compliance of the landscape and visual impact was recorded in the reporting month.

5.4. Should non-compliance of the landscape and visual impact occur, action in accordance with the action plan presented in **Appendix J** shall be performed.

6 ENVIRONMENTAL INSPECTION

Site Inspections

6.1. Site inspections were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site inspections are attached in **Appendix I**.

6.2. Site inspections were conducted on 02, 10, 15, 22 & 29 January 2024 in the reporting month. A joint site inspection with the representative of IEC, ER, the Contractor and the ET was conducted on 10 January 2024. The details of the observations during site inspection are summarized in **Table 6.2**.

Review of Environmental Monitoring Procedures

6.3. The monitoring works conducted by the monitoring team were inspected regularly. The following observations have been recorded for the monitoring works:

Air Quality Monitoring

- The monitoring team recorded all observations around the monitoring stations within and outside the construction site.
- The monitoring team recorded the temperature and weather conditions on the monitoring days.

Noise Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

Status of Environmental Licensing and Permitting

6.4. All permits/licenses obtained for the Project are summarized in **Table 6.1**.

Table 6.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid Period		Status
	From	To	
Environmental Permit (EP)			
EP-337/2009	23 Apr 2009	N/A	Valid
Effluent Discharge License			
WT00027495-2017	28 Mar 2017	31 Mar 2022	Expired
WT00041367-2022	20 Jun 2022	31 Mar 2027	Valid
Billing Account for Construction Waste Disposal			
A/C# 7026164	20 Oct 2016	N/A	Valid
Registration of Chemical Waste Producer			
WPN5213-229-P3271-01	14 Aug 2017	N/A	Valid
Construction Noise Permit (CNP)			
GW-RE0915-19	08 Nov 2019	04 May 2020	Expired
GW-RE0984-19	15 Dec 2019	24 Feb 2020	Expired
GW-RE0083-20	01 Mar 2020	01 June 2020	Expired
GW-RE0266-20	02 May 2020	31 Jul 2020	Expired
GW-RE0779-21	30 Jul 2021	30 Nov 2021	Expired
GW-RE0858-21	31 Jul 2021	30 Aug 2021	Expired
GW-RE0636-23	06 Jun 2023	30 Jun 2023	Expired
GW-RE0637-23	06 Jun 2023	30 Jun 2023	Expired

Status of Waste Management

6.5. The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix M**.

Implementation Status of Environmental Mitigation Measures

6.6. During site inspections in the reporting month, no non-conformance was identified. ET weekly site inspections were carried out during the reporting month and the observations and recommendations are summarized in **Table 6.2**.

Table 6.2 Observations and Recommendations of Site Inspections

Parameters	Date	Observations and Recommendations	Follow-up/Rectification
Water Quality	2023/12/27	Bund should be provided to the surround area of earthworks for flood protection. / Manholes should be covered and sealed.	Sand bag bund have been provided to surrounding the manhole and the surround area of earthworks for flood protection.
Air Quality	N/A	No environmental deficiency was identified in the reporting period.	N/A
Noise	N/A	No environmental deficiency was identified in the reporting period.	N/A
Waste/ Chemical Management	N/A	No environmental deficiency was identified in the reporting period.	N/A
Landscape and Visual	N/A	No environmental deficiency was identified in the reporting period.	N/A
Permits/ Licenses	N/A	No environmental deficiency was identified in the reporting period.	N/A

Summary of Mitigation Measures Implemented

6.7. An updated summary of the EMIS is provided in **Appendix K**.

Implementation Status of Event Action Plans

6.8. The Event Action Plans for air quality, noise and landscape and visual are presented in **Appendix J**.

1-hr TSP Monitoring

6.9. No Action/Limit Level exceedance was recorded in the reporting month.

24-hr TSP Monitoring

6.10 No Action/Limit Level exceedance was recorded in the reporting month.

Construction Noise

6.11. No Action/Limit Level exceedance was recorded in the reporting month.

Landscape and visual

6.12. No non-compliance was recorded in the reporting month.

Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution

6.13. The summaries of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix L**.

7 FUTURE KEY ISSUES

7.1. Major site activities undertaken for the coming two months include:

- Reinstatement of PERE central Divider;
- Construction of Subway SW6 staircase ST2 and Lift LT2 concrete structure
- Modification works of SKLRP footway paving block
- Reinstatement work of Bridge K73 structure.

7.2. Key environmental issues in the coming month include:

- Stagnant water on the unused and damaged water-filled barriers & uncovered containers and manhole
  Silt, construction materials or debris being washed through manhole into the drainage system
- Noise generated from operation of the equipment, especially for rock-breaking activities;
- Dust generation from excavation works and rock breaking activities;
- Oil leakage from equipment and mobile plants;

7.3. The tentative major site activities is mentioned in Section 7.1 of this report. The impact prediction and control measures for the coming two months are summarized as follows:

Air quality impact (dust)

- Frequent watering of haul road and unpaved/exposed areas;
- Frequent watering or covering stockpiles with impervious materials or maintained wet; and
- Watering of any earth moving activities.

Water quality impact (surface runoff)

- Diversion of the collected effluent to de-silting facilities for treatment prior to discharge to public storm water drains;
- Provision of adequate de-silting facilities for treating surface run-off and other collected effluents prior to discharge;
- Provision of perimeter protection such as sealing of hoarding footings to avoid run-off from entering the existing storm water drainage system via public road; and

Noise Impact

- Machines and Plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;
- Regular maintenance of machines; and
- Use of movable noise barriers if necessary.

Waste /Chemical Management

- Avoided oil leakage from PME
- Provided drip tray with adequate capacity and well maintained to chemical and oil containers

Monitoring Schedule for Next Month

7.4. The tentative environmental monitoring schedules for next month are shown in **Appendix D**.

8 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

8.1. Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.

1-hr TSP Monitoring

8.2. All 1-hr TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hr TSP Monitoring

8.3. All 24-hr TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

8.4. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Landscape and visual

8.5. No non-compliance was recorded in the reporting month.

Complaint and Prosecution

8.6. No environmental complaint and environmental prosecution was received in the reporting month.

Recommendations

8.7. According to the environmental audit performed in the reporting month, the following recommendations were made:

Water Impact

- To avoid accumulation of stagnant and ponding water on site.
- Bunds should be provided to surrounding areas of earthworks for flood protection.
- Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.

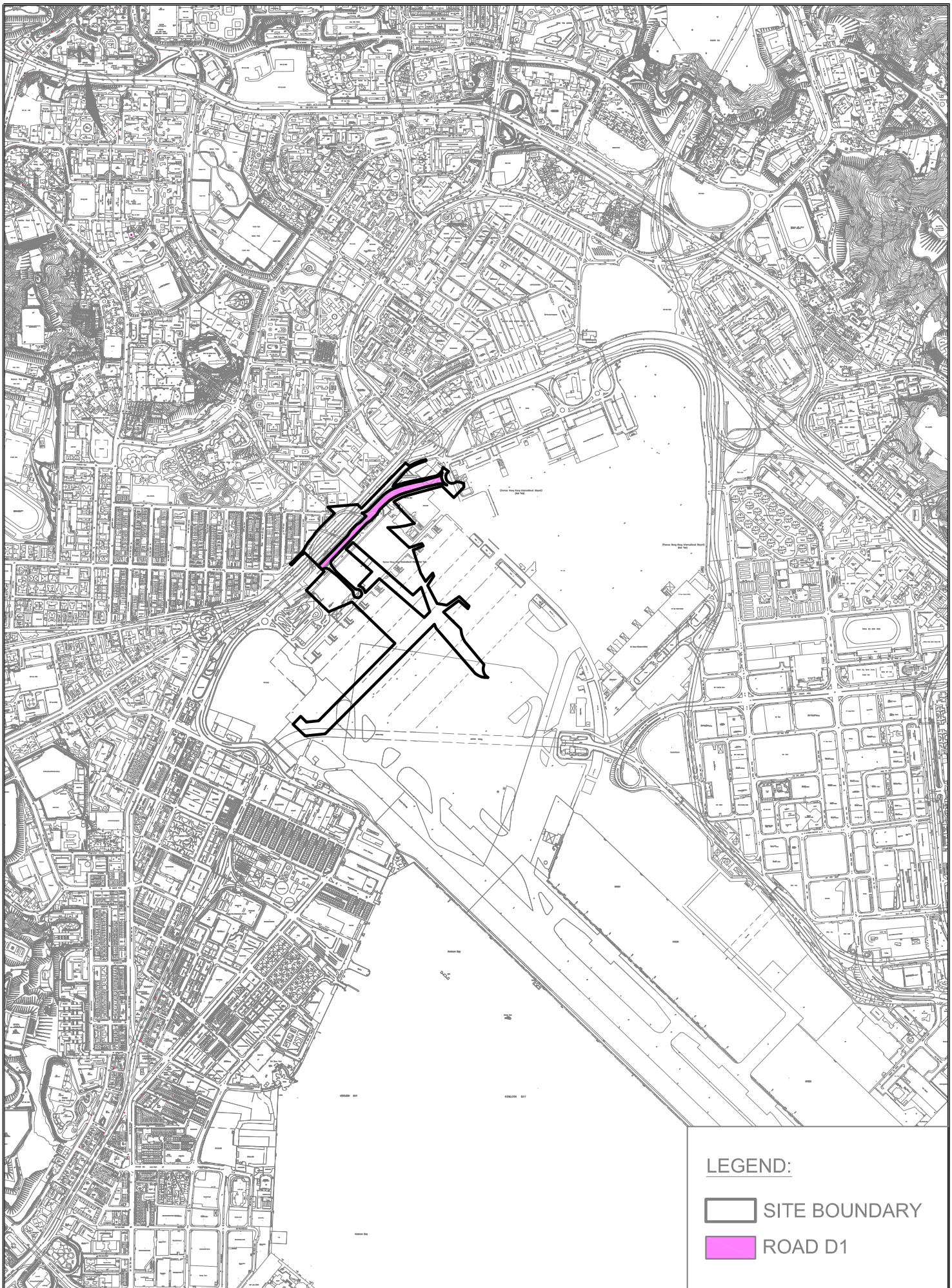
Air Quality

- The stockpile of dusty material should be covered by impervious materials or maintained wet.
- Water spraying should be provided during the rock-breaking activities conducted to minimize the dust generation.

Waste/Chemical Management

- Oil leakage from PME should be avoided.
- Drip tray with adequate capacity and well maintained should be provided to chemical & oil container.
- The construction/chemical material should be stored at the proper place.

FIGURES



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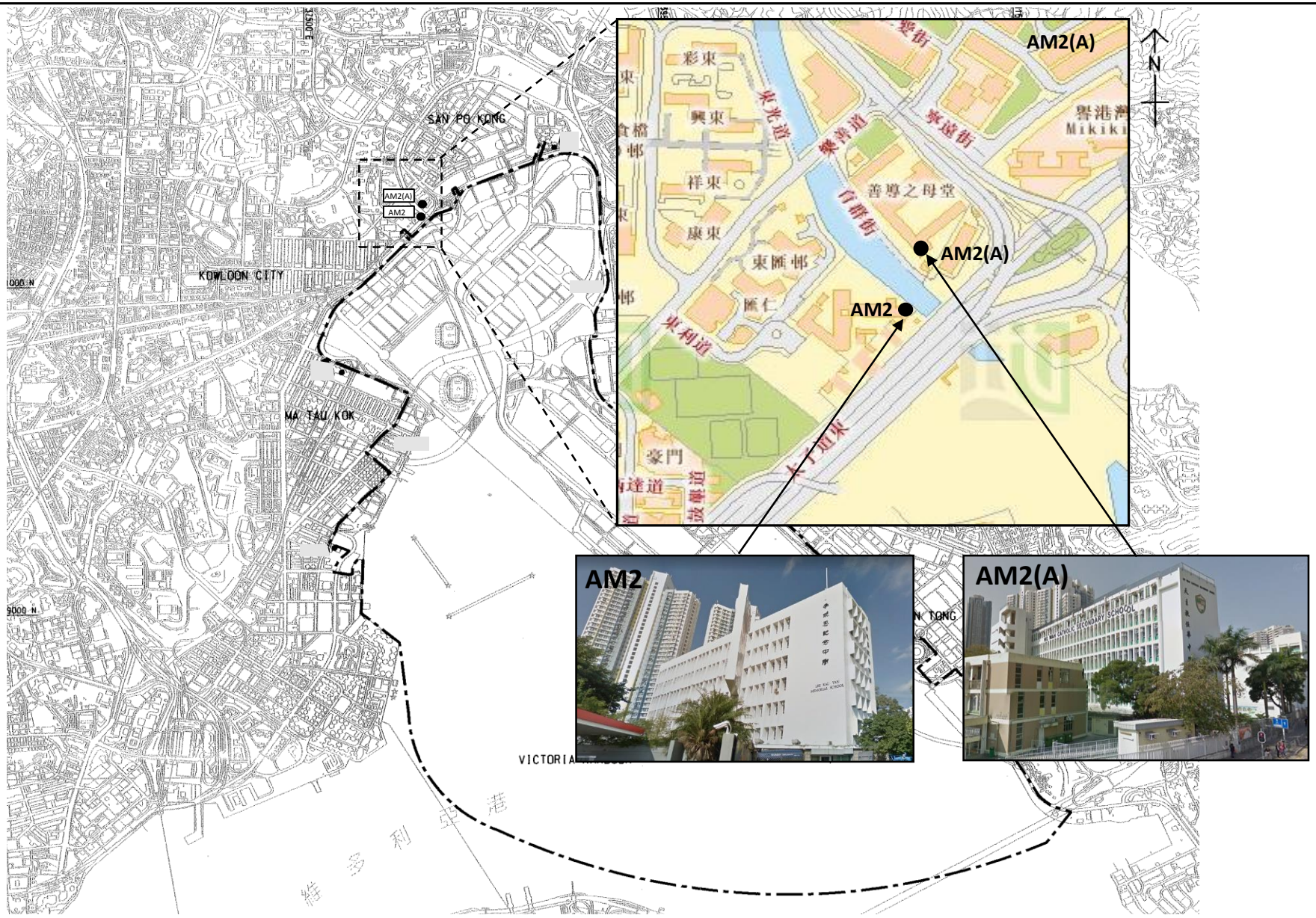
KL/2015/02 KAI TAK - STAGE 5A INFRASTRUCTURE AT FORMER NORTH APRON AREA

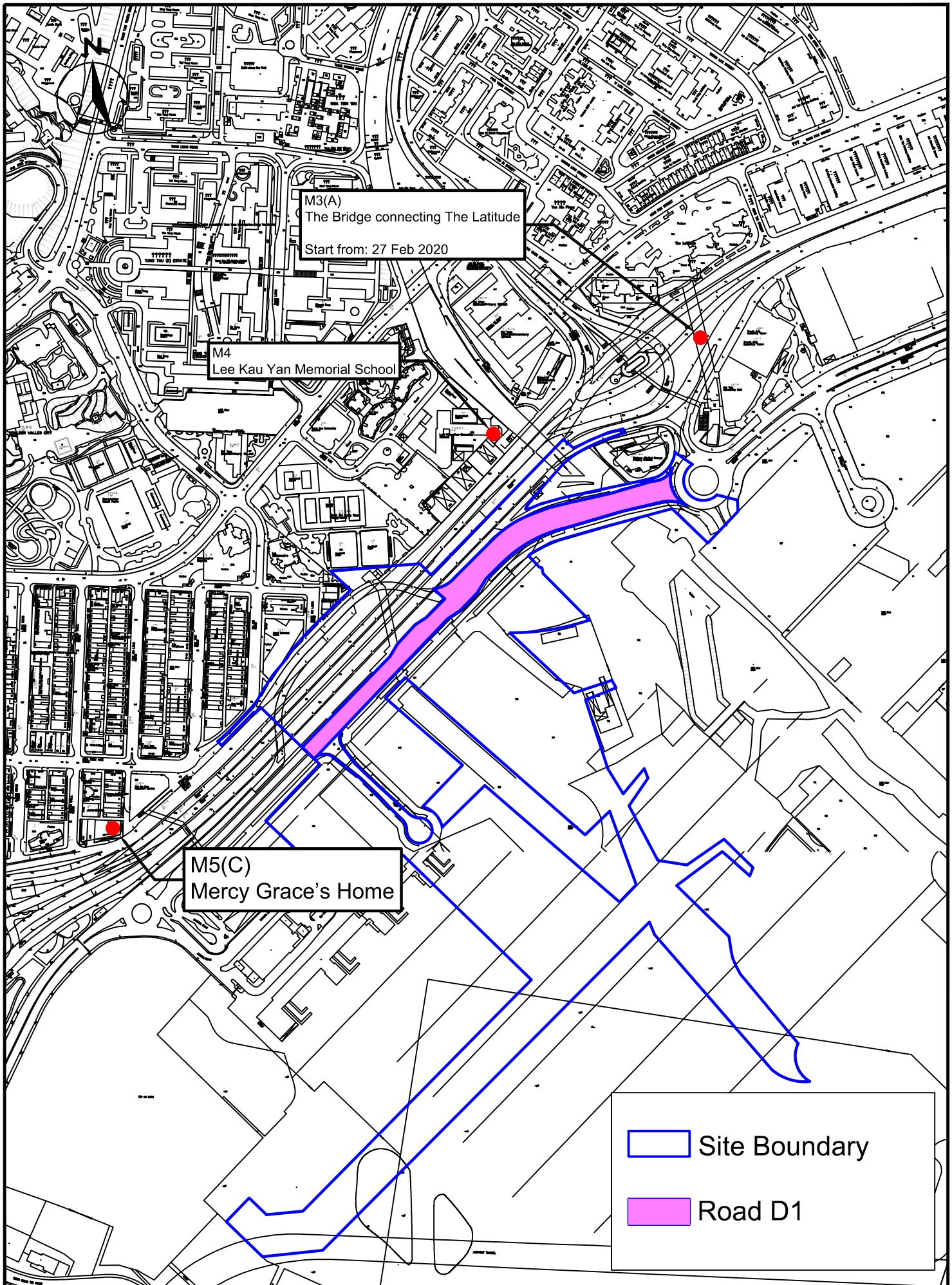
SITE LAYOUT PLAN

SCALE	1:1500@A4	DATE	DEC 2016
CHECK	KC	DRAWN	JW
JOB No.	MA16043	FIGURE NO. 1	REV -



Title	Contract No. KLN/2016/04 Environmental Monitoring Works for Contract No. KL/2015/02 Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area Location of Air Quality Monitoring Stations	Scale: N.T.S Date: Aug-17	Project No.: MA16043 Figure: 2

CINOTECH



CINOTECH
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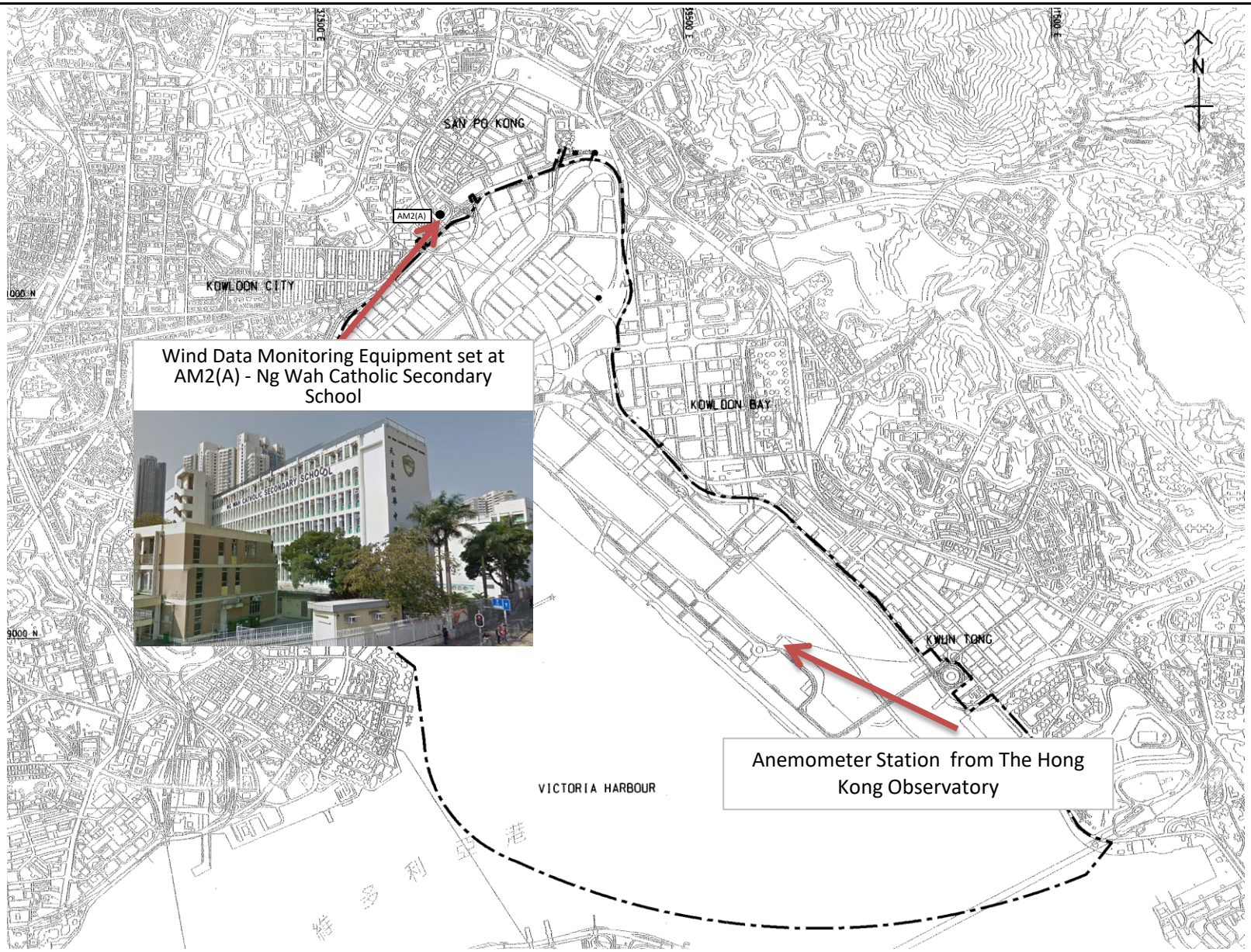
KL/2015/02 KAI TAK - STAGE 5A INFRASTRUCTURE AT FORMER NORTH APRON AREA

Location of Noise Monitoring Station

SCALE	1:5000@A4	DATE	Mar 2020
CHECK	KC	DRAWN	CC
JOB No.	MA16043	FIGURE NO. 3	REV -



Title	Contract No. KLN/2016/04 Environmental Monitoring Works for Contract No. KL/2015/02 Kai Tak Development –Stage 5A Infrastructure at Former North Apron Area Location of Wind Data Monitoring Equipment	Scale: N.T.S Date: Aug-17	Project No.: MA16043 Figure: 4

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APPENDIX A
ACTION AND LIMIT LEVELS FOR AIR QUALITY AND NOISE

Appendix A - Action and Limit Levels

Table A-1 Action and Limit Levels for 1-Hour TSP

Location	Action Level, $\mu g/m^3$	Limit Level, $\mu g/m^3$
AM2	346	500

Table A-2 Action and Limit Levels for 24-Hour TSP

Location	Action Level, $\mu g/m^3$	Limit Level, $\mu g/m^3$
AM2(A)	157	260

Table A-3 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) 70dB(A)/65dB(A)*

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

APPENDIX B-1
COPIES OF CALIBRATION
CERTIFCATES (AIR)

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16043/13/0039

Project No. AM2(A) - Ng Wah Catholic Secondary School

Date: 6-Nov-23 Next Due Date: 6-Jan-24 Operator: SK

Equipment No.: A-01-13 Model No.: TE-5170 Serial No. 1352

Ambient Condition			
Temperature, Ta (K)	300.6	Pressure, Pa (mmHg)	761.4

Orifice Transfer Standard Information					
Serial No.	3864	Slope, mc	0.05928	Intercept, bc	-0.03491
Last Calibration Date:	16-Jan-23	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	16-Jan-24	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

.

Calibration of TSP Sampler					
Calibration Point	Orfice			HVS	
	DH (orifice), in. of water	[DH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	DW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	12.9	3.58	60.97	9.9	3.14
2	10.8	3.28	55.84	7.8	2.78
3	7.9	2.80	47.84	5.0	2.23
4	5.2	2.27	38.92	3.0	1.73
5	2.7	1.64	28.21	1.8	1.34

By Linear Regression of Y on X

Slope , mw = **0.0557** **Intercept, bw =** **-0.3392**

Correlation coefficient* = **0.9914**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.25**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 6-Nov-23

Checked by: Henry Leung Signature: Date: 6-Nov-23

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. MA16043/13/0040

Project No. AM2(A) - Ng Wah Catholic Secondary School

Date: 6-Jan-24 Next Due Date: 6-Mar-24 Operator: SK

Equipment No.: A-01-13 Model No.: TE-5170 Serial No. 1352

Ambient Condition			
Temperature, Ta (K)	293.2	Pressure, Pa (mmHg)	765.1

Orifice Transfer Standard Information					
Serial No.	3864	Slope, mc	0.05928	Intercept, bc	-0.03491
Last Calibration Date:	16-Jan-23	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	16-Jan-24	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

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Calibration of TSP Sampler					
Calibration Point	Orfice			HVS	
	DH (orifice), in. of water	[DH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	DW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.5	3.72	63.28	10.2	3.23
2	11.0	3.35	57.18	8.0	2.86
3	8.5	2.95	50.34	5.5	2.37
4	5.6	2.39	40.97	3.3	1.84
5	3.0	1.75	30.14	2.0	1.43

By Linear Regression of Y on X

Slope , mw = **0.0553** **Intercept, bw =** **-0.3308**

Correlation coefficient* = **0.9931**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.10**

Remarks:

Conducted by: Wong Shing Kwai Signature: Date: 6-Jan-24

Checked by: Henry Leung Signature: Date: 6-Jan-24

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description: Digital Dust Indicator — Date of Calibration: 30-Nov-23

Manufacturer: Sibata Scientific Technology LTD. — Validity of Calibration Record: 30-Jan-24

Model No.: LD-5R

Serial No.: 972780

Equipment No.: SA-01-09 — Sensitivity: 0.001 mg/m3

High Volume Sampler No.: A-01-03 — Before Sensitivity Adjustment: 739 CPM

Tisch Calibration Orifice No.: 3864 — After Sensitivity Adjustment: 739 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	73.0	139.0
2	63.0	119.0
3	52.0	99.0
Average	**62.7**	**119.0**

By Linear Regression of Y on X

Slope , mw = **1.9033** **Intercept, bw =** **-0.2749**

Correlation coefficient* = **0.9996**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	119.0
Particaulate Concentration by Dust Meter (µg/m^3)	62.7
Measureing time, (min)	60.0

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] **1.9**

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: _____

Technical Officer (Wong Shing Kwai)

Approved by: _____

Project Manager (Henry Leung)

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description: Digital Dust Indicator — Date of Calibration 30-Jan-24

Manufacturer: Sibata Scientific Technology LTD. — Validity of Calibration Record 30-Mar-24

Model No.: LD-5R

Serial No.: 972780

Equipment No.: SA-01-09 — Sensitivity 0.001 mg/m3

High Volume Sampler No.: A-01-03 — Before Sensitivity Adjustment 739 CPM

Tisch Calibration Orifice No.: 3864 — After Sensitivity Adjustment 739 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	75.0	141.0
2	65.0	121.0
3	54.0	100.0
Average	**64.7**	**120.7**

By Linear Regression of Y on X

Slope , mw = **1.9517** **Intercept, bw =** **-5.5408**

Correlation coefficient* = **0.9999**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	120.7
Particaulate Concentration by Dust Meter (µg/m^3)	64.7
Measureing time, (min)	60.0

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] **1.9**

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: _____

Technical Officer (Wong Shing Kwai)

Approved by: _____

Project Manager (Henry Leung)

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description: Digital Dust Indicator — Date of Calibration: 30-Nov-23

Manufacturer: Sibata Scientific Technology LTD. — Validity of Calibration Record: 30-Jan-24

Model No.: LD-5R

Serial No.: 972781

Equipment No.: SA-01-10 — Sensitivity: 0.001 mg/m3

High Volume Sampler No.: A-01-03 — Before Sensitivity Adjustment: 734 CPM

Tisch Calibration Orifice No.: 3864 — After Sensitivity Adjustment: 734 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	80.0	132.0
2	70.0	114.0
3	60.0	98.0
Average	**70.0**	**114.7**

By Linear Regression of Y on X

Slope , mw = **1.7000** **Intercept, bw =** **-4.3333**

Correlation coefficient* = **0.9994**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	114.7
Particaulate Concentration by Dust Meter (µg/m^3)	70.0
Measureing time, (min)	60.0
Set Correlation Factor , SCF	
SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)]	**1.6**

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: _____

Technical Officer (Wong Shing Kwai)

Approved by: _____

Project Manager (Henry Leung)

CINOTECH CONSULTANTS LIMITED

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description: Digital Dust Indicator — Date of Calibration 30-Jan-24

Manufacturer: Sibata Scientific Technology LTD. — Validity of Calibration Record 30-Mar-24

Model No.: LD-5R

Serial No.: 972781

Equipment No.: SA-01-10 — Sensitivity 0.001 mg/m3

High Volume Sampler No.: A-01-03 — Before Sensitivity Adjustment 734 CPM

Tisch Calibration Orifice No.: 3864 — After Sensitivity Adjustment 734 CPM

Calibration of 1 hr TSP		
Calibration Point	**Laser Dust Monitor**	**HVS**
	Mass Concentration (µg/m3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	82.0	134.0
2	72.0	116.0
3	62.0	100.0
Average	**72.0**	**116.7**

By Linear Regression of Y on X

Slope , mw = **1.7000** **Intercept, bw =** **-5.7333**

Correlation coefficient* = **0.9994**

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	116.7
Particaulate Concentration by Dust Meter (µg/m^3)	72.0
Measureing time, (min)	60.0

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m3)] **1.6**

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: _____ Approved by: _____

Technical Officer (Wong Shing Kwai) Project Manager (Henry Leung)

TISCH Environmental

RECALIBRATION DUE DATE:
January 16, 2024

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	January 16, 2023	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 749.0	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3864**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4440	3.2	2.00
2	3	4	1	1.0220	6.4	4.00
3	5	6	1	0.9100	8.0	5.00
4	7	8	1	0.8710	8.8	5.50
5	9	10	1	0.7210	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9981	0.6912	1.4159	0.9957	0.6896	0.8845
0.9938	0.9724	2.0024	0.9915	0.9701	1.2509
0.9917	1.0898	2.2388	0.9893	1.0872	1.3985
0.9906	1.1373	2.3480	0.9883	1.1346	1.4668
0.9853	1.3665	2.8318	0.9829	1.3633	1.7690
QSTD	**m=**	**2.09452**	**QA**	**m=**	**1.31155**
	b=	**-0.03493**		**b=**	**-0.02182**
	r=	**0.99995**		**r=**	**0.99995**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

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

TISCH Environmental

RECALIBRATION DUE DATE:
January 15, 2025

Certificate of Calibration

Calibration Certification Information					
Cal. Date:	January 15, 2024	**Rootsmeter S/N:** 438320	**Ta:** 294	°K	
Operator:	Jim Tisch		**Pa:** 755.4	mm Hg	
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3864**			

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4380	3.3	2.00
2	3	4	1	1.0270	6.4	4.00
3	5	6	1	0.9180	8.0	5.00
4	7	8	1	0.8750	8.9	5.50
5	9	10	1	0.7230	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H(Ta/Pa)}$ (y-axis)
1.0031	0.6975	1.4195	0.9956	0.6924	0.8823
0.9989	0.9727	2.0075	0.9915	0.9655	1.2477
0.9968	1.0858	2.2444	0.9894	1.0778	1.3950
0.9956	1.1378	2.3539	0.9882	1.1294	1.4631
0.9903	1.3697	2.8390	0.9829	1.3595	1.7645
QSTD	**m=**	**2.11196**	**QA**	**m=**	**1.32248**
	b=	**-0.05043**		**b=**	**-0.03134**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

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

Certificate of Calibration - Wind Monitoring Station

Description:	Ng Wah Catholic Seconday School - Weather Stations
Manufacturer:	Davis Instruments
Model No.:	Davis 6152, Vantage Pro2
Serial No.:	BC180522050
Equipment No.:	SA-03-03
Date of Calibration	5-Oct-2023
Next Due Date	5-Apr-2024

1. Performance check of Wind Speed

Wind Speed, m/s		Difference D (m/s)
Wind Speed Reading (V1)	Anemometer Value (V1)	D = V1 – V2
0.0	0.0	0.0
1.3	1.4	-0.1
2.4	2.5	-0.1
3.5	3.5	0.0

2. Performance check of Wind Direction

Wind Direction (^{o})		Difference D (^{o})
Wind Direction Reading (V1)	Marine Compass Value (V1)	D = W1 - W2
0	0	0.0
90	90	0.0
180	180	0.0
270	270	0.0

Test Specification:

1. Performance Wind Speed Test - The wind meter was on-site calibrated against the anemometer

2. Performance Wind Direction Test - The wind meter was on-site calibrated against the marine compass at four direction

Calibrated by: _____ Wong Shing Kwai

Approved by: _____ Henry Leung

APPENDIX B-2
COPIES OF CALIBRATION CERTIFCATES (NOISE)

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00361 Issue Date : 30 Mar 2023
Application No. : HP00236

Certificate of Calibration

Applicant : Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-04

Manufacturer: : BSWA Technology

Other information :

Model No.	BSWA 308
Serial No.	580238
Microphone No.	570605

Date Received : 27 Mar 2023

Test Period : 28 Mar 2023 to 28 Mar 2023

Test Requested : Performance checking for Sound Level Meter

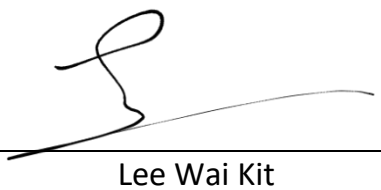
Test Method : The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius
Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.
2. The result(s) relate only to the items tested or calibrated.

For and on behalf of
HIGH PRECISION CHEMICAL TESTING LIMITED



Lee Wai Kit
Laboratory Manager

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00361 Issue Date : 30 Mar 2023
Application No. : HP00236

Certificate of Calibration

Measuring equipment :

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.2	+ 0.2	± 1.5
114.0	114.3	+ 0.3	± 1.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00364 Issue Date : 03 Apr 2023
Application No. : HP00240

Certificate of Calibration

Applicant : Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-05

Manufacturer: : BSWA Technology

Other information :

Model No.	BSWA 308
Serial No.	580287
Microphone No.	570610

Date Received : 03 Apr 2023

Test Period : 03 Apr 2023 to 03 Apr 2023

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius
Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.
2. The result(s) relate only to the items tested or calibrated.

For and on behalf of
HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit
Laboratory Manager

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00364 Issue Date : 03 Apr 2023
Application No. : HP00240

Certificate of Calibration

Measuring equipment :

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.2	+ 0.2	± 1.5
114.0	114.2	+ 0.2	± 1.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00370 Issue Date : 02 May 2023
Application No. : HP00242

Certificate of Calibration

Applicant : Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : SN-01-01

Manufacturer: : SVANTEK

Other information :

Model No.	SVAN 979
Serial No.	27189
Microphone No.	25202

Date Received : 02 May 2023

Test Period : 02 May 2023 to 02 May 2023

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius
Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.
2. The result(s) relate only to the items tested or calibrated.

For and on behalf of
HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit
Laboratory Manager

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00370 Issue Date : 02 May 2023
Application No. : HP00242

Certificate of Calibration

Measuring equipment :

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	93.9	- 0.1	± 1.5
114.0	114.0	± 0.0	± 1.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C230859
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC23-0255) Date of Receipt / 收件日期 : 7 February 2023

Description / 儀器名稱	:	Acoustical Calibrator
Manufacturer / 製造商	:	Brüel & Kjær
Model No. / 型號	:	4231
Serial No. / 編號	:	2326353
Supplied By / 委託者	:	Cinotech Consultants Limited Room 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 18 February 2023

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong, Assistant Engineer

Certified By 核證 : K C Lee, Engineer

Date of Issue 簽發日期 : 20 February 2023

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C230859
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C223647
CL281	Multifunction Acoustic Calibrator	AV210017
TST150A	Measuring Amplifier	C221750

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Limit (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.9	± 0.2	± 0.2
114 dB, 1 kHz	114.0		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Limit	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00373 Issue Date : 09 May 2023
Application No. : HP00247

Certificate of Calibration

Applicant : Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Sound Level Calibrator.

Equipment No.: : N-09-02

Manufacturer: : SVANTEK

Other information :

Model No.	SV 30A
Serial No.	10965

Date Received : 05 May 2023

Test Period : 08 May 2023 to 08 May 2023

Test Requested : Performance checking for Sound Level Calibrator

Test Method : The Sound Level Meter and Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius
Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.
2. The result(s) relate only to the items tested or calibrated.

For and on behalf of
HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit
Laboratory Manager

High Precision Chemical Testing Ltd.
Rm 1904, Technology Park
18 On Lai Street, Shatin
NT, Hong Kong
Tel: +852 3841 4388 Website: https://www.hpct.com.hk

Report No. : 00373 Issue Date : 09 May 2023
Application No. : HP00247

Certificate of Calibration

Measuring equipment :

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Description	Sound Meter
Manufacturer	BSWA Technology
Model No.	BSWA 308
Serial No.	570183
Microphone No.	590073
Equipment No.	N-12-01

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.2	+ 0.2	± 0.3
114.0	114.3	+ 0.3	± 0.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

APPENDIX C
WEATHER INFORMATION

January 2024

Date	Mean Pressure (hPa)	Air Temperature	Mean Relative Humidity (%)	Precipitation (mm)
		Mean (°C)		
1-Jan-24	1019.9	19.9	75	0
2-Jan-24	1019.1	18.7	76	0
3-Jan-24	1020.0	18.8	64	0
4-Jan-24	1020.9	17.0	67	0
5-Jan-24	1020.2	18.8	75	0
6-Jan-24	1020.1	20.2	76	0
7-Jan-24	1021.0	19.9	71	0
8-Jan-24	1019.6	19.1	73	Trace
9-Jan-24	1017.2	20.5	77	Trace
10-Jan-24	1018.6	20.3	67	0
11-Jan-24	1020.0	18.9	69	Trace
12-Jan-24	1019.1	18.9	75	0
13-Jan-24	1019.9	19.6	57	0
14-Jan-24	1021.1	20.7	56	0
15-Jan-24	1021.2	20.9	71	0
16-Jan-24	1022.1	18.7	75	0
17-Jan-24	1020.4	19.2	72	0.1
18-Jan-24	1017.7	21.2	74	0
19-Jan-24	1016.3	21.1	76	0
20-Jan-24	1016.3	21.4	75	0
21-Jan-24	1020.3	19.1	68	Trace
22-Jan-24	1023.3	15.0	72	0.5
23-Jan-24	1028.5	7.9	75	2.7
24-Jan-24	1029.2	9.2	59	0
25-Jan-24	1028.7	12.3	56	0
26-Jan-24	1027.3	15.0	61	0
27-Jan-24	1025.8	15.5	67	1
28-Jan-24	1026.4	13.7	83	2.4
29-Jan-24	1023.4	15.9	82	Trace
30-Jan-24	1020.7	18.3	88	Trace
31-Jan-24	1019.4	19.3	92	Trace

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
1-Jan-24	0:00	0.4	ESE
1-Jan-24	1:00	0.2	ESE
1-Jan-24	2:00	0.2	SE
1-Jan-24	3:00	0.4	SE
1-Jan-24	4:00	0.0	SE
1-Jan-24	5:00	0.0	ESE
1-Jan-24	6:00	0.2	SE
1-Jan-24	7:00	0.8	SSE
1-Jan-24	8:00	1.0	SSW
1-Jan-24	9:00	0.7	SSW
1-Jan-24	10:00	0.9	SW
1-Jan-24	11:00	0.9	S
1-Jan-24	12:00	1.1	SSW
1-Jan-24	13:00	1.2	SE
1-Jan-24	14:00	1.2	SE
1-Jan-24	15:00	1.7	SSE
1-Jan-24	16:00	1.2	SE
1-Jan-24	17:00	0.8	S
1-Jan-24	18:00	0.6	SE
1-Jan-24	19:00	1.0	W
1-Jan-24	20:00	1.1	SW
1-Jan-24	21:00	1.9	WSW
1-Jan-24	22:00	0.7	WSW
1-Jan-24	23:00	0.9	SSW
2-Jan-24	0:00	0.8	SW
2-Jan-24	1:00	0.8	SSW
2-Jan-24	2:00	0.5	S
2-Jan-24	3:00	0.8	SSW
2-Jan-24	4:00	0.6	SSW
2-Jan-24	5:00	1.1	WSW
2-Jan-24	6:00	0.9	WSW
2-Jan-24	8:00	1.9	WSW
2-Jan-24	9:00	1.5	SW
2-Jan-24	10:00	1.3	SSW
2-Jan-24	11:00	2.0	W
2-Jan-24	12:00	1.0	SW
2-Jan-24	13:00	1.4	S
2-Jan-24	14:00	1.3	S
2-Jan-24	15:00	1.3	S
2-Jan-24	16:00	0.8	SSE
2-Jan-24	17:00	0.8	SE
2-Jan-24	18:00	0.5	S
2-Jan-24	19:00	0.3	SE
2-Jan-24	20:00	0.3	S
2-Jan-24	21:00	0.4	S
2-Jan-24	22:00	0.4	SSE
2-Jan-24	23:00	0.2	SSE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
3-Jan-24	0:00	0.5	S
3-Jan-24	1:00	0.3	SSE
3-Jan-24	2:00	0.2	S
3-Jan-24	3:00	0.2	SSE
3-Jan-24	4:00	0.4	S
3-Jan-24	5:00	0.9	SSE
3-Jan-24	6:00	1.7	SSE
3-Jan-24	7:00	2.1	SSE
3-Jan-24	8:00	2.6	S
3-Jan-24	9:00	2.2	S
3-Jan-24	10:00	2.9	SSE
3-Jan-24	11:00	3.3	S
3-Jan-24	12:00	3.3	S
3-Jan-24	13:00	3.3	SE
3-Jan-24	14:00	3.3	S
3-Jan-24	15:00	2.7	SSE
3-Jan-24	16:00	3.3	S
3-Jan-24	17:00	3.5	SSE
3-Jan-24	18:00	2.5	SSE
3-Jan-24	19:00	2.5	S
3-Jan-24	20:00	1.7	SSW
3-Jan-24	21:00	2.2	S
3-Jan-24	22:00	2.0	SSW
3-Jan-24	23:00	2.7	S
4-Jan-24	0:00	1.4	S
4-Jan-24	1:00	1.9	S
4-Jan-24	2:00	1.4	SSE
4-Jan-24	3:00	1.5	S
4-Jan-24	4:00	1.2	S
4-Jan-24	5:00	1.1	S
4-Jan-24	6:00	1.3	S
4-Jan-24	8:00	1.2	SSW
4-Jan-24	9:00	1.6	SSW
4-Jan-24	10:00	1.4	S
4-Jan-24	11:00	1.6	SSW
4-Jan-24	12:00	1.3	SSE
4-Jan-24	13:00	1.0	SSW
4-Jan-24	14:00	0.9	SE
4-Jan-24	15:00	0.9	SSE
4-Jan-24	16:00	0.7	SSE
4-Jan-24	17:00	0.3	SE
4-Jan-24	18:00	0.3	S
4-Jan-24	19:00	0.5	S
4-Jan-24	20:00	0.2	SSE
4-Jan-24	21:00	0.0	SSE
4-Jan-24	22:00	0.0	SE
4-Jan-24	23:00	0.3	ESE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
5-Jan-24	0:00	0.3	SSE
5-Jan-24	1:00	0.4	SSE
5-Jan-24	2:00	0.0	S
5-Jan-24	3:00	0.2	SSE
5-Jan-24	4:00	0.4	SSW
5-Jan-24	5:00	0.3	SSE
5-Jan-24	6:00	0.6	SSW
5-Jan-24	7:00	0.4	SE
5-Jan-24	8:00	0.3	S
5-Jan-24	9:00	1.6	SW
5-Jan-24	10:00	0.8	SSW
5-Jan-24	11:00	0.7	S
5-Jan-24	12:00	0.6	SSE
5-Jan-24	13:00	1.3	SSE
5-Jan-24	14:00	0.9	SSE
5-Jan-24	15:00	0.5	S
5-Jan-24	16:00	0.7	S
5-Jan-24	17:00	0.8	SSE
5-Jan-24	18:00	0.4	SSE
5-Jan-24	19:00	0.1	SSE
5-Jan-24	20:00	0.1	S
5-Jan-24	21:00	0.0	SSE
5-Jan-24	22:00	0.0	SSW
5-Jan-24	23:00	0.1	SSE
6-Jan-24	0:00	0.2	S
6-Jan-24	1:00	0.2	SSE
6-Jan-24	2:00	0.1	SSW
6-Jan-24	3:00	0.1	SSW
6-Jan-24	4:00	0.0	SSE
6-Jan-24	5:00	0.2	S
6-Jan-24	6:00	0.0	S
6-Jan-24	7:00	0.0	SSE
6-Jan-24	8:00	0.6	SSW
6-Jan-24	9:00	0.5	SSW
6-Jan-24	10:00	1.2	S
6-Jan-24	11:00	1.3	SSW
6-Jan-24	12:00	0.9	S
6-Jan-24	13:00	0.8	SE
6-Jan-24	14:00	0.9	SE
6-Jan-24	15:00	0.8	SSE
6-Jan-24	16:00	0.8	SSW
6-Jan-24	17:00	0.7	SE
6-Jan-24	18:00	0.4	ESE
6-Jan-24	19:00	0.0	SSE
6-Jan-24	20:00	0.0	SE
6-Jan-24	21:00	0.0	S
6-Jan-24	22:00	0.0	S
6-Jan-24	23:00	0.0	S

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
7-Jan-24	0:00	0.1	S
7-Jan-24	1:00	0.0	SSE
7-Jan-24	2:00	0.3	SSE
7-Jan-24	3:00	0.2	ESE
7-Jan-24	4:00	0.0	S
7-Jan-24	5:00	0.2	SSE
7-Jan-24	6:00	0.4	SSE
7-Jan-24	7:00	0.3	SSE
7-Jan-24	8:00	0.4	SSW
7-Jan-24	9:00	1.1	SW
7-Jan-24	10:00	1.7	SSW
7-Jan-24	11:00	1.9	SSW
7-Jan-24	12:00	1.2	SW
7-Jan-24	13:00	3.0	WNW
7-Jan-24	14:00	2.8	WNW
7-Jan-24	15:00	2.6	WSW
7-Jan-24	16:00	2.3	WNW
7-Jan-24	17:00	0.9	SW
7-Jan-24	18:00	1.4	W
7-Jan-24	19:00	2.4	WSW
7-Jan-24	20:00	1.5	WSW
7-Jan-24	21:00	1.0	WSW
7-Jan-24	22:00	1.0	SSW
7-Jan-24	23:00	0.6	SSW
8-Jan-24	0:00	0.6	S
8-Jan-24	1:00	0.7	S
8-Jan-24	2:00	0.3	S
8-Jan-24	3:00	0.3	SSE
8-Jan-24	4:00	0.2	SE
8-Jan-24	5:00	0.4	SW
8-Jan-24	6:00	0.2	SE
8-Jan-24	7:00	0.1	SSE
8-Jan-24	8:00	0.1	S
8-Jan-24	9:00	0.6	S
8-Jan-24	10:00	0.4	SSE
8-Jan-24	11:00	1.4	SE
8-Jan-24	12:00	0.9	ESE
8-Jan-24	13:00	0.9	SE
8-Jan-24	14:00	1.2	E
8-Jan-24	15:00	1.7	ESE
8-Jan-24	16:00	1.1	SE
8-Jan-24	17:00	0.8	ESE
8-Jan-24	18:00	0.8	SSW
8-Jan-24	19:00	0.5	SSE
8-Jan-24	20:00	1.1	W
8-Jan-24	21:00	0.5	SSE
8-Jan-24	22:00	0.7	SSW
8-Jan-24	23:00	0.2	SE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
9-Jan-24	0:00	0.1	S
9-Jan-24	1:00	0.3	SE
9-Jan-24	2:00	0.2	S
9-Jan-24	3:00	0.5	SW
9-Jan-24	4:00	0.3	SSE
9-Jan-24	5:00	0.3	S
9-Jan-24	6:00	0.3	S
9-Jan-24	7:00	0.6	SSE
9-Jan-24	8:00	0.3	ESE
9-Jan-24	9:00	1.5	S
9-Jan-24	10:00	1.3	SW
9-Jan-24	11:00	1.4	SSW
9-Jan-24	12:00	1.6	SSE
9-Jan-24	13:00	0.9	SSE
9-Jan-24	14:00	1.0	SSE
9-Jan-24	15:00	1.3	SSE
9-Jan-24	16:00	0.8	S
9-Jan-24	17:00	0.6	SSE
9-Jan-24	18:00	0.4	SSW
9-Jan-24	19:00	0.4	SSE
9-Jan-24	20:00	0.3	SSW
9-Jan-24	21:00	0.6	SSE
9-Jan-24	22:00	0.3	SSE
9-Jan-24	23:00	0.4	SSE
10-Jan-24	0:00	0.1	SSE
10-Jan-24	1:00	0.7	SSE
10-Jan-24	2:00	1.3	S
10-Jan-24	3:00	1.6	S
10-Jan-24	4:00	2.2	S
10-Jan-24	5:00	2.3	S
10-Jan-24	6:00	2.3	SSE
10-Jan-24	7:00	2.1	S
10-Jan-24	8:00	2.7	S
10-Jan-24	9:00	2.9	SSW
10-Jan-24	10:00	4.4	SSE
10-Jan-24	11:00	3.2	SSW
10-Jan-24	12:00	2.5	S
10-Jan-24	13:00	2.1	S
10-Jan-24	14:00	2.0	SSW
10-Jan-24	15:00	2.6	SSW
10-Jan-24	16:00	2.5	S
10-Jan-24	17:00	2.0	SSW
10-Jan-24	18:00	1.1	SSW
10-Jan-24	19:00	0.9	SSW
10-Jan-24	20:00	0.9	SSW
10-Jan-24	21:00	0.6	S
10-Jan-24	22:00	1.0	S
10-Jan-24	23:00	0.9	SSW

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
11-Jan-24	0:00	1.4	SSW
11-Jan-24	1:00	1.7	SSW
11-Jan-24	2:00	1.9	SSE
11-Jan-24	3:00	1.7	S
11-Jan-24	4:00	1.6	S
11-Jan-24	5:00	1.0	SSW
11-Jan-24	6:00	1.0	SW
11-Jan-24	7:00	0.7	SSW
11-Jan-24	8:00	1.3	SW
11-Jan-24	9:00	1.2	S
11-Jan-24	10:00	1.0	S
11-Jan-24	11:00	1.3	S
11-Jan-24	12:00	1.1	SW
11-Jan-24	13:00	0.8	S
11-Jan-24	14:00	1.0	SSW
11-Jan-24	15:00	0.9	S
11-Jan-24	16:00	0.9	S
11-Jan-24	17:00	0.5	SSE
11-Jan-24	18:00	0.6	S
11-Jan-24	19:00	0.4	SSE
11-Jan-24	20:00	0.5	SSE
11-Jan-24	21:00	0.8	S
11-Jan-24	22:00	0.3	SSE
11-Jan-24	23:00	0.3	SSE
12-Jan-24	0:00	0.3	SSE
12-Jan-24	1:00	0.4	SSE
12-Jan-24	2:00	0.2	SSE
12-Jan-24	3:00	0.2	SSE
12-Jan-24	4:00	0.3	SSE
12-Jan-24	5:00	0.1	SSE
12-Jan-24	6:00	0.4	SSE
12-Jan-24	7:00	0.3	SSE
12-Jan-24	8:00	0.6	S
12-Jan-24	9:00	1.0	SSW
12-Jan-24	10:00	1.1	S
12-Jan-24	11:00	1.5	SSE
12-Jan-24	12:00	1.2	SSE
12-Jan-24	13:00	0.9	SSE
12-Jan-24	14:00	0.8	S
12-Jan-24	15:00	1.8	WSW
12-Jan-24	16:00	1.0	SW
12-Jan-24	17:00	0.8	SSE
12-Jan-24	18:00	0.7	SE
12-Jan-24	19:00	0.5	S
12-Jan-24	20:00	0.3	SSW
12-Jan-24	21:00	0.2	S
12-Jan-24	22:00	0.3	SSE
12-Jan-24	23:00	0.3	SSE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
13-Jan-24	0:00	0.3	SSE
13-Jan-24	1:00	0.4	S
13-Jan-24	2:00	0.2	SSE
13-Jan-24	3:00	0.2	S
13-Jan-24	4:00	0.0	S
13-Jan-24	5:00	0.1	SSE
13-Jan-24	6:00	0.3	SSE
13-Jan-24	7:00	0.5	SSE
13-Jan-24	8:00	0.7	SSE
13-Jan-24	9:00	0.9	S
13-Jan-24	10:00	1.0	SSW
13-Jan-24	11:00	1.2	SSW
13-Jan-24	12:00	1.1	SSW
13-Jan-24	13:00	0.9	SSE
13-Jan-24	14:00	0.5	ESE
13-Jan-24	15:00	1.2	S
13-Jan-24	16:00	1.6	S
13-Jan-24	17:00	0.8	SSW
13-Jan-24	18:00	0.1	S
13-Jan-24	19:00	0.0	SE
13-Jan-24	20:00	0.0	E
13-Jan-24	21:00	0.1	SE
13-Jan-24	22:00	0.0	SSE
13-Jan-24	23:00	0.0	SE
14-Jan-24	0:00	0.0	SSE
14-Jan-24	1:00	0.0	S
14-Jan-24	2:00	0.0	SE
14-Jan-24	3:00	0.4	S
14-Jan-24	4:00	0.6	SSE
14-Jan-24	5:00	0.2	SE
14-Jan-24	6:00	0.0	S
14-Jan-24	7:00	0.1	SSW
14-Jan-24	8:00	0.2	S
14-Jan-24	9:00	0.5	SSW
14-Jan-24	10:00	0.1	ESE
14-Jan-24	11:00	0.6	S
14-Jan-24	12:00	0.8	SSW
14-Jan-24	13:00	0.7	ESE
14-Jan-24	14:00	1.1	SSE
14-Jan-24	15:00	1.4	SSE
14-Jan-24	16:00	0.7	S
14-Jan-24	17:00	0.6	SE
14-Jan-24	18:00	0.5	SSW
14-Jan-24	19:00	0.1	SSE
14-Jan-24	20:00	0.0	SE
14-Jan-24	21:00	0.2	S
14-Jan-24	22:00	0.1	S
14-Jan-24	23:00	0.3	SSE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
15-Jan-24	0:00	0.0	SSE
15-Jan-24	1:00	0.0	SSE
15-Jan-24	2:00	0.2	SSE
15-Jan-24	3:00	0.1	S
15-Jan-24	4:00	0.2	S
15-Jan-24	5:00	0.0	SSE
15-Jan-24	6:00	0.0	S
15-Jan-24	7:00	0.0	SSW
15-Jan-24	8:00	0.2	SSW
15-Jan-24	9:00	0.6	SSW
15-Jan-24	10:00	1.0	SSE
15-Jan-24	11:00	1.5	SSW
15-Jan-24	12:00	1.9	WSW
15-Jan-24	13:00	1.7	SW
15-Jan-24	14:00	1.4	SW
15-Jan-24	15:00	1.8	S
15-Jan-24	16:00	1.9	SW
15-Jan-24	17:00	3.0	NW
15-Jan-24	18:00	0.9	S
15-Jan-24	19:00	1.0	SW
15-Jan-24	20:00	1.0	S
15-Jan-24	21:00	1.2	SW
15-Jan-24	22:00	1.4	SW
15-Jan-24	23:00	1.3	SSW
16-Jan-24	0:00	0.7	SSW
16-Jan-24	1:00	0.7	SW
16-Jan-24	2:00	0.4	SE
16-Jan-24	3:00	0.8	SSW
16-Jan-24	4:00	1.3	SSW
16-Jan-24	5:00	2.1	SSW
16-Jan-24	6:00	1.6	SW
16-Jan-24	7:00	0.7	S
16-Jan-24	8:00	0.8	S
16-Jan-24	9:00	1.1	SW
16-Jan-24	10:00	0.9	S
16-Jan-24	11:00	1.2	SSE
16-Jan-24	12:00	1.6	ESE
16-Jan-24	13:00	1.7	SE
16-Jan-24	14:00	1.4	SSE
16-Jan-24	15:00	1.6	SE
16-Jan-24	16:00	1.4	SE
16-Jan-24	17:00	0.9	SW
16-Jan-24	18:00	1.6	W
16-Jan-24	19:00	1.7	NW
16-Jan-24	20:00	2.0	W
16-Jan-24	21:00	0.7	SSW
16-Jan-24	22:00	0.3	SE
16-Jan-24	23:00	0.7	S

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
17-Jan-24	0:00	0.5	SSW
17-Jan-24	1:00	0.6	SSE
17-Jan-24	2:00	0.3	SSW
17-Jan-24	3:00	0.6	S
17-Jan-24	4:00	0.3	SSE
17-Jan-24	5:00	0.5	SSE
17-Jan-24	6:00	0.4	S
17-Jan-24	7:00	0.4	SSW
17-Jan-24	8:00	0.7	S
17-Jan-24	9:00	0.7	S
17-Jan-24	10:00	1.6	SSW
17-Jan-24	11:00	1.7	S
17-Jan-24	12:00	0.6	SSE
17-Jan-24	13:00	1.5	S
17-Jan-24	14:00	0.9	S
17-Jan-24	15:00	0.9	SSW
17-Jan-24	16:00	0.7	ESE
17-Jan-24	17:00	0.8	SSW
17-Jan-24	18:00	0.5	WSW
17-Jan-24	19:00	0.1	SW
17-Jan-24	20:00	0.3	SE
17-Jan-24	21:00	0.2	SE
17-Jan-24	22:00	0.7	S
17-Jan-24	23:00	0.6	SSW
18-Jan-24	0:00	0.3	S
18-Jan-24	1:00	0.1	SSW
18-Jan-24	2:00	0.3	SSE
18-Jan-24	3:00	0.2	SW
18-Jan-24	4:00	0.2	SE
18-Jan-24	5:00	0.4	SSE
18-Jan-24	6:00	0.3	SE
18-Jan-24	7:00	0.2	SSE
18-Jan-24	8:00	1.0	SSE
18-Jan-24	9:00	0.6	SSW
18-Jan-24	10:00	1.0	SSW
18-Jan-24	11:00	1.4	SW
18-Jan-24	12:00	1.0	SW
18-Jan-24	13:00	1.4	SSE
18-Jan-24	14:00	1.0	SSW
18-Jan-24	15:00	1.2	SSW
18-Jan-24	16:00	1.3	SSE
18-Jan-24	17:00	1.0	SSE
18-Jan-24	18:00	0.5	S
18-Jan-24	19:00	0.3	SSE
18-Jan-24	20:00	0.7	S
18-Jan-24	21:00	0.3	SSE
18-Jan-24	22:00	0.2	SSE
18-Jan-24	23:00	0.2	SSE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
19-Jan-24	0:00	0.0	SSE
19-Jan-24	1:00	0.0	SSE
19-Jan-24	2:00	0.1	SSE
19-Jan-24	3:00	0.0	SSE
19-Jan-24	4:00	0.3	SSE
19-Jan-24	5:00	0.0	S
19-Jan-24	6:00	0.5	S
19-Jan-24	7:00	0.2	SSE
19-Jan-24	8:00	0.2	S
19-Jan-24	9:00	1.0	S
19-Jan-24	10:00	1.3	SSW
19-Jan-24	11:00	1.3	SE
19-Jan-24	12:00	1.3	SE
19-Jan-24	13:00	1.8	SE
19-Jan-24	14:00	1.7	E
19-Jan-24	15:00	1.8	ESE
19-Jan-24	16:00	0.9	S
19-Jan-24	17:00	1.0	SSE
19-Jan-24	18:00	0.9	SSE
19-Jan-24	19:00	0.6	ESE
19-Jan-24	20:00	0.3	SSE
19-Jan-24	21:00	0.3	ESE
19-Jan-24	22:00	0.3	SE
19-Jan-24	23:00	0.2	SSW
20-Jan-24	0:00	0.3	S
20-Jan-24	1:00	0.2	SSE
20-Jan-24	2:00	0.2	SSE
20-Jan-24	3:00	0.3	S
20-Jan-24	4:00	0.2	SSE
20-Jan-24	5:00	0.1	SSE
20-Jan-24	6:00	0.2	SSE
20-Jan-24	7:00	0.4	S
20-Jan-24	8:00	0.4	SSW
20-Jan-24	9:00	0.8	SSW
20-Jan-24	10:00	1.5	S
20-Jan-24	11:00	1.3	S
20-Jan-24	12:00	1.6	S
20-Jan-24	13:00	1.0	SSE
20-Jan-24	14:00	1.3	ESE
20-Jan-24	15:00	0.9	ESE
20-Jan-24	16:00	1.8	SSE
20-Jan-24	17:00	2.0	SE
20-Jan-24	18:00	2.5	SSE
20-Jan-24	19:00	3.0	SSE
20-Jan-24	20:00	2.7	SSE
20-Jan-24	21:00	2.4	S
20-Jan-24	22:00	1.7	S
20-Jan-24	23:00	2.6	SSE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
21-Jan-24	0:00	2.8	SSE
21-Jan-24	1:00	2.6	S
21-Jan-24	2:00	2.2	SSE
21-Jan-24	3:00	2.0	S
21-Jan-24	4:00	2.2	S
21-Jan-24	5:00	1.6	SSW
21-Jan-24	6:00	2.2	SSW
21-Jan-24	7:00	1.7	SSE
21-Jan-24	8:00	2.3	S
21-Jan-24	9:00	2.1	SW
21-Jan-24	10:00	2.6	S
21-Jan-24	11:00	1.7	SSE
21-Jan-24	12:00	1.4	SSW
21-Jan-24	13:00	1.7	S
21-Jan-24	14:00	1.8	SSE
21-Jan-24	15:00	1.7	SSW
21-Jan-24	16:00	1.8	SSE
21-Jan-24	17:00	1.2	SSW
21-Jan-24	18:00	0.9	SW
21-Jan-24	19:00	0.7	SSW
21-Jan-24	20:00	0.6	SW
21-Jan-24	21:00	0.7	S
21-Jan-24	22:00	0.5	S
21-Jan-24	23:00	1.0	SW
22-Jan-24	0:00	1.2	S
22-Jan-24	1:00	2.1	S
22-Jan-24	2:00	1.8	S
22-Jan-24	3:00	1.8	S
22-Jan-24	4:00	2.4	S
22-Jan-24	5:00	2.0	SSW
22-Jan-24	6:00	1.9	SSW
22-Jan-24	7:00	1.8	S
22-Jan-24	8:00	2.5	SSW
22-Jan-24	9:00	2.0	S
22-Jan-24	10:00	2.2	S
22-Jan-24	11:00	2.5	S
22-Jan-24	12:00	2.9	S
22-Jan-24	13:00	2.7	S
22-Jan-24	14:00	2.3	S
22-Jan-24	15:00	3.9	S
22-Jan-24	16:00	3.9	SSE
22-Jan-24	17:00	4.1	SSE
22-Jan-24	18:00	3.5	S
22-Jan-24	19:00	3.7	SSE
22-Jan-24	20:00	3.8	S
22-Jan-24	21:00	3.2	SSE
22-Jan-24	22:00	3.8	S
22-Jan-24	23:00	3.4	S

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
23-Jan-24	0:00	3.5	SSW
23-Jan-24	1:00	3.7	S
23-Jan-24	2:00	4.0	S
23-Jan-24	3:00	2.7	S
23-Jan-24	4:00	2.7	S
23-Jan-24	5:00	2.6	S
23-Jan-24	6:00	2.8	SSW
23-Jan-24	7:00	2.6	SSW
23-Jan-24	8:00	2.7	S
23-Jan-24	9:00	3.1	S
23-Jan-24	10:00	3.5	SSW
23-Jan-24	11:00	2.3	S
23-Jan-24	12:00	2.6	S
23-Jan-24	13:00	3.3	S
23-Jan-24	14:00	3.6	SSE
23-Jan-24	15:00	3.6	S
23-Jan-24	16:00	3.3	S
23-Jan-24	17:00	2.9	S
23-Jan-24	18:00	2.7	S
23-Jan-24	19:00	3.1	S
23-Jan-24	20:00	2.9	S
23-Jan-24	21:00	3.1	SSW
23-Jan-24	22:00	3.0	S
23-Jan-24	23:00	2.7	S
24-Jan-24	0:00	3.3	S
24-Jan-24	1:00	3.6	SSW
24-Jan-24	2:00	2.4	S
24-Jan-24	3:00	2.5	SSW
24-Jan-24	4:00	2.0	SSW
24-Jan-24	5:00	3.2	SSW
24-Jan-24	6:00	2.0	S
24-Jan-24	7:00	2.0	S
24-Jan-24	8:00	1.9	SSE
24-Jan-24	9:00	2.2	S
24-Jan-24	10:00	2.2	S
24-Jan-24	11:00	2.2	SSW
24-Jan-24	12:00	2.3	SSW
24-Jan-24	13:00	1.9	S
24-Jan-24	14:00	3.2	S
24-Jan-24	15:00	3.7	S
24-Jan-24	16:00	3.2	S
24-Jan-24	17:00	2.9	S
24-Jan-24	18:00	2.4	SSE
24-Jan-24	19:00	3.0	S
24-Jan-24	20:00	2.1	S
24-Jan-24	21:00	2.4	SSW
24-Jan-24	22:00	1.8	S
24-Jan-24	23:00	2.0	SSW

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
25-Jan-24	0:00	1.9	SSW
25-Jan-24	1:00	1.7	SSE
25-Jan-24	2:00	1.8	SSW
25-Jan-24	3:00	2.2	SSW
25-Jan-24	4:00	2.2	S
25-Jan-24	5:00	2.3	SSW
25-Jan-24	6:00	1.8	S
25-Jan-24	7:00	2.0	S
25-Jan-24	8:00	2.2	SSW
25-Jan-24	9:00	2.3	SSE
25-Jan-24	10:00	1.7	SSW
25-Jan-24	11:00	1.9	SSW
25-Jan-24	12:00	1.5	SW
25-Jan-24	13:00	1.2	SSE
25-Jan-24	14:00	1.7	SSW
25-Jan-24	15:00	1.5	S
25-Jan-24	16:00	2.0	SSE
25-Jan-24	17:00	1.3	SSE
25-Jan-24	18:00	1.9	S
25-Jan-24	19:00	2.1	S
25-Jan-24	20:00	2.0	S
25-Jan-24	21:00	2.0	SSE
25-Jan-24	22:00	1.1	S
25-Jan-24	23:00	0.8	S
26-Jan-24	0:00	0.8	S
26-Jan-24	1:00	0.6	SSW
26-Jan-24	2:00	1.1	S
26-Jan-24	3:00	1.4	S
26-Jan-24	4:00	1.0	S
26-Jan-24	5:00	0.5	SW
26-Jan-24	6:00	1.6	SSW
26-Jan-24	7:00	1.6	S
26-Jan-24	8:00	1.4	SSE
26-Jan-24	9:00	1.7	SSE
26-Jan-24	10:00	1.8	SSW
26-Jan-24	11:00	1.8	S
26-Jan-24	12:00	1.4	SSW
26-Jan-24	13:00	1.5	SSW
26-Jan-24	14:00	1.9	S
26-Jan-24	15:00	1.9	SSE
26-Jan-24	16:00	1.6	ESE
26-Jan-24	17:00	2.5	SSE
26-Jan-24	18:00	1.8	SSE
26-Jan-24	19:00	2.0	SSE
26-Jan-24	20:00	1.9	S
26-Jan-24	21:00	1.4	S
26-Jan-24	22:00	1.8	S
26-Jan-24	23:00	1.8	SSE

January 2024			
Table II: Wind Speed and Directions			
Date	Time	Wind Speed m/s	Direction
27-Jan-24	0:00	0.9	S
27-Jan-24	1:00	1.1	S
27-Jan-24	2:00	0.9	SSW
27-Jan-24	3:00	0.8	S
27-Jan-24	4:00	0.9	S
27-Jan-24	5:00	1.0	SSE
27-Jan-24	6:00	1.6	S
27-Jan-24	7:00	1.0	SSE
27-Jan-24	8:00	1.4	SSE
27-Jan-24	9:00	1.6	SSW
27-Jan-24	10:00	1.5	SSW
27-Jan-24	11:00	2.0	S
27-Jan-24	12:00	1.3	S
27-Jan-24	13:00	1.0	SSW
27-Jan-24	14:00	1.6	S
27-Jan-24	15:00	2.0	SSE
27-Jan-24	16:00	1.5	SSE
27-Jan-24	17:00	3.1	SSE
27-Jan-24	18:00	2.9	SSE
27-Jan-24	19:00	2.2	S
27-Jan-24	20:00	1.4	SSW
27-Jan-24	21:00	1.6	S
27-Jan-24	22:00	1.5	S
27-Jan-24	23:00	1.5	S
28-Jan-24	0:00	1.8	SSW
28-Jan-24	1:00	1.9	SSW
28-Jan-24	2:00	1.6	S
28-Jan-24	3:00	2.2	S
28-Jan-24	4:00	1.9	SSW
28-Jan-24	5:00	1.5	SSW
28-Jan-24	6:00	1.6	S
28-Jan-24	7:00	1.3	S
28-Jan-24	8:00	1.1	S
28-Jan-24	9:00	1.4	S
28-Jan-24	10:00	1.9	S
28-Jan-24	11:00	1.8	S
28-Jan-24	12:00	1.3	SW
28-Jan-24	13:00	1.9	S
28-Jan-24	14:00	1.9	S
28-Jan-24	15:00	1.9	SSW
28-Jan-24	16:00	1.6	SSW
28-Jan-24	17:00	1.3	SSE
28-Jan-24	18:00	1.5	SSW
28-Jan-24	19:00	1.6	S
28-Jan-24	20:00	1.4	SSW
28-Jan-24	21:00	0.8	SSW
28-Jan-24	22:00	0.9	SSE
28-Jan-24	23:00	1.0	S

January 2024			
Table II: Wind Speed and Directions			
Date	**Time**	**Wind Speed m/s**	**Direction**
29-Jan-24	0:00	0.8	S
29-Jan-24	1:00	0.9	S
29-Jan-24	2:00	1.1	SSE
29-Jan-24	3:00	1.5	S
29-Jan-24	4:00	1.5	S
29-Jan-24	5:00	1.0	S
29-Jan-24	6:00	1.0	SSW
29-Jan-24	7:00	1.2	SW
29-Jan-24	8:00	1.4	SSE
29-Jan-24	9:00	1.4	S
29-Jan-24	10:00	1.0	S
29-Jan-24	11:00	1.4	S
29-Jan-24	12:00	1.3	S
29-Jan-24	13:00	1.1	S
29-Jan-24	14:00	1.2	S
29-Jan-24	15:00	1.2	SSW
29-Jan-24	16:00	0.8	SSW
29-Jan-24	17:00	0.6	S
29-Jan-24	18:00	0.3	SE
29-Jan-24	19:00	0.2	SSE
29-Jan-24	20:00	0.3	S
29-Jan-24	21:00	0.4	S
29-Jan-24	22:00	0.1	SE
29-Jan-24	23:00	0.2	SSW
30-Jan-24	0:00	0.3	SSE
30-Jan-24	1:00	0.3	S
30-Jan-24	2:00	0.1	S
30-Jan-24	3:00	0.2	SSW
30-Jan-24	4:00	0.6	S
30-Jan-24	5:00	0.4	SW
30-Jan-24	6:00	0.7	S
30-Jan-24	7:00	0.6	S
30-Jan-24	8:00	0.0	SSW
30-Jan-24	9:00	0.4	SSW
30-Jan-24	10:00	0.5	S
30-Jan-24	11:00	0.5	SSE
30-Jan-24	12:00	0.4	SSE
30-Jan-24	13:00	0.7	S
30-Jan-24	14:00	0.3	SSE
30-Jan-24	15:00	0.7	E
30-Jan-24	16:00	0.8	SE
30-Jan-24	17:00	0.6	SE
30-Jan-24	18:00	0.1	SE
30-Jan-24	19:00	0.1	SSE
30-Jan-24	20:00	0.1	SE
30-Jan-24	21:00	0.0	SSE
30-Jan-24	22:00	0.0	E
30-Jan-24	23:00	0.1	SSW

January 2024			
Table II: Wind Speed and Directions			
Date	**Time**	**Wind Speed m/s**	**Direction**
31-Jan-24	0:00	0.0	SSE
31-Jan-24	1:00	0.2	S
31-Jan-24	2:00	0.2	SE
31-Jan-24	3:00	0.2	SW
31-Jan-24	4:00	0.2	S
31-Jan-24	5:00	0.1	SW
31-Jan-24	6:00	0.4	SW
31-Jan-24	7:00	0.3	SSE
31-Jan-24	8:00	0.4	SSW
31-Jan-24	9:00	0.5	S
31-Jan-24	10:00	0.4	SSE
31-Jan-24	11:00	0.7	SSW
31-Jan-24	12:00	1.3	S
31-Jan-24	13:00	0.9	SSW
31-Jan-24	14:00	1.0	SSW
31-Jan-24	15:00	0.8	ESE
31-Jan-24	16:00	0.8	SE
31-Jan-24	17:00	0.6	SSE
31-Jan-24	18:00	0.1	ESE
31-Jan-24	19:00	0.4	W
31-Jan-24	20:00	0.2	S
31-Jan-24	21:00	0.2	SSW
31-Jan-24	22:00	1.7	WNW
31-Jan-24	23:00	0.7	S

APPENDIX D
ENVIRONMENTAL MONITORING SCHEDULES

Contract No. KLN/2016/04
Environmental Monitoring Works for Contract No. KL/2015/02
Kai Tak Development –Stage 5A Infrastructure at Former North Apron Area
Impact Air and Noise Monitoring Schedule for January 2024

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Jan	2-Jan	3-Jan	4-Jan	5-Jan	6-Jan
		24-hr TSP [AM2(A)]	**1-hr TSP x 3 [AM2]** **Noise [M3(A), M4 & M5(C)]**			
7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan	13-Jan
	24-hr TSP [AM2(A)]	**1-hr TSP x 3 [AM2]** **Noise [M3(A), M4 & M5(C)]**				**24-hr TSP [AM2(A)]**
14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan	20-Jan
	1-hr TSP x 3 [AM2] **Noise [M3(A), M4 & M5(C)]**			**24-hr TSP [AM2(A)]**	**1-hr TSP x 3 [AM2]**	
21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan	27-Jan
			24-hr TSP [AM2(A)]	**1-hr TSP x 3 [AM2]** **Noise [M3(A), M4 & M5(C)]**		
28-Jan	29-Jan	30-Jan	31-Jan			
		24-hr TSP [AM2(A)]	**1-hr TSP x 3 [AM2]** **Noise [M3(A), M4 & M5(C)]**			

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)
* The noise level limit is 65dB(A) during the exam period

Air Quality Monitoring Station

AM2 - Lee Kau Yan Memorial School
AM2(A) - Ng Wah Catholic Secondary School

Noise Monitoring Station

M3(A) - The Bridge connecting The Latitude
M4 - Lee Kau Yan Memorial School
M5(C) - Mercy Grace's Home

Contract No. KLN/2016/04
Environmental Monitoring Works for Contract No. KL/2015/02
Kai Tak Development –Stage 5A Infrastructure at Former North Apron Area
Tentative Impact Air and Noise Monitoring Schedule for January 2024

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Feb	2-Feb	3-Feb
4-Feb	5-Feb	6-Feb	7-Feb	8-Feb	9-Feb	**10-Feb**
	24-hr TSP [AM2(A)]	**1-hr TSP x 3 [AM2]** **Noise [M3(A), M4 & M5(C)]**		**24-hr TSP [AM2(A)]**	**1-hr TSP x 3 [AM2]**	
11-Feb	**12-Feb**	**13-Feb**	14-Feb	15-Feb	16-Feb	17-Feb
			24-hr TSP [AM2(A)]	**1-hr TSP x 3 [AM2]** **Noise [M3(A), M4 & M5(C)]**		
18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb	24-Feb
	24-hr TSP [AM2(A)]	**1-hr TSP x 3 [AM2]** **Noise [M3(A), M4 & M5(C)]**				**24-hr TSP [AM2(A)]**
25-Feb	26-Feb	27-Feb	28-Feb	29-Feb		
	1-hr TSP x 3 [AM2] **Noise [M3(A), M4 & M5(C)]**			**24-hr TSP [AM2(A)]**		

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)
* The noise level limit is 65dB(A) during the exam period

Air Quality Monitoring Station

AM2 - Lee Kau Yan Memorial School
AM2(A) - Ng Wah Catholic Secondary School

Noise Monitoring Station

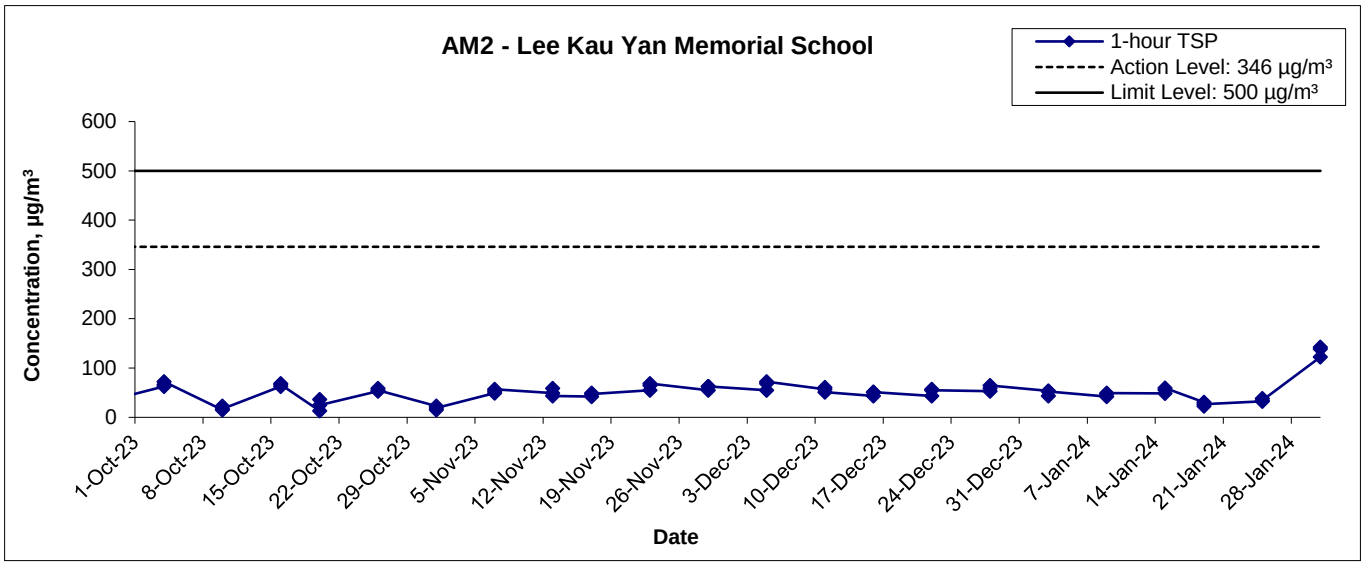
M3(A) - The Bridge connecting The Latitude
M4 - Lee Kau Yan Memorial School
M5(C) - Mercy Grace's Home

APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix E - 1-hour TSP Monitoring Results

Location AM2 - Lee Kau Yan Memorial School			
Date	Time	Weather	Particulate Concentration (μg/m^3)
3-Jan-24	11:00	Fine	54.0
3-Jan-24	12:00	Fine	43.2
3-Jan-24	13:00	Fine	52.2
9-Jan-24	9:00	Sunny	41.8
9-Jan-24	10:00	Sunny	47.5
9-Jan-24	11:00	Sunny	49.4
15-Jan-24	10:30	Fine	48.6
15-Jan-24	11:30	Fine	55.8
15-Jan-24	12:30	Fine	59.4
19-Jan-24	15:34	Sunny	30.4
19-Jan-24	16:34	Sunny	22.8
19-Jan-24	17:34	Sunny	26.6
25-Jan-24	10:54	Fine	32.3
25-Jan-24	11:54	Fine	38.0
25-Jan-24	12:54	Fine	34.2
31-Jan-24	9:10	Fine	122.4
31-Jan-24	10:10	Fine	138.6
31-Jan-24	11:10	Fine	142.2
		Average	57.7
		Maximum	142.2
		Minimum	22.8

1-hr TSP Concentration Levels



Title: Contract No. KLN/2016/04 Environmental Monitoring Works for Contract No. KL/2015/02 Kai Tak Development –Stage 5A Infrastructure at Former North Apron Area Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Date: Jan 24	Project No.: MA16043 Appendix: E	CINOTECH

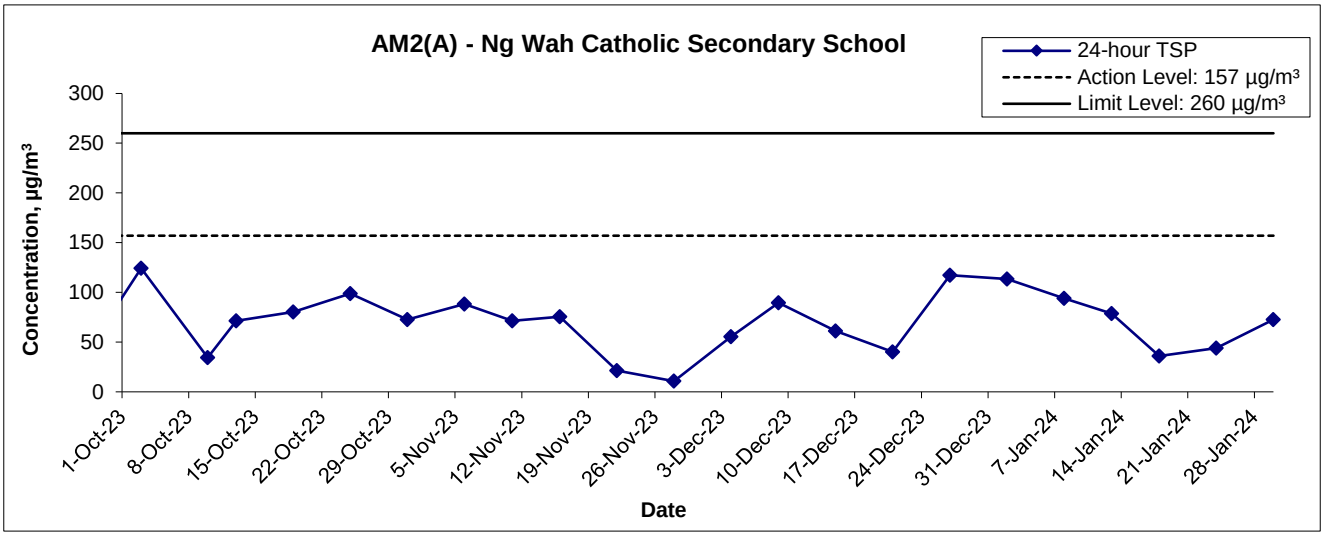
APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - 24-hour TSP Monitoring Results

Location AM2(A) - Ng Wah Catholic Secondary School

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time (hrs.)	Flow Rate (m^3/min.)		Av. Flow (m^3/min)	Total vol. (m^3)	Conc. (µg/m^3)
				Initial	Final		Initial	Final		Initial	Final			
2-Jan-24	Fine	291.8	765.7	3.3327	3.5343	0.2015	11731.3	11755.3	24.0	1.23	1.24	1.23	1778.2	113.3
8-Jan-24	Sunny	292.8	764.8	3.3522	3.5171	0.1649	11755.3	11779.3	24.0	1.22	1.22	1.22	1753.9	94.0
13-Jan-24	Sunny	293.2	766.4	3.6795	3.8175	0.1380	11779.3	11803.3	24.0	1.22	1.22	1.22	1754.5	78.6
18-Jan-24	Sunny	294.2	763.8	3.7229	3.7858	0.0629	11803.3	11827.3	24.0	1.22	1.21	1.21	1749.4	36.0
24-Jan-24	Fine	283.8	772.7	3.3048	3.3836	0.0788	11827.3	11851.3	24.0	1.24	1.24	1.24	1785.7	44.1
30-Jan-24	Fine	291.8	766.0	3.3466	3.4741	0.1276	11851.3	11875.3	24.0	1.22	1.22	1.22	1757.7	72.6
													Min	36.0
													Max	113.3
													Average	73.1

24-hr TSP Concentration Levels



Title	Contract No. KLN/2016/04 Environmental Monitoring Works for Contract No. KL/2015/02 Kai Tak Development –Stage 5A Infrastructure at Former North Apron Area Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S Date Jan 24	Project No. MA16043 Appendix F	CINOTECH

APPENDIX G
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

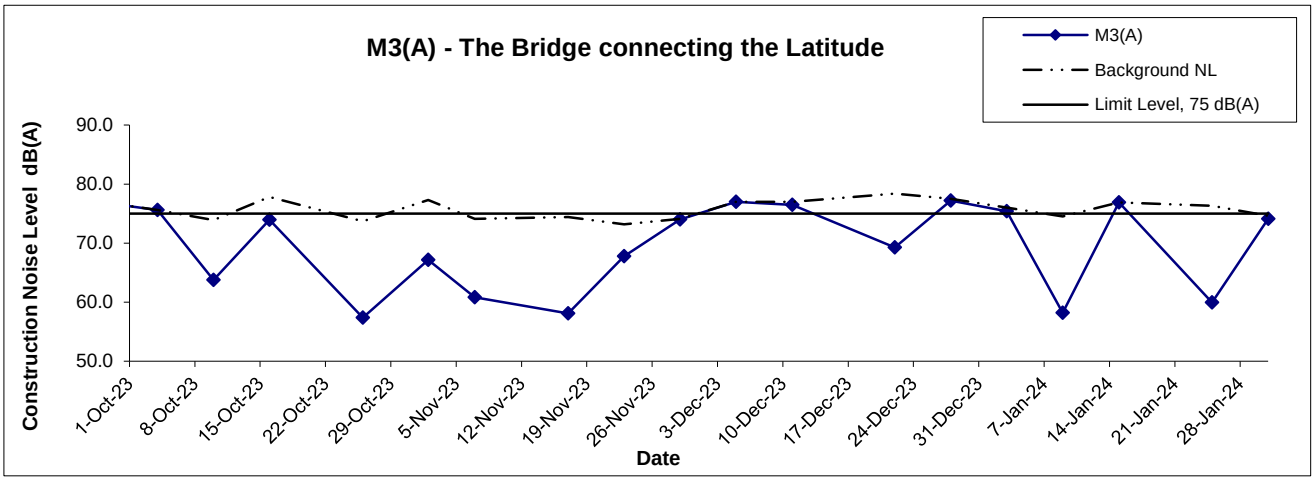
Appendix G - Noise Monitoring Results

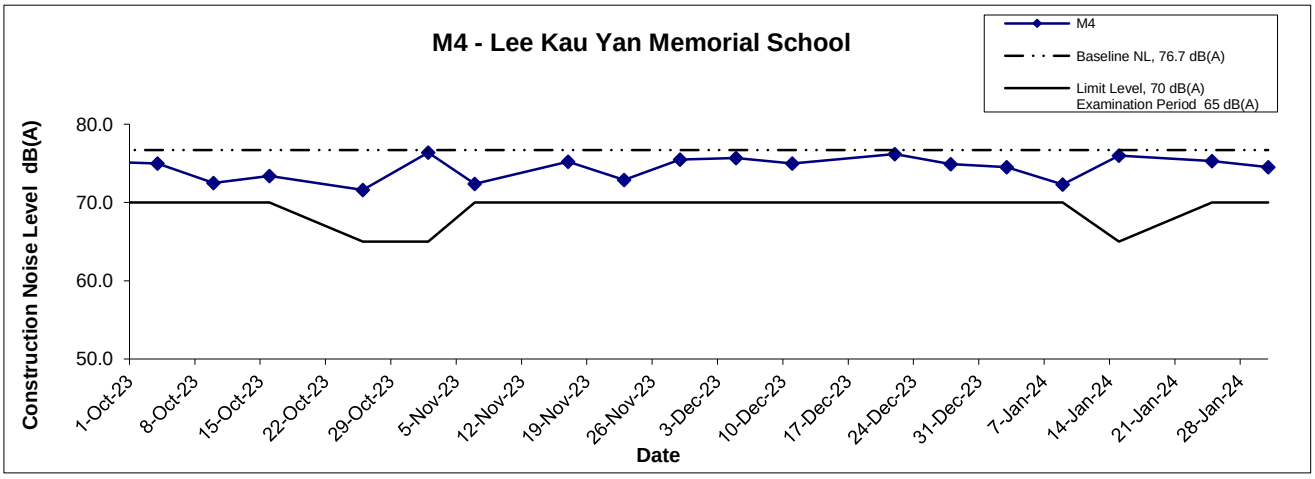
Location M3(A) - The Bridge connecting The Latitude								
Date	Time	Weather	Unit: dB (A) (30-min)					
			Measured Noise Level			Background Noise	Construction Noise Level	
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
3-Jan-24	11:30	Fine	75.4	77.8	72.3	76.0	75.4	Measured ≦ Background
9-Jan-24	11:30	Sunny	74.6	76.9	71.4	74.5	58.2	
15-Jan-24	9:00	Sunny	76.9	79.2	73.9	76.9	76.9	Measured ≦ Background
25-Jan-24	13:27	Sunny	76.4	78.4	73.7	76.3	60.0	
31-Jan-24	9:08	Cloudy	74.1	76.1	71.8	74.6	74.1	Measured ≦ Background

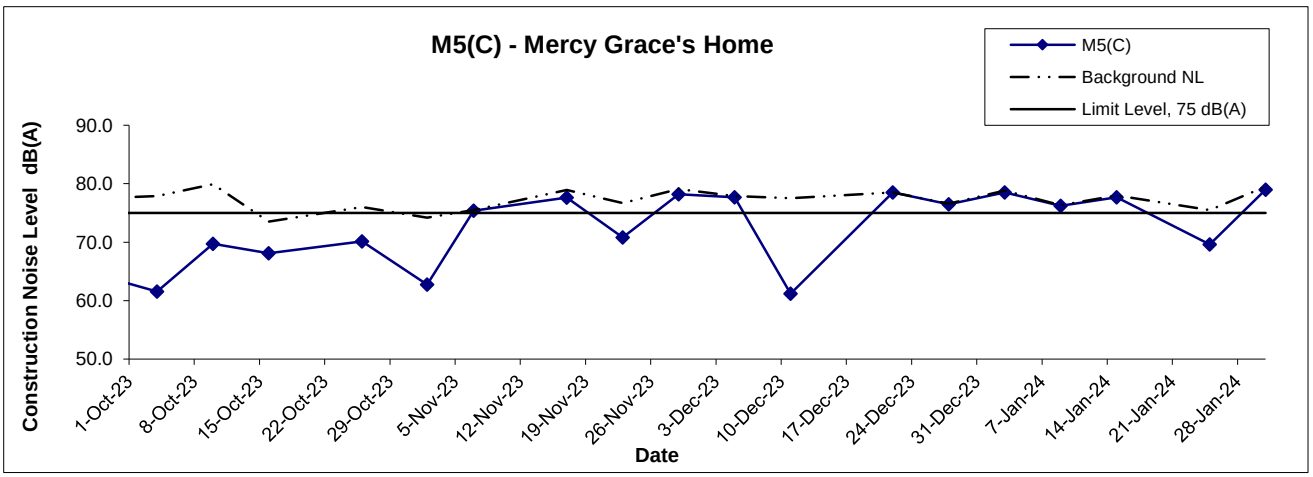
Location M4 - Lee Kau Yan Memorial School								
Date	Time	Weather	Unit: dB (A) (30-min)					
			Measured Noise Level			Baseline Level	Construction Noise Level	
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
3-Jan-24	12:58	Fine	74.5	76.5	72.2	76.7	74.5	Measured ≦ Baseline
9-Jan-24	9:00	Sunny	72.3	74.8	68.9		72.3	Measured ≦ Baseline
15-Jan-24	10:15	Fine	76.0	78.3	73.1		76.0	Measured ≦ Baseline
25-Jan-24	11:12	Fine	75.3	76.5	73.4		75.3	Measured ≦ Baseline
31-Jan-24	10:57	Cloudy	74.5	76.5	71.8		74.5	Measured ≦ Baseline

Location M5(C) - Mercy Grace's Home								
Date	Time	Weather	Unit: dB (A) (30-min)					
			Measured Noise Level			Background Noise	Construction Noise Level	
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
3-Jan-24	14:05	Sunny	78.5	80.6	76.2	78.8	78.5	Measured ≦ Background
9-Jan-24	13:00	Sunny	76.2	77.9	72.3	76.3	76.2	Measured ≦ Background
15-Jan-24	11:15	Fine	77.7	79.6	75.9	78.0	77.7	Measured ≦ Background
25-Jan-24	11:46	Fine	76.5	78.6	75.7	75.5	69.6	
31-Jan-24	11:39	Cloudy	79.0	80.9	76.5	79.5	79.0	Measured ≦ Background

Noise Levels







Remarks: [1] The construction noise levels in the Tables in Appendix G were adopted for plotting the graphs

Title: Contract No. KLN/2016/04 Environmental Monitoring Works for Contract No. KL/2015/02 Kai Tak Development –Stage 5A Infrastructure at Former North Apron Area Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Date: Jan 2024	Project No.: MA16043 Appendix: G	CINOTECH

APPENDIX H
SUMMARY OF EXCEEDANCE

Appendix H – Summary of Exceedance

Exceedance Record for Contract No. KL/2015/02
Reporting Month: January 2024

(A) Exceedance Record for Air Quality
(NIL in the reporting month)

(B) Exceedance Record for Construction Noise
(NIL in the reporting month)

(C) Exceedance Record for Landscape and Visual
(NIL in the reporting month)

APPENDIX I
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	240102
Date	02 January 2024 (Tuesday)
Time	14:00 – 15:00

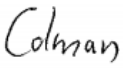
Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	Following up on the previous site inspection (ref no.: 231227): Items 231227-R1 was rectified/improved by the Contractor	

	Name	Signature	Date
Recorded by	KK Kwan		02 January 2024
Checked by	Charles Fung		05 January 2024

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	240110
Date	10 January 2024 (Wednesday)
Time	09:30 – 11:30

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	No follow-up items are required from the previous site inspection (ref no.: 240102).	

	Name	Signature	Date
Recorded by	Charles Fung		10 January 2024
Checked by	Colman Wong		10 January 2024

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	240115
Date	15 January 2024 (Monday)
Time	14:00 – 16:00

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	No follow-up items are required from the previous site inspection (ref no.: 240110).	

	Name	Signature	Date
Recorded by	Serena Ng		15 January 2024
Checked by	Charles Fung		17 January 2024

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	240122
Date	22 January 2024 (Monday)
Time	14:00 – 16:00

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	No follow-up items are required from the previous site inspection (ref no.: 240110).	

	Name	Signature	Date
Recorded by	Serena Ng		22 January 2024
Checked by	Charles Fung		24 January 2024

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	240129
Date	29 January 2024 (Monday)
Time	14:00 – 16:00

Ref. No.	**Non-Compliance**	**Related Item No.**
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	No follow-up items are required from the previous site inspection (ref no.: 240122).	

	Name	Signature	Date
Recorded by	Serena Ng		29 January 2024
Checked by	Charles Fung		31 January 2024

APPENDIX J
EVENT ACTION PLANS

Appendix J - Event Action Plans

Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded by one sampling	1. Identify source and investigate the causes of exceedance; 2. Inform Contactor, IEC and ER; 3. Repeat measurement to confirm finding.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Action Level being exceeded by two or more consecutive sampling	1. Identify source and investigate the causes of exceedance; 2. Inform Contractor, IEC and ER; 3. Increase monitoring frequency to daily; 4. Discuss with IEC and Contractor on remedial actions required; 5. Assess the effectiveness of Contractor's remedial actions; 6. If exceedance continues, arrange meeting with IEC and ER; 7. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise implementation of remedial measures; 5. Conduct meeting with ET and IEC if exceedance continues.	1. Discuss with ET and IEC on proper remedial actions; 2. Submit proposals for remedial actions to ER and IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Limit Level being exceeded by one sampling	1. Identify source and investigate the causes of exceedance; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Assess effectiveness of Contractor's remedial actions and keep	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures;	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be	1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on proper remedial actions; 3. Submit proposals for remedial actions to ER and IEC within three

	EPD, IEC and ER informed of the results.	4. Advise the ER on the effectiveness of the proposed remedial measures.	implemented; 4. Supervise implementation of remedial measures; 5. Conduct meeting with ET and IEC if exceedance continues.	working days of notification; 4. Implement the agreed proposals.
Limit Level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Repeat measurement to confirm findings; 3. Carry out analysis of Contractor's working procedures to identify source and investigate the causes of exceedance; 4. Increase monitoring frequency to daily; 5. Arrange meeting with IEC, ER and Contractor to discuss the remedial actions to be taken; 6. Assess effectiveness of Contractor's remedial actions and keep EPD, IEC and ER informed of the results; 7. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Discuss with ET, ER and IEC on proper remedial actions; 3. Submit proposals for remedial actions to IEC within three working days of notification; 4. Implement the agreed proposals; 5. Submit further remedial actions if problem still not under control; 6. Stop the relevant portion of works as instructed by the ER until the exceedance is abated.

Appendix J - Event Action Plans

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals. (The above actions should be taken within 2 working days after the exceedance is identified)
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance;	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals;

	5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	(The above actions should be taken within 2 working days after the exceedance is identified)	measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

Appendix J - Event Action Plans

Event/Action Plan for Landscape and Visual

EVENT ACTION LEVEL	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Design Check	1. Check final design conforms to the requirements of EP and prepare report.	1. Check report. 2. Recommend remedial design if necessary	1. Undertake remedial design if necessary	
Non-conformity on one occasion	1. Identify Source 2. Inform IEC and ER 3. Discuss remedial actions with IEC, ER and Contractor 4. Monitor remedial actions until rectification has been completed	1. Check report 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise ER on effectiveness of proposed remedial measures. 5. Check implementation of remedial measures.	1. Notify Contractor 2. Ensure remedial measures are properly implemented	1. Amend working methods 2. Rectify damage and undertake any necessary replacement
Repeated Non-conformity	1. Identify Source Inform IEC and	1. Check monitoring report	1. Notify Contractor 2. Ensure remedial measures are properly	1. Amend working methods 2. Rectify damage and

	ER 2. Increase monitoring frequency 3. Discuss remedial actions with IEC, ER and Contractor 4. Monitor remedial actions until rectification has been completed 5. If non-conformity stops, cease additional monitoring	2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise ER on effectiveness of proposed remedial measures 5. Supervise implementation of remedial measures.	implemented	undertake any necessary replacement

APPENDIX K
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)

Appendix K – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

sEIA Ref.	Recommended Mitigation Measures	Implementation Status
Construction Air Quality		
S6.5	8 times daily watering of the work site with active dust emitting activities.	^
S6.8	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimize cumulative dust impacts.	^
	• Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	^
	• Misting for the dusty material should be carried out before being loaded into the vehicle. Any vehicle with an open load carrying area should have properly fitted side and tail boards.	^
	• Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin.	^
	• The tarpaulin should be properly secured and should extent at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary before transportation.	^
	• The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways insider the site. Onsite unpaved roads should be compacted and kept free of lose materials.	^
	• Vehicle washing facilities should be provided at every vehicle exit point.	N/A(1)
	• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	^
	• Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	^
	• Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the three sides.	^
	• Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	^

S6.8	• DWFI compound for JVBC: A DWFI compound is proposed at the downstream of JVC to contain pollution in drainage systems entering the KTAC and KTTS by interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the compounds to prevent any accumulation of sediment within the downstream section of JVBC and hence fully mitigate the potential odour emissions from the headspace of JVBC near the existing discharge locations. The odour generating operations within the proposed desilting compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the atmosphere.	N/A
	• Desilting compound for KTN: Two desilting compounds are proposed for KTN (at Site 1D6 and Site 1P1) to contain pollution in drainage systems entering the KTAC and KTTS by interception facilities until the ultimate removal of the pollution sources. Tidal barriers and desiliting facilities will form part of the compounds to prevent any accumulation of sediment within the downstream section of KTN and hence fully mitigate the potential odour emissions from the headspace of KTN near the existing discharge locations. The odour generating operations within the proposed desilting compound will be fully enclosed and the odorous air will be collected and treated by high efficiency deodorizers before discharge to the atmosphere.	N/A
	• Decking or reconstruction of KTN within apron area: It is proposed to deck the KTN or reconstruct the KTN within the former Apron area into Kai Tak River from the south of Road D1 to the north of Road D2 along the existing alignment of KTN. The Kai Tak River will compose of a number of channels flowing with nonodorous fresh water and THEES effluent. The channel flowing with THEES effluent will be designed with the width of water surface of not more than 16m.	N/A
	• Localised maintenance dredging: Localised maintenance dredging should be conducted to provide water depth of not less than 3.5m over the whole of KTAC and KTTS. With reference to the water depth data recorded during the odour survey, only some of the areas in the northern part of KTAC (i.e. to the north of taxiway bridge) including the area near the northern edge of KTAC, the area near western bank of KTAC, and the area near the JVC discharge have water depths shallower than 3.5m. The area involved would be about 40% of the northern KTAC and the dredging depth required would be from about 2.7m to less than 1m. The maintenance dredging to be carried out prior to the occupation of any new development in the immediate vicinity of KTAC to avoid potential localized odour impacts at the future ASRs during the maintenance	N/A

	dredging operation. • Improvement of water circulation in KTAC and KTTS: 600m gap opening at the northern part of the former Kai Tak runway, the water circulation in KTAC and KTTS would be substantially improved. Together with the improvement in water circulation, the DO level in KTAC and KTTS would also be increased. • In-situ sediment treatment by bioremediation: Bioremediation would be applied to the entire KTAC and KTTS.	N/A N/A
Construction Noise		
S7.8	Use of quiet PME, movable barriers barrier for Asphalt Paver, Breaker, Excavator and Hand-held breaker and full enclosure for Air Compressor, Bar Bender, Concrete Pump, Generator and Water Pump.	^
S7.9	Good Site Practice: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. • Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program. • Mobile plant, if any, should be sited as far away from NSRs as possible. • Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	 ^ ^ ^ ^ ^
S7.9	Scheduling of Construction Works during School Examination Period	^
S7.8	(i) Provision of low noise surfacing in a section of Road L2; and (ii) Provision of structural fins	N/A N/A
S7.8	(i) Avoid the sensitive façade of class room facing Road L2 and L4; and (ii) Provision of low noise surfacing in a section of Road L2 & L4	N/A N/A

S7.8	(i) Provision of low noise surfacing in a section of Road L4 before occupation of Site 1I1; and	N/A
	(ii) Setback of building about 5m from site boundary.	N/A
S7.8	Setback of building about 35m to the northwest direction at 1L3 and 5m at Site 1L2.	N/A
S7.8	(i) avoid any sensitive façades with openable window facing the existing Kowloon City Road network; and Avoid the sensitive façade of class room facing Road L2 and L4; and	N/A
	(ii) for the sensitive facades facing the To Kwa Wan direction, either setback the facades by about 5m to the northeast direction or do not provide the facades with openable window.	N/A
S7.8	(i) avoid any sensitive facades with openable window facing the existing To Kwa Wan Road or	N/A
	(ii) provision of 17.5m high noise tolerant building fronting To Kwa Wan Road and restrict the height of the residential block(s) located at less than 55m away from To Kwa Wan Road to no more than 25m above ground	N/A
S7.8	(i) avoid any sensitive facades with openable window facing the slip road connecting Prince Edward Road East and San Po Kong or other alternative mitigation measures and at-source mitigation measures for the surrounding new local roads to minimise the potential traffic noise impacts from the slip road	^
S7.8	All the ventilation fans installed in the below will be provided with silencers or acoustics treatment.	
	(i) SPS	N/A
	(ii) ESS	N/A
	(iii) Tunnel Ventilation Shaft	N/A
	(iv) EFTS depot	N/A
S7.8	Installation of retractable roof or other equivalent measures	N/A
Construction Water Quality		
S8.8	The following mitigation measures are proposed to be incorporated in the design of the SPS at KTD, including:	
	• Dual power supply or emergency generator should be provided at all the SPSs to secure electrical power supply;	N/A
	• Standby pumps should be provided at all SPSs to ensure smooth operation of the SPS during maintenance of the duty pumps;	N/A
	• An alarm should be installed to signal emergency high water level in the wet well at all SPSs; and	N/A
	• For all unmanned SPSs, a remote monitor system connecting SPSs with the control station through telemetry system should be provided so that swift actions could be taken in case of malfunction of unmanned facilities	N/A

Appendix K – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S8.8	**Construction Phase** Marine-based Construction *Capital and Maintenance Dredging for Cruise Terminal* Mitigation measures for construction of the proposed cruise terminal should follow those recommended in the approved EIA for CT Dredging.	N/A
S8.8	*Fireboat Berth, Runway Opening and Road T2* Silt curtains should be deployed around the close grab dredger to minimize release of sediment and other contaminants for any dredging and filling activities in open water.	N/A
S8.8	Dredging at and near the seawall area for construction of the public landing steps cum fireboat berth should be carried out at a maximum production rate of 1,000m^3 per day using one grab dredger.	N/A
S8.8	The proposed construction method for runway opening should adopt an approach where the existing seawall at the runway will not be removed until completion of all excavation and dredging works for demolition of the runway. Thus, excavation of bulk fill and majority of the dredging works will be carried out behind the existing seawall, and the sediment plume can be effectively contained within the works area. As there is likely some accumulation of sediments alongside the runway, there will be a need to dredge the existing seabed after completion of all the demolition works. Dredging alongside the 600m opening should be carried out at a maximum production rate of 2,000m^3 per day using one grab dredger.	N/A
8.8	Dredging for Road T2 should be conducted at a maximum rate of 8,000m^3 per day (using four grab dredgers) whereas the sand filling should be conducted at a maximum rate of 2,000m3 per day (using two grab dredgers).	N/A
8.8	Silt screens shall be applied to seawater intakes at WSD seawater intake.	N/A

Appendix K – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S8.8	Land-based Construction *Construction Runoff* Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include: • use of sediment traps • adequate maintenance of drainage systems to prevent flooding and overflow	 ^ ^
S8.8	Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.	^
S8.8	Construction site should be provided with adequately designed perimeter channel and pre-treatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94.	^
S8.8	Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources and particularly suited to applications where the influent is pumped.	^
S8.8	Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m^3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	^
S8.8	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.	*
S8.8	Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty	^

	surface runoff during storm events.	
S8.8	Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	N/A(1)
S8.8	All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	^
S8.8	*Drainage* It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There should be no direct discharge of effluent from the site into the sea	^
S8.8	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.	^
S8.8	All fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour WCZ.	^
S8.8	*Sewage Effluent* Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor should also be responsible for waste disposal and maintenance practices.	^

Appendix K – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S8.8	*Stormwater Discharges* Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes	^
S8.8	*Debris and Litter* In order to maintain water quality in acceptable conditions with regard to aesthetic quality, contractors should be required, under conditions of contract, to ensure that site management is optimised and that disposal of any solid materials, litter or wastes to marine waters does not occur	^
S8.8	*Construction Works at or in Close Proximity of Storm Culvert or Seafront* The proposed works should preferably be carried out within the dry season where the flow in the drainage channel /storm culvert/ nullah is low.	^
S8.8	The use of less or smaller construction plants may be specified to reduce the disturbance to the bottom sediment at the drainage channel /storm culvert / nullah.	^
S8.8	Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works	^
S8.8	Stockpiling of construction materials and dusty materials should be covered and located away from any water courses.	^
S8.8	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.	^
S8.8	Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable.	^
S8.8	Mitigation measures to control site runoff from entering the nearby water environment should be implemented to minimize water quality impacts. Surface channels should be provided along the edge of the waterfront within the work sites to intercept the runoff.	^
S8.8	Construction effluent, site run-off and sewage should be properly collected and/or treated.	^
S8.8	Any works site inside the storm water courses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the storm water quality.	N/A
S8.8	Silt curtain may be installed around the construction activities at the seafront to minimize the potential impacts due to accidental spillage of construction materials.	N/A
S8.8	Proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert/drainage channel/sea.	N/A

S8.8	Supervisory staff should be assigned to station on site to closely supervise and monitor the works	^
S8.8	Marine water quality monitoring and audit programme shall be implemented for the proposed sediment treatment operation.	N/A
Construction Waste Management		
S9.5	Good Site Practices It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are adhered to. Recommendations for good site practices during the dredging activities include: • Nomination of an approved person, such as a site manager, be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site. • Training of site personnel in proper waste management and chemical waste handling procedures. • Provision of sufficient waste disposal points and regular collection for disposal. • Appropriate measure to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. • A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	^ ^ ^ ^ ^
S9.5	Waste Reduction Measures Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: • Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal • Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force • Any unused chemicals or those with remaining functional capacity should be recycled • Proper storage and site practices to minimise the potential for damage or contamination of construction materials	^ ^ ^ ^ ^

Appendix K – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S9.5	Dredged Marine Sediment The basic requirements and procedures for dredged mud disposal are specified under the ETWB TCW No. 34/2002. The management of the dredging, use and disposal of marine mud is monitored by the MFC, while the licensing of marine dumping is required under the Dumping at Sea Ordinance and is the responsibility of the Director of Environmental Protection (DEP)	N/A
S9.5	The dredged marine sediments would be loaded onto barges and transported to the designated disposal sites allocated by the MFC depending on their level of contamination. Sediment classified as Category L would be suitable for Type 1 - Open Sea Disposal. Contaminated sediment would require either Type 1 – Open Sea Disposal (Dedicated Sites), Type 2 - Confined Marine Disposal, or Type 3 – Special Treatment / Disposal and must be dredged and transported with great care in accordance with ETWB TCW No. 34/2002. Subject to the final allocation of the disposal sites by MFC, the dredged contaminated sediment must be effectively isolated from the environment and disposed properly at the designated disposal site	N/A
S9.5	It will be the responsibility of the contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, prior to the dredging contract being tendered. The contractor for the dredging works should apply for allocation of marine disposal sites and all necessary permits from relevant authorities for the disposal of dredged sediment. During transportation and disposal of the dredged marine sediments requiring Type 1, Type 2, or Type 3 disposal, the following measures should be taken to minimise potential impacts on water quality: • Bottom opening of barges should be fitted with tight fitting seals to prevent leakage of material. Excess material should be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved • Monitoring of the barge loading should be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels should be equipped with automatic selfmonitoring devices as required under the Dumping at Sea Ordinance and as specified by the DEP • Barges or hopper barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	N/A N/A N/A
S9.5	Construction and Demolition Material Mitigation measures and good site practices should be incorporated into contract document to control potential environmental impact from handling and transportation of C&D material. The mitigation measures include: • Where it is unavoidable to have transient stockpiles of C&D material within the Project work site pending collection for disposal, the	^

	transient stockpiles should be located away from waterfront or storm drains as far as possible	
	• Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric	^
	• Skip hoist for material transport should be totally enclosed by impervious sheeting	^
	• Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site	^
	• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores	^
	• The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle	^
	• All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet	^
	• The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading	^
	When delivering inert C&D material to public fill reception facilities, the material should consist entirely of inert construction waste and of size less than 250mm or other sizes as agreed with the Secretary of the Public Fill Committee. In order to monitor the disposal of the surplus C&D material at the designed public fill reception facility and to control fly tipping, a trip-ticket system as stipulated in the ETWB TCW No. 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Materials" should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.	^
S9.5/-	Chemical Waste	
	(i) After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be collected by a licensed collector for disposal at the CWTF or other licensed facility, in accordance with the *Waste Disposal (Chemical Waste) (General) Regulation*	^
	(ii) Maintenance of vehicles and equipment involving activities with potential of leakage and spillage should only be undertaken within the areas which are appropriately equipped to control these discharges.	^

Appendix K – Summary of Implementation Schedule of Mitigation Measures for Construction Phase

S9.5	General Refuse General refuse should be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Effective collection and storage methods (including enclosed and covered area) of site wastes would be required to prevent waste materials from being blown around by wind, wastewater discharge by flushing or leaching into the marine environment, or creating odour nuisance or pest and vermin problem		^
Construction Landscape and Visual			
S13.9	CM1	All existing trees should be carefully protected during construction.	^
	CM2	Trees unavoidably affected by the works should be transplanted where practical. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees should be agreed prior to commencement of the work.	^
	CM3	Control of night-time lighting.	N/A(1)
	CM4	Erection of decorative screen hoarding.	^

Remarks:

^	Compliance of mitigation measure
*	Recommendations were made during site audits but improved/rectified by the Contractor
#	Recommendations were made during site audits but has not yet been improved/rectified by the Contractor
●	Non-compliance but rectified by the Contractor
X	Non-compliance of mitigation measure
N/A	Not Applicable at this stage
N/A(1)	Not observed

APPENDIX L
SUMMARIES OF ENVIRONMENTAL COMPLAINT, WARNING, SUMMON AND NOTIFICATION OF SUCCESSFUL PROSECUTION

Contract No. KLN/2016/04
Environmental Monitoring Works for Contract No. KL/2015/02
Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area

Appendix L – Summary of environmental complaint, warning, summon and notification of successful prosecution

Complaint Log

EPD Complaint Ref No.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
17-34438	Dakota Drive and Olympic Avenue	23 October 2017	The complainant concerned about the dust emission when vehicle running on the dry surface outside Dakota Drive and Olympic Avenue. In addition, vehicles were not clear enough before leaving the construction site.	In accordance with the information gathered in the investigation, construction activities were conducted with proper mitigation measures to minimize the dust impact arise from the construction site to the vicinity of this Project. Regular water spraying was provided to haul roads and unpaved areas within the site areas to reduce the dust impact arise from the construction site to the vicinity of this Project. The Contractor had also ensured vehicles and plants were wheel washed to be cleaned of mud and debris before leaving the construction site area. Therefore, the complaint is considered as non-project related. The following recommendations were made to further enhance the mitigation measures: ● Where practicable, to provide sheltered area on the top and three sides for stockpiles of dusty materials, or perform frequent water spraying so as to maintain the entire surface wet; ● Frequent checking and repair the gaps or broken tarpaulin sheets; and ● To provide a hard-surfaced road between any cleaning facility and the public Road	Closed

Remarks: No complaint was received in the reporting month.

Contract No. KLN/2016/04
Environmental Monitoring Works for Contract No. KL/2015/02
Kai Tak Development – Stage 5A Infrastructure at Former North Apron Area

Appendix L – Summary of environmental complaint, warning, summon and notification of successful prosecution

Warnings / Summons and Successful Prosecutions received

Log Ref.	Received Date	Details of Warning / Summons and Successful Prosecutions	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A

Remarks: No warning/summon and prosecution was received in the reporting month.

APPENDIX M
SUMMARY OF WASTE GENERATION AND DISPOSAL RECORDS

Department: CEDD
Contract No.: KL/2015/02
Project : Kai Tak Development - Stage 5A Infrastructure at Former North Apron Area

Peako - Wo Hing Joint Venture

Monthly Summary Waste Flow Table for 2024

As at 1 February 2024

Month	Quantities of Inert C & D Materials Generated Monthly						Quantities of C & D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ Cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m³)
Jan Feb Mar Apr May June	0.045	0	0	0	0.045	0	0	0	0	0	0
Sub-total	70.255	0	0	0.406	69.849	0	0	0	0	0	2.947
July Aug Sept Oct Nov Dec											
Total	70.255	0	0	0.406	69.849	0	0	0	0	0	2.947

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ Cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m³)
72	0	0	1	69	0	0	0	0	0	3

Notes:
(1) The performance targets are given in PS clause 6(14).
(2) The waste flow table shall also include C & D materials that are specified in the Contract to be imported for use at the Site.
(3) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging material.
(4) The Contractor shall also submit the latest forcast of the total amount of C&D materials exected to be generated from the Works, together with a braskdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or excreeding 50,00 m³. (PS Cleuse 25.02A(7) refers).

APPENDIX N
CONSTRUCTION PROGRAMME

Kai Tak Development

- Stage 5A Infrastructure At Former North Apron Area

Bar Chart Programme

	Anticipated Completion	2022		2023												2024											
		11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
- Removal of Traffic Deckings at Prince Edward Road East Outer Eastbound in front of Shek Ku Lung Road Playground	29-May-23																										
- Reinstatement of Shek Ku Lung Road Playground	26-Oct-23																										
- Reinstatement of Footpath of Prince Edward Road East in front of Shek Ku Lung Road Playground	27-Mar-24																										
- Reinstatement of Stage 2	30-Nov-22																										
- Reinstatement of Stage 1	15-Mar-23																										
- Structural Works for LT2 & ST2	8-Feb-24																										
- Steel Works Erection for LT2 and ST2	8-Apr-24																										
- Finishing and E&M Works for LT2 and ST2	1-Oct-24																										
- Road Works of Road D1 (Olympic Ave)	30-Dec-24																										