# Development at West Kowloon Cultural District

Quarterly Environmental Monitoring and Audit (EM&A) Report (February 2024 – April 2024)

May 2024

This Quarterly EM&A Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

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	Environmental Team Leader (ETL)
	West Kowloon Cultural District Authority
Date	30 May 2024
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	Claudine LEE
	Independent Environmental Checker (IEC)
	Meinhardt Infrastructure and Environment Ltd
Date	31 May 2024

This Report Consists of:

Part-1: EM&A at Lyric Theatre Complex

and

Part-2: EM&A for Foundation Works in Zone 2B & 2C





# **Lyric Theatre Complex**

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## **Executive summary**

This Quarterly EM&A Report presents the monitoring works at Lyric Theatre Complex conducted from 1 February 2024 to 30 April 2024. The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

The impact stage EM&A programme for the Project includes air quality, noise, water quality, waste, landscape and visual monitoring. The recommended environmental mitigation measures were implemented on site and regular inspections were carried out to ensure that the environmental conditions are acceptable.

The EM&A programme was carried out by the ET in accordance with the EM&A Manual requirements. It is concluded from the environmental monitoring and audit works that adequate environmental mitigation measures have been implemented by the contractors where appropriate in the reporting quarter.

#### **Exceedance of Action and Limit Levels**

There was no breach of Action and Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

#### **Implementation of Mitigation Measures**

Construction phase weekly site inspections were carried out to confirm the implementation measures undertaken by the Contractors in the reporting quarter. The status of implementation of mitigation measures during the reporting quarter is shown in **Appendix C**.

Landscape and visual impact inspections were conducted as part of the abovementioned weekly site inspections during the reporting quarter. No adverse comment on landscape and visual aspects were made during these inspections.

### **Record of Complaints**

No complaint was received during the reporting quarter.

#### **Record of Notifications of Summons and Successful Prosecutions**

No notifications of summons and successful prosecutions were recorded in the reporting quarter.

## 1 Introduction

### 1.1 Background

Mott MacDonald Hong Kong Limited (MMHK) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction of M+ Museum Main Works (Contract No.: CC/2015/3A/022) and Lyric Theatre Complex including the Foundation Works (Contract No.: CC/2015/3A/014), L1 Contract (Contract No. CC/2017/3A/030) and L2 Contract (Contract No. CC/2017/3A/031) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCDA). The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an "engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000" (Item 1 of Schedule 3) and "an underpass more than 100m in length under the built areas" (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the "Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District" which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary also falls under this same category.

The M+ museum development aims to provide an iconic presence for the M+ museum, semi-transparent vertical plane, housing education facilities, a public restaurant and museum offices. At ground and lower levels, generous access will be provided to the park and other West Kowloon Cultural District facilities, alongside a public resource centre, theatres, retail and dining, and back-of-house functions.

The 1,200-seat Lyric Theatre Complex will be Hong Kong's first world-class facility for dance performances, including ballet, contemporary and Chinese dance forms. In the run up to the opening of further major performing arts venues in the WKCD, it will also be used for a wide variety of performing arts events including drama, opera and musical performances. The Lyric Theatre Complex will act as a platform for Hong Kong's leading arts organisations and be a new major venue to show programmes from Asia and worldwide.

The Quarterly EM&A Report is prepared in accordance with the Clause 3.4 of the Environmental Permit No. EP-453/2013/B. This Quarterly EM&A Report presents the monitoring works conducted from 1 February 2024 to 30 April 2024. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

#### 1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

## 1.3 Status of Construction Works in the Reporting Period

During the reporting period, construction works at L2 undertaken include:

LTC construction

Structure (Slab, wall, columns and beam)

- Falsework and formwork erection
- Reinforcement work
- Concrete work

ABWF & MEP work

Façade work

- ASDA and Lyric Theatre Promenade
  - Structure, ABWF and MEP works
  - Installation of vent pipes
  - Construction of the plant room at LB01M
  - Removal of single sheet hoarding and water barriers
  - Levelling the paving at L01M
  - Granite installation for planter at digital signage
  - Construction of FTNS draw pit and ducting
- DCS cofferdam (Cofferdam B)
  - Seawater pipework installation
  - Thrust block construction
  - Backfilling
  - Dismantle ELS struts
  - Construction of valve chamber
- Extended basement
  - ABWF & MEP works
- Underpass and Associated Area
  - Structure works
  - ABWF & MEP works

The Construction Works Programme of the Project is provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**.

# 2 Summary of EM&A Requirements and Mitigation Measures

## 2.1 Monitoring Requirements

In accordance with the EM&A Manual, environmental parameters including air quality, noise, landscape and visual have been monitored. The specific parameters, monitoring frequency and the respective Action and Limit levels are given in **Table 2.1**. Locations of the monitoring stations are provided in **Figure 1**.

Table 2.1: Summary of Impact EM&A Requirements

<b>Parameters</b>	Descriptions	Locations	Frequencies	Action level	Limit level
Air Quality	24-Hour TSP	AM1 - International Commerce Centre	At least once every 6 days	143.6 µg/m³	260 μg/m³
	1-Hour TSP	AM1 - International Commerce Centre	At least 3 times every 6 days	273.7 μg/m³	500 μg/m³
	24-Hour TSP	AM2 - The Harbourside Tower 1	At least once every 6 days	151.1 μg/m³	260 μg/m³
	1-Hour TSP	AM2 - The Harbourside Tower 1	At least 3 times every 6 days	274.2 μg/m³	500 μg/m³
Noise	Leq, 30 minutes	NM1- The Harbourside Tower 1	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly	N/A	N/A

In the context of the monitoring activities at M+ Museum and the Lyric Complex, three monitoring stations had been considered, including AM1 (International Commerce Centre), AM2 (The Harbourside Tower 1) for air monitoring, and NM1 (The Harbourside Tower 1) for noise monitoring. Other monitoring locations were so far away from M+ Museum and the Lyric Complex and could not be representative for impact monitoring.

The Harbourside management office formally rejected our proposal of setting up air quality and noise monitoring equipment on its premises at the podium level of Tower 1 (AM2/NM1) on 10 November 2015. Nevertheless, a suitable air quality monitoring location at AM2 was identified on the ground floor in front of The Harbourside Tower 1, which is at the same location as that of baseline monitoring for consistency. No management approval is required on the ground floor for conducting the air monitoring. However, the electricity supply at AM2 was suspended from 31 August 2016. In order to have a more secure electricity supply, an alternative air monitoring location (AM2A) was identified at Austin Road West opposite to The Harbourside Tower 1, which

is close to Lyric Theatre Complex site entrance. This alternative air monitoring location was approved by EPD on 28 September 2016. Due to the works programme, the air monitoring location AM2A has been relocated to the alternative monitoring location AM2B at the 1st floor of Gammon's site office, which was approved by EPD on 21 February 2019. In view of the upcoming construction works to be undertaken at the air monitoring station AM2B, AM2B was no longer available for conducting the impact air quality monitoring. Hence, an alternative air monitoring location was identified on the ground floor in front of The Harbourside Tower 1 (AM2) which is at the same location as the baseline monitoring and this previously approved monitoring location had also been used for the EM&A Programme from November 2015 to August 2016, the relocation was approved by EPD on 27 May 2021.

Alternative noise monitoring location was identified at The Arch (NM2); however, The Arch management office formally rejected our proposal of setting up noise monitoring equipment on its premises on 23 November 2015. On the other hand, noise monitoring at G/F of Harbourside could not be representative. However, approval from the management office of the International Commerce Centre has been granted on 29 February 2016 for conducting noise monitoring at the alternative noise monitoring location identified at the podium floor (NM1A) which is free from screening to the construction activities.

In short, 2 air quality monitoring stations and 1 noise impact monitoring station were confirmed for the impact monitoring.

#### 2.2 Environmental Mitigation Measures

Environmental mitigation measures have been recommended in the EM&A Manual. Summary of implementation status of the environmental mitigation measures is provided in **Appendix C**.

## 3 Summary of EM&A Results

### 3.1 Monitoring Data

Impact monitoring has been conducted in the reporting quarter. Meteorological data for the reporting quarter have been extracted from Hong Kong Observatory and presented in **Appendix D**. Monitoring data with graphical presentation for the reporting quarter are shown in **Appendix E**. A summary on the monitoring results is presented in **Table 3.1**.

Table 3.1: Summary of Monitoring Data

Parameter	<b>Monitoring Location</b>	Monitoring Location Minimum		Average	
Air Quality					
1 hour TSP	AM1	21	71	40	
	AM2	31	85	51	
24 hour TSP	AM1	13	60	31	
	AM2	24	67	40	
Construction Noise					
Leq(30min)	NM1A	65	64	66	

## 3.2 Monitoring Exceedances

Summary of the exceedances in the reporting quarter is tabulated in **Table 3.2**.

Table 3.2: Summary of Exceedances

Monitoring Station	Parameter	No. of Exceedance		Action Taken	
		Action Level	Limit Level	•	
Air Quality					
AM1	1 hour TSP	0	0	N/A	
	24 hour TSP	0	0	N/A	
AM2	1 hour TSP	0	0	N/A	
	24 hour TSP	0	0	N/A	
Construction Noise					
NM1A	Leq(30min)	0	0	N/A	

### 3.2.1 1-hour TSP Monitoring

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

#### 3.2.2 24-hour TSP Monitoring

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

## 3.2.3 Construction Noise Monitoring

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

## 3.2.4 Landscape and Visual Monitoring

All landscape and visual impact inspections were conducted as scheduled in the reporting quarter. No adverse comment on landscape and visual aspects were recorded.

## 4 Waste Management

### 4.1 Lyric Theatre Complex

As advised by the Contractor (L2 Contract), 1,463.2 tonnes, 309.0 tonnes and 0.0 tonne of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137, Tuen Mun Area 38, and Chai Wan Public Fill Barging Point respectively in the reporting quarter, while 1,091.4 tonnes of general refuse were disposed of at SENT and WENT landfill. 454.7 tonnes of metals, 0.8 tonnes of paper/cardboard packaging, 0.0 tonne of plastic and 0.0 tonne of timber were collected by recycling contractors in the reporting quarter. 0.0 tonne of inert C&D materials was reused on site. 0.0 tonne of fill materials was imported for use at site and 0.0 tonne of inert C&D materials was reused in other projects. 0.0 tonne of inert C&D materials were disposed to sorting facility and 0.0 tonne of chemical waste were collected by licensed contractors in the reporting quarter.

The actual amount of different types of waste generated by the activities of construction works at Lyric Theatre Complex in the reporting quarter are shown in **Appendix F**.

## 5 Environmental Non-conformance

There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in the reporting quarter.

No complaint was received in the reporting quarter. No notifications of summons and successful prosecutions were received in the reporting quarter.

The cumulative statistics on complaints, notifications of summons and successful prosecutions were provided in **Appendix G**.

## 6 Comments, Recommendations and Conclusion

#### 6.1 Comments

Based on the observations made during site audits, landscape inspections, and construction dust and noise monitoring results, no non-compliances and exceedances of air quality and noise were recorded in the reporting quarter.

#### 6.2 Recommendations

Reviewing the implementation of the recommended mitigation measures in the EM&A Manual, it was observed that they were effective and efficient in controlling the potential impacts due to construction of the project during the reporting period. Review of the effectiveness and efficiency of the EM&A programme will continue, and recommendations will be provided to remediate any potential impacts due to the project and to improve the EM&A programme if deficiencies of the existing EM&A programme are identified.

#### 6.3 Conclusion

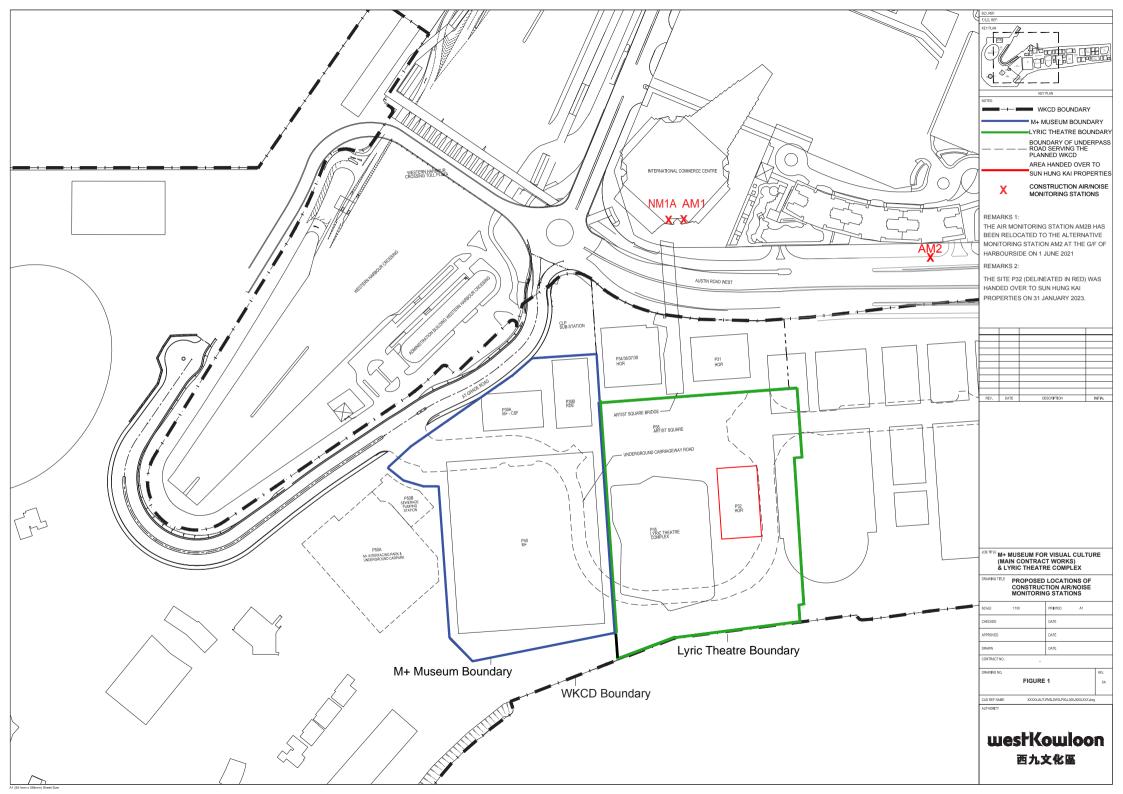
The EM&A programme as recommended in the EM&A Manual has been undertaken. The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

Monitoring of air quality and noise with respect to the Project is underway. In particular, the 1-hour TSP, 24-hour TSP and noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit levels. There was no breach of Action and Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

No complaint was received in the reporting quarter. No notifications of summons and successful prosecutions were received during the reporting quarter.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting quarter as required. It was observed that the Contractor had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

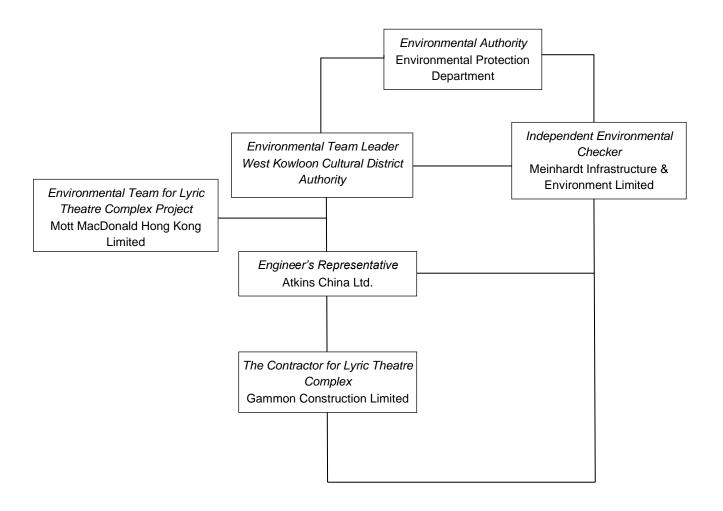
# Figure 1 Site Layout Plan and Monitoring Stations



## **Appendices**

- A. Project Organisation
- B. Construction Programme
- C. Environmental Mitigation Measures Implementation Status
- D. Meteorological Data Extracted from Hong Kong Observatory
- E. Graphical Plots of the Monitoring Results
- F. Waste Flow table
- G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

## A. Project Organisation



Tahla A-1.	Contact information	

<b>Company Name</b>	Role	Name	Telephone	Email
Atkins China Ltd.	Project Manager	Mr. Simha LytheRao	2204 8259	Simha.Lytherao@atkinsglobal.com
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Ms. Claudine Lee	2859 5409	claudinelee@meinhardt.com.hk
Gammon Construction Limited (L2)	Environmental Manager	Ms. Fiona Law	9156 7654	fiona.cm.law@gammonconstruction.c
Mott MacDonald Hong Kong Ltd.	Contractor's Environmental Team Leader	Mr. Thomas Chan	2828 5757	thomas.chan@mottmac.com
West Kowloon Cultural District Authority	Project Manager (Health, Safety and Environment)	Mr. Max Lee	2200 0782	max.sl.lee@wkcda.hk

## **B.** Construction Programme

L2-CMWP-R\_02\_20 L2 CMWP\_R02\_20 - IFA 27Apr22 - \*\*\*LIVE\*\*\* (UPDATE: 31Oct2023)

## TASK filter: L2 UPD: Summary Level 1 Program.

Activity BL Rev 02 BL Rev 02 VAR r 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 3 | Qtr 4 | VAR EV % Finish Finish TF (approx) L2 CMWP R02 20 - IFA 27Apr22 - \*\*\*LIVE\*\*\* (UPDATE: 31Oct2023) **GENERAL & PRELIMINARIES** Contract Significant Dates Commencement & Completion Dates - CMWP Rev 01 Section Keydates KD05A Complete Required Pedestrian Access Corridor and Floor Finishes at 28-Feb-21 12-Nov-21 12-Nov-21 A 100% 0 KD05B Complete Required Pedestrian Access Corridor & associated top slab at 14-Feb-21 12-Nov-21 12-Nov-21 A 100% 0 0 Avenue Level [if instructed] KD05 PC for HO of the Remaining Works for M+ Promenade South 24-Aug-20 13-Jan-23 20-Feb-24\* -403 -403 -19 0% PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks KD08 10-Feb-23 -370 -122 10-Sep-24 15-Sep-25 -370 0% PC for HO of ASDA, Lyric Theatre Promenade South to Authority 10-Feb-23 10-Sep-24 15-Sep-25\* -370 -122 0% 0 KD09 PC for HO of RDE areas for Tenancy Fit-out Wrks 10-Feb-23 10-Sep-24 15-Sep-25\* -370 -122 0% -370 KD11 PC for HO of Extended Basement for HO to Authority & HO of 10-Feb-23 12-Nov-24 17-Nov-25 -370 -370 -123 0% Carriageway to Relevant Govt Authority PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works) -369 10-Feb-23 09-Dec-24 13-Dec-25 -337 -122 0% PRACTICAL COMPLETION for Lyric Theatre, EB & C'Way 3B (Incl. -370 -122 0% 08-Sep-23 10-Jan-25 15-Jan-26\* -370  $\otimes$ 15-Sep-25\* KD03 OBTAIN OP for Lyric Theatre & Extended Basement 12-Dec-22 10-Sep-24 -370 -122 0% Compl Dsgn Coor/Subm and obtn NNO for L1 Contr Bsmt constn wrks 20-Jul-19 20-Jul-19 20-Jul-19 A 0 0 100%  $\odot$ KD06 PC for Fountain Related Plantroom(s) (allow access to Project 01-Apr-21 07-Jun-22 22-Sep-22 A -106 0% 0  $\Theta$ Complete U/G road and the associated plantrooms at Zone 3A&3E 04-Aug-22 26-Sep-24 30-Sep-25\* -369 -120 0% Integrated Basement Obtain BA14 Acknowledge from BD for M+Day2 A&A Works 08-Nov-24 13-Nov-25\* -370 12-Dec-22 -370 -122 0% 0 CMWP - Summary Program - RSS 29-Nov-25 SUM100 [LoE] CC\_B - Lyric Theatre 25-Nov-24 02-May-20 A 592 02-May-20 -262 -299 -102 80.64 34.29% SUM101 [LoE] CC C - ASDA and Lyric Theatre Promenade 492 12-Apr-21 A 01-Aug-25 12-Apr-21 09-Sep-24 -256 -257 -97 69.62 36.95% SUM102 [LoE] CC\_D - Remaining Works for M+ Promenade South 87 13-Jan-23 26-May-22 A 20-Feb-24 -297 -297 -10 100% 54.21% 23-Apr-22 SUM103 [LoE] CC\_E - DCS Cofferdam 105 07-Aug-20 29-Sep-23 07-Aug-20 A 12-Mar-24 -127 -25 100% 60.99% SUM104 [LoE] CC\_F - Modification to Existing Pump Cell 250 29-Mar-22 07-Jun-23 12-Oct-22 A 02-Oct-24 -161 -354 8 100% 52.81% SUM105 [LoE] CC G - Extended Basement 306 -2 -216 9 95.58 68.54% 15-May-21 23-Feb-24 15-May-21 A 14-Nov-24 [LoE] CC\_H - Vibration Isolation Spring System Remaining as of 14-Apr-20 A 06-Feb-21 A 0 100% 100% 14-Apr-20 06-Feb-21 SUM107 [LoE] CC\_I - Underpass and Associated Area 324 24-Feb-21 25-Oct-23 24-Feb-21 A 05-Dec-24 -329 9 100 69.44% SUM108 [LoE] CC\_J - M+ Day 2 Works 574 08-Oct-24 03-Jun-21 A 13-Oct-25 -273 -299 -102 77 29 29.4% 03-Jun-21 [LoE] CC\_K - Water Main at Promenade -25 SUM109 232 01-Apr-22 08-Jan-24 23-Apr-22 A 04-Sep-24 -131 -176 76.07 6.26% SUM110 [LoE] CC\_N - Lifts & Escalators 496 16-Aug-21 14-Mar-24 16-Aug-21 A 11-Jul-25 -299 -389 -102 91.57 46.31% [LoE] P32 Interim Development 17-May-21 13-Feb-23 17-May-21 A 20-Jul-24 95 -421 -25 100% 77.66% SUM112 [LoE] Project Wide Statutory Inspections & Approval leading to OP & PC 651 19-Apr-22 10-Jan-25 01-Nov-23 15-Jan-26 -299 -299 -102 3.05



Base Line ACT
Rev\_0 KD

Base Line MS

✓ Milestone
Current - Other Works
Current - MEP Works

Legend:

RD = Remaining Duration; BL = Base
Line; LoE = Level of Effort Activity
Type; LM = Last Month; SUMM =
Summary; TF = Total Float; VAR =
Variance

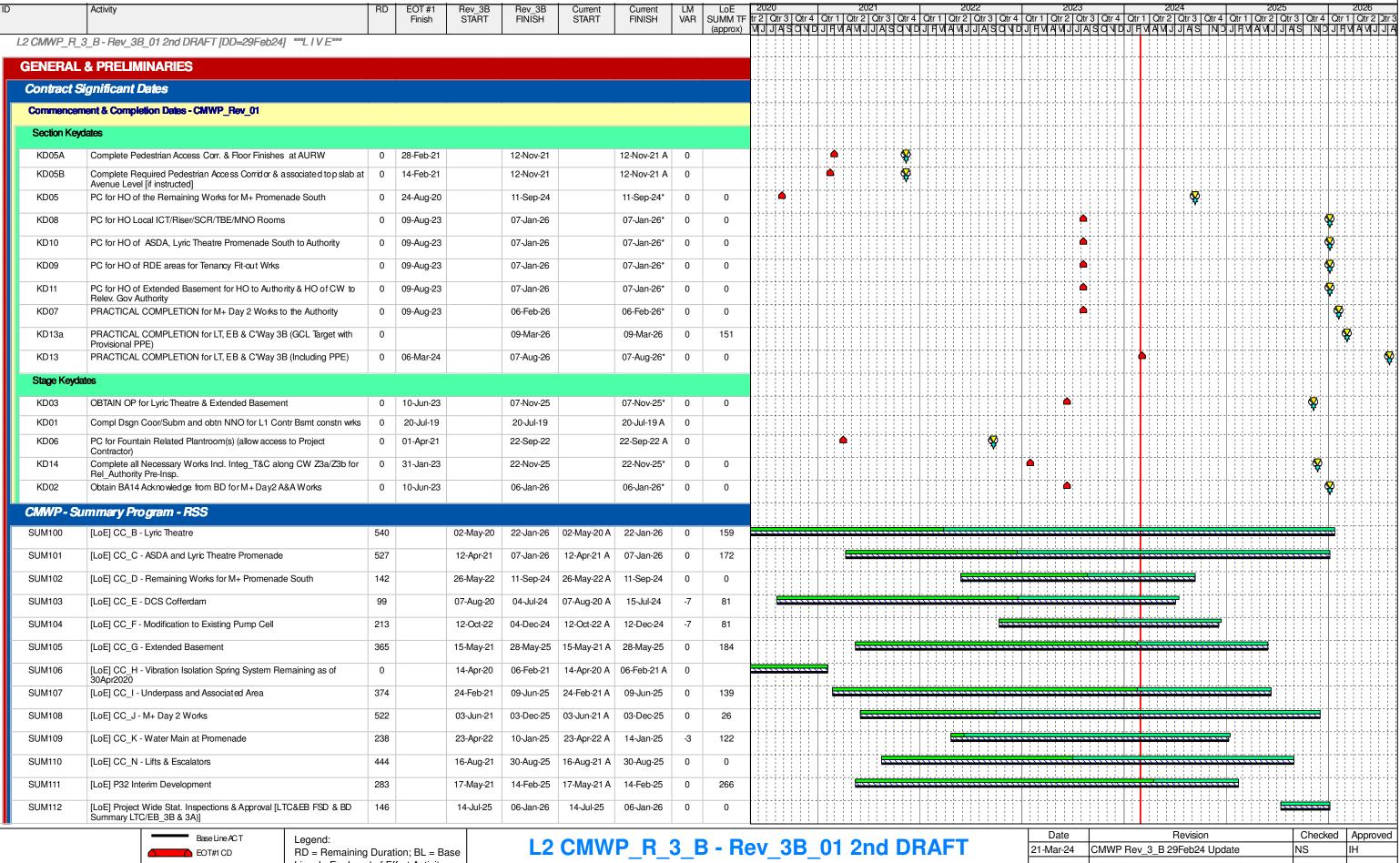
L2 CMWP\_R02\_20 - IFA 27Apr22 - \*\*\*LIVE\*\*\*
(UPDATE: 31Oct2023)

Date	Revision	Checked	Approved
Nov-23	CMWP Rev_02_20 - Update DD 31Oct23	NS	IH

L2-CMWP-R\_3\_B L2 CMWP\_R\_3\_B - Rev\_3B\_01 2nd DRAFT [DD=29Feb24] \*\*\*L I V E\*\*\*

## TASK filter: Rev3: [Att\_1b] Summary Level 1 Prog.

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	Current - MEP Works

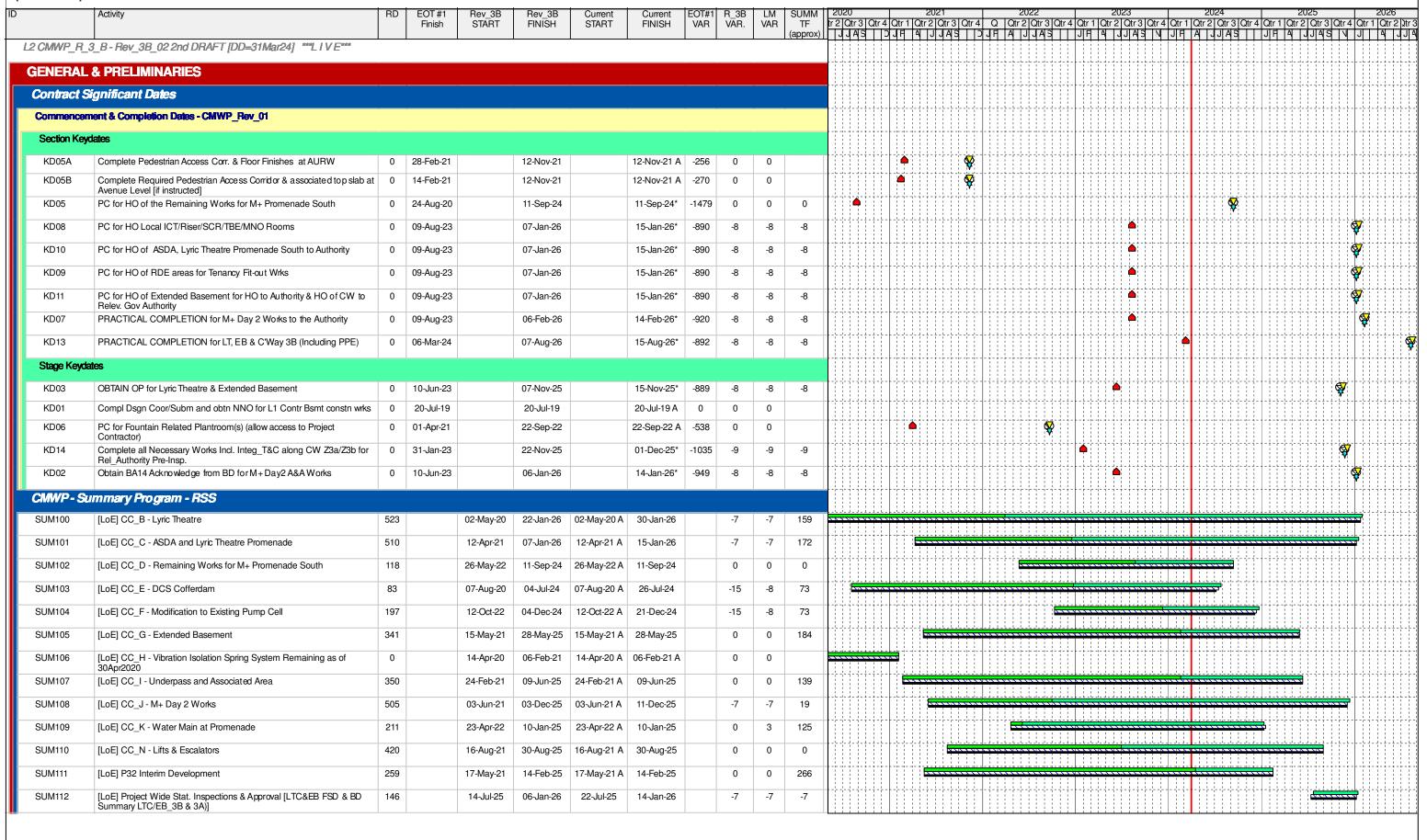
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Date	Revision	Checked	Approved
Mar-24	CMWP Rev_3_B 29Feb24 Update	NS	IH

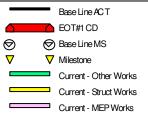
L2-CMWP-R\_3\_B\_02 L2 CMWP\_R\_3\_B - Rev\_3B\_02 2nd DRAFT [DD=31Mar24] \*\*\*L I V E\*\*\*

## **TASK filter: UPD: Summary Level 1 Prog.**

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Legend:
RD = Remaining Duration; BL = Base
Line; LoE = Level of Effort Activity
Type; LM = Last Month; SUMM =
Summary; TF = Total Float; VAR =
Variance

L2 CMWP\_R\_3\_B - Rev\_3B\_02 2nd DRAFT [DD=31Mar24] \*\*\*L I V E\*\*\*

Date	Revision	Checked	Approved
Apr-24	CMWP Rev_3_B Mar24 Update	NS	IH

# C. Environmental Mitigation Measures – Implementation Status

Table C-1: Environmental Mitigation Measures Implementation Status

Implementation	Stage
L2	

EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
Air Qual	ity Impact (Construction)			
2.1 &	General Dust Control Measures			
10.3.1	Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)	✓	✓	Obs
2.1 &	Best Practice For Dust Control			
10.3.1	The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include: Good Site Management			
	Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.  Disturbed Parts of the Roads	Obs	•	Obs
	Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or	✓	✓	✓
	<ul> <li>Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.</li> </ul>	✓	✓	✓
	Exposed Earth			
	<ul> <li>Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.</li> </ul>	N/A	N/A	N/A
	Loading, Unloading or Transfer of Dusty Materials			

Recommendation Measures	Feb	Mar	Apr
	2024	2024	2024
All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.  Debris Handling	<b>√</b>	√	✓
<ul> <li>Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.</li> </ul>	✓	✓	✓
<ul> <li>Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.</li> </ul>	✓	✓	✓
Transport of Dusty Materials			
<ul> <li>Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.</li> </ul>	✓	✓	✓
Wheel washing			
<ul> <li>Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> </ul>	✓	✓	✓
Use of vehicles			
<ul> <li>The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site.</li> </ul>	✓	✓	✓
<ul> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> </ul>	✓	✓	✓
<ul> <li>Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.</li> </ul>	✓	✓	✓
Site hoarding			
<ul> <li>Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.</li> </ul>	<b>✓</b>	✓	<b>✓</b>

The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching

Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include:

**Exhaust from Dust Arrestment Plant** 

10.3.1

			L2	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection	N/A	N/A	N/A
	Emission Limits			
	<ul> <li>All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke</li> </ul>	N/A	N/A	N/A
	Engineering Design/Technical Requirements			
	<ul> <li>As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions</li> </ul>	N/A	N/A	N/A
	Non-Road Mobile Machinery (NRMM):			
	All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.	✓	Rem	✓
Noise Im	pact (Construction)			
3.1 &	Good Site Practice			
10.4.1	Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:			
	<ul> <li>only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works;</li> </ul>	✓	✓	✓
	<ul> <li>machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum</li> </ul>	✓	✓	✓
	<ul> <li>plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;</li> </ul>	✓	✓	✓
	<ul> <li>mobile plant should be sited as far away from NSRs as possible; and</li> </ul>	✓	✓	✓
	<ul> <li>material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	✓	✓	✓

Adoption of Quieter PME

			L2	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
3.1 & 10.4.1	The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in <b>Table 4.26</b> in the EIA report. It should be noted that the silenced PME selected for assessment can be found in Hong Kong.	<b>√</b>	<b>√</b>	✓
3.1 &	Use of Movable Noise Barriers			
10.4.1	Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	✓	<b>✓</b>	✓
3.1 &	Use of Noise Enclosure/ Acoustic Shed			
10.4.1	The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No. 9/2010.	✓	<b>✓</b>	<b>√</b>
3.1 &	Use of Noise Insulating Fabric			
10.4.1	Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	✓	Obs	Rem Obs
3.1 & 10.4.1	Scheduling of Construction Works outside School Examination Periods			
	During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.	N/A	N/A	N/A

			L2	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
Water Q	uality Impact (Construction)			
4.1 &	Construction site runoff and drainage			
10.5.1	The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts:  • At the start of site establishment, perimeter cut-off drains to direct off-site	<b>√</b>	<b>√</b>	<b>√</b>
	water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction;			
	<ul> <li>Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending</li> </ul>	✓	<b>√</b>	<b>✓</b>

Obs

should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities.

Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they

upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of

be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all

• All drainage facilities and erosion and sediment control structures should

construction.

times.

✓

Recommendation Measures	Feb	Mar	Apr
	2024	2024	2024
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 sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly 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.	<b>✓</b>	<b>~</b>	<b>✓</b>
<ul> <li>Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms.</li> <li>Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.</li> </ul>	<b>✓</b>	✓	✓
<ul> <li>Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers.</li> </ul>	✓	✓	✓
<ul> <li>Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.</li> </ul>	<b>✓</b>	<b>√</b>	✓
Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.	N/A	N/A	N/A
Barging facilities and activities  Recommendations for good site practices during operation of the proposed			
barging point include:			
<ul> <li>All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;</li> </ul>	N/A	N/A	N/A

EM&A Ref.

EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	<ul> <li>Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation;</li> </ul>	N/A	N/A	N/A
	<ul> <li>All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and</li> </ul>	N/A	N/A	N/A
	<ul> <li>Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.</li> </ul>	N/A	N/A	N/A
4.1 &	Sewage effluent from construction workforce			
10.5.1	Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	<b>√</b>	<b>✓</b>	<b>√</b>
4.1 &	General construction activities			
10.5.1	<ul> <li>Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used.</li> </ul>	<b>√</b>	✓	<b>√</b>
	<ul> <li>Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.</li> </ul>	Obs	Obs	Rem Obs
Waste M	anagement Implications (Construction)			
6.1 &	Good Site Practices			
10.7.1	Recommendations for good site practices during the construction activities include:			
	<ul> <li>Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site</li> </ul>	<b>√</b>	✓	<b>√</b>
	<ul> <li>Training of site personnel in proper waste management and chemical handling procedures</li> </ul>	✓	✓	✓

EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	Provision of sufficient waste disposal points and regular collection of waste	Obs	Obs	Obs
	<ul> <li>Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers</li> </ul>	✓	✓	✓
	<ul> <li>Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads</li> </ul>	✓	✓	✓
	<ul> <li>Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&amp;D materials is not anticipated</li> </ul>	✓	✓	✓
6.1 &	Waste Reduction Measures			
10.7.1	Recommendations to achieve waste reduction include:			
	<ul> <li>Sort inert C&amp;D material to recover any recyclable portions such as metals</li> </ul>	✓	✓	✓
	<ul> <li>Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal</li> </ul>	✓	Obs	✓
	<ul> <li>Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force</li> </ul>	✓	✓	✓
	<ul> <li>Proper site practices to minimise the potential for damage or contamination of inert C&amp;D materials</li> </ul>	✓	✓	✓
	<ul> <li>Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes</li> </ul>	✓	✓	✓
6.1 &	Inert and Non-inert C&D Materials			
10.7.1	In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.	✓	<b>√</b>	✓
	<ul> <li>The surplus inert C&amp;D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.</li> </ul>	✓	✓	✓
	<ul> <li>Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&amp;D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&amp;D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD.</li> </ul>	✓	<b>√</b>	✓

EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	<ul> <li>The C&amp;D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site.</li> </ul>	<b>√</b>	✓	✓
	• In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control flytipping, it is recommended that the Contractor should follow the Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site.	<b>✓</b>	<b>√</b>	✓
6.1 &	Chemical Waste			
10.7.1	• If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	✓	<b>✓</b>	✓
	<ul> <li>Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended.</li> </ul>	✓	✓	✓
6.1 &	General Refuse			
10.7.1	General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	Obs	✓	Obs

# Implementation Stage L2

EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
Land Con	ntamination (Construction)			
7.1 & 10.8.1	The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials.			
	The following measures are proposed for excavation and transportation of contaminated material:			
	<ul> <li>To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Stockpiling of contaminated excavated materials on site should be avoided as far as possible;</li> </ul>	N/A	N/A	N/A
	<ul> <li>The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Truck bodies and tailgates should be sealed to stop any discharge;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Speed control for trucks carrying contaminated materials should be exercised;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354) and obtain all necessary permits where required; and</li> </ul>	N/A	N/A	N/A

# Implementation Stage

			L2	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	<ul> <li>Maintain records of waste generation and disposal quantities and disposal arrangements.</li> </ul>	N/A	N/A	N/A
Ecologic	al Impact (Construction)			
	No mitigation measure is required.			
Landsca	pe and Visual Impact (Construction)			
Table 9.1 & 10.8 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	N/A	N/A	
Table 9.1 & 10.8 (CM2)	Compensatory tree planting shall be incorporated to the proposed project N/A and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.		N/A	N/A
Table 9.1 & 10.8 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM5)	Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A	N/A
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A	N/A

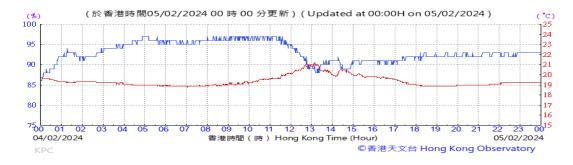
# Implementation Stage

			L2	
EM&A Ref.	Recommendation Measures	Feb	Mar	Apr
		2024	2024	2024
Table 9.2 & 10.9 (MCP1)	Use of decorative screen hoarding/boards	<b>√</b>	<b>√</b>	✓
Table 9.2 & 10.9 (MCP2)	Early introduction of landscape treatments	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP4)	Control of night time lighting	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A	N/A

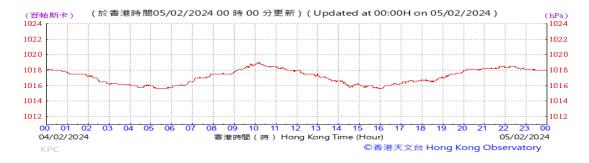
N/A	ı	Not Applicable		
✓	1	Implemented		
Obs	- 1	Observed		
Rem	-	Reminder		

# D. Meteorological Data Extracted from Hong Kong Observatory

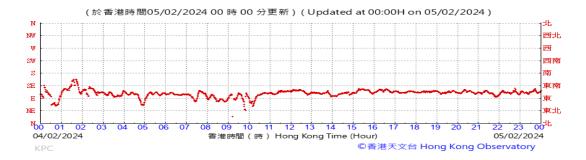
Table D-1: Extract of Meteorological Observations for King's Park Automatic Weather Station in the reporting quarter

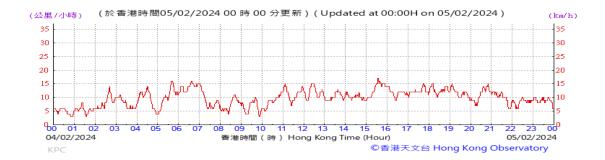


#### Pressure:



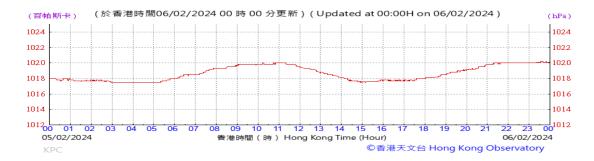
#### Wind Direction:



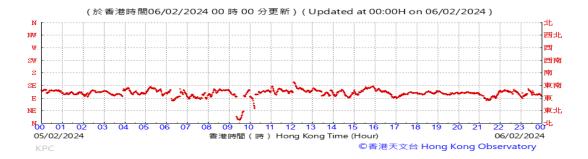


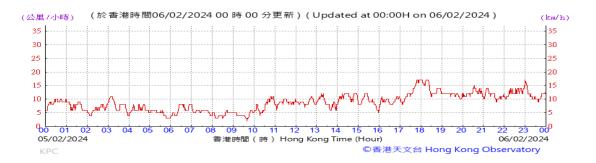


#### Pressure:



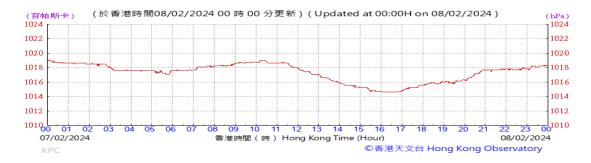
#### Wind Direction:



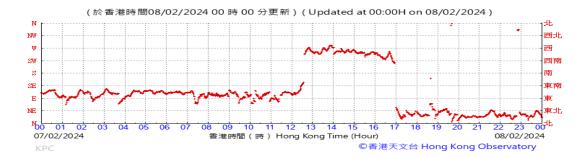


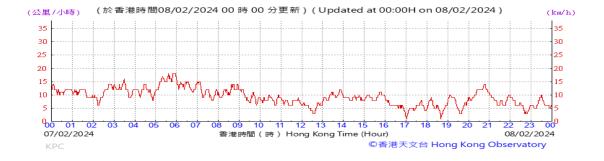


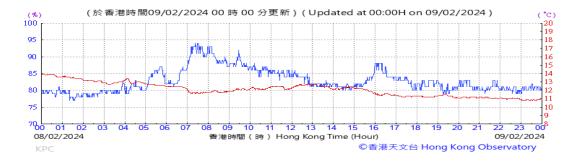
#### Pressure:



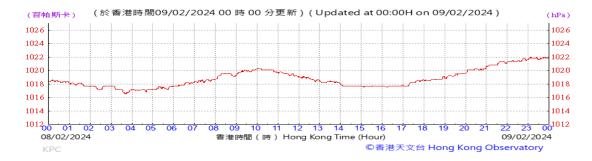
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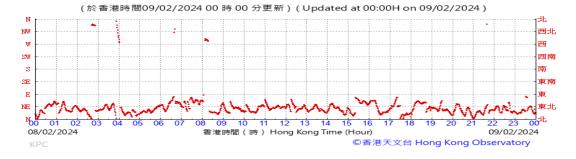




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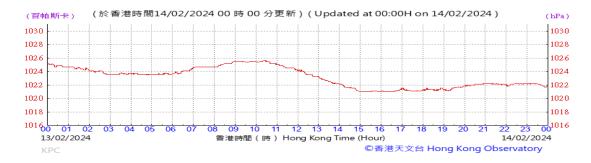
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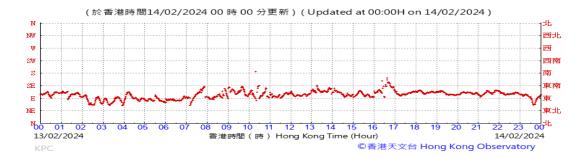




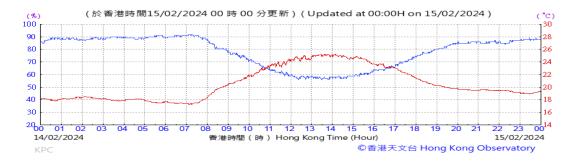
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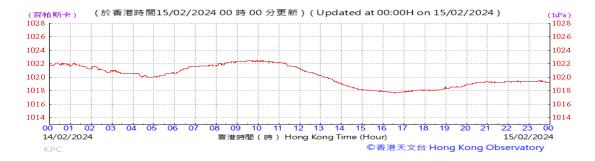
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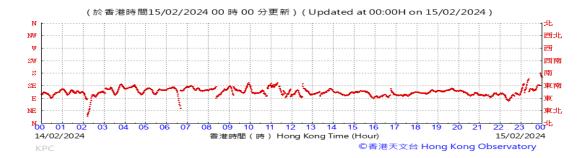




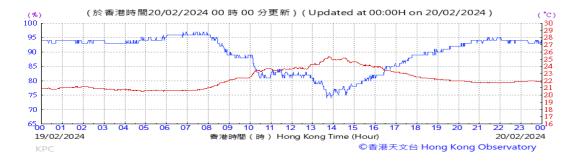
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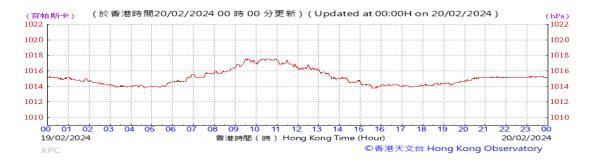
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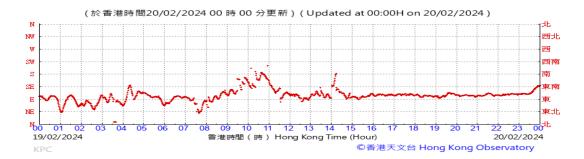




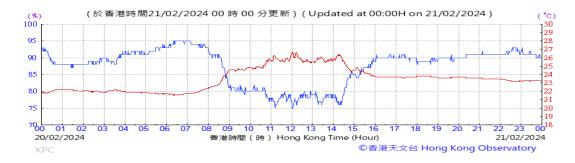
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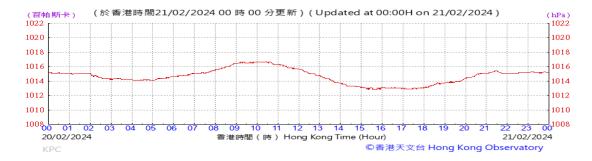
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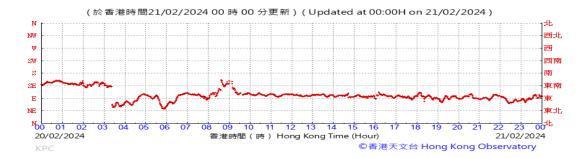




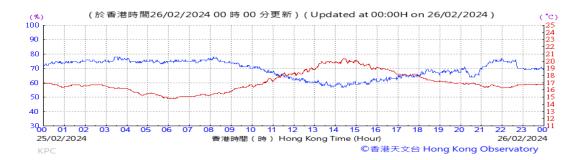
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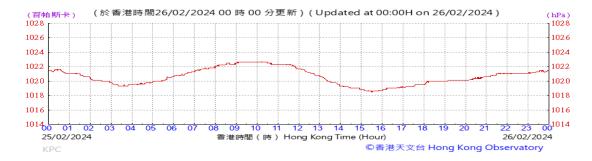
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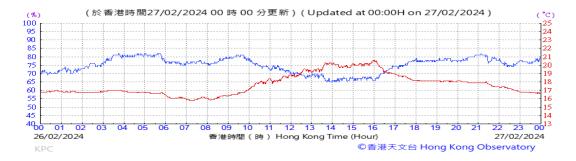
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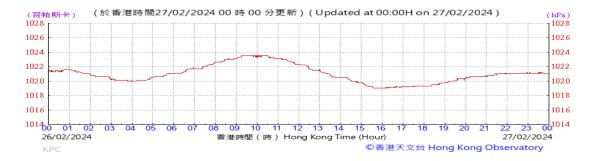
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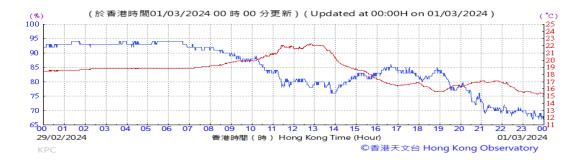
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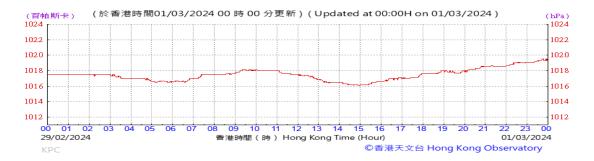
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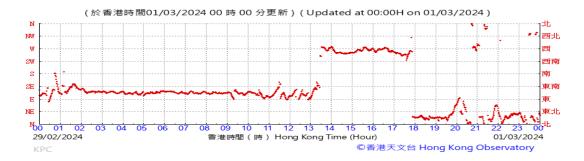


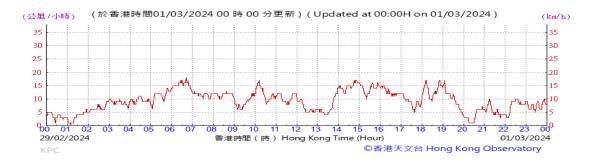


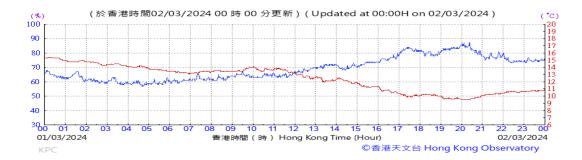
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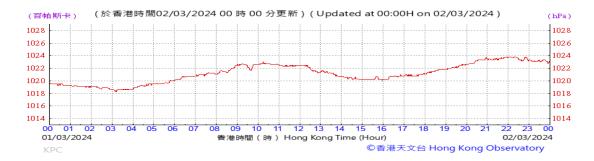
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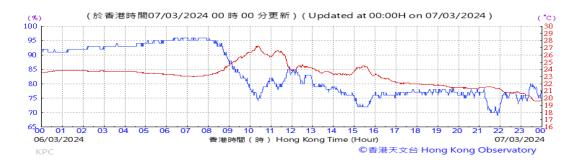
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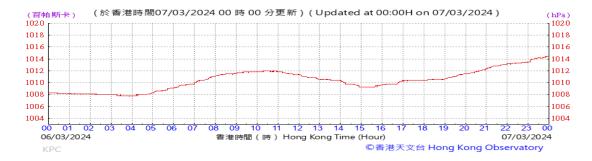
#### Wind Direction:



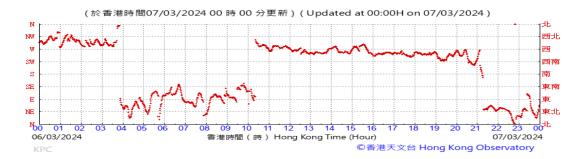




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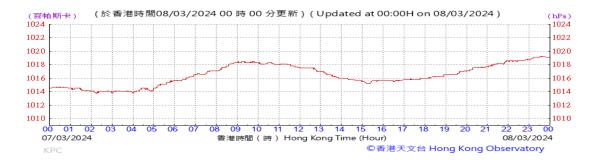
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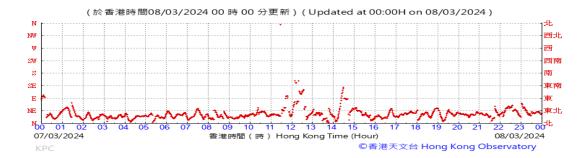




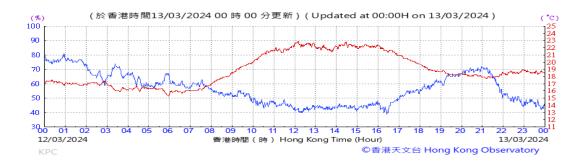
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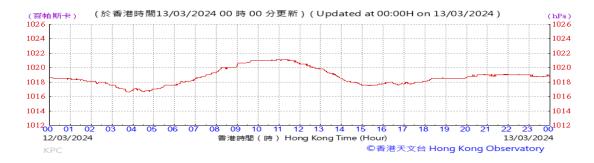
#### Wind Direction:







#### Pressure:



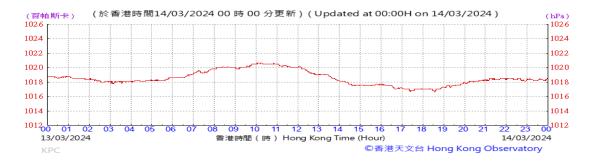
#### Wind Direction:



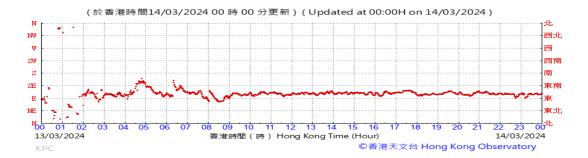


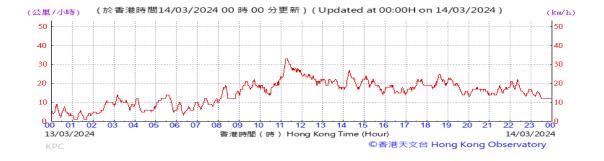


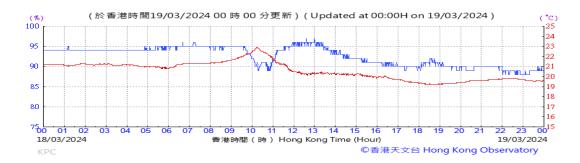
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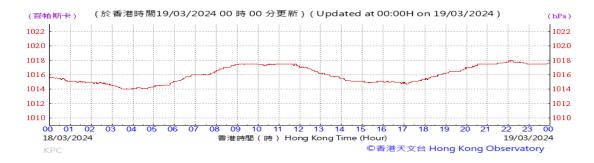
#### Wind Direction:







#### Pressure:



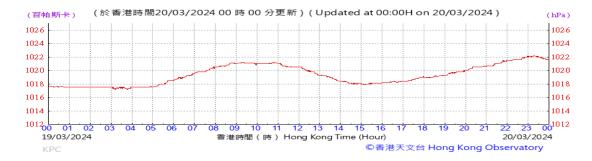
#### Wind Direction:



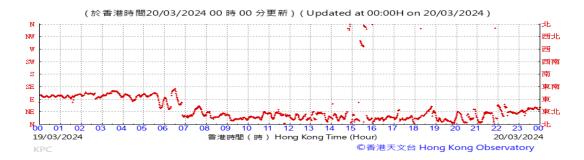


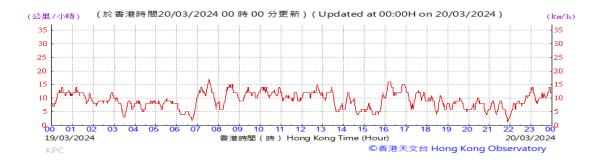


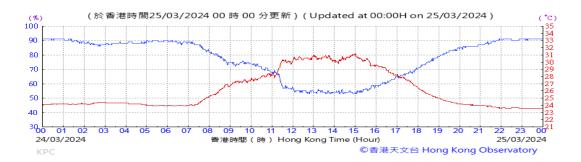
#### Pressure:



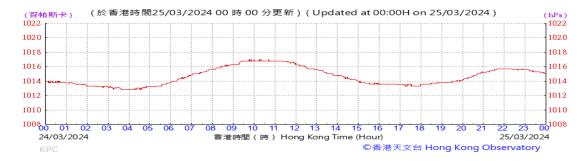
#### Wind Direction:



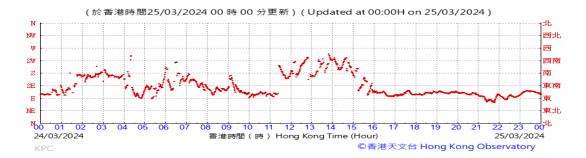


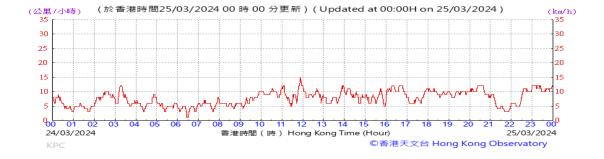


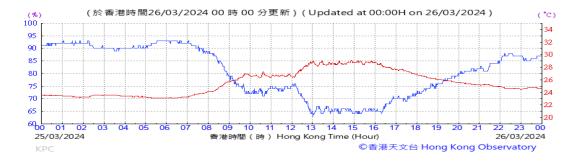
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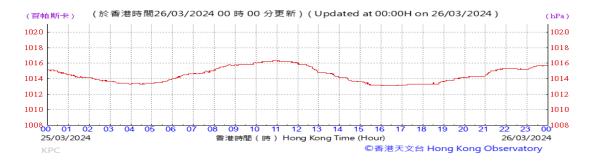
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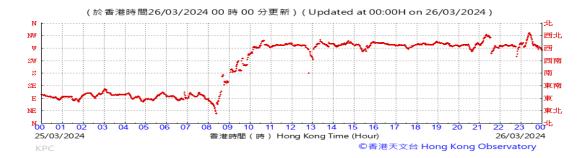




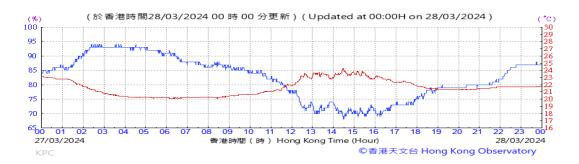
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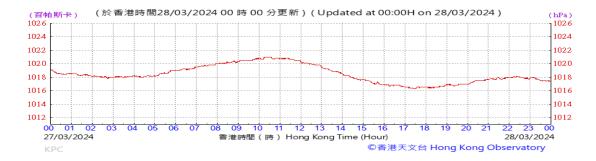
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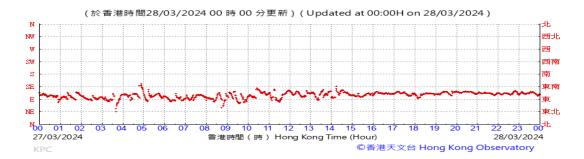


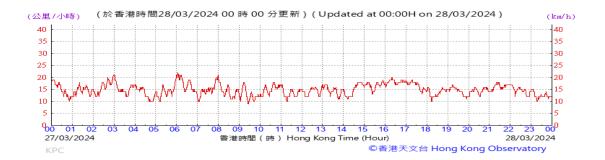


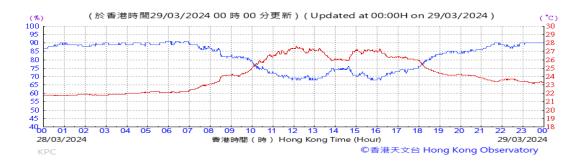
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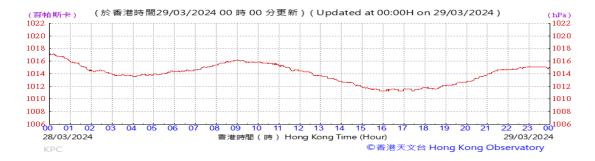
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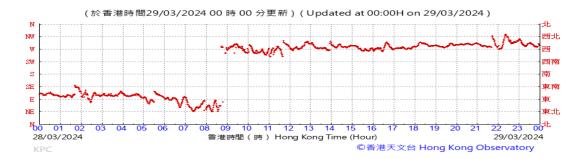




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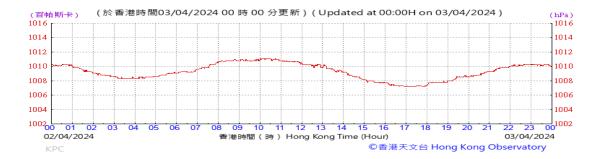
#### Wind Direction:



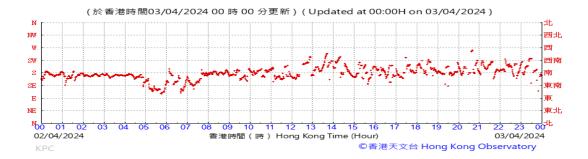


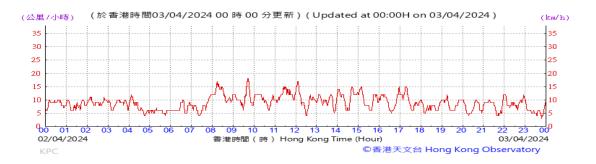


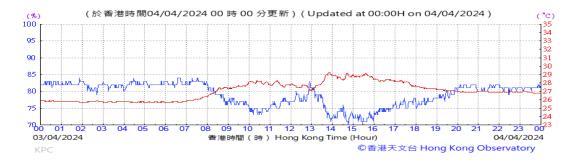
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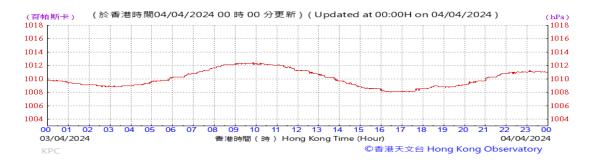
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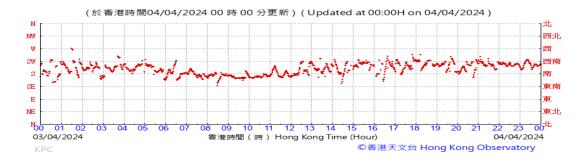




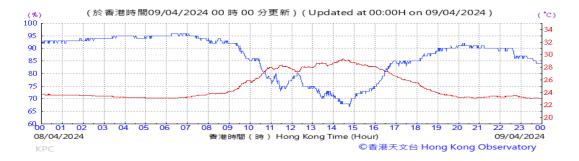
#### Pressure:



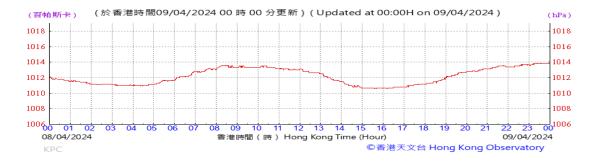
#### Wind Direction:







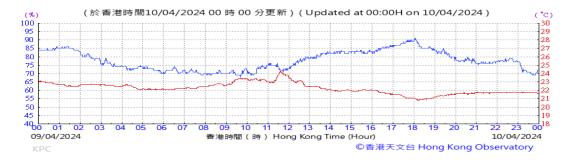
#### Pressure:



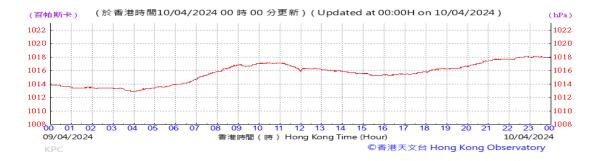
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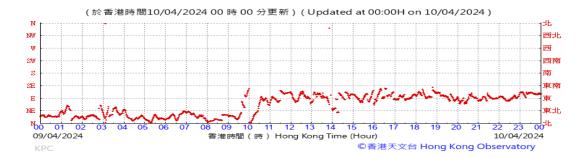


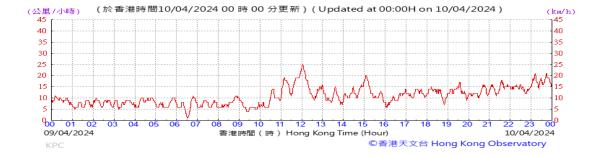


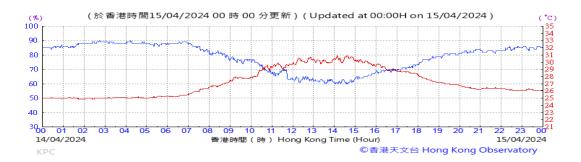
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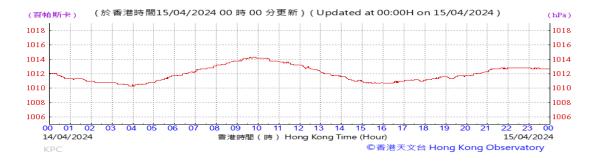
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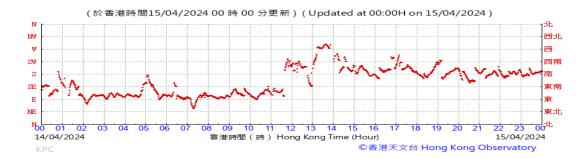




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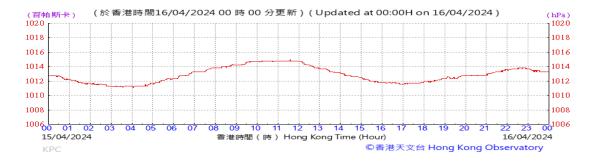
#### Wind Direction:







#### Pressure:



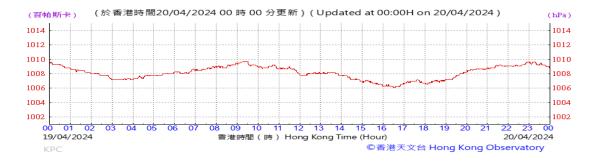
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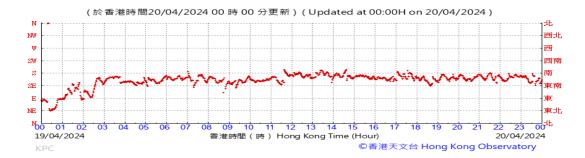


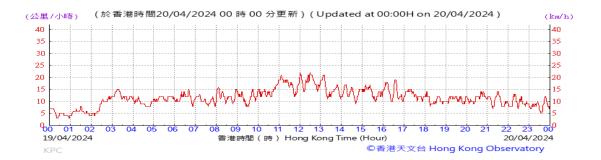


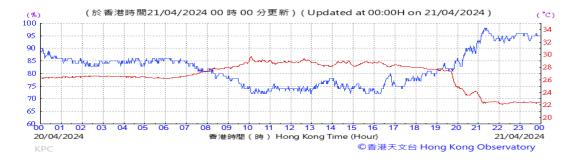
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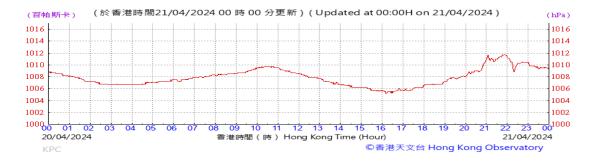
#### Wind Direction:



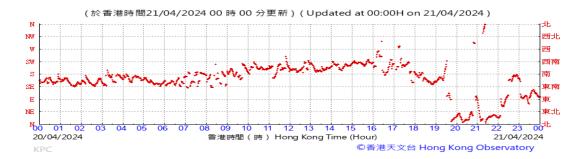




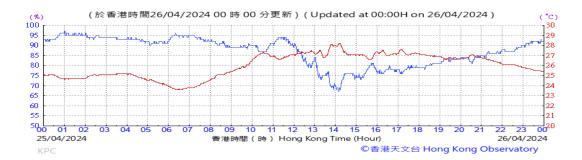
#### Pressure:



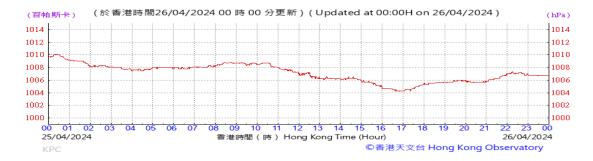
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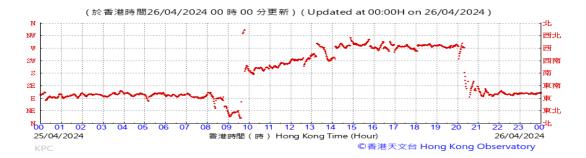


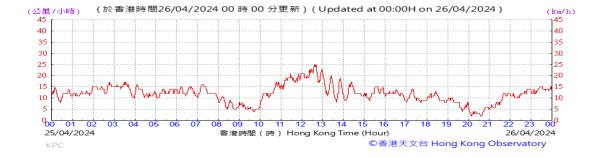


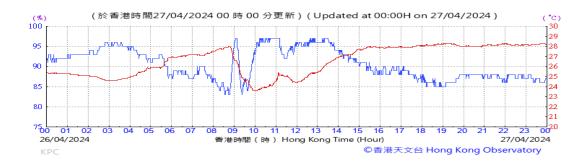
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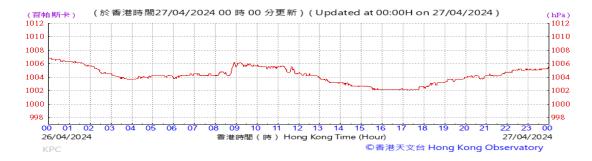
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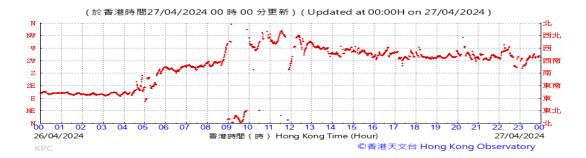




#### Pressure:



#### Wind Direction:



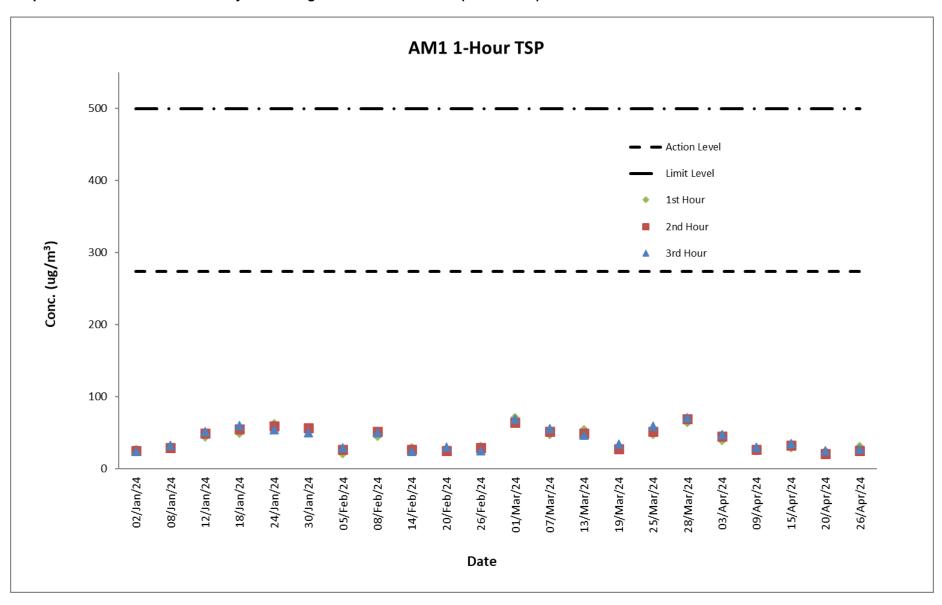


## **E.** Graphical Plots of the Monitoring Results

#### Air Quality Monitoring Result at Station AM1 (1-hour TSP)

	Weather		С	onc. (μg/m	<sup>3</sup> )	Action Level	Limit Level
Date	Condition	Time	1 <sup>st</sup> Hour	2 <sup>nd</sup> Hour	3 <sup>rd</sup> Hour	(µg/m3)	(µg/m³)
5-Feb-24	Cloudy	8:24 - 11:24	21	27	29	273.7	500
8-Feb-24	Cloudy	8:23 - 11:23	45	52	50	273.7	500
14-Feb-24	Fine	8:25 - 11:25	29	27	24	273.7	500
20-Feb-24	Cloudy	8:23 - 11:23	27	25	30	273.7	500
26-Feb-24	Cloudy	8:28 - 11:28	31	29	25	273.7	500
1-Mar-24	Cloudy	8:23 - 11:23	71	64	69	273.7	500
7-Mar-24	Cloudy	8:24 - 11:24	48	52	56	273.7	500
13-Mar-24	Fine	8:18 - 11:18	54	49	47	273.7	500
19-Mar-24	Cloudy	8:28 - 11:28	31	28	34	273.7	500
25-Mar-24	Cloudy	8:24 - 11:24	48	52	59	273.7	500
28-Mar-24	Cloudy	8:24 - 11:24	64	69	71	273.7	500
3-Apr-24	Cloudy	8:23 - 11:23	39	45	48	273.7	500
9-Apr-24	Cloudy	8:24 - 11:24	25	27	30	273.7	500
15-Apr-24	Cloudy	8:28 - 11:28	29	33	35	273.7	500
20-Apr-24	Cloudy	8:24 - 11:24	24	21	25	273.7	500
26-Apr-24	Cloudy	8:13 - 11:13	31	25	28	273.7	500

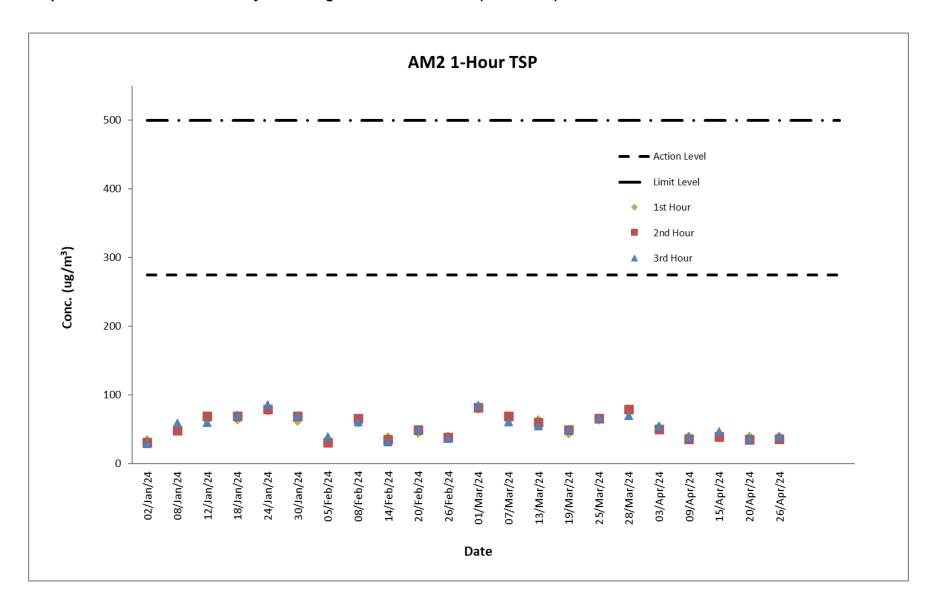
#### **Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)**



#### Air Quality Monitoring Result at Station AM2 (1-hour TSP)

	Weather		С	onc. (μg/m	Action Level	Limit Level	
Date	Condition	Time	1 <sup>st</sup> Hour	2 <sup>nd</sup> Hour	3 <sup>rd</sup> Hour	(µg/m3)	(µg/m³)
5-Feb-24	Cloudy	8:38 - 11:38	35	31	39	274.2	500
8-Feb-24	Cloudy	8:37 - 11:37	59	66	61	274.2	500
14-Feb-24	Fine	8:40 - 11:40	39	35	32	274.2	500
20-Feb-24	Cloudy	8:37 - 11:37	44	49	50	274.2	500
26-Feb-24	Cloudy	8:43 - 11:43	40	38	37	274.2	500
1-Mar-24	Cloudy	8:38 - 11:38	79	82	85	274.2	500
7-Mar-24	Cloudy	8:38 - 11:38	63	69	61	274.2	500
13-Mar-24	Fine	8:33 - 11:33	64	60	55	274.2	500
19-Mar-24	Cloudy	8:43 - 11:43	43	49	50	274.2	500
25-Mar-24	Cloudy	8:39 - 11:39	63	66	67	274.2	500
28-Mar-24	Cloudy	8:39 - 11:39	75	79	70	274.2	500
3-Apr-24	Cloudy	8:38 - 11:38	54	50	55	274.2	500
9-Apr-24	Cloudy	8:39 - 11:39	40	36	39	274.2	500
15-Apr-24	Cloudy	8:43 - 11:43	44	39	47	274.2	500
20-Apr-24	Cloudy	8:39 - 11:39	40	35	36	274.2	500
26-Apr-24	Cloudy	8:28 - 11:28	40	36	39	274.2	500

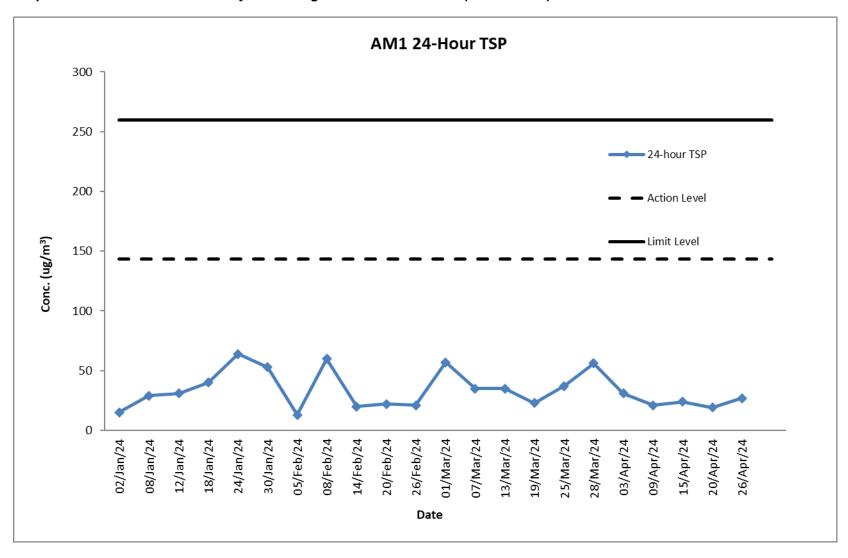
#### **Graphical Presentation of Air Quality Monitoring Result at Station AM2 (1-hour TSP)**



#### Air Quality Monitoring Result at Station AM1 (24-hour TSP)

Sta	rt	Finis	sh	Filter W	eight (g)	Rea	ding	Sampling	ng Flow Rate (m³/min)		Flow Rate (m³/min)		min)	Conc.	Weather	Action	Limit
Date	Time	Date	Time	Initial	Final	Initial	Final	Time (hrs)	Initial	Final	Average	(µg/m³)	Condition	Level	Level		
5-Feb-24	8:21	6-Feb-24	8:21	2.8173	2.8415	27676.38	27700.38	24	1.26	1.26	1.26	13	Cloudy	143.6	260		
8-Feb-24	8:20	9-Feb-24	8:20	2.82	2.9291	27700.38	27724.38	24	1.26	1.26	1.26	60	Cloudy	143.6	260		
14-Feb-24	8:22	15-Feb-24	8:22	2.82	2.8565	27724.38	27748.38	24	1.26	1.26	1.26	20	Fine	143.6	260		
20-Feb-24	8:20	21-Feb-24	8:20	2.807	2.8469	27748.38	27772.38	24	1.26	1.26	1.26	22	Cloudy	143.6	260		
26-Feb-24	8:25	27-Feb-24	8:25	2.8142	2.8514	27772.38	27796.38	24	1.26	1.26	1.26	21	Cloudy	143.6	260		
1-Mar-24	8:20	2-Mar-24	8:20	2.8057	2.9090	27796.38	27820.38	24	1.26	1.26	1.26	57	Cloudy	143.6	260		
7-Mar-24	8:21	8-Mar-24	8:21	2.8267	2.8900	27820.38	27844.38	24	1.26	1.26	1.26	35	Cloudy	143.6	260		
13-Mar-24	8:15	14-Mar-24	8:15	2.8177	2.8796	27844.38	27868.38	24	1.24	1.24	1.24	35	Fine	143.6	260		
19-Mar-24	8:25	20-Mar-24	8:25	2.8101	2.8514	27868.38	27892.38	24	1.24	1.24	1.24	23	Cloudy	143.6	260		
25-Mar-24	8:21	26-Mar-24	8:21	2.8242	2.8900	27892.38	27916.38	24	1.24	1.24	1.24	37	Cloudy	143.6	260		
28-Mar-24	8:21	29-Mar-24	8:21	2.8074	2.9079	27916.38	27940.38	24	1.24	1.24	1.24	56	Cloudy	143.6	260		
3-Apr-24	8:21	4-Apr-24	8:21	2.8089	2.8648	27940.38	27964.38	24	1.24	1.24	1.24	31	Cloudy	143.6	260		
9-Apr-24	8:21	10-Apr-24	8:21	2.8121	2.8502	27964.38	27988.38	24	1.24	1.24	1.24	21	Cloudy	143.6	260		
15-Apr-24	8:25	16-Apr-24	8:25	2.8103	2.8524	27988.38	28012.38	24	1.24	1.24	1.24	24	Cloudy	143.6	260		
20-Apr-24	8:21	21-Apr-24	8:21	2.8120	2.8464	28012.38	28036.38	24	1.24	1.24	1.24	19	Cloudy	143.6	260		
26-Apr-24	8:10	27-Apr-24	8:10	2.8012	2.8499	28036.38	28060.38	24	1.24	1.24	1.24	27	Cloudy	143.6	260		

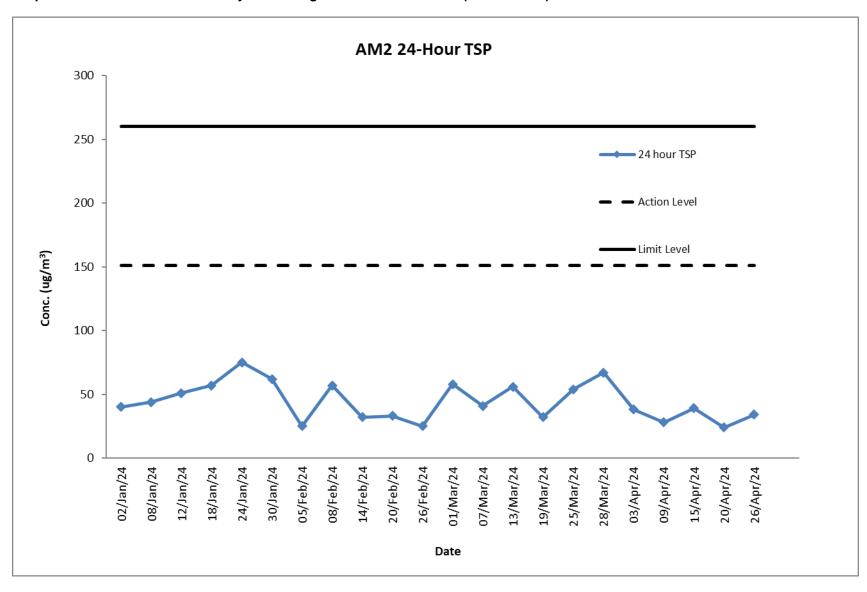
#### **Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)**



#### Air Quality Monitoring Result at Station AM2 (24-hour TSP)

Star	t	Finis	h	Sampling				
Date	Time	Date	Time	Time (hrs)	Conc. (µg/m³)	Weather Condition	Action Level	Limit Level
5-Feb-24	8:36	6-Feb-24	8:36	24	25	Cloudy	151.1	260
8-Feb-24	8:35	9-Feb-24	8:35	24	57	Cloudy	151.1	260
14-Feb-24	8:37	15-Feb-24	8:37	24	32	Fine	151.1	260
20-Feb-24	8:35	21-Feb-24	8:35	24	33	Cloudy	151.1	260
26-Feb-24	8:40	27-Feb-24	8:40	24	25	Cloudy	151.1	260
1-Mar-24	8:35	2-Mar-24	8:35	24	58	Cloudy	151.1	260
7-Mar-24	8:36	8-Mar-24	8:36	24	41	Cloudy	151.1	260
13-Mar-24	8:30	14-Mar-24	8:30	24	56	Fine	151.1	260
19-Mar-24	8:40	20-Mar-24	8:40	24	32	Cloudy	151.1	260
25-Mar-24	8:36	26-Mar-24	8:36	24	54	Cloudy	151.1	260
28-Mar-24	8:36	29-Mar-24	8:36	24	67	Cloudy	151.1	260
3-Apr-24	8:35	4-Apr-24	8:35	24	38	Cloudy	151.1	260
9-Apr-24	8:36	10-Apr-24	8:36	24	28	Cloudy	151.1	260
15-Apr-24	8:40	16-Apr-24	8:40	24	39	Cloudy	151.1	260
20-Apr-24	8:36	21-Apr-24	8:36	24	24	Cloudy	151.1	260
26-Apr-24	8:25	27-Apr-24	8:25	24	34	Cloudy	151.1	260

#### **Graphical Presentation of Air Quality Monitoring Result at Station AM2 (24-hour TSP)**



#### Noise Monitoring Result at Station NM1A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
5-Feb-24	9:21	64.9	60.4	
5-Feb-24	9:26	64.3	60.9	
5-Feb-24	9:31	63.2	59.6	CE.
5-Feb-24	9:36	64.7	60.0	65
5-Feb-24	9:41	65.0	61.7	
5-Feb-24	9:46	63.4	59.6	
14-Feb-24	9:22	64.3	60.2	
14-Feb-24	9:27	63.5	59.7	
14-Feb-24	9:32	65.8	61.9	CE
14-Feb-24	9:37	64.6	60.6	65
14-Feb-24	9:42	64.0	60.0	
14-Feb-24	9:47	63.4	59.2	
20-Feb-24	9:20	64.0	60.3	
20-Feb-24	9:25	65.2	61.4	
20-Feb-24	9:30	64.5	60.8	CC
20-Feb-24	9:35	64.7	60.0	66
20-Feb-24	9:40	65.9	61.4	
20-Feb-24	9:45	63.6	59.7	
26-Feb-24	9:26	64.2	60.3	
26-Feb-24	9:31	65.4	61.7	
26-Feb-24	9:36	64.6	60.0	C.F.
26-Feb-24	9:41	63.8	59.9	65
26-Feb-24	9:46	64.0	60.4	
26-Feb-24	9:51	63.7	59.2	
7-Mar-24	9:22	65.3	61.4	
7-Mar-24	9:27	64.1	60.7	
7-Mar-24	9:32	64.6	60.0	66
7-Mar-24	9:37	65.8	61.9	66
7-Mar-24	9:42	66.0	62.6	
7-Mar-24	9:47	65.7	61.5	
13-Mar-24	9:16	64.6	60.4	
13-Mar-24	9:21	64.5	60.3	
13-Mar-24	9:26	65.7	61.8	
13-Mar-24	9:31	63.2	59.7	65
13-Mar-24	9:36	62.0	58.0	
13-Mar-24	9:41	64.9	60.2	
19-Mar-24	9:27	64.0	60.3	
19-Mar-24	9:32	63.2	59.7	
19-Mar-24	9:37	64.5	60.6	
19-Mar-24	9:42	63.8	59.9	65
19-Mar-24	9:47	64.7	60.0	
19-Mar-24	9:52	65.5	61.4	
25-Mar-24	9:23	64.5	60.3	
25-Mar-24	9:28	63.2	59.6	
25-Mar-24	9:33	63.5	59.9	
25-Mar-24	9:38	64.8	60.0	65
25-Mar-24	9:43	63.0	59.8	
25-Mar-24	9:48	63.1	59.1	

3-Apr-24	9:21	63.5	59.3	
3-Apr-24	9:26	64.2	60.9	
3-Apr-24	9:31	63.7	59.6	65
3-Apr-24	9:36	64.0	60.7	05
3-Apr-24	9:41	64.9	60.5	
3-Apr-24	9:46	65.2	61.0	
9-Apr-24	9:22	64.0	60.3	
9-Apr-24	9:27	63.2	59.4	
9-Apr-24	9:32	62.5	58.8	65
9-Apr-24	9:37	64.7	60.0	03
9-Apr-24	9:42	65.9	61.7	
9-Apr-24	9:47	63.4	59.5	
15-Apr-24	9:27	64.0	60.7	
15-Apr-24	9:32	65.2	61.3	
15-Apr-24	9:37	63.4	59.5	65
15-Apr-24	9:42	63.7	59.8	03
15-Apr-24	9:47	64.9	60.6	
15-Apr-24	9:52	63.8	59.0	
26-Apr-24	9:11	62.3	58.0	
26-Apr-24	9:16	63.5	59.9	
26-Apr-24	9:21	61.7	57.9	64
26-Apr-24	9:26	62.2	58.7	04
26-Apr-24	9:31	63.0	59.1	
26-Apr-24	9:36	64.9	60.2	

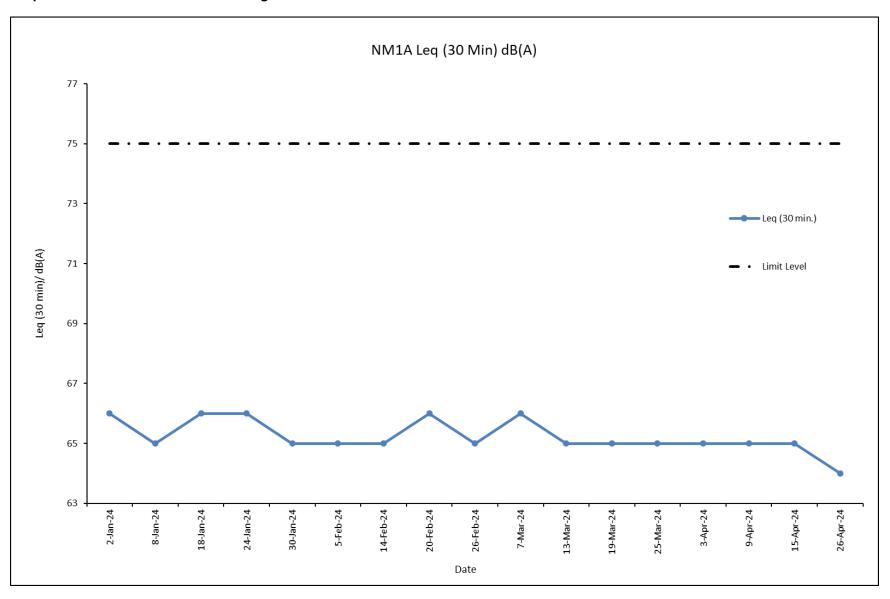
#### Remarks:

+3dB (A) correction was applied to free-field measurement.



The station set-up of a free-field measurement at Station NM1A.

#### **Graphical Presentation Noise Monitoring Result at Station NM1A**



## F. Waste Flow table

Table 1-1.		Actual Quant	tities of Inert			d Monthly		Acti	ual Quantities	of C&D Wa	astes Gene	rated Month	nly
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2016													
Mar	2702.1	0.0	0.0	0.0	2702.1	0.0	0.0	4.5	0.1	0.0	0.0	0.0	30.6
Apr	8631.5	0.0	0.0	0.0	8631.5	0.0	0.0	16.0	0.0	0.0	0.0	0.0	19.2
May	12487.8	0.0	0.0	0.0	12487.8	0.0	0.0	34.0	0.0	0.0	0.0	0.7	60.5
Jun	8600.8	0.0	0.0	0.0	8600.8	0.0	0.0	31.4	0.2	0.0	0.0	0.5	13.5
Jul	12624.2	0.0	0.0	0.0	12624.2	0.0	0.0	19.6	0.0	0.0	0.0	2.0	9.9
Aug	14419.9	0.0	0.0	0.0	14419.9	0.0	0.0	43.9	0.0	0.0	0.0	0.0	11.1
Sep	13671.3	0.0	0.0	0.0	13671.3	0.0	0.0	59.8	0.0	0.0	0.0	1.6	12.4
Oct	13088.9	0.0	0.0	0.0	13088.9	0.0	0.0	36.9	0.2	1.5	0.0	0.0	15.2
Nov	12424.7	0.0	0.0	0.0	12424.7	0.0	0.0	74.7	0.0	0.0	0.0	1.4	10.2
Dec	12487.6	0.0	0.0	0.0	12487.6	0.0	0.0	13.9	0.0	0.0	0.0	1.3	9.0
Sub-total (2016)	111138.8	0.0	0.0	0.0	111138.8	0.0	0.0	334.5	0.4	1.5	0.0	7.6	191.6
2017													
Jan	9607.8	0.0	0.0	0.0	9607.8	0.0	0.0	29.5	0.0	0.0	0.0	0.0	7.3
Feb	9108.2	0.0	0.0	0.0	9108.2	0.0	0.0	50.2	0.2	0.0	0.0	0.7	9.8
Mar	11361.7	0.0	0.0	0.0	11361.7	0.0	0.0	16.1	0.0	0.0	0.0	1.4	8.5
Apr	2591.5	0.0	0.0	0.0	2591.5	0.0	0.0	35.7	0.0	0.0	0.0	0.0	4.7
May	2579.3	0.0	0.0	99.0	2480.3	0.0	0.0	20.9	0.1	0.0	0.0	0.5	10.0
Jun	476.0	0.0	0.0	341.0	129.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	7.6
Jul	3419.0	0.0	0.0	804.0	2615.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8
Aug	3730.9	0.0	0.0	1377.5	2353.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Sep	2108.2	0.0	0.0	1133.5	974.7	0.0	0.0	34.6	0.2	0.0	0.0	0.0	10.8
Oct	9159.0	0.0	0.0	7868.0	1291.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	9.3
Nov	5095.4	0.0	0.0	4352.0	725.2	18.1	0.0	0.0	0.0	0.0	0.0	0.0	38.8
Dec	3856.2	0.0	0.0	3076.0	780.2	0.0	0.0	0.0	0.2	0.0	0.0	0.4	8.4
Sub-total (2017)	63093.1	0.0	0.0	19051.0	44018.7	23.4	0.0	187.1	0.7	0.0	0.0	3.8	137.3

Table F-1:	le F-1: Monthly Waste Flow Table for Lyric Theatre Complex												
		Actual Quant	tities of Inert	C&D Materi	als Generate	d Monthly		Act	ual Quantities	of C&D Wa	astes Gene	rated Month	nly
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2018													
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Mar	6120.2	0.0	0.0	5782.0	338.2	0.0	0.0	0.0	0.0	1.0	0.0	0.5	17.6
Apr	14460.3	0.0	0.0	12484.1	1976.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	7.6
May	59783.7	0.0	0.0	46989.0	12794.7	0.0	0.0	59.6	0.0	0.0	0.0	0.0	9.4
Jun	53117.5	0.0	0.0	37642.8	15474.7	0.0	0.0	51.5	0.2	0.0	0.0	0.0	12.8
Jul	89901.5	0.0	0.0	85317.1	4584.4	0.0	165.1	114.6	0.0	0.0	0.0	0.0	41.3
Aug	35137.3	0.0	0.0	33731.6	1405.7	0.0	214.3	148.1	0.0	0.0	0.0	0.0	48.5
Sep	4924.3	0.0	0.0	4641.2	196.1	87.0	174.6	40.0	0.0	0.0	0.0	0.0	179.2
Oct	19099.9	0.0	0.0	11301.0	7642.8	156.1	0.0	106.3	0.4	0.0	0.0	0.0	528.5
Nov	104168.0	0.0	0.0	79811.6	24351.0	5.3	0.0	54.5	0.0	0.6	0.0	0.0	31.5
Dec	62989.9	0.0	0.0	51284.4	11699.9	5.6	0.0	95.1	0.0	0.6	0.0	0.0	65.9
Sub-total (2018)	449702.6	0.0	0.0	368984.8	80463.7	254.0	553.9	669.7	0.5	2.4	0.0	0.5	943.7
2019	•											•	
Jan	74479.1	0.0	0.0	69249.5	5229.7	0.0	318.0	326.7	0.2	0.0	0.0	0.0	76.3
Feb	21969.9	0.0	0.0	17723.9	4246.0	0.0	16.5	55.2	0.0	0.0	0.0	0.0	26.7
Mar	19311.9	0.0	0.0	8569.9	10742.0	0.0	337.8	61.5	0.0	0.0	0.0	0.0	36.3
Apr	28559.9	0.0	0.0	21280.3	7279.6	0.0	0.0	32.6	0.0	0.8	0.0	0.0	24.9
May	45418.0	0.0	0.0	11200.6	34217.4	0.0	0.0	27.4	0.2	0.5	0.0	0.0	33.7
Jun	66633.4	0.0	0.0	23874.5	42748.0	10.9	59.2	11.9	0.0	0.9	0.0	0.0	35.3
Jul	36619.6	0.0	0.0	1632.7	34960.9	26.0	64.4	120.7	0.0	0.0	0.0	0.0	57.9
Aug	2526.8	0.0	0.0	0.0	2499.0	27.8	31.9	40.2	0.0	0.8	0.0	0.0	66.3
Sep	4117.6	0.0	0.0	0.0	4088.7	28.9	95.2	19.0	0.0	0.6	0.0	0.0	127.4
Oct	6974.2	0.0	0.0	0.0	6948.1	26.1	15.9	11.4	0.2	1.0	0.0	0.6	223.6
Nov	5334.4	0.0	0.0	0.0	5304.1	30.3	0.0	8.9	0.0	0.0	0.0	0.0	151.6
Dec	6236.8	0.0	0.0	0.0	6236.8	0.0	0.0	70.6	0.0	0.0	0.0	0.0	98.9
Sub-total (2019)	318181.6	0.0	0.0	153531.3	164500.1	150.1	938.9	785.8	0.6	4.6	0.0	0.6	959.0

Tuble 1 1.	Monthly VV	Actual Quant				ed Monthly		Actual Quantities of C&D Wastes Generated Monthly						
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse	
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	
2020														
Jan	7089.9	0.0	0.0	0.0	7089.9	0.0	0.0	10.6	0.2	0.0	0.0	0.0	65.7	
Feb	16822.3	0.0	0.0	0.0	16822.3	0.0	0.0	232.2	0.1	0.0	0.0	0.0	66.3	
Mar	6559.0	0.0	0.0	0.0	6559.0	0.0	110.4	63.1	0.0	0.9	0.0	0.0	138.3	
Apr	4997.9	0.0	0.0	1615.7	3382.2	0.0	159.2	1123.9	1.9	0.0	0.0	0.0	113.2	
May	2236.0	0.0	0.0	452.3	1783.6	0.0	0.0	406.5	0.0	0.0	0.0	0.0	188.8	
Jun	1134.3	0.0	0.0	0.0	1134.3	0.0	31.5	262.6	0.2	0.6	0.0	0.0	210.6	
Jul	148.8	0.0	0.0	0.0	148.8	0.0	31.5	458.5	0.5	0.0	0.0	0.0	220.0	
Aug	540.7	0.0	0.0	0.0	540.7	0.0	0.0	340.8	0.0	0.0	0.0	0.0	238.3	
Sep	1432.3	0.0	0.0	0.0	1432.3	0.0	0.0	750.7	0.2	0.0	0.0	0.0	291.9	
Oct	1381.5	0.0	0.0	0.0	1381.5	0.0	0.0	717.9	0.2	0.0	0.0	0.0	400.2	
Nov	1444.1	0.0	0.0	0.0	1437.4	6.7	475.8	473.6	0.2	0.5	0.0	0.0	377.8	
Dec	793.8	0.0	0.0	0.0	793.8	0.0	0.0	478.3	0.2	0.0	0.0	0.0	435.8	
Sub-total (2020)	44580.6	0.0	0.0	2068.1	42505.8	6.7	808.3	5318.7	3.7	2.0	0.0	0.0	2746.8	
2021						•						•		
Jan	881.4	0.0	0.0	0.0	881.4	0.0	0.0	835.1	0.4	0.0	0.0	0.0	497.0	
Feb	544.7	0.0	0.0	0.0	544.7	0.0	0.0	100.5	0.3	0.0	0.0	0.0	504.7	
Mar	406.1	0.0	0.0	0.0	406.1	0.0	0.0	455.8	0.3	0.0	0.0	0.0	881.7	
Apr	633.0	0.0	0.0	0.0	633.0	0.0	0.0	429.9	0.7	0.0	0.0	0.0	613.0	
May	1125.8	0.0	0.0	0.0	1125.8	0.0	0.0	355.1	0.2	0.1	0.0	0.0	355.2	
Jun	877.3	0.0	0.0	0.0	877.3	0.0	0.0	98.4	0.2	0.0	0.0	0.4	420.3	
Jul	8.9	0.0	0.0	0.0	0.0	8.9	0.0	43.9	2.0	0.0	0.0	0.0	278.2	
Aug	1296.2	0.0	0.0	0.0	1296.2	0.0	0.0	161.5	0.0	0.0	0.0	0.0	459.1	
Sep	1040.5	0.0	0.0	0.0	490.9	549.6	0.0	62.9	0.0	0.0	0.0	0.0	620.8	
Oct	311.0	0.0	0.0	0.0	311.0	0.0	0.0	85.9	0.3	0.0	0.0	0.0	485.6	
Nov	203.9	0.0	0.0	0.0	203.9	0.0	0.0	65.9	0.0	0.0	0.0	0.0	609.6	
Dec	576.6	0.0	0.0	0.0	576.6	0.0	0.0	13.4	0.0	0.0	0.0	0.0	590.6	
Sub-total (2021)	7905.3	0.0	0.0	0.0	7346.9	558.5	0.0	2708.2	4.4	0.1	0.0	0.4	6315.9	

145.61		Actual Quant	tities of Inert				Actual Quantities of C&D Wastes Generated Monthly						
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2022													
Jan	579.3	0.0	0.0	0.0	579.3	0.0	0.0	23.5	0.4	0.0	0.0	0.0	565.5
Feb	58.9	0.0	0.0	0.0	58.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	172.2
Mar	412.8	0.0	0.0	0.0	412.8	0.0	0.0	12.4	0.3	0.0	0.0	0.0	339.8
Apr	390.2	0.0	0.0	0.0	390.2	0.0	0.0	24.8	0.0	0.0	0.0	0.0	390.9
May	350.1	0.0	0.0	0.0	342.9	7.2	0.0	44.3	0.3	0.1	0.0	0.0	401.9
Jun	200.4	0.0	0.0	0.0	200.4	0.0	0.0	21.1	0.0	0.0	0.0	1.1	447.8
Jul	166.8	0.0	0.0	0.0	166.8	0.0	0.0	6.3	0.3	0.0	0.0	0.7	343.9
Aug	150.9	0.0	0.0	0.0	150.9	0.0	0.0	9.6	0.4	0.2	0.0	0.0	410.6
Sep	437.6	0.0	0.0	0.0	437.6	0.0	0.0	11.5	0.3	0.0	0.0	0.0	348.3
Oct	708.0	0.0	0.0	0.0	708.0	0.0	0.0	13.8	0.0	0.0	0.0	0.0	353.0
Nov	244.1	0.0	0.0	0.0	244.1	0.0	0.0	47.3	0.3	0.0	0.0	0.0	427.4
Dec	337.4	0.0	0.0	0.0	337.4	0.0	0.0	28.1	0.0	0.0	0.0	0.0	385.3
Sub-total (2022)	4036.4	0.0	0.0	0.0	4029.3	7.2	0.0	242.7	2.3	0.3	0.0	1.8	4586.6
2023													
Jan	307.0	0.0	0.0	0.0	307.0	0.0	0.0	44.5	0.0	0.0	0.0	0.0	415.1
Feb	1087.8	0.0	0.0	0.0	1087.8	0.0	0.0	22.9	0.4	0.0	0.0	0.0	411.4
Mar	1944.0	0.0	0.0	0.0	1944.0	0.0	0.0	37.7	0.0	0.0	0.0	0.0	469.6
Apr	819.5	0.0	0.0	0.0	819.5	0.0	0.0	218.7	0.0	0.0	0.0	0.0	320.5
May	842.1	0.0	0.0	0.0	842.1	0.0	0.0	35.6	0.3	0.0	0.0	0.0	439.4
Jun	952.1	0.0	0.0	0.0	952.1	0.0	0.0	22.9	0.2	0.0	0.0	0.0	399.3
Jul	583.1	0.0	0.0	0.0	583.1	0.0	0.0	38.3	0.0	0.0	0.0	0.0	421.6
Aug	778.2	0.0	0.0	0.0	778.2	0.0	0.0	28.5	0.0	0.0	0.0	0.0	427.9
Sep	316.4	0.0	0.0	0.0	316.4	0.0	0.0	14.8	0.1	0.0	0.0	0.0	344.3
Oct	1253.3	0.0	0.0	0.0	1253.3	0.0	0.0	17.9	0.0	0.0	0.0	0.0	353.9
Nov	862.7	0.0	0.0	0.0	862.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	436.4
Dec	337.8	0.0	0.0	0.0	337.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	374.0
Sub-total (2023)	10084.0	0.0	0.0	0.0	10084.0	0.0	0.0	481.8	1.0	0.0	0.0	0.0	4813.3

Table F-1: Monthly Waste Flow Table for Lyric Theatre Complex

		Actual Quant	ities of Inert	C&D Materi	als Generate		Acti	ual Quantities	of C&D Wa	astes Gene	rated Month	nly	
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2024													
Jan	256.8	0.0	0.0	0.0	256.8	0.0	0.0	11.1	0.6	0.0	0.0	0.0	448.6
Feb	321.4	0.0	0.0	0.0	321.4	0.0	0.0	9.4	0.6	0.0	0.0	0.0	263.4
Mar	1167.4	0.0	0.0	0.0	1167.4	0.0	0.0	445.3	0.2	0.0	0.0	0.0	360.9
Apr	283.5	0.0	0.0	0.0	283.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	467.1
Sub-total (2024)	2029.1	0.0	0.0	0.0	2029.1	0.0	0.0	465.8	1.4	0.0	0.0	0.0	1540.0
Total	1010751.4	0.0	0.0	543635.2	466116.2	999.9	2301.1	11194.1	15.0	10.8	0.0	14.7	22234.2

Note:

<sup>(1) 1463.24, 309.01</sup> and 0 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137, Tuen Mun Area 38, and Chai Wan Public Fill Barging Point respectively in the reporting quarter.

<sup>(2)</sup> The values in the table are rounded off to 1 decimal place.

## G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction works to the end of the reporting quarter are summarized in **Table G-1** below.

Table G-1: Statistics for complaints, notifications of summons and successful prosecutions for Lyric Theatre Complex

59

From 1 March 2016 to end of the

reporting quarter

Reporting PeriodCumulative StatisticsComplaintsNotifications of summonsSuccessful prosecutionsThis reporting quarter00(Feb 24 – Apr 24)0

0

0

## **END OF PART-1**

# Part-2: EM&A for Foundation Works in Zone 2B & 2C

# Foundation Works in Zone 2B & 2C

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

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### **Executive summary**

This Quarterly EM&A Report presents the monitoring works conducted at Zone 2B & 2C from 1 February 2024 to 30 April 2024. The construction work for Zone 2A (Contract No.: GW/2020/05/073) was completed and handover to WKCDA on 31 March 2023. No construction work and only maintenance work is carried out by Zone 2B & 2C Contractor at Zone 2A.

The impact stage EM&A programme for the Project includes air quality, noise, water quality, waste, landscape and visual monitoring. The recommended environmental mitigation measures were implemented on site and regular inspections were carried out to ensure that the environmental conditions are acceptable.

The EM&A programme was carried out by the ET in accordance with the EM&A Manual requirements. It is concluded from the environmental monitoring and audit works that adequate environmental mitigation measures have been implemented by the contractors where appropriate in the reporting quarter.

#### **Exceedance of Action and Limit Levels**

There was no breach of Action or Limit Levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

#### **Implementation of Mitigation Measures**

Construction phase weekly site inspections were carried out to confirm the implementation measures undertaken by the Contractors in the reporting quarter. The status of implementation of mitigation measures during the reporting quarter is shown in **Appendix C**.

Landscape and visual impact inspections were conducted as part of the above-mentioned weekly site inspections during the reporting quarter. No adverse comment on landscape and visual aspects were made during these inspections.

#### **Record of Complaints**

No environmental complaint was received during the reporting quarter.

#### **Record of Notifications of Summons and Successful Prosecutions**

No notifications of summons and successful prosecutions were recorded in the reporting quarter.

### 1 Introduction

#### 1.1 Background

Apex Testing & Certification Limited (Apex) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction activities in Zone 2A, consisting of Foundation, Excavation and Lateral Support Works for Integrated Basement and Underground Road (Contract No.: GW/2020/05/073); and Zone 2B & 2C consisting of Piling Works for Integrated Basement and Underground Road (Contract No.: CC/2020/2B/088) at WKCD. The major construction works and EM&A programme for Zone 2A and Zone 2B & 2C commenced on 3 October 2020 and 30 September 2021 respectively. The major construction work for Zone 2A (Contract No.: GW/2020/05/073) was completed and handover to WKCDA on 31 March 2023. No construction work and only maintenance work is carried out by Zone 2B & 2C Contractor at Zone 2A.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an "engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000" (Item 1 of Schedule 3) and "an underpass more than 100m in length under the built areas" (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the "Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District" which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary falls under this same category.

The purpose of the development in Zone 2A and Zone 2B & 2C is to reserve for Integrated Basement (IB) and Underground Road (UR). The Zone 2A construction activities involve the foundation, excavation and lateral support (ELS) works, road works, drainage diversion works, and temporary car parking. The Zone 2B & 2C construction activities involve the piling works.

The Quarterly EM&A Report is prepared in accordance with the Clause 3.4 of the Environmental Permit No. EP-453/2013/B. This Quarterly EM&A Report presents the monitoring works at Zone 2B & 2C from 1 February 2024 to 30 April 2024. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

#### 1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

#### 1.3 Environmental Status in the Reporting Period

During the reporting period, construction works at Zone 2B & 2C undertaken include:

- Site Maintenance
- Backfilling of Testing Pipes
- Pile Testing

#### Full Core Drilling

The Construction Works Programme of the Project is provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**.

## 2 Summary of EM&A Requirements and Mitigation Measures

#### 2.1 Monitoring Requirements

In accordance with the EM&A Manual, environmental parameters including air quality, noise, landscape and visual have been monitored. The specific parameters, monitoring frequency and the respective Action and Limit Levels are given in **Table 2.1**. Locations of the monitoring stations are provided in **Figure 1**.

Table 2.1: Summary of Impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies	Action Level	Limit Level
Air Quality	24-Hour TSP	AM3 - The Victoria Towers Tower 1	At least once every 6 days	152.4 μg/m³	260 μg/m³
	1-Hour TSP	AM3 - The Victoria Towers Tower 1	At least 3 times every 6 days	280.4 μg/m³	500 μg/m³
	24-Hour TSP	AM4 - Canton Road Government Primary School	At least once every 6 days	152.6 µg/m³	260 μg/m³
	1-Hour TSP	AM4 - Canton Road Government Primary School	At least 3 times every 6 days	278.5 μg/m³	500 μg/m³
	24-Hour TSP	AM5 - Topside Developments at West Kowloon Terminus Site	At least once every 6 days	141.1 μg/m³	260 μg/m³
	1-Hour TSP	AM5 - Topside Developments at West Kowloon Terminus Site	At least 3 times every 6 days	275.4 μg/m³	500 μg/m³
Noise	Leq, 30 minutes	NM2 - The Arch, Sun Tower	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
	Leq, 30 minutes	NM3 - The Victoria Towers Tower 1	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
	Leq, 30 minutes	NM4 - Canton Road Government Primary School	Weekly	When one documented complaint is received from any one of the sensitive receivers	70/65 dB(A)^
	Leq, 30 minutes	NM5 -Development next to Austin Station	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly	N/A	N/A

Note:

<sup>^70</sup> dB(A) for schools and 65 dB(A) during school examination periods.

The EM&A programme for the Project require 5 air monitoring stations and 5 noise quality monitoring stations located closest to the Project area. With regard to the monitoring activities at M+ Museum and the Lyric Complex, three monitoring stations had been considered, including AM1, AM2 for air monitoring, and NM1 for noise monitoring. In the context of the construction activities in Zone 2A and Zone 2B & 2C, all other monitoring locations including AM3, AM4, and AM5 for air monitoring; and NM2, NM3, NM4 and NM5 for noise monitoring, have been taken into account. However, access to all these originally designated monitoring stations was declined. Therefore, alternative monitoring stations was identified and proposed.

With regard to air monitoring, alternative monitoring locations (AM3A, AM4A, and AM5A) were identified at ground floor at the Northeast corner of West Kowloon Station's station box, at ground floor at the Southeast corner of West Kowloon Station's station box, and at ground floor at the North of West Kowloon Station's station box respectively. AM3A, AM4A, and AM5A were set in same direction to the area of major construction site activities in Zone 2A. These alternative air monitoring locations (AM3A, AM4A, and AM5A) were approved by EPD on 29 September 2020.

For noise monitoring, alternative noise monitoring location (NM2A) was identified at the ground floor in front of The Arch - Sun Tower, which is at the same location as stated in the EM&A Manual for consistency. This alternative noise monitoring location was approved by EPD on 29 September 2020. Other alternative noise monitoring locations (NM3A, NM4A, and NM5A) were identified at the ground floor in front of the Xiqu Centre, at the ground floor next to Tsim Sha Tsui Fire Station, and at the Pedestrian road (ground floor) outside West Kowloon Station respectively. NM3A, NM4A and NM5A were set closer to the construction site boundary with more direct line sight to the major site activities and higher exposure to the construction noise with no disturbance to the premises' occupants during noise monitoring activities. These alternative noise monitoring locations (NM3A, NM4A, and NM5A) were approved by EPD on 29 September 2020.

Therefore, 3 air quality monitoring stations and 4 noise impact monitoring station were confirmed for the impact monitoring for construction activities in Zone 2A and Zone 2B & 2C.

#### 2.2 Environmental Mitigation Measures

Environmental mitigation measures have been recommended in the EM&A Manual. Summary of implementation status of the environmental mitigation measures is provided in **Appendix C**.

## 3 Summary of EM&A Results

#### 3.1 Monitoring Data

In accordance with the EM&A Manual, impact monitoring has been conducted in the reporting quarter. Meteorological data for the reporting quarter have been extracted from Hong Kong Observatory and presented in **Appendix D**. Monitoring data with graphical presentation for the reporting quarter are shown in **Appendix E**. A summary on the monitoring results are presented in **Table 3.1**.

Table 3.1: Summary of Monitoring Data

Parameter	<b>Monitoring Location</b>	Minimum	Maximum	Average
Air Quality				
1 hour TSP	АМЗА	33	86	50
1 hour TSP	AM4A	32	83	50
1 hour TSP	AM5A	33	88	50
24 hour TSP	АМЗА	32	81	48
24 hour TSP	AM4A	32	76	48
24 hour TSP	AM5A	35	80	48
Construction Noise				
Leq(30min)	NM2A	61	61	61
Leq(30min)	NM3A	60	61	61
Leq(30min)	NM4A	58	59	58
Leq(30min)	NM5A	63	64	64

#### 3.2 Monitoring Exceedances

Summary of the exceedances in the reporting quarter is tabulated in Table 3.2.

Table 3.2: Summary of Exceedances

<b>Monitoring Station</b>	<b>Parameter</b>	No. of Ex	<b>Action Taken</b>	
		Action Level	Limit Level	_
Air Quality				
AM3A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM4A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM5A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
Construction Noise				
NM2A	Leq(30min)	0	0	N/A
NM3A	Leq(30min)	0	0	N/A
NM4A	Leq(30min)	0	0	N/A
NM5A	Leq(30min)	0	0	N/A

#### 3.2.1 1-hour TSP Monitoring

All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of 1-hour TSP for Air Quality was recorded.

#### 3.2.2 24-hour TSP Monitoring

All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of 24-hour TSP for Air Quality was recorded.

#### 3.2.3 Construction Noise Monitoring

All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance of Noise was recorded in the reporting quarter.

#### 3.2.4 Landscape and Visual Monitoring

All landscape and visual impact inspections were conducted as scheduled in the reporting quarter. No adverse comment on landscape and visual aspects were recorded.

## 4 Waste Management

#### 4.1 Zone 2B & 2C

As advised by the Zone 2B & 2C Contractor, 1994.14 tonnes and 270.51 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 and Tuen Mun Area 38 respectively in the reporting quarter, while 47.01 tonnes of general refuse were disposed of at SENT landfill. 0.0 tonne of metals, 0.0 tonne of paper/cardboard packaging, 0.0 tonne of plastics and 0.0 tonne of timber was collected by recycling contractors in the reporting quarter. 0.0 tonne of inert C&D material were reused on site. 0.0 tonne of inert C&D material was imported for reuse at site and 0.0 tonne of inert C&D material were reused in other projects. 0.0 tonne of inert C&D material was disposed to sorting facility and 0.0 tonne of chemical waste was collected by licensed contractors in the reporting quarter.

The actual amounts of different types of waste generated by the activities of construction works at Zone 2B & 2C in the reporting quarter are shown in **Appendix F**.

## 5 Environmental Non-conformance

There was no breach of Action or Limit Levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in the reporting quarter.

No complaint was received in the reporting quarter. No notifications of summons and successful prosecutions were received in the reporting quarter.

The cumulative statistics on complaints, notifications of summons and successful prosecutions were provided in **Appendix G**.

## 6 Comments, Recommendations and Conclusion

#### 6.1 Comments

Based on the observations made during site audits and landscape inspections, and construction dust and noise monitoring results, no non-compliances and exceedances of air quality and construction noise were recorded in the reporting quarter.

#### 6.2 Recommendations

Reviewing the implementation of the recommended mitigation measures in the EM&A Manual, it was observed that they were effective and efficient in controlling the potential impacts due to construction of the project during the reporting period. Review of the effectiveness and efficiency of the EM&A programme will continue, and recommendations will be provided to remediate any potential impacts due to the project and to improve the EM&A programme if deficiencies of the existing EM&A programme are identified.

#### 6.3 Conclusion

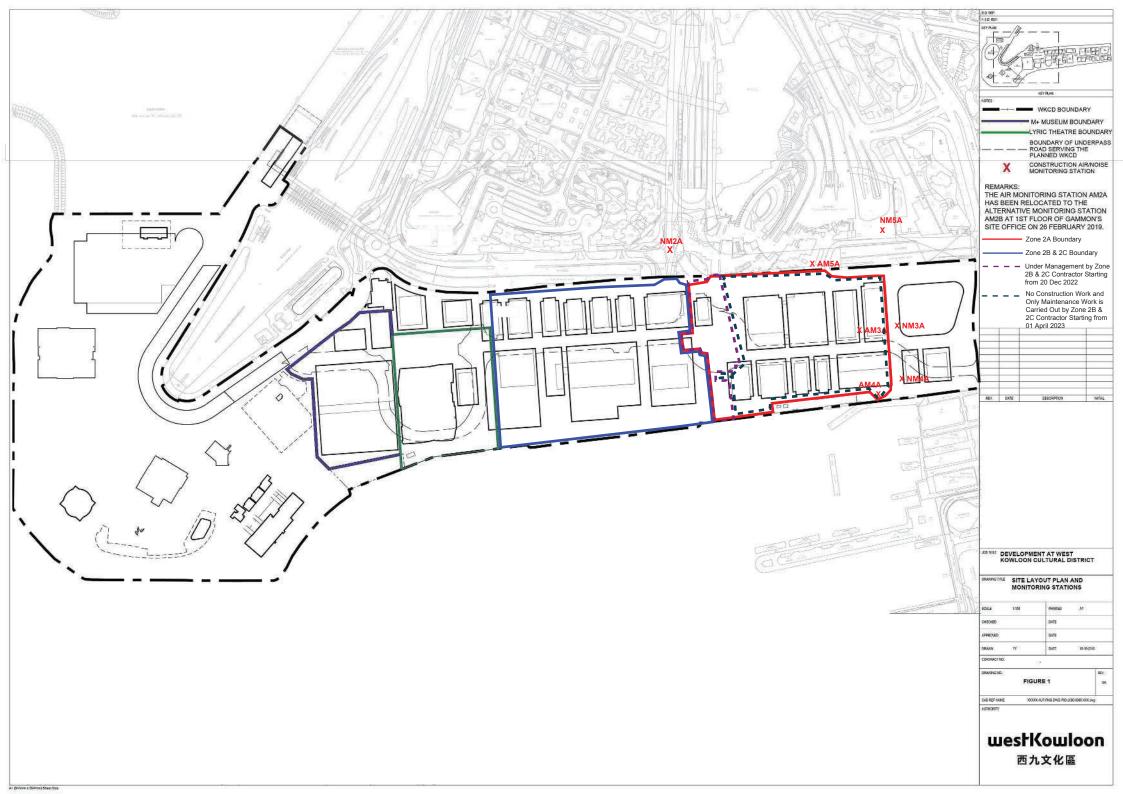
The EM&A programme as recommended in the EM&A Manual has been undertaken since the construction works of Zone 2A and Zone 2B & 2C commenced on 3 October 2020 and 30 September 2021 respectively. The construction work for Zone 2A (Contract No.: GW/2020/05/073) was completed and handover to WKCDA on 31 March 2023. No construction work and only maintenance work is carried out by Zone 2B & 2C Contractor at Zone 2A.

Monitoring of air quality and noise with respect to the Project is underway. In particular, the 1-hour TSP, 24-hour TSP and noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit Levels. There was no breach of Action or Limit Levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

No complaint was received in the reporting quarter. No notifications of summons and successful prosecutions were received during the reporting quarter.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting quarter as required. It was observed that the Contractor had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

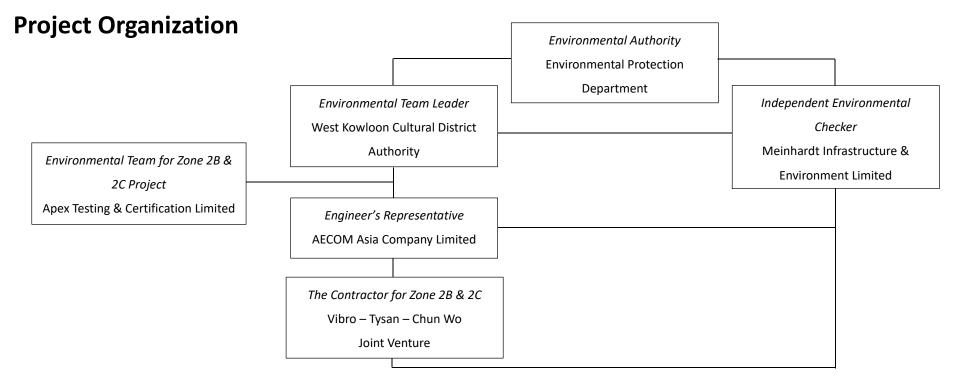
## Figure 1 Site Layout Plan and Monitoring Stations



# **Appendices**

- A. Project Organisation
- B. Construction Programme
- C. Environmental Mitigation Measures Implementation Status
- D. Meteorological Data Extracted from Hong Kong Observatory
- E. Graphical Plots of the Monitoring Results
- F. Waste Flow table
- G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

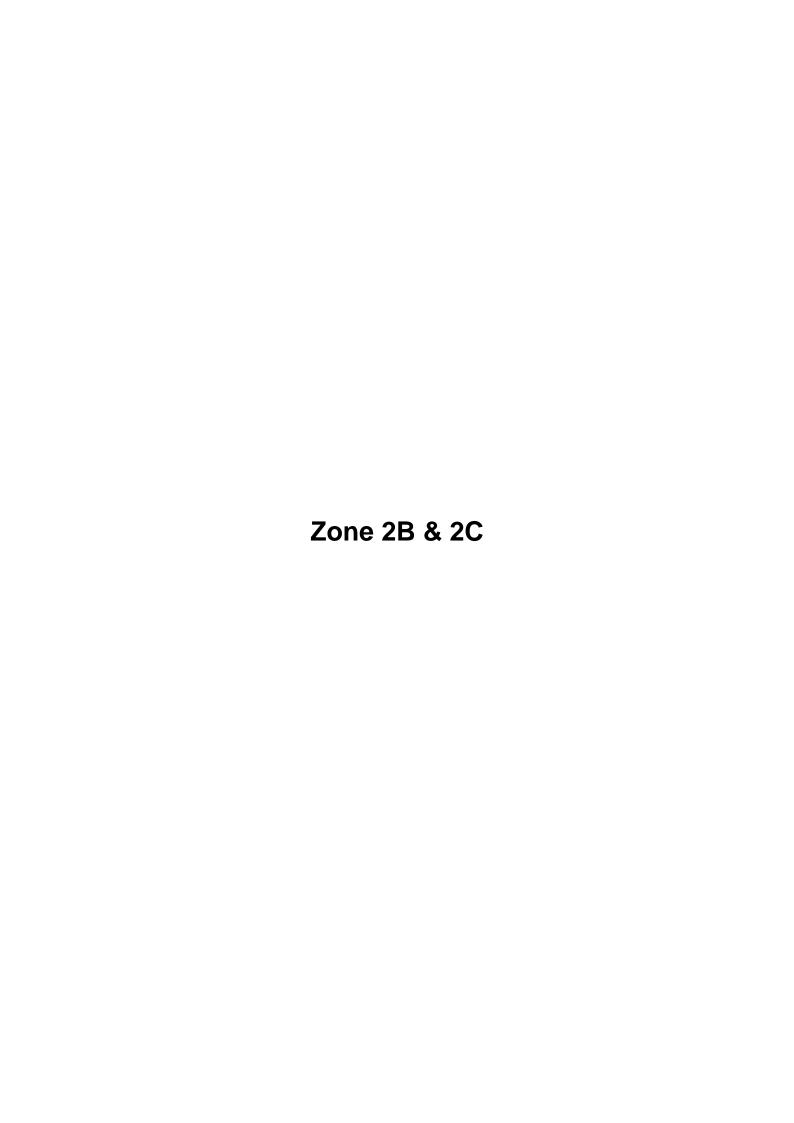
# A. Project Organisation

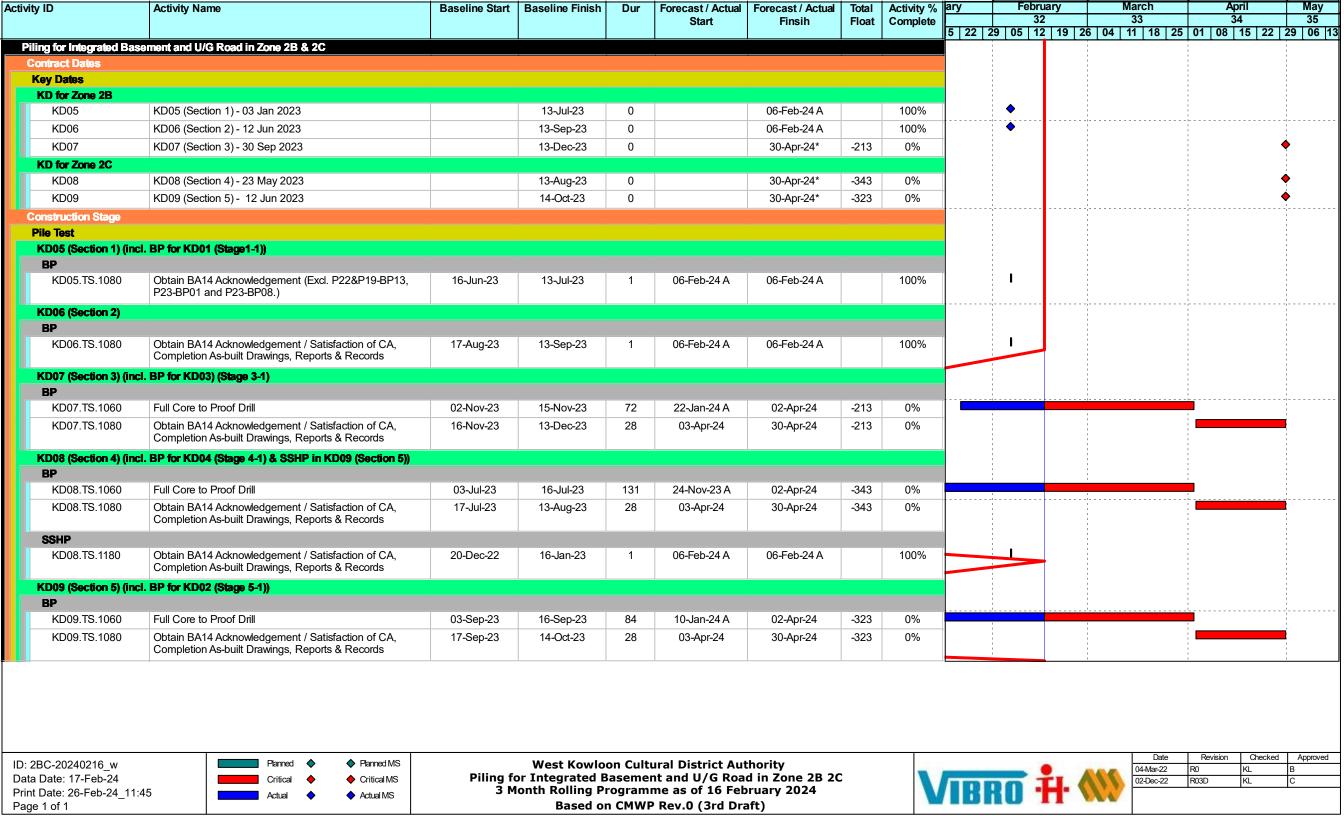


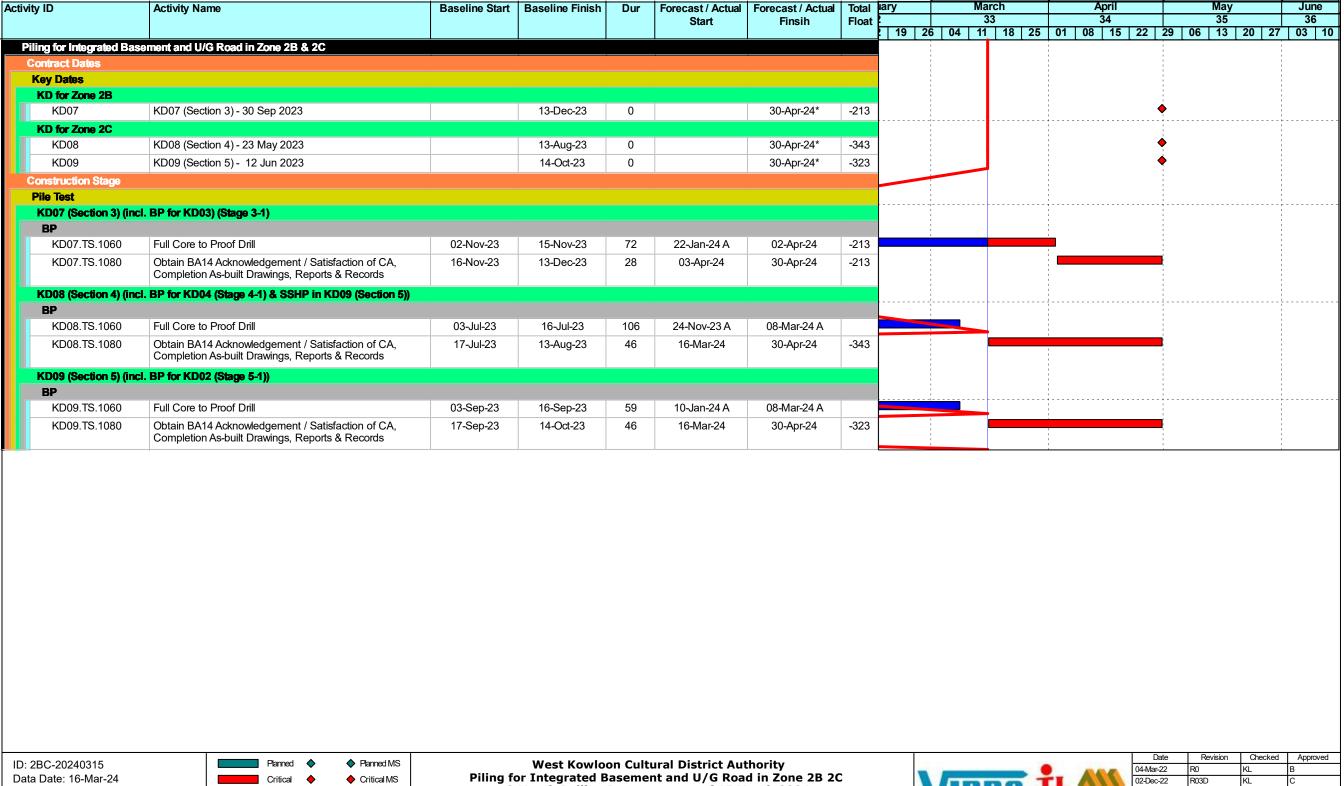
**Table A-1: Contract Information** 

Company Name	Role	Name	Telephone	Email
West Kowloon Cultural District Authority	WKCDA Representative & Project ETL	Mr. Max LEE	2200 0782	max.sl.lee@wkcda.hk
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Ms. Claudine LEE	2859 5409	caludinelee@meinhardt.com.hk
AECOM Asia Company Limited	Assistant Resident Engineer (Zone 2B & 2C)	Mr. Laurence WONG	5791 8711	cheuklunlaurence.wong@aecom.com
Vibro – Tysan – Chun Wo Joint Venture	Environmental Sustainability Manager	Mr. Tony YAM	2137 5586	tony_yam@vibro.com.hk
Apex Testing & Certification Limited	Contractor's Environmental Team Leader	Mr. Calvin LUI	9629 9718	calvinlui@apextestcert.com

# **B.** Construction Programme







3 Month Rolling Programme as of 15 March 2024
Based on CMWP Rev.0 (3rd Draft)

Print Date: 20-Mar-24 17:06

Page 1 of 1

Actual MS

# C. Environmental Mitigation Measures – Implementation Status

**Table C-1: Environmental Mitigation Measures Implementation Status** 

			Implementation Stage	
			Zone 2B & 2C	
EM&A Ref.	Recommendation Measures	Feb	Mar	Apr
	January (Construction)	2024	2024	2024
	/ Impact (Construction)			
2.1	General Dust Control Measures	<b>✓</b>	<b>√</b>	✓
	Frequent water spraying for active construction areas (12 times a day or once every one			
	hour), including Heavy construction activities such as construction of buildings or roads,			
	drilling, ground excavation, cut and fill operations (i.e., earth moving)			
2.1	Best Practice For Dust Control			
	The relevant best practices for dust control as stipulated in the Air Pollution Control			
	(construction Dust) Regulation should be adopted to further reduce the construction dust			
	impacts from the Project. These best practices include:			
	Good Site Management	✓	Obs	<b>√</b>
	<ul> <li>Good site management is important to help reducing potential air quality impact</li> </ul>			
	down to an acceptable level. As a general guide, the Contractor should maintain high			
	standard of housekeeping to prevent emission of fugitive dust. Loading, unloading,			
	handling and storage of raw materials, wastes or by-products should be carried out in			
	a manner so as to minimise the release of visible dust emission. Any piles of			
	materials accumulated on or around the work areas should be cleaned up regularly.			
	Cleaning, repair and maintenance of all plant facilities within the work areas should			
	be carried out in a manner minimising generation of fugitive dust emissions. The			
	material should be handled properly to prevent fugitive dust emission before			
	cleaning.			
	Disturbed Parts of the Roads	✓	<b>√</b>	<b>✓</b>
	Each and every main temporary access should be paved with concrete, bituminous			
	hardcore materials or metal plates and kept clear of dusty materials; or			

			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	<ul> <li>Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.</li> </ul>	Obs	V	Obs
	Exposed Earth	N/A	N/A	N/A
	<ul> <li>Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.</li> </ul>			
	Loading, Unloading or Transfer of Dusty Materials	<b>√</b>	<b>√</b>	<b>√</b>
	<ul> <li>All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.</li> </ul>			
	Debris Handling	✓	$\checkmark$	✓
	<ul> <li>Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.</li> </ul>			
	<ul> <li>Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.</li> </ul>	N/A	N/A	N/A
	Transport of Dusty Materials	$\checkmark$	$\checkmark$	$\checkmark$
	<ul> <li>Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.</li> </ul>			
	Wheel washing	$\checkmark$	$\checkmark$	$\checkmark$
	<ul> <li>Vehicle wheel washing facilities should be provided at each construction site exit.</li> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> </ul>			
	Use of vehicles	$\checkmark$	✓	$\checkmark$
	<ul> <li>The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site.</li> </ul>			

			<b>Zone 2B &amp; 2C</b>	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	<ul> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> </ul>	<b>√</b>	<b>√</b>	<b>√</b>
	<ul> <li>Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.</li> </ul>	<b>V</b>	<b>√</b>	V
	<ul> <li>Site hoarding</li> <li>Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.</li> </ul>	<b>V</b>	<b>√</b>	<b>✓</b>
2.1	Best Practicable Means for Cement Works (Concrete Batching Plant)  The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include:			
	<ul> <li>Exhaust from Dust Arrestment Plant</li> <li>Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection</li> </ul>	N/A	N/A	N/A
	<ul> <li>Emission Limits</li> <li>All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke</li> </ul>	N/A	N/A	N/A

			<b>Zone 2B &amp; 2C</b>	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	Engineering Design/Technical Requirements	N/A	N/A	N/A
	<ul> <li>As a general guidance, the loading, unloading, handling and storage of fuel, raw</li> </ul>			
	materials, products, wastes or by-products should be carried out in a manner so as to			
	prevent the release of visible dust and/or other noxious or offensive emissions			
	Non-Road Mobile Machinery (NRMM):	✓	$\checkmark$	$\checkmark$
	All NRMMs operating on-site which are subject to emission control of Air Pollution Control			
	(Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case			
	may be) and affixed with the requisite approval/exemption labels.			
Noise Imp	act (Construction)			
3.1	Good Site Practice			
	<ul> <li>Good site practice and noise management can significantly reduce the impact of</li> </ul>			
	construction site activities on nearby NSRs. The following package of measures			
	should be followed during each phase of construction:			
	<ul> <li>only well-maintained plant to be operated on-site and plant should be serviced</li> </ul>	✓	✓	$\checkmark$
	regularly during the construction works;			
	<ul> <li>machines and plant that may be in intermittent use to be shut down between work</li> </ul>	✓	✓	$\checkmark$
	periods or should be throttled down to a minimum			
	<ul> <li>plant known to emit noise strongly in one direction, should, where possible, be</li> </ul>	✓	$\checkmark$	$\checkmark$
	orientated to direct noise away from the NSRs;			
	<ul> <li>mobile plant should be sited as far away from NSRs as possible; and</li> </ul>	✓	✓	$\checkmark$
	<ul> <li>material stockpiles and other structures to be effectively utilised, where practicable,</li> </ul>	✓	✓	$\checkmark$
	to screen noise from on-site construction activities.			

			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
3.1	Adoption of Quieter PME	✓	<b>√</b>	✓
	The recommended quieter PME adopted in the assessment were taken from the EPD's			
	QPME Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in			
	Table 4.26 in the EIA report. It should be noted that the silenced PME selected for			
	assessment can be found in Hong Kong.			
3.1	Use of Movable Noise Barriers	$\checkmark$	$\checkmark$	$\checkmark$
	Movable noise barriers can be very effective in screening noise from particular items of			
	plant when constructing the Project. Noise barriers located along the active works area			
	close to the noise generating component of a PME could produce at least 10 dB(A)			
	screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight			
	between the PME and the NSRs is blocked.			
3.1	Use of Noise Enclosure/ Acoustic Shed	$\checkmark$	$\checkmark$	✓
	The use of noise enclosure or acoustic shed is to cover stationary PME such as air			
	compressor and concrete pump. With the adoption of the noise enclosure, the PME could			
	be completely screened, and noise reduction of 15 dB(A) can be achieved according to the			
	EIAO Guidance Note No. 9/2010.			
3.1	Use of Noise Insulating Fabric	$\checkmark$	$\checkmark$	$\checkmark$
	Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine			
	etc). The fabric should be lapped such that there are no openings or gaps on the joints.			
	According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-			
	127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the			
	noise insulating fabric.	,	,	,
3.1	Scheduling of Construction Works outside School Examination Periods	$\checkmark$	<b>√</b>	$\checkmark$
	During construction phase, the contractor should liaise with the educational institutions			
	(including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy			
	construction activities during school examination periods.			

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			<b>Zone 2B &amp; 2C</b>	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
Nater Qua	lity Impact (Construction)			
1.1	Construction site runoff and drainage			
	The site practices outlined in ProPECC Note PN 1/94 should be followed as far as			
	practicable in order to minimise surface runoff and the chance of erosion. The following			
	measures are recommended to protect water quality and sensitive uses of the coastal area,			
	and when properly implemented should be sufficient to adequately control site discharges			
	so as to avoid water quality impacts:			
	• At the start of site establishment, perimeter cut-off drains to direct off-site water	✓	$\checkmark$	$\checkmark$
	around the site should be constructed with internal drainage works and erosion and			
	sedimentation control facilities implemented. Channels, earth bunds or sand bag			
	barriers should be provided on site to direct storm water to silt removal facilities. The			
	design of the temporary on-site drainage system should be undertaken by the			
	WKCDA's Contractor prior to the commencement of construction;			
	Sand/silt removal facilities such as sand/silt traps and sediment basins should be	✓	$\checkmark$	$\checkmark$
	provided to remove sand/silt particles from runoff to meet the requirements of the			
	TM standards under the WPCO. The design of efficient silt removal facilities should			
	be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary			
	depending upon the flow rate. The detailed design of the sand/silt traps should be			
	undertaken by the WKCDA's Contractor prior to the commencement of construction.			
	<ul> <li>All drainage facilities and erosion and sediment control structures should be regularly</li> </ul>	<b>✓</b>	<b>√</b>	✓
	inspected and maintained to ensure proper and efficient operation at all times and			
	particularly during rainstorms. Deposited silt and grit should be regularly removed, at			
	the onset of and after each rainstorm to ensure that these facilities are functioning			
	properly at all times.			

			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	<ul> <li>Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities.</li> </ul>	V	<b>V</b>	<b>√</b>
	• 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 sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly 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.	<b>√</b>		<b>V</b>
	<ul> <li>Open stockpiles of construction materials or construction wastes onsite 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.</li> </ul>	<b>V</b>	Obs	<b>✓</b>
	<ul> <li>Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers.</li> </ul>	<b>V</b>	<b>√</b>	<b>✓</b>
	<ul> <li>Precautions should be taken at any time of the year when rainstorms are likely.         Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.     </li> </ul>	<b>V</b>	<b>~</b>	<b>√</b>

			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	Bentonite slurries used in piling or slurry walling should be reconditioned and reused	N/A	N/A	N/A
	wherever practicable. Temporary enclosed storage locations should be provided on-			
	site for any unused bentonite that needs to be transported away after all the related			
	construction activities are completed. The requirements in ProPECC Note PN 1/94			
	should be adhered to in the handling and disposal of bentonite slurries.			
4.1	Barging facilities and activities			
	Recommendations for good site practices during operation of the proposed barging point			
	include:			
	<ul> <li>All vessels should be sized so that adequate clearance is maintained between vessels</li> </ul>	N/A	N/A	N/A
	and the seabed in all tide conditions, to ensure that undue turbidity is not generated			
	by turbulence from vessel movement or propeller wash;			
	<ul> <li>Loading of barges and hoppers should be controlled to prevent splashing of material</li> </ul>	N/A	N/A	N/A
	into the surrounding water. Barges or hoppers should not be filled to a level that will			
	cause the overflow of materials or polluted water during loading or transportation;			
	<ul> <li>All hopper barges should be fitted with tight fitting seals to their bottom openings to</li> </ul>	N/A	N/A	N/A
	prevent leakage of material; and			
	<ul> <li>Construction activities should not cause foam, oil, grease, scum, litter or other</li> </ul>	N/A	N/A	N/A
	objectionable matter to be present on the water within the site.			
4.1	Sewage effluent from construction workforce	✓	$\checkmark$	✓
	Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site			
	where necessary to handle sewage from the workforce. A licensed contractor should be			
	employed to provide appropriate and adequate portable toilets and be responsible for			
	appropriate disposal and maintenance.			
4.1	General construction activities			

			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	Construction solid waste, debris and refuse generated on-site should be collected,	✓	✓	✓
	handled and disposed of properly to avoid entering any nearby storm water drain.			
	Stockpiles of cement and other construction materials should be kept covered when not being used.			
	<ul> <li>Oils and fuels should only be stored in designated areas which have pollution</li> </ul>	✓	Obs	$\checkmark$
	prevention facilities. To prevent spillage of fuels and solvents to any nearby storm			
	water drain, all fuel tanks and storage areas should be provided with locks and be			
	sited on sealed areas, within bunds of a capacity equal to 110% of the storage			
	capacity of the largest tank. The bund should be drained of rainwater after a rain			
	event.			
Naste Ma	nagement Implications (Construction)			
.1	Good Site Practices			
	<ul> <li>Recommendations for good site practices during the construction activities include:</li> </ul>			
	<ul> <li>Nomination of an approved person, such as a site manager, to be responsible for</li> </ul>	✓	$\checkmark$	✓
	good site practices, arrangements for collection and effective disposal to an			
	appropriate facility, of all wastes generated at the site			
	<ul> <li>Training of site personnel in proper waste management and chemical handling procedures</li> </ul>	<b>√</b>	<b>√</b>	<b>√</b>
	<ul> <li>Provision of sufficient waste disposal points and regular collection of waste</li> </ul>	✓	$\checkmark$	$\checkmark$
	<ul> <li>Appropriate measures to minimise windblown litter and dust/odour during</li> </ul>	$\checkmark$	✓	✓
	transportation of waste by either covering trucks or by transporting wastes in enclosed containers			
	<ul> <li>Provision of wheel washing facilities before the trucks leaving the works area so as to</li> </ul>	✓	$\checkmark$	✓
	minimise dust introduction to public roads			

			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	Well planned delivery programme for offsite disposal such that adverse	✓	<b>√</b>	✓
	environmental impact from transporting the inert or non-inert C&D materials is not anticipated			
6.1	Waste Reduction Measures			
	Recommendations to achieve waste reduction include:			
	<ul> <li>Sort inert C&amp;D material to recover any recyclable portions such as metals</li> </ul>	$\checkmark$	✓	✓
	<ul> <li>Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal</li> </ul>	<b>√</b>	✓	<b>√</b>
	<ul> <li>Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force</li> </ul>	<b>√</b>	✓	V
	<ul> <li>Proper site practices to minimise the potential for damage or contamination of inert</li> <li>C&amp;D materials</li> </ul>	<b>√</b>	V	<b>√</b>
	<ul> <li>Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes</li> </ul>	<b>V</b>	<b>√</b>	<b>√</b>
6.1	Inert and Non-inert C&D Materials			
	In order to minimise impacts resulting from collection and transportation of inert C&D			
	material for off-site disposal, the excavated materials should be reused on-site as fill			
	material as far as practicable. In addition, inert C&D material generated from excavation			
	works could be reused as fill materials in local projects that require public fill for reclamation.			
	<ul> <li>The surplus inert C&amp;D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.</li> </ul>	<b>√</b>	<b>√</b>	<b>√</b>

			<b>Zone 2B &amp; 2C</b>	
EM&A	Recommendation Measures	Feb 2024	Mar 2024	Apr 2024
Ref.				
	Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for	✓	<b>√</b>	✓
	disposal of the inert C&D materials at PFRF is underway. No construction work is			
	allowed to proceed until all issues on management of inert C&D materials have been			
	resolved and all relevant arrangements have been endorsed by the relevant			
	authorities including PFC and EPD.			
	• The C&D materials generated from general site clearance should be sorted on site to	✓	$\checkmark$	✓
	segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert			
	materials will be disposed of at the designated landfill site.			
	• In order to monitor the disposal of inert and non-inert C&D materials at respectively	✓	$\checkmark$	$\checkmark$
	PFRFs and the designated landfill site, and to control fly-tipping, it is recommended			
	that the Contractor should follow the Technical Circular (Works) No. 6/2010 for Trip			
	Ticket System for Disposal of Construction & Demolition Materials issued by			
	Development Bureau. In addition, it is also recommended that the Contractor should			
	prepare and implement a Waste Management Plan detailing their various waste			
	arising and waste management practices in accordance with the relevant			
	requirements of the Technical Circular (Works) No. 19/2005 Environmental			
	Management on Construction Site.			

#### 6.1 Chemical Waste

			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	If chemical wastes are produced at the construction site, the Contractor will be	✓	✓	✓
	required to register with the EPD as a chemical waste producer and to follow the			
	guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of			
	Chemical Wastes". Good quality containers compatible with the chemical wastes			
	should be used, and incompatible chemicals should be stored separately.			
	Appropriate labels should be securely attached on each chemical waste container			
	indicating the corresponding chemical characteristics of the chemical waste, such as			
	explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor			
	should use a licensed collector to transport and dispose of the chemical wastes at			
	the approved Chemical Waste Treatment Centre or other licensed recycling facilities,			
	in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.			
	<ul> <li>Potential environmental impacts arising from the handling activities (including</li> </ul>	$\checkmark$	$\checkmark$	✓
	storage, collection, transportation and disposal of chemical waste) are expected to			
	be minimal with the implementation of appropriate mitigation measures as			
	recommended.			
6.1	General Refuse	$\checkmark$	$\checkmark$	✓
	General refuse should be stored in enclosed bins or compaction units separated from inert			
	C&D materials. A reputable waste collector should be employed by the Contractor to			
	remove general refuse from the site, separately from inert C&D materials. Preferably an			
	enclosed and covered area should be provided to reduce the occurrence of 'wind blown'			
	light material.			

Imp	<b>lementation</b>	Stage
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	Recommendation Measures	Zone 2B & 2C		
EM&A		Feb	Mar	Apr
Ref.		2024	2024	2024
7.1	The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials. The following measures are proposed for excavation and transportation of contaminated material:	N/0	N/0	N/A
	<ul> <li>To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Stockpiling of contaminated excavated materials on site should be avoided as far as possible;</li> </ul>	N/A	N/A	N/A
	<ul> <li>The use of contaminated soil for landscaping purpose should be avoided unless pre- treatment was carried out;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Truck bodies and tailgates should be sealed to stop any discharge;</li> </ul>	N/A	N/A	N/A
	<ul> <li>Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping;</li> </ul>	N/A	N/A	N/A

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			Zone 2B & 2C	
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
	Speed control for trucks carrying contaminated materials should be exercised;	N/A	N/A	N/A
	Observe all relevant regulations in relation to waste handling, such as Waste Disposal	N/A	N/A	N/A
	Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap.			
	354) and obtain all necessary permits where required; and			
	<ul> <li>Maintain records of waste generation and disposal quantities and disposal</li> </ul>	N/A	N/A	N/A
	arrangements.			
Ecological	Impact (Construction)			
	No mitigation measure is required.			
Landscape	and Visual Impact (Construction)			
Table 9.1	Trees should be retained in situ on site as far as possible. Should tree removal be	<b>√</b>	<b>√</b>	✓
(CM1)	unavoidable due to construction impacts, trees will be transplanted or felled with			
	reference to the stated criteria in the Tree Removal Applications to be submitted to			
	relevant government departments for approval in accordance to ETWB TCW No. 29/2004			
	and 3/2006.			
Table 9.1	Compensatory tree planting shall be incorporated to the proposed project and maximize	N/A	N/A	N/A
(CM2)	the new tree, shrubs and other vegetation planting to compensate tree felled and			
	vegetation removed. Also, implementation of compensatory planting should be of a ratio			
	not less than 1:1 in terms of quality and quantity within the site.			
Table 9.1	Buffer trees for screening purposes to soften the hard architectural and engineering	N/A	N/A	N/A
(CM3)	structures and facilities.			
Table 9.1	Softscape treatments such as vertical green wall panel /planting of climbing and/or	N/A	N/A	N/A
(CM4)	weeping plants, etc, to maximize the green coverage and soften the hard architectural and			
	engineering structures and facilities.			
Table 9.1	Roof greening by means of intensive and extensive green roof to maximize the green	N/A	N/A	N/A
(CM5)	coverage and improve aesthetic appeal and visual quality of the building/structure.			

		Zone 2B & 2C		
EM&A	Recommendation Measures	Feb	Mar	Apr
Ref.		2024	2024	2024
Table 9.1 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A	N/A
Table 9.1 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A	N/A
Table 9.1 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A	N/A
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A	N/A
Table 9.2 (MCP1)	Use of decorative screen hoarding/boards	V	<b>V</b>	<b>√</b>
Table 9.2 (MCP2)	Early introduction of landscape treatments	N/A	N/A	N/A
Table 9.2 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A	N/A
Table 9.2 (MCP4)	Control of night time lighting	V	V	V
Table 9.2 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A	N/A

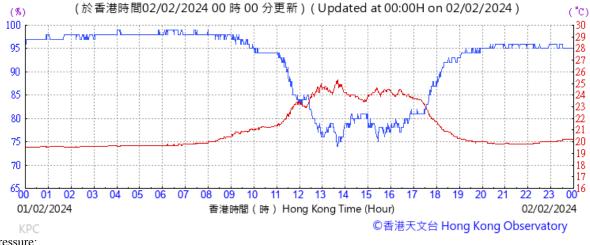
N/A - Not Applicable

- Implemented

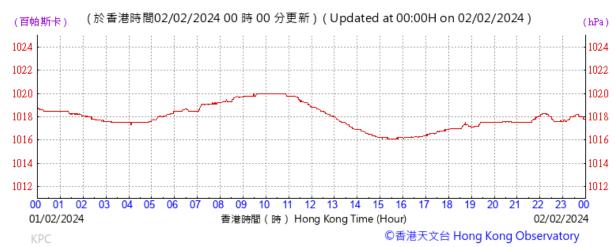
Obs - Observed

Rem - Reminder

# D. Meteorological Data Extracted from Hong Kong Observatory

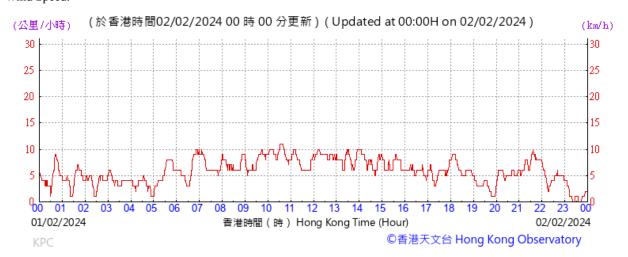


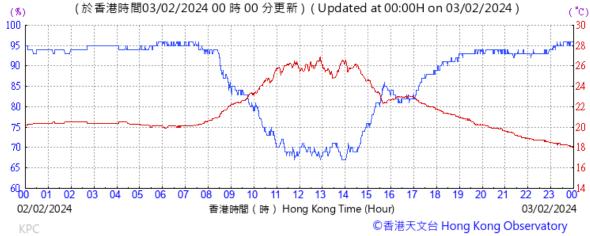
Pressure:



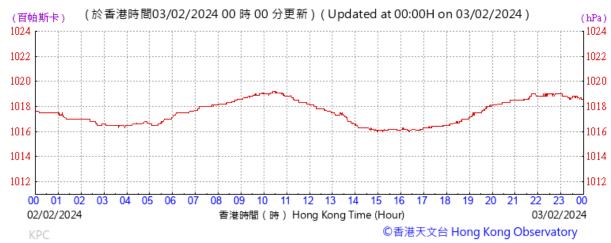
Wind Direction:







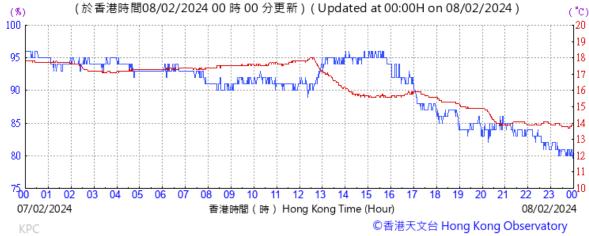
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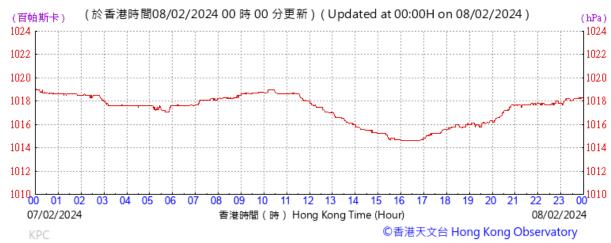
Wind Direction:



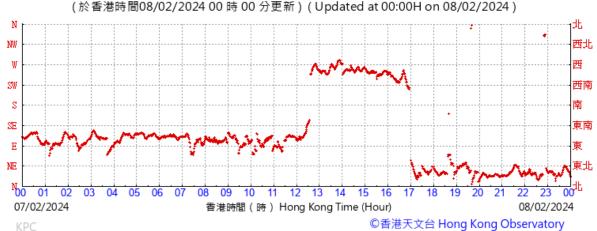




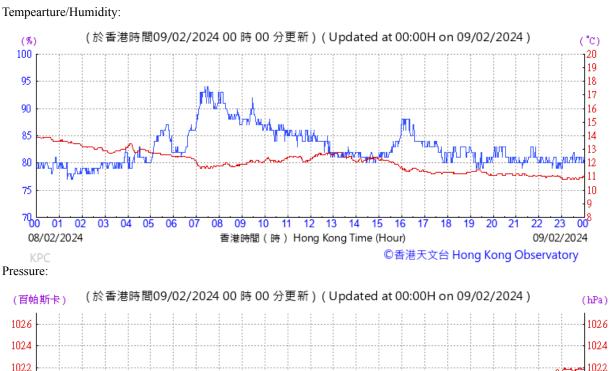
Pressure:



Wind Direction:

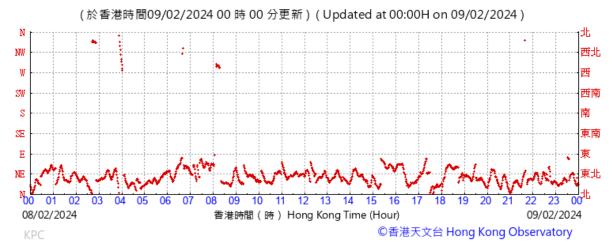




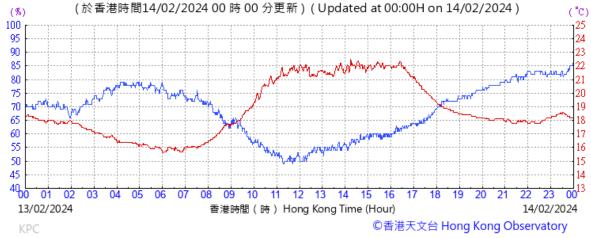


08/02/2024 香港時間 (時) Hong Kong Time (Hour) 09/02/2024 ©香港天文台 Hong Kong Observatory

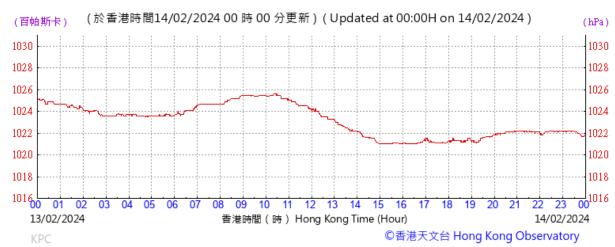
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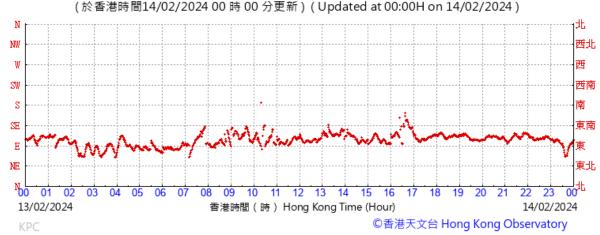




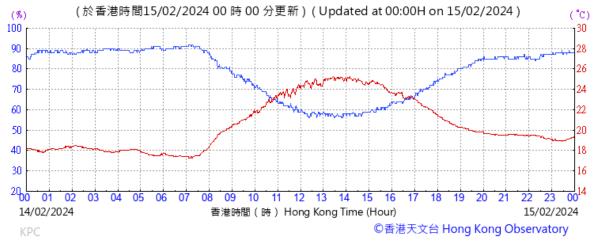
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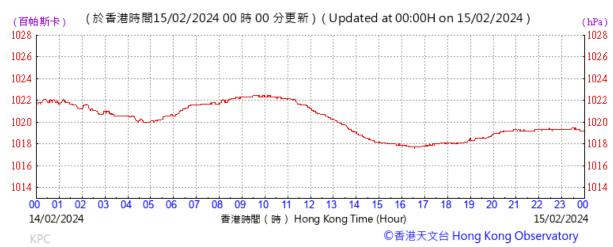
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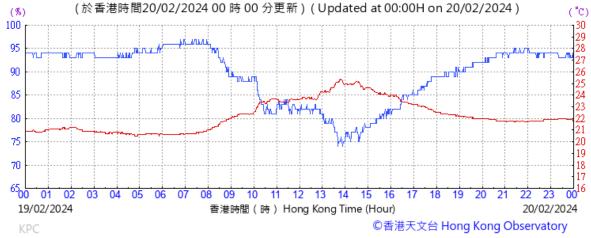
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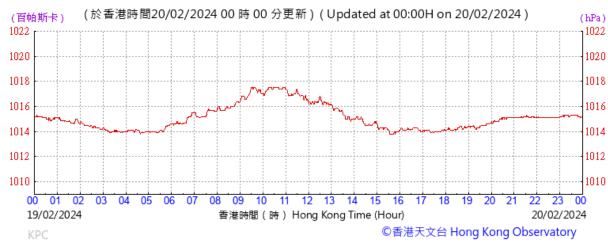
Wind Direction:



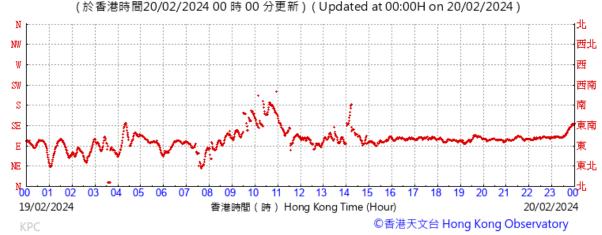




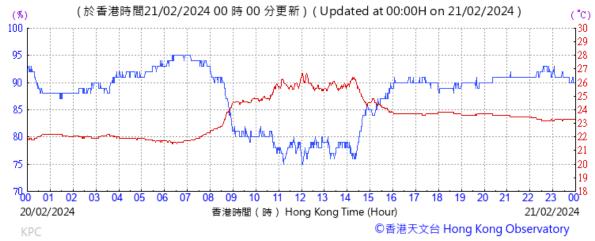
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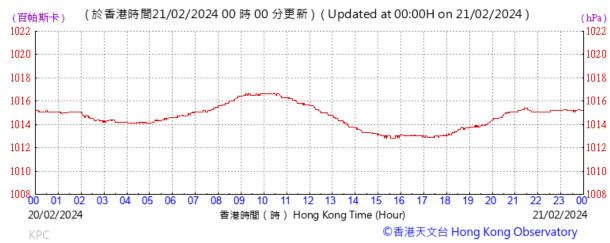
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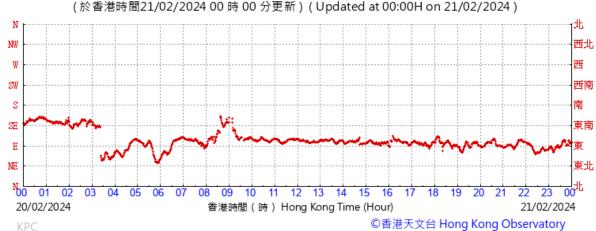




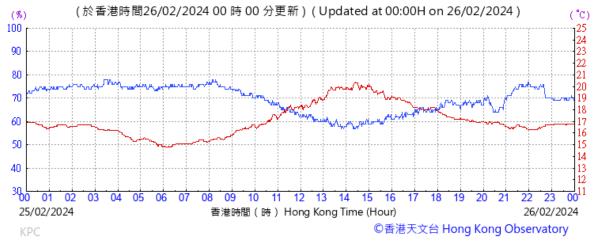
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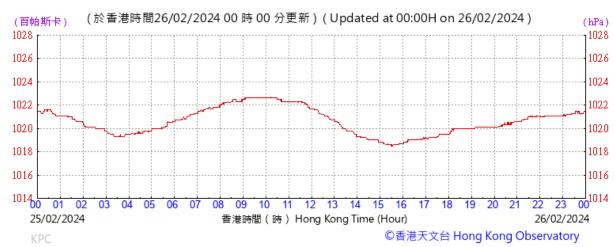
Wind Direction:







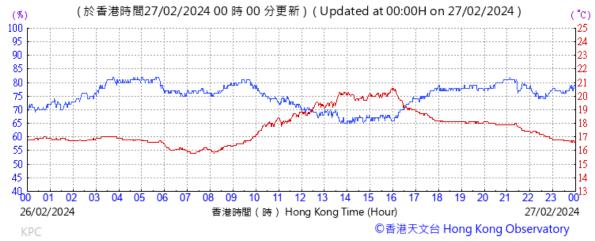
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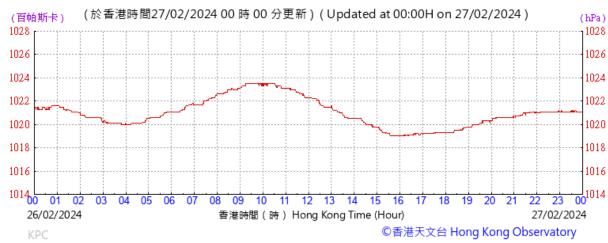
Wind Direction:



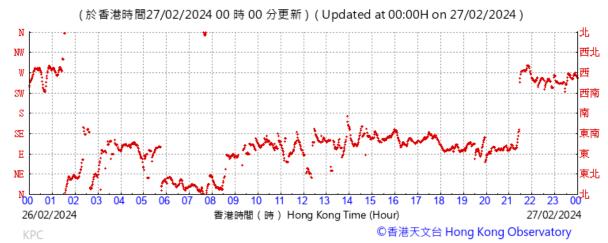




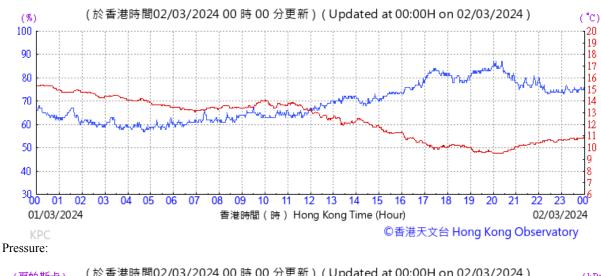
#### Pressure:

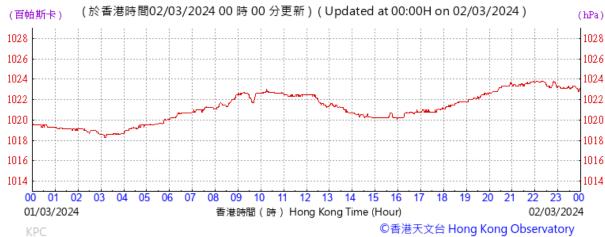


Wind Direction:

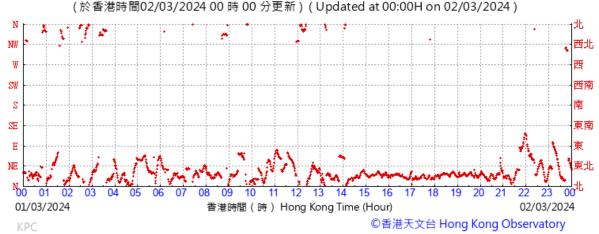


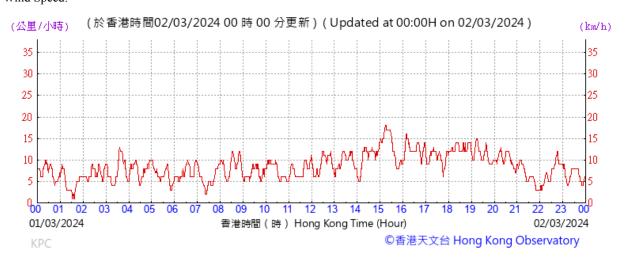


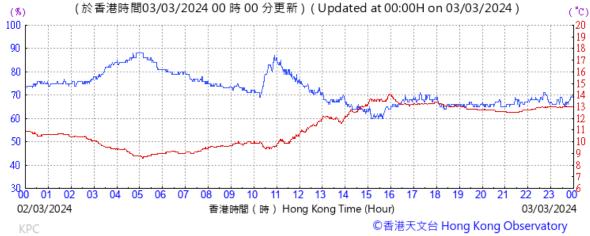




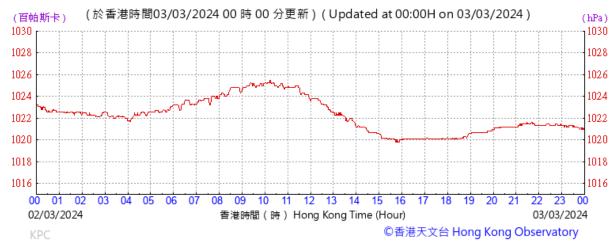
Wind Direction:



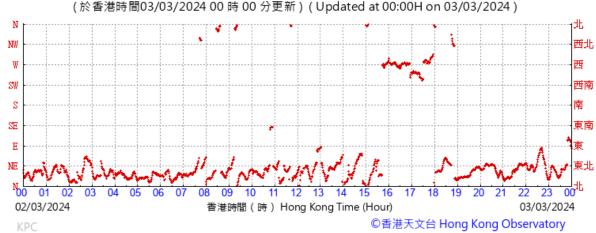




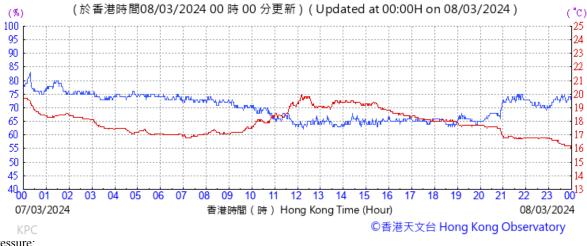
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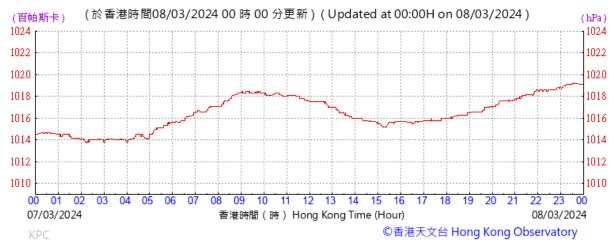
Wind Direction:



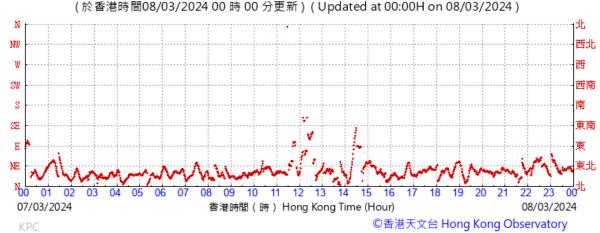




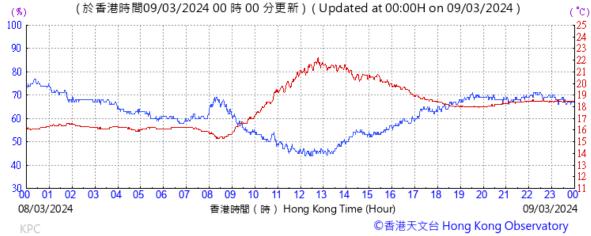
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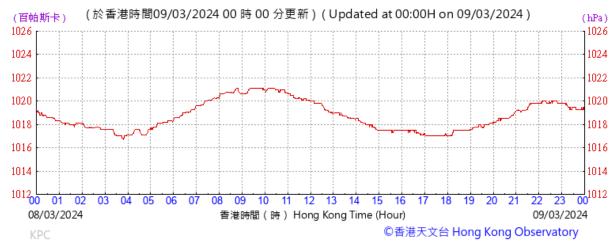
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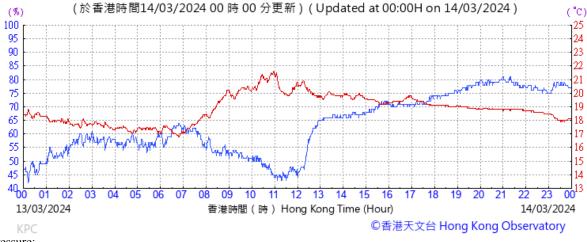
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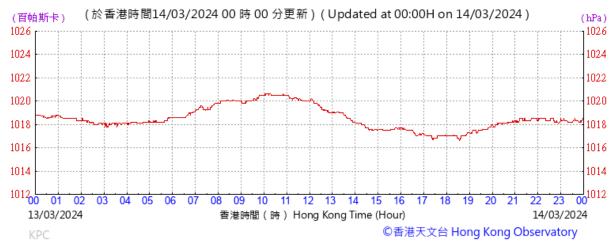
Wind Direction:



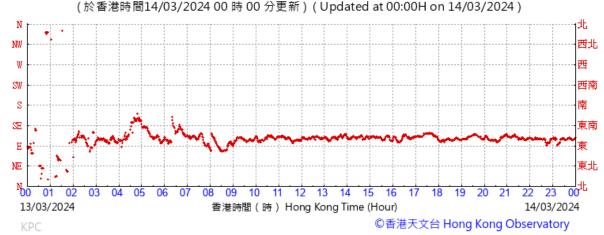




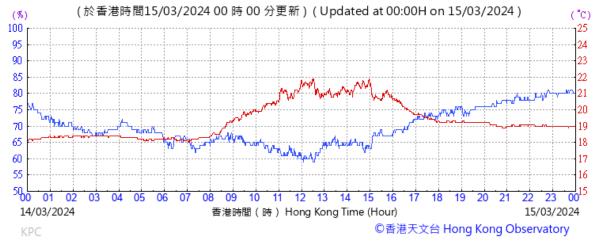
Pressure:



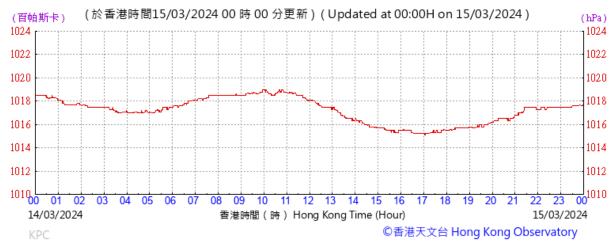
Wind Direction:







#### Pressure:



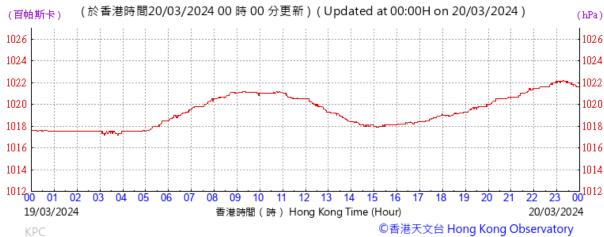
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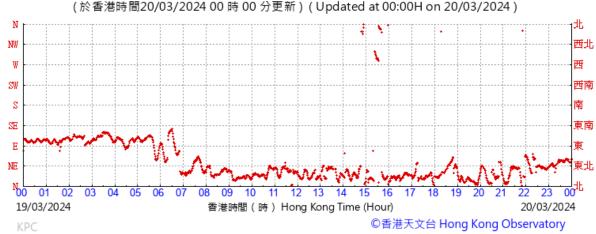


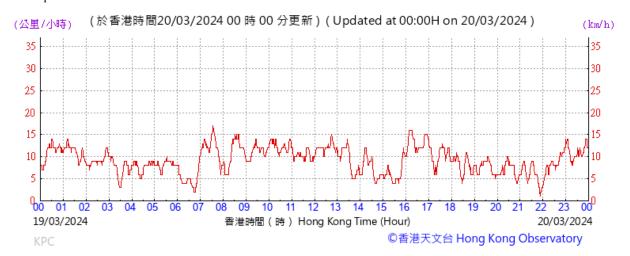


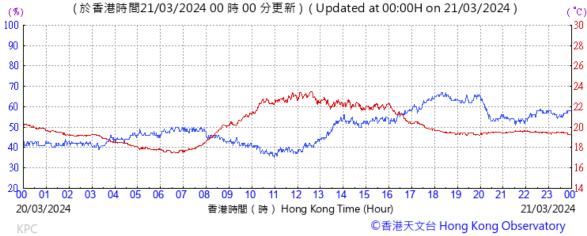
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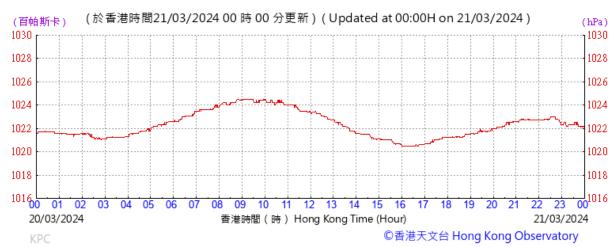
Wind Direction:



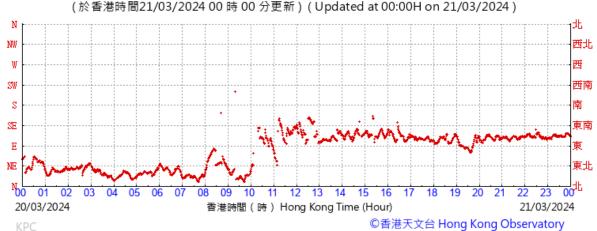




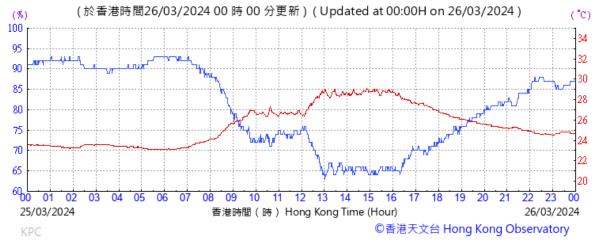
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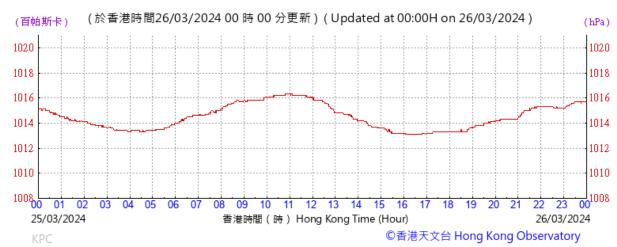
Wind Direction:



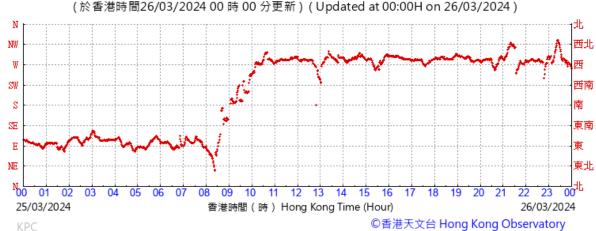


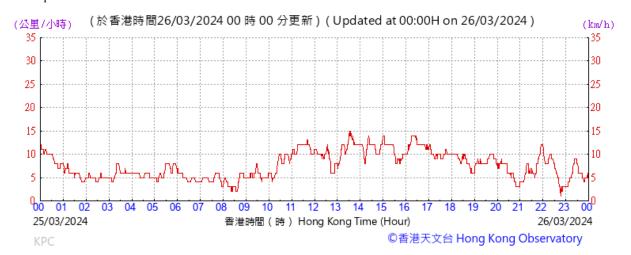


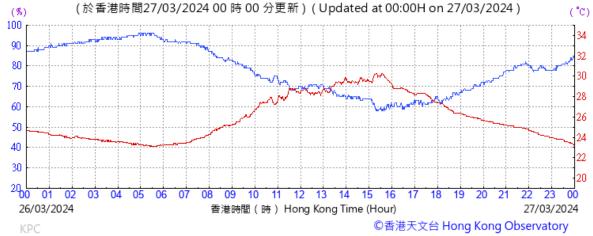
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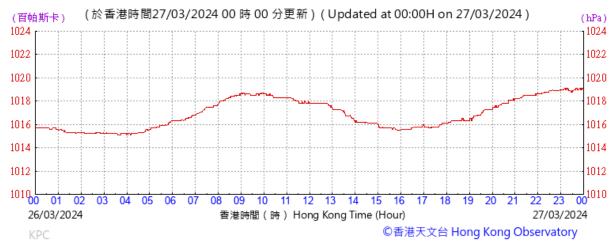
Wind Direction:







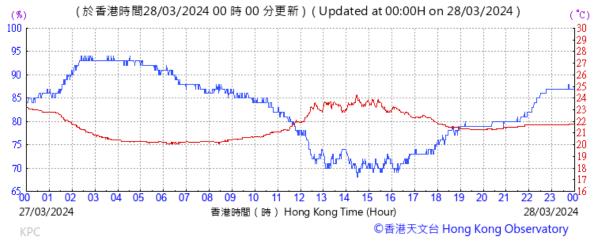
Pressure:



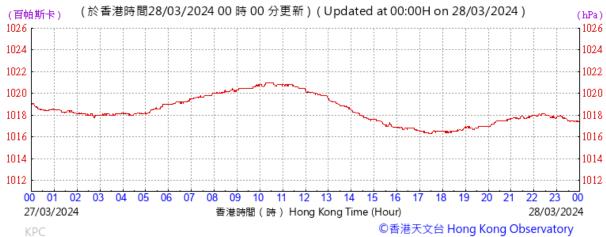
Wind Direction:



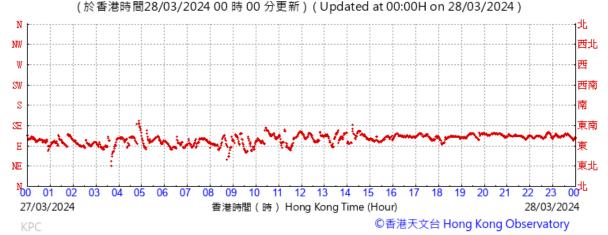


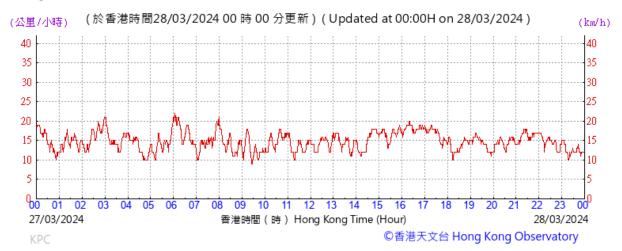


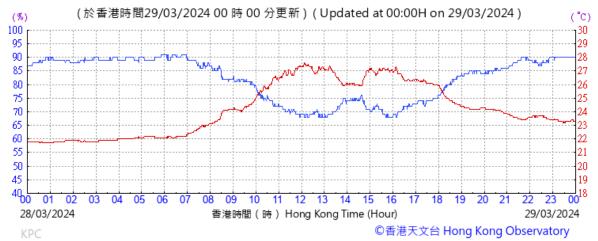
Pressure:



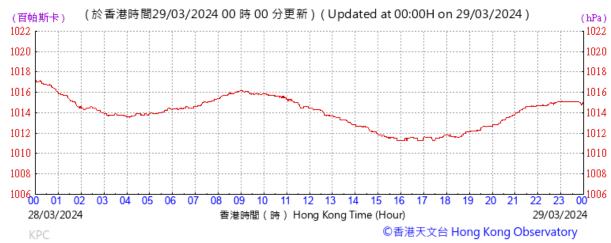
Wind Direction:





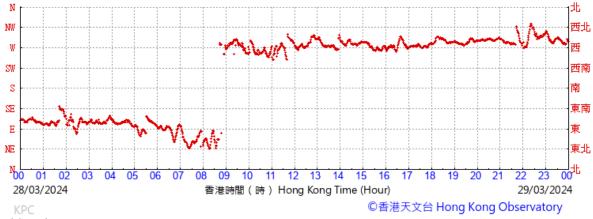


#### Pressure:

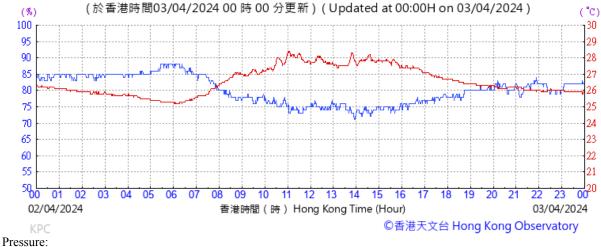


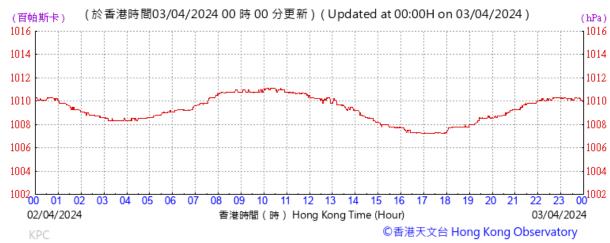
Wind Direction:

(於香港時間29/03/2024 00 時 00 分更新 ) (Updated at 00:00H on 29/03/2024 )

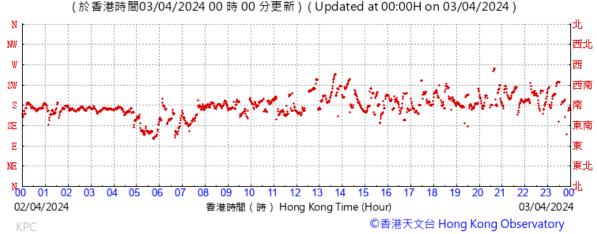


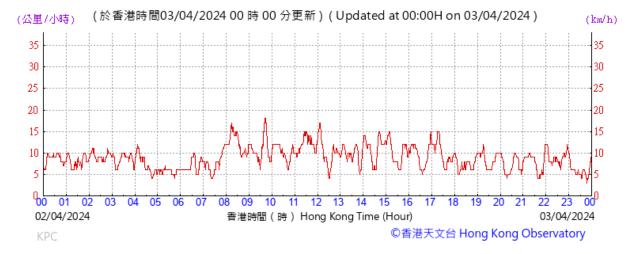


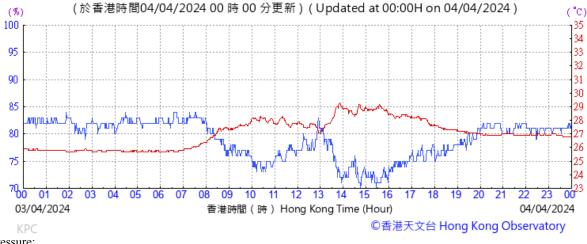




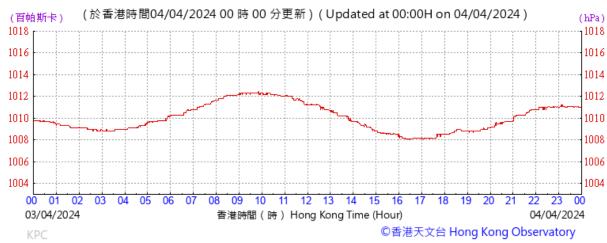
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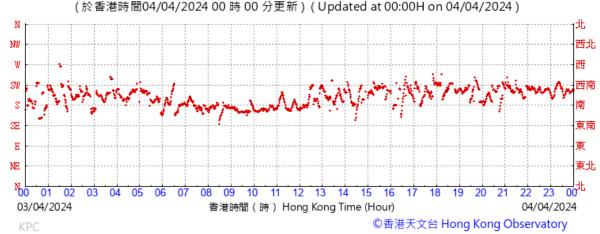




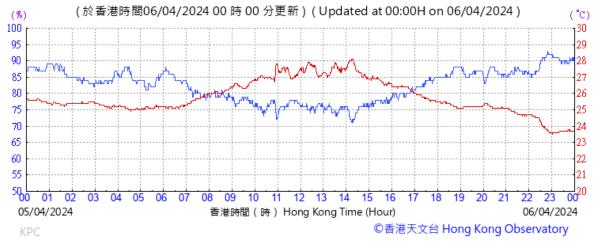
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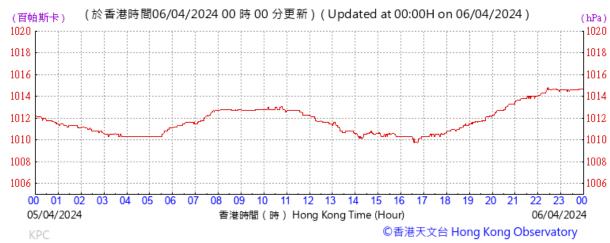
Wind Direction:







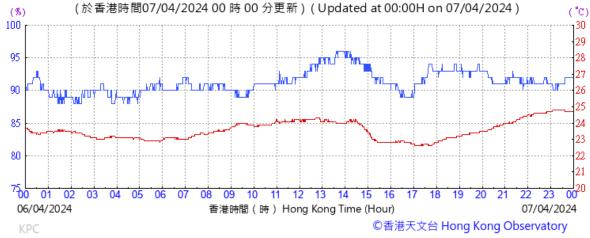
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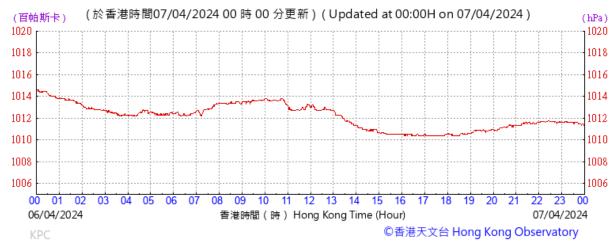
Wind Direction:







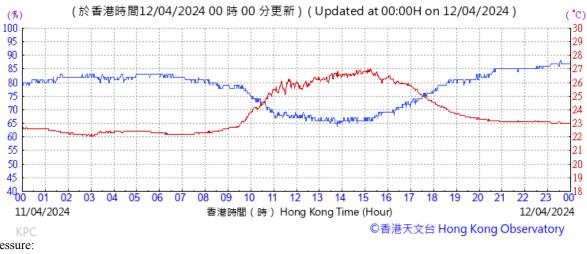
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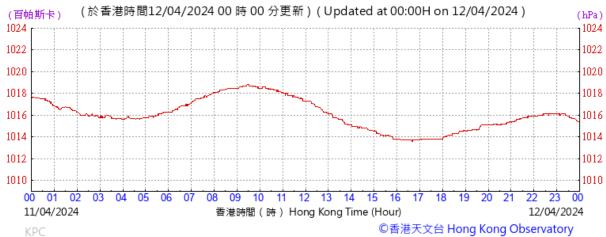
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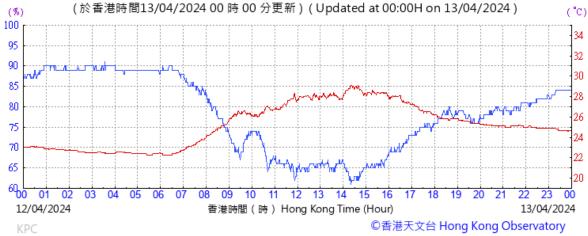
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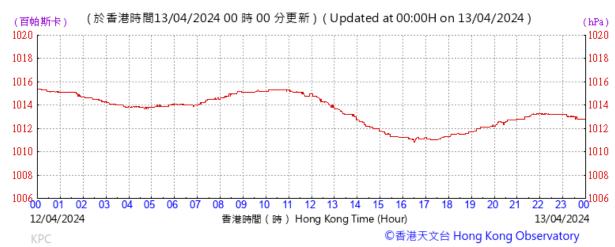
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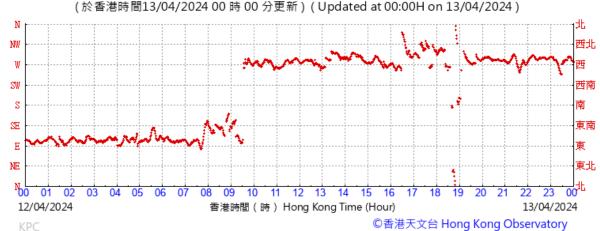




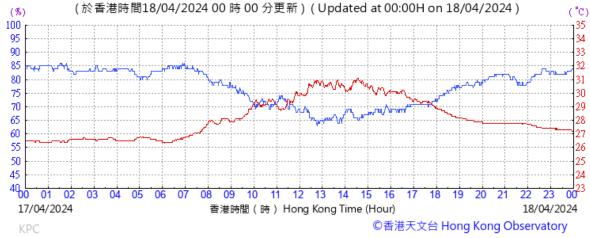
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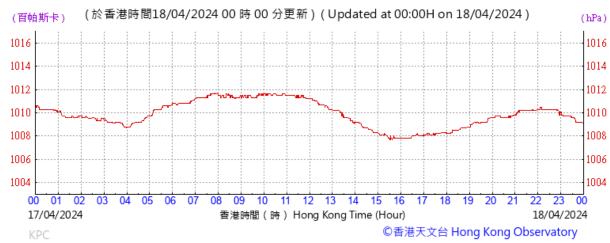
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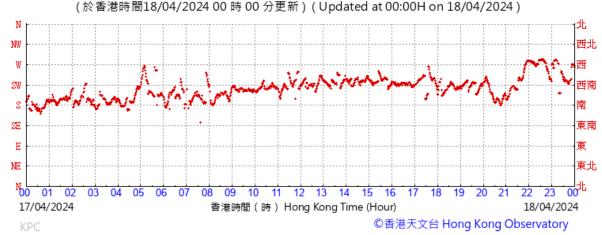




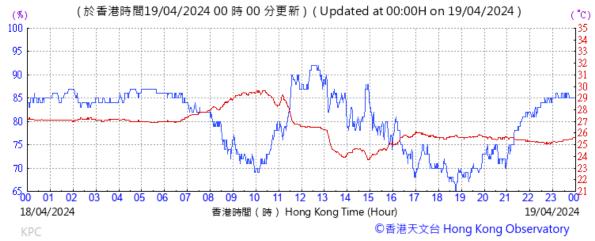
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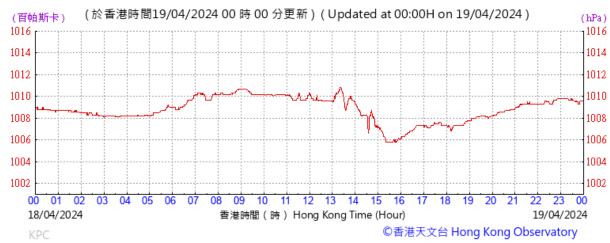
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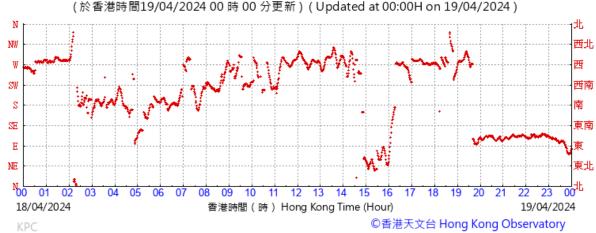




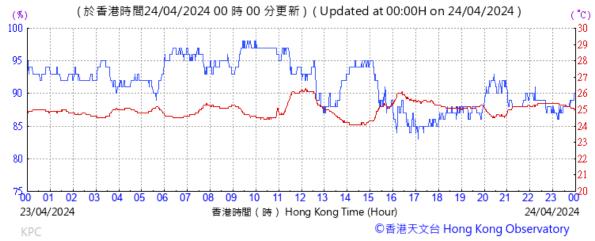
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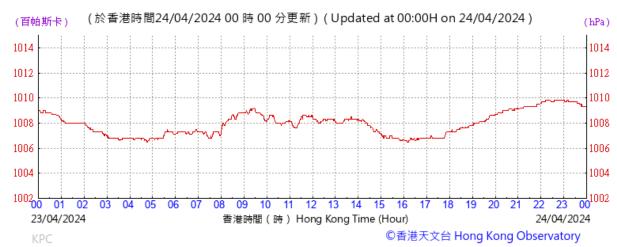
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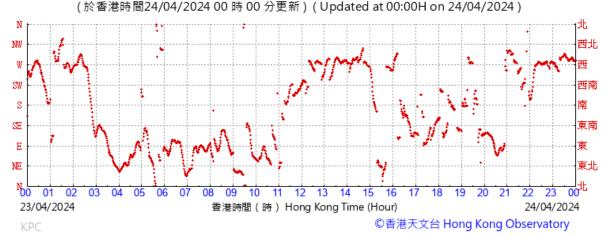




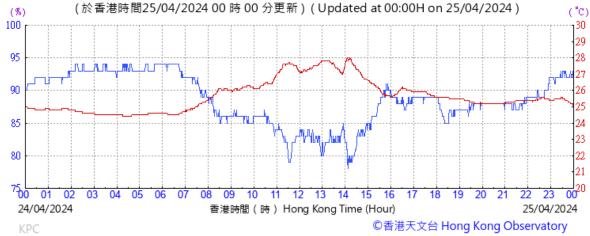
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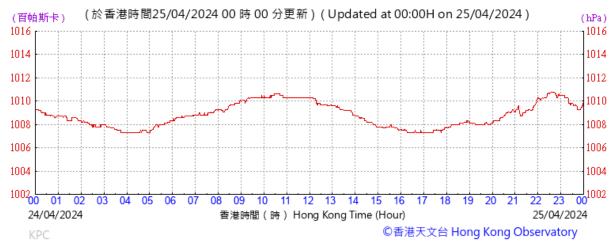
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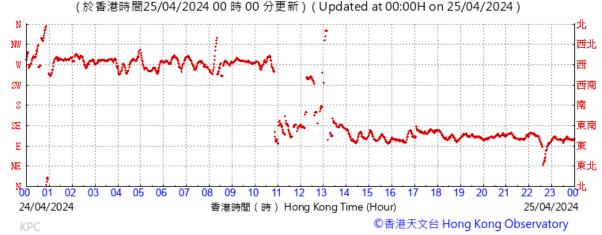




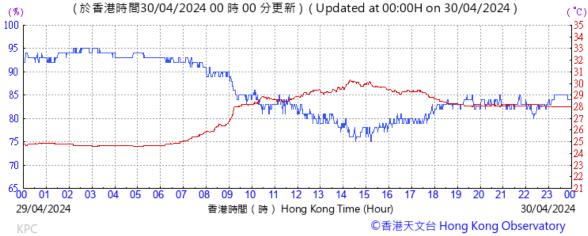
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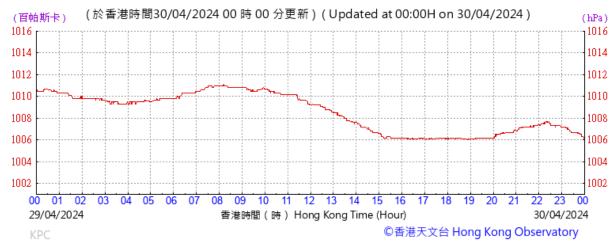
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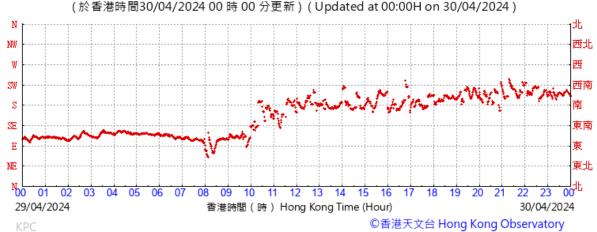




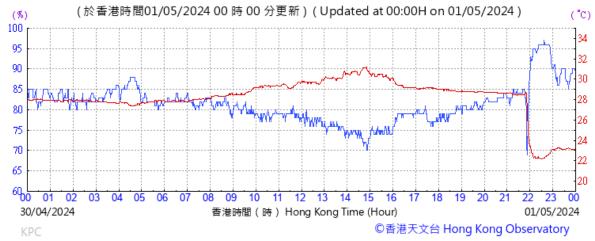
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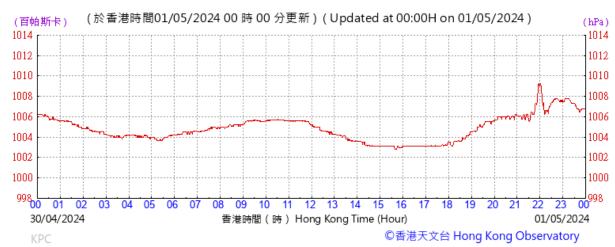
Wind Direction:



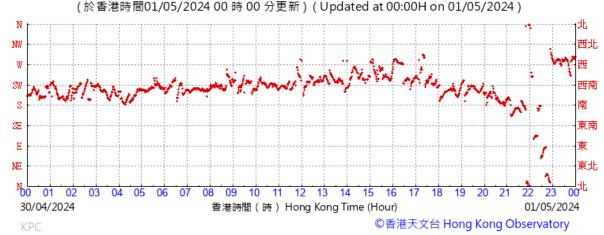




Pressure:



Wind Direction:

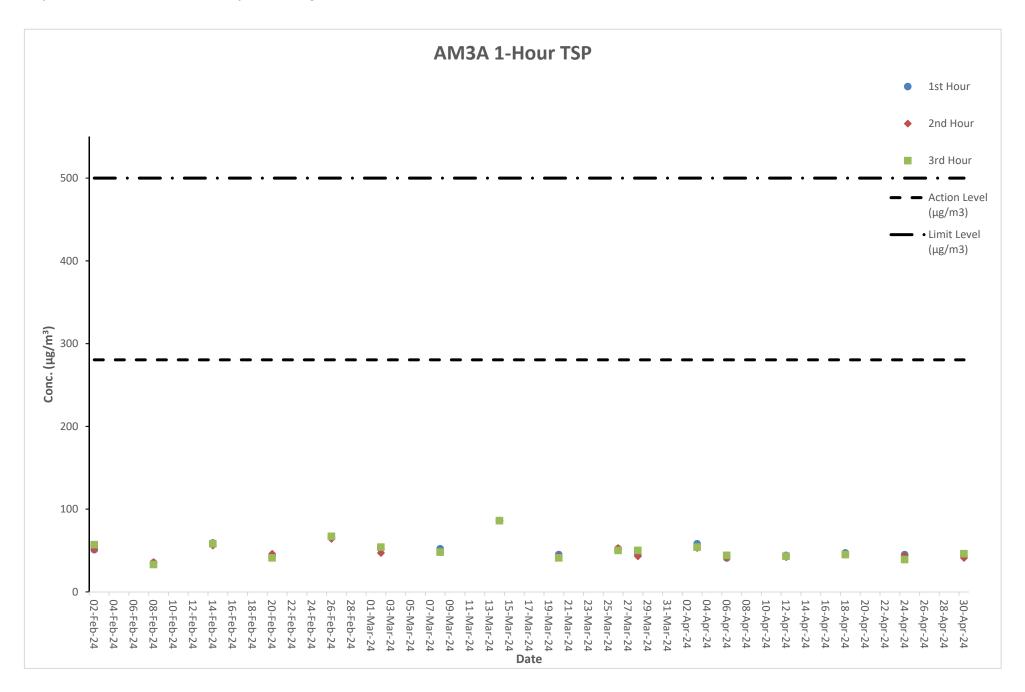




# **E.** Graphical Plots of the Monitoring Results

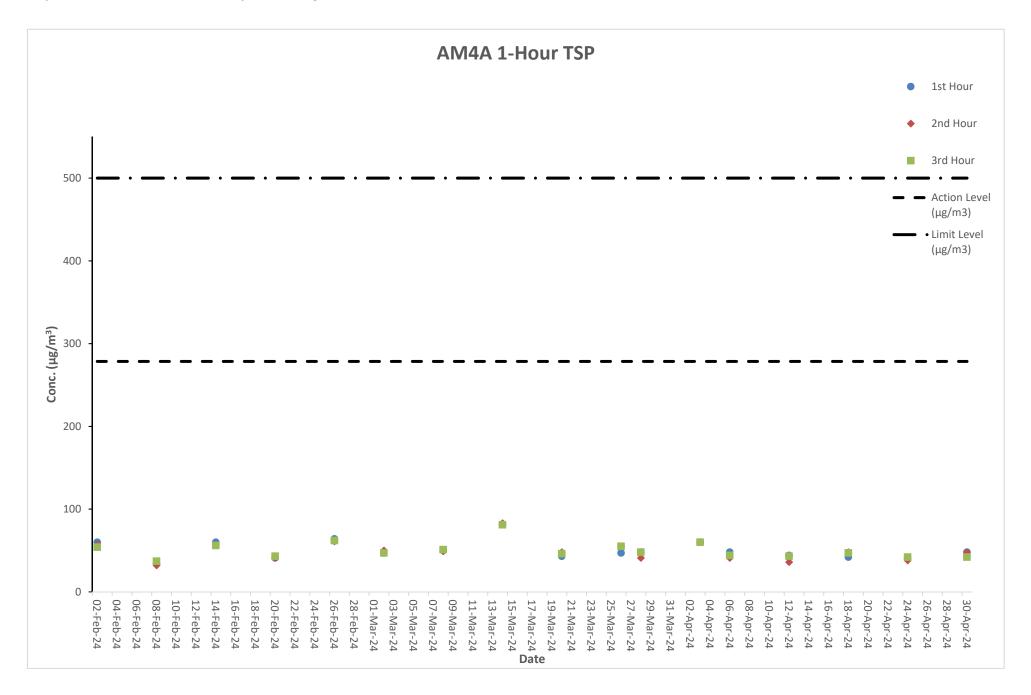
# Air Quality Monitoring Result at Station AM3A (1-hour TSP)

	Weather		C	Conc. (µg/m³)			Limit Level
Date	Condition	Time	1 <sup>st</sup> Hour	2 <sup>nd</sup> Hour	3 <sup>rd</sup> Hour	(µg/m³)	(µg/m³)
02-Feb-24	Fine	08:00 - 11:00	51	51	57	280.4	500
08-Feb-24	Cloudy	14:09 - 17:09	35	36	33	280.4	500
14-Feb-24	Fine	08:04 - 11:04	59	56	58	280.4	500
20-Feb-24	Fine	14:05 - 17:05	44	46	41	280.4	500
26-Feb-24	Cloudy	08:02 - 11:02	66	64	67	280.4	500
02-Mar-24	Cloudy	14:02 - 17:02	52	47	54	280.4	500
08-Mar-24	Cloudy	08:03 - 11:03	52	48	48	280.4	500
14-Mar-24	Fine	14:07 - 17:07	86	86	86	280.4	500
20-Mar-24	Fine	08:06 - 11:06	45	43	41	280.4	500
26-Mar-24	Fine	14:01 - 17:01	52	53	50	280.4	500
28-Mar-24	Fine	08:09 - 11:09	45	43	50	280.4	500
03-Apr-24	Fine	14:07 - 17:07	58	53	54	280.4	500
06-Apr-24	Fine	08:09 - 11:09	41	41	44	280.4	500
12-Apr-24	Fine	14:05 - 17:05	44	42	43	280.4	500
18-Apr-24	Cloudy	08:00 - 11:00	47	45	45	280.4	500
24-Apr-24	Cloudy	14:02 - 17:02	45	44	39	280.4	500
30-Apr-24	Cloudy	08:02 - 11:02	43	41	46	280.4	500



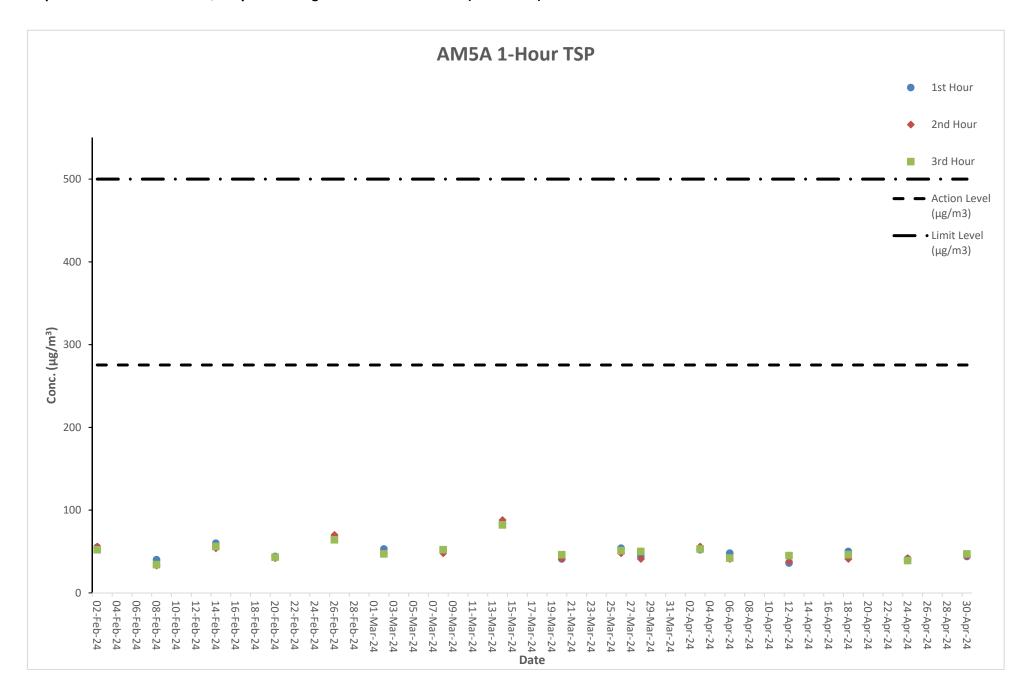
# Air Quality Monitoring Result at Station AM4A (1-hour TSP)

	Weather		C	Conc. (µg/m³)			Limit Level
Date	Condition	Time	1 <sup>st</sup> Hour	2 <sup>nd</sup> Hour	3 <sup>rd</sup> Hour	(µg/m³)	(µg/m³)
02-Feb-24	Fine	08:08 - 11:08	60	57	54	278.5	500
08-Feb-24	Cloudy	14:17 - 17:17	34	32	37	278.5	500
14-Feb-24	Fine	08:12 - 11:12	60	57	56	278.5	500
20-Feb-24	Fine	14:13 - 17:13	41	41	43	278.5	500
26-Feb-24	Cloudy	08:10 - 11:10	64	61	62	278.5	500
02-Mar-24	Cloudy	14:10 - 17:10	47	50	47	278.5	500
08-Mar-24	Cloudy	08:11 - 11:11	50	49	51	278.5	500
14-Mar-24	Fine	14:15 - 17:15	81	83	81	278.5	500
20-Mar-24	Fine	08:14 - 11:14	43	48	46	278.5	500
26-Mar-24	Fine	14:09 - 17:09	47	55	55	278.5	500
28-Mar-24	Fine	08:17 - 11:17	48	41	48	278.5	500
03-Apr-24	Fine	14:15 - 17:15	60	60	60	278.5	500
06-Apr-24	Fine	08:17 - 11:17	48	41	44	278.5	500
12-Apr-24	Fine	14:13 - 17:13	44	36	43	278.5	500
18-Apr-24	Cloudy	08:08 - 11:08	42	48	47	278.5	500
24-Apr-24	Cloudy	14:10 - 17:10	40	38	42	278.5	500
30-Apr-24	Cloudy	08:10 - 11:10	48	48	42	278.5	500



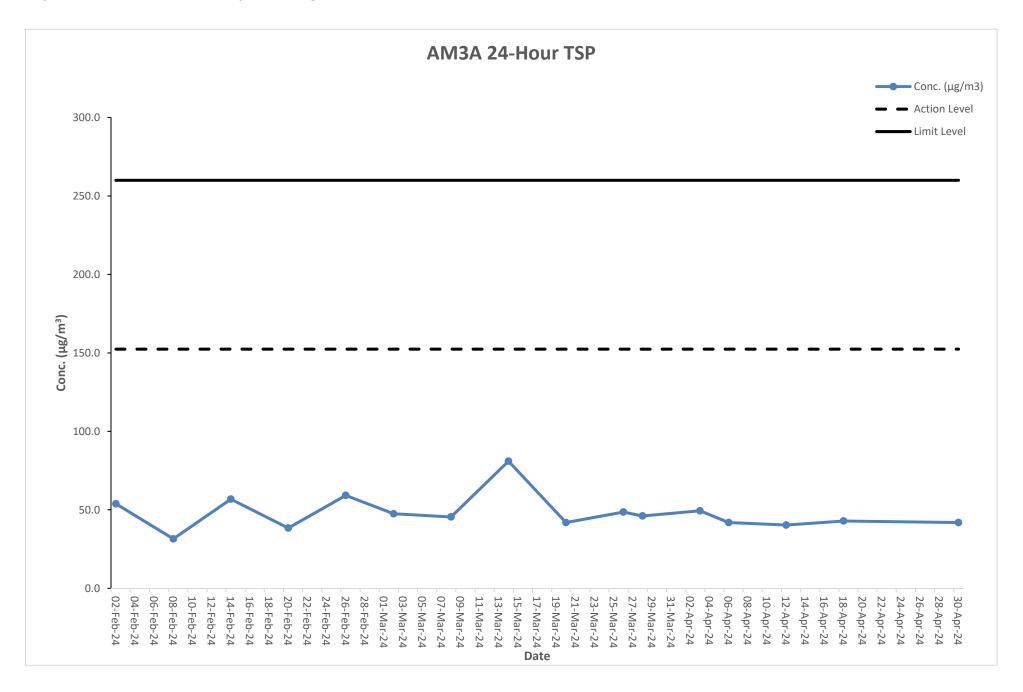
# Air Quality Monitoring Result at Station AM5A (1-hour TSP)

	Weather		C	onc. (µg/m	3)	Action Level	Limit Level
Date	Condition	Time	1 <sup>st</sup> Hour	2 <sup>nd</sup> Hour	3 <sup>rd</sup> Hour	(µg/m³)	(µg/m³)
02-Feb-24	Fine	08:23 - 11:23	55	56	52	275.4	500
08-Feb-24	Cloudy	14:34 - 17:34	40	33	34	275.4	500
14-Feb-24	Fine	08:27 - 11:27	60	54	56	275.4	500
20-Feb-24	Fine	14:30 - 17:30	44	42	43	275.4	500
26-Feb-24	Cloudy	08:25 - 11:25	67	70	64	275.4	500
02-Mar-24	Cloudy	14:25 - 17:25	53	48	47	275.4	500
08-Mar-24	Cloudy	08:28 - 11:28	52	48	52	275.4	500
14-Mar-24	Fine	14:30 - 17:30	84	88	82	275.4	500
20-Mar-24	Fine	08:31 - 11:31	41	41	46	275.4	500
26-Mar-24	Fine	14:24 - 17:24	54	48	51	275.4	500
28-Mar-24	Fine	08:34 - 11:34	44	41	50	275.4	500
03-Apr-24	Fine	14:30 - 17:30	52	56	53	275.4	500
06-Apr-24	Fine	08:34 - 11:34	48	41	42	275.4	500
12-Apr-24	Fine	14:28 - 17:28	36	38	45	275.4	500
18-Apr-24	Cloudy	08:25 - 11:25	50	41	46	275.4	500
24-Apr-24	Cloudy	14:25 - 17:25	41	42	39	275.4	500
30-Apr-24	Cloudy	08:27 - 11:27	44	44	47	275.4	500



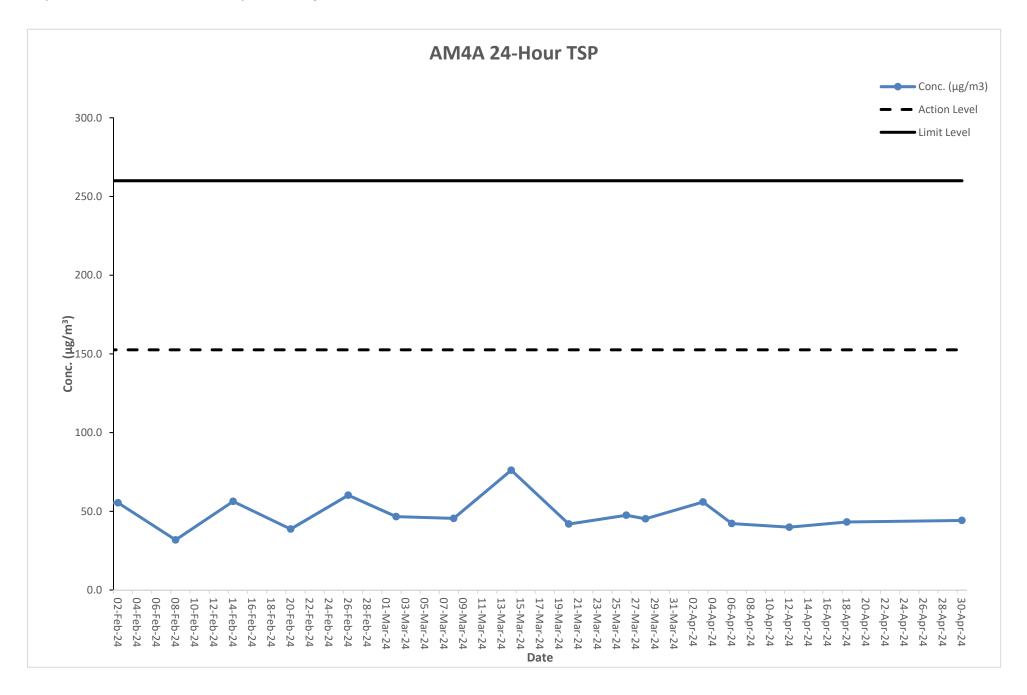
## Air Quality Monitoring Result at Station AM3A (24-hour TSP)

Sta	Start		sh	Filter We	Filter Weight (g)		ne Reading	Sampling	Flow Rate (m³/min)		Conc.	Weather	Action	Limit	
Date	Time	Date	Time	Initial	Final	Initial	Final	Time (hrs)	Initial	Final	Average	(µg/m³)	Condition	Level	Level
02-Feb-24	10:00	03-Feb-24	10:00	2.8030	2.8895	6301.8	6325.8	24	1.12	1.12	1.12	53.8	Sunny	152.4	260
08-Feb-24	10:00	09-Feb-24	10:00	2.8048	2.8555	6325.8	6349.8	24	1.12	1.12	1.12	31.5	Rainy	152.4	260
14-Feb-24	10:00	15-Feb-24	10:00	2.8070	2.8984	6349.8	6373.8	24	1.12	1.12	1.12	56.8	Sunny	152.4	260
20-Feb-24	10:00	21-Feb-24	10:00	2.8056	2.8674	6373.8	6397.8	24	1.12	1.12	1.12	38.4	Sunny	152.4	260
26-Feb-24	10:00	27-Feb-24	10:00	2.8030	2.8983	6397.8	6421.8	24	1.12	1.12	1.12	59.2	Cloudy	152.4	260
02-Mar-24	10:00	03-Mar-24	10:00	2.8030	2.8795	6421.8	6445.8	24	1.12	1.12	1.12	47.5	Rainy	152.4	260
08-Mar-24	10:00	09-Mar-24	10:00	2.8082	2.8814	6445.8	6469.8	24	1.12	1.12	1.12	45.5	Cloudy	152.4	260
14-Mar-24	10:00	15-Mar-24	10:00	2.8041	2.9345	6469.8	6493.8	24	1.12	1.12	1.12	81.0	Sunny	152.4	260
20-Mar-24	10:00	21-Mar-24	10:00	2.8052	2.8727	6493.8	6517.8	24	1.12	1.12	1.12	41.9	Sunny	152.4	260
26-Mar-24	10:00	27-Mar-24	10:00	2.8069	2.8851	6517.8	6541.8	24	1.12	1.12	1.12	48.6	Cloudy	152.4	260
28-Mar-24	10:00	29-Mar-24	10:00	2.8087	2.8829	6541.8	6565.8	24	1.12	1.12	1.12	46.1	Cloudy	152.4	260
03-Apr-24	10:00	04-Apr-24	10:00	2.8073	2.8868	6566.8	6590.8	24	1.12	1.12	1.12	49.4	Sunny	152.4	260
06-Apr-24	10:00	07-Apr-24	10:00	2.8031	2.8704	6590.8	6614.8	24	1.12	1.12	1.12	41.9	Rainy	152.4	260
12-Apr-24	10:00	13-Apr-24	10:00	2.8022	2.8671	6614.8	6638.8	24	1.12	1.12	1.12	40.3	Sunny	152.4	260
18-Apr-24	10:00	19-Apr-24	10:00	2.8016	2.8706	6638.8	6662.8	24	1.12	1.12	1.12	42.9	Rainy	152.4	260
24-Apr-24	10:00	25-Apr-24	10:00	2.8063	2.8722	6662.8	6686.8	24	1.12	1.12	1.12	41.0	Cloudy	152.4	260
30-Apr-24	10:00	01-May-24	10:00	2.8067	2.8742	6686.8	6710.8	24	1.12	1.12	1.12	41.9	Rainy	152.4	260



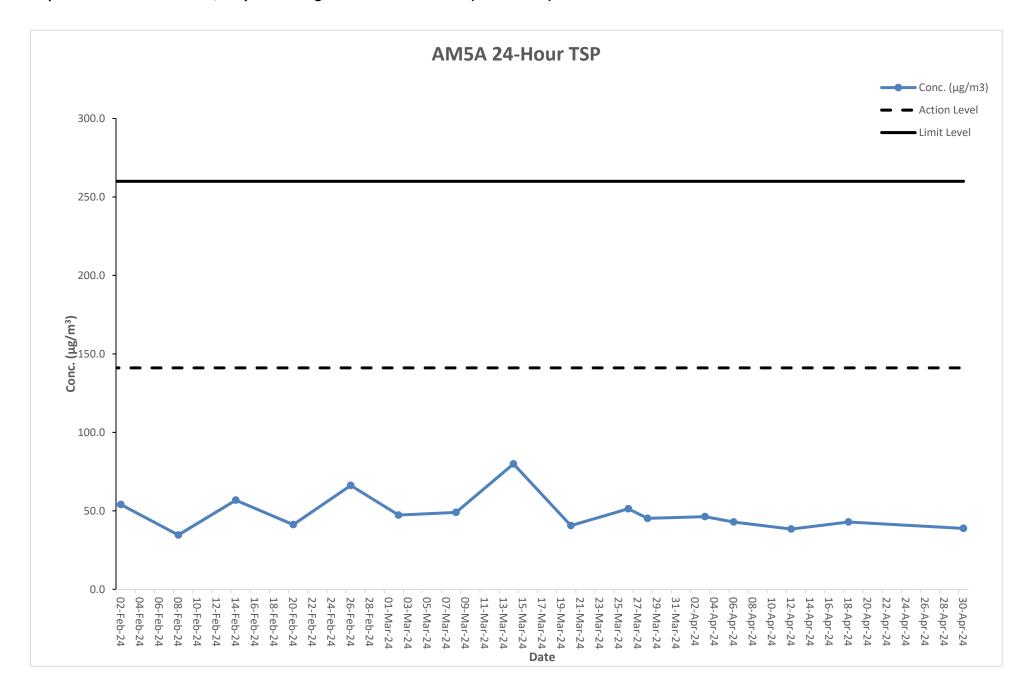
#### Air Quality Monitoring Result at Station AM4A (24-hour TSP)

Sta	rt	Finis	sh	Filter W	eight (g)	Elapsed Tir	ne Reading	Sampling	Flov	v Rate (m	ı³/min)	Conc.	Weather	Action	Limit
Date	Time	Date	Time	Initial	Final	Initial	Final	Time (hrs)	Initial	Final	Average	(µg/m³)	Condition	Level	Level
02-Feb-24	10:00	03-Feb-24	10:00	2.8033	2.8925	6721.4	6745.4	24	1.12	1.12	1.12	55.4	Sunny	152.6	260
08-Feb-24	10:00	09-Feb-24	10:00	2.8034	2.8545	6745.4	6769.4	24	1.12	1.12	1.12	31.8	Rainy	152.6	260
14-Feb-24	10:00	15-Feb-24	10:00	2.8048	2.8955	6769.4	6793.4	24	1.12	1.12	1.12	56.3	Sunny	152.6	260
20-Feb-24	10:00	21-Feb-24	10:00	2.8072	2.8695	6793.4	6817.4	24	1.12	1.12	1.12	38.7	Sunny	152.6	260
26-Feb-24	10:00	27-Feb-24	10:00	2.8022	2.8991	6817.4	6841.4	24	1.12	1.12	1.12	60.2	Cloudy	152.6	260
02-Mar-24	10:00	03-Mar-24	10:00	2.8067	2.8816	6841.4	6865.4	24	1.12	1.12	1.12	46.6	Rainy	152.6	260
08-Mar-24	10:00	09-Mar-24	10:00	2.8033	2.8766	6865.4	6889.4	24	1.12	1.12	1.12	45.5	Cloudy	152.6	260
14-Mar-24	10:00	15-Mar-24	10:00	2.8035	2.9260	6889.4	6913.4	24	1.12	1.12	1.12	76.1	Sunny	152.6	260
20-Mar-24	10:00	21-Mar-24	10:00	2.8040	2.8715	6913.4	6937.4	24	1.12	1.12	1.12	41.9	Sunny	152.6	260
26-Mar-24	10:00	27-Mar-24	10:00	2.8042	2.8807	6937.4	6961.4	24	1.12	1.12	1.12	47.5	Cloudy	152.6	260
28-Mar-24	10:00	29-Mar-24	10:00	2.8040	2.8768	6961.4	6985.4	24	1.12	1.12	1.12	45.2	Cloudy	152.6	260
03-Apr-24	10:00	04-Apr-24	10:00	2.8056	2.8956	6986.4	7010.4	24	1.12	1.12	1.12	55.9	Sunny	152.6	260
06-Apr-24	10:00	07-Apr-24	10:00	2.8051	2.8731	7010.4	7034.4	24	1.12	1.12	1.12	42.2	Rainy	152.6	260
12-Apr-24	10:00	13-Apr-24	10:00	2.8050	2.8692	7034.4	7058.4	24	1.12	1.12	1.12	39.9	Sunny	152.6	260
18-Apr-24	10:00	19-Apr-24	10:00	2.8015	2.8711	7058.4	7082.4	24	1.12	1.12	1.12	43.2	Rainy	152.6	260
24-Apr-24	10:00	25-Apr-24	10:00	2.8033	2.8692	7082.4	7106.4	24	1.12	1.12	1.12	40.9	Cloudy	152.6	260
30-Apr-24	10:00	01-May-24	10:00	2.8017	2.8729	7106.4	7130.4	24	1.12	1.12	1.12	44.2	Rainy	152.6	260



## Air Quality Monitoring Result at Station AM5A (24-hour TSP)

Sta	rt	Finish Filter Weight (g) Elapsed Time Reading Sampling		Finish Filter Weight		Sampling	Flow Rate (m³/min)		Conc.	Weather	Action	Limit			
Date	Time	Date	Time	Initial	Final	Initial	Final	Time (hrs)	Initial	Final	Average	(µg/m³)	Condition	Level	Level
02-Feb-24	10:00	03-Feb-24	10:00	2.8037	2.8906	6859.6	6883.6	24	1.12	1.12	1.12	54.0	Sunny	141.1	260
08-Feb-24	10:00	09-Feb-24	10:00	2.8015	2.8571	6883.6	6907.6	24	1.12	1.12	1.12	34.6	Rainy	141.1	260
14-Feb-24	10:00	15-Feb-24	10:00	2.8031	2.8945	6907.6	6931.6	24	1.12	1.12	1.12	56.8	Sunny	141.1	260
20-Feb-24	10:00	21-Feb-24	10:00	2.8073	2.8737	6931.6	6955.6	24	1.12	1.12	1.12	41.2	Sunny	141.1	260
26-Feb-24	10:00	27-Feb-24	10:00	2.8015	2.9080	6955.6	6979.6	24	1.12	1.12	1.12	66.2	Cloudy	141.1	260
02-Mar-24	10:00	03-Mar-24	10:00	2.8054	2.8814	6979.6	7003.6	24	1.12	1.12	1.12	47.3	Rainy	141.1	260
08-Mar-24	10:00	09-Mar-24	10:00	2.8031	2.8820	7003.6	7027.6	24	1.12	1.12	1.12	49.0	Cloudy	141.1	260
14-Mar-24	10:00	15-Mar-24	10:00	2.8014	2.9301	7027.6	7051.6	24	1.12	1.12	1.12	79.9	Sunny	141.1	260
20-Mar-24	10:00	21-Mar-24	10:00	2.8057	2.8710	7051.6	7075.6	24	1.12	1.12	1.12	40.6	Sunny	141.1	260
26-Mar-24	10:00	27-Mar-24	10:00	2.8028	2.8854	7075.6	7099.6	24	1.12	1.12	1.12	51.3	Cloudy	141.1	260
28-Mar-24	10:00	29-Mar-24	10:00	2.8042	2.8770	7099.6	7123.6	24	1.12	1.12	1.12	45.2	Cloudy	141.1	260
03-Apr-24	10:00	04-Apr-24	10:00	2.8015	2.8760	7124.6	7148.6	24	1.12	1.12	1.12	46.3	Sunny	141.1	260
06-Apr-24	10:00	07-Apr-24	10:00	2.8041	2.8732	7148.6	7172.6	24	1.12	1.12	1.12	42.9	Rainy	141.1	260
12-Apr-24	10:00	13-Apr-24	10:00	2.8074	2.8692	7172.6	7196.6	24	1.12	1.12	1.12	38.4	Sunny	141.1	260
18-Apr-24	10:00	19-Apr-24	10:00	2.8060	2.8750	7196.6	7220.6	24	1.12	1.12	1.12	42.9	Rainy	141.1	260
24-Apr-24	10:00	25-Apr-24	10:00	2.8020	2.8663	7220.6	7244.6	24	1.12	1.12	1.12	39.9	Cloudy	141.1	260
30-Apr-24	10:00	01-May-24	10:00	2.8027	2.8651	7244.6	7268.6	24	1.12	1.12	1.12	38.8	Rainy	141.1	260



## Noise Monitoring Result at Station NM2A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-Feb-24	8:30	62.5	60.0	=======================================
02-Feb-24	8:35	63.4	60.0	
02-Feb-24	8:40	63.2	59.1	64.0
02-Feb-24	8:45	62.7	59.3	61.2
02-Feb-24	8:50	62.1	59.5	
02-Feb-24	8:55	62.4	59.0	
08-Feb-24	14:39	62.3	59.4	
08-Feb-24	14:44	63.0	58.7	
08-Feb-24	14:49	62.6	58.9	61.1
08-Feb-24	14:54	62.4	59.2	01.1
08-Feb-24	14:59	62.7	59.0	
08-Feb-24	15:04	63.1	58.8	
14-Feb-24	8:34	62.3	59.6	
14-Feb-24	8:39	62.1	58.8	
14-Feb-24	8:44	62.6	59.4	61.4
14-Feb-24	8:49	62.5	59.3	01.4
14-Feb-24	8:54	63.1	59.5	
14-Feb-24	8:59	62.3	58.7	
20-Feb-24	14:35	62.7	59.9	
20-Feb-24	14:40	62.5	59.5	
20-Feb-24	14:45	62.9	59.5	61.3
20-Feb-24	14:50	62.3	59.0	01.0
20-Feb-24	14:55	62.8	59.0	
20-Feb-24	15:00	63.4	60.1	
26-Feb-24	8:32	62.4	58.8	
26-Feb-24	8:37	62.2	59.2	
26-Feb-24	8:42	62.3	59.6	61.3
26-Feb-24	8:47	62.1	58.9	01.0
26-Feb-24	8:52	63.5	59.2	
26-Feb-24	8:57	63.4	59.9	
02-Mar-24	14:32	63.1	59.7	
02-Mar-24	14:37	62.8	59.0	
02-Mar-24	14:42	63.3	58.9	61.4
02-Mar-24	14:47	62.7	60.1	
02-Mar-24	14:52	62.1	59.6	
02-Mar-24	14:57	63.2	59.3	
08-Mar-24	8:33	63.1	59.5	
08-Mar-24	8:38	63.3	59.8	
08-Mar-24	8:43	62.3	60.0	61.3
08-Mar-24	8:48	62.6	59.8	
08-Mar-24	8:53	62.9	58.8	
08-Mar-24	8:58	63.1	58.8 50.7	
14-Mar-24	14:37	62.4 63.5	59.7	
14-Mar-24 14-Mar-24	14:42	63.5	58.8 59.0	
14-Mar-24 14-Mar-24	14:47 14:52	62.1 62.1	58.9 59.9	61.2
14-Mar-24 14-Mar-24	14:52	62.1	58.8	
		63.0	59.1	
14-Mar-24 20-Mar-24	15:02 8:36	62.7	59.7	
20-Mar-24	8:41	62.2	59.9	
20-Mar-24	8:46	62.3	60.0	
20-Mar-24	8:51	63.1	59.1	61.0
20-Mar-24	8:56	63.5	59.2	
20-Mar-24	9:01	62.7	58.9	
26-Mar-24	14:31	63.5	59.3	
26-Mar-24	14:36	62.1	58.7	
26-Mar-24	14:41	62.2	58.7	
26-Mar-24	14:46	63.5	59.0	61.2
26-Mar-24	14:51	62.3	59.3	
26-Mar-24	14:56	63.5	59.1	
_0 Mul-27	1 7.00	00.0	00.1	

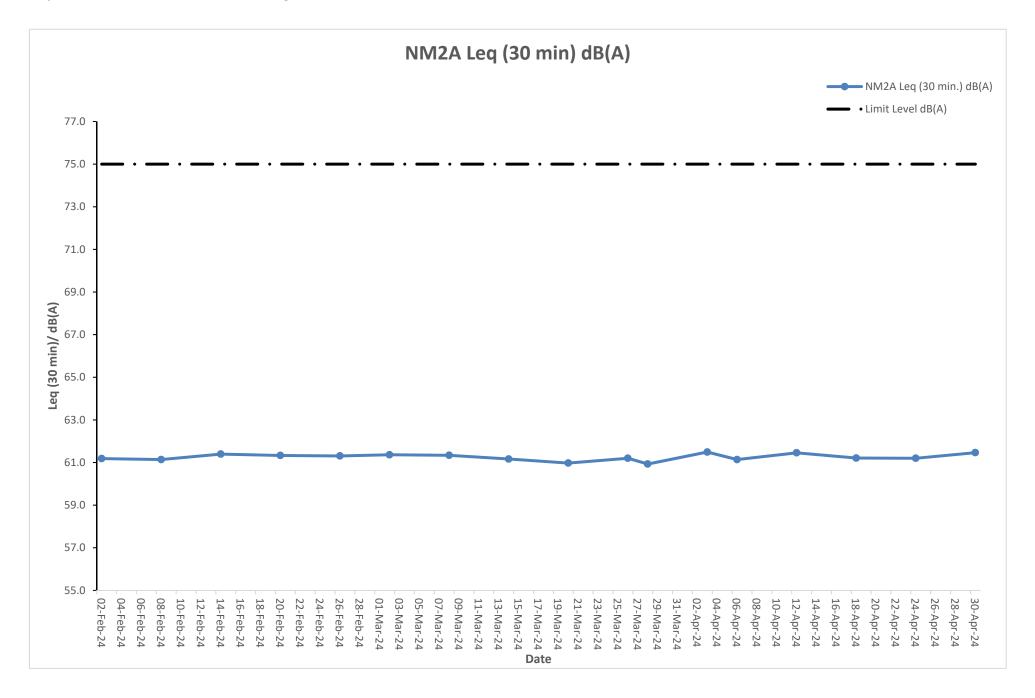
#### Noise Monitoring Result at Station NM2A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
28-Mar-24	8:39	63.3	58.7	
28-Mar-24	8:44	62.8	59.9	
28-Mar-24	8:49	62.9	58.8	60.9
28-Mar-24	8:54	62.1	59.7	00.9
28-Mar-24	8:59	62.3	59.0	
28-Mar-24	9:04	63.4	59.9	
03-Apr-24	14:37	62.7	58.8	
03-Apr-24	14:42	63.0	59.3	
03-Apr-24	14:47	63.4	60.1	61.5
03-Apr-24	14:52	63.0	59.6	01.5
03-Apr-24	14:57	63.2	60.1	
03-Apr-24	15:02	63.0	58.9	
06-Apr-24	8:39	63.5	58.7	
06-Apr-24	8:44	62.5	59.5	
06-Apr-24	8:49	62.2	60.0	61.1
06-Apr-24	8:54	62.1	58.9	01.1
06-Apr-24	8:59	62.2	58.7	
06-Apr-24	9:04	63.0	59.7	
12-Apr-24	14:35	62.3	59.5	
12-Apr-24	14:40	63.3	59.1	
12-Apr-24	14:45	62.7	59.5	G4 E
12-Apr-24	14:50	62.5	60.0	61.5
12-Apr-24	14:55	62.3	58.7	
12-Apr-24	15:00	63.2	59.5	
18-Apr-24	8:30	62.8	60.0	
18-Apr-24	8:35	62.2	58.7	
18-Apr-24	8:40	63.5	59.8	64.0
18-Apr-24	8:45	63.2	59.7	61.2
18-Apr-24	8:50	63.5	58.9	
18-Apr-24	8:55	63.4	59.3	
24-Apr-24	14:32	63.0	59.7	
24-Apr-24	14:37	62.7	59.9	
24-Apr-24	14:42	63.5	59.3	64.0
24-Apr-24	14:47	63.0	58.9	61.2
24-Apr-24	14:52	62.6	60.0	
24-Apr-24	14:57	63.0	58.8	
30-Apr-24	8:32	63.5	59.7	
30-Apr-24	8:37	62.2	59.6	
30-Apr-24	8:42	62.4	59.3	64.5
30-Apr-24	8:47	63.2	59.6	61.5
30-Apr-24	8:52	62.4	58.7	
30-Apr-24	8:57	62.8	59.8	





The station set-up of a façade measurement at station NM2A.



#### Noise Monitoring Result at Station NM3A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-Feb-24	10:00	62.1	56.5	, , , ,
02-Feb-24	10:05	63.2	56.8	
02-Feb-24	10:10	61.9	57.7	60.0
02-Feb-24	10:15	62.3	57.4	60.8
02-Feb-24	10:20	63.1	56.6	
02-Feb-24	10:25	63.0	57.3	
08-Feb-24	16:12	63.8	57.6	
08-Feb-24	16:17	63.3	56.5	
08-Feb-24	16:22	62.7	57.4	64.0
08-Feb-24	16:27	63.4	56.4	61.0
08-Feb-24	16:32	62.3	57.2	
08-Feb-24	16:37	62.7	56.0	
14-Feb-24	10:04	62.3	56.0	
14-Feb-24	10:09	62.5	56.1	
14-Feb-24	10:14	62.7	57.8	60.4
14-Feb-24	10:19	62.8	56.3	00.4
14-Feb-24	10:24	62.9	57.8	
14-Feb-24	10:29	63.4	56.9	
20-Feb-24	16:08	62.5	57.7	
20-Feb-24	16:13	63.7	56.8	
20-Feb-24	16:18	62.8	57.0	61.2
20-Feb-24	16:23	63.6	56.9	01.2
20-Feb-24	16:28	62.2	56.6	
20-Feb-24	16:33	62.2	56.7	
26-Feb-24	10:02	62.1	57.4	
26-Feb-24	10:07	61.9	56.0	
26-Feb-24	10:12	62.4	56.2	60.9
26-Feb-24	10:17	63.7	56.1	00.9
26-Feb-24	10:22	62.3	56.2	
26-Feb-24	10:27	62.5	57.2	
02-Mar-24	16:02	63.0	56.0	
02-Mar-24	16:07	63.6	55.9	
02-Mar-24	16:12	62.5	56.3	61.0
02-Mar-24	16:17	63.0	57.2	01.0
02-Mar-24	16:22	63.3	57.4	
02-Mar-24	16:27	63.8	57.7	
08-Mar-24	10:06	63.7	56.0	
08-Mar-24	10:11	63.0	56.3	
08-Mar-24	10:16	63.4	55.9	60.7
08-Mar-24	10:21	63.5	56.6	<b>5</b> 5
08-Mar-24	10:26	62.6	57.7	
08-Mar-24	10:31	63.6	57.2	
14-Mar-24	16:07	63.4	57.1	
14-Mar-24	16:12	63.7	56.6	
14-Mar-24	16:17	61.9	57.5	60.8
14-Mar-24	16:22	62.9	57.4	
14-Mar-24	16:27	62.2	57.7	
14-Mar-24	16:32	62.1	56.6	
20-Mar-24	10:09	63.8	57.6	
20-Mar-24	10:14	63.4	57.3	
20-Mar-24	10:19	62.9	56.8	60.6
20-Mar-24	10:24	63.8	56.9	
20-Mar-24	10:29	63.2	55.9 56.4	
20-Mar-24	10:34	63.1	56.4	
26-Mar-24	16:01	63.6	57.2	
26-Mar-24	16:06	61.9	56.7	
26-Mar-24	16:11	62.4	56.7	60.3
26-Mar-24	16:16	63.7	56.7 56.3	
26-Mar-24	16:21	63.1	56.3 56.1	
26-Mar-24	16:26	63.0	56.1	

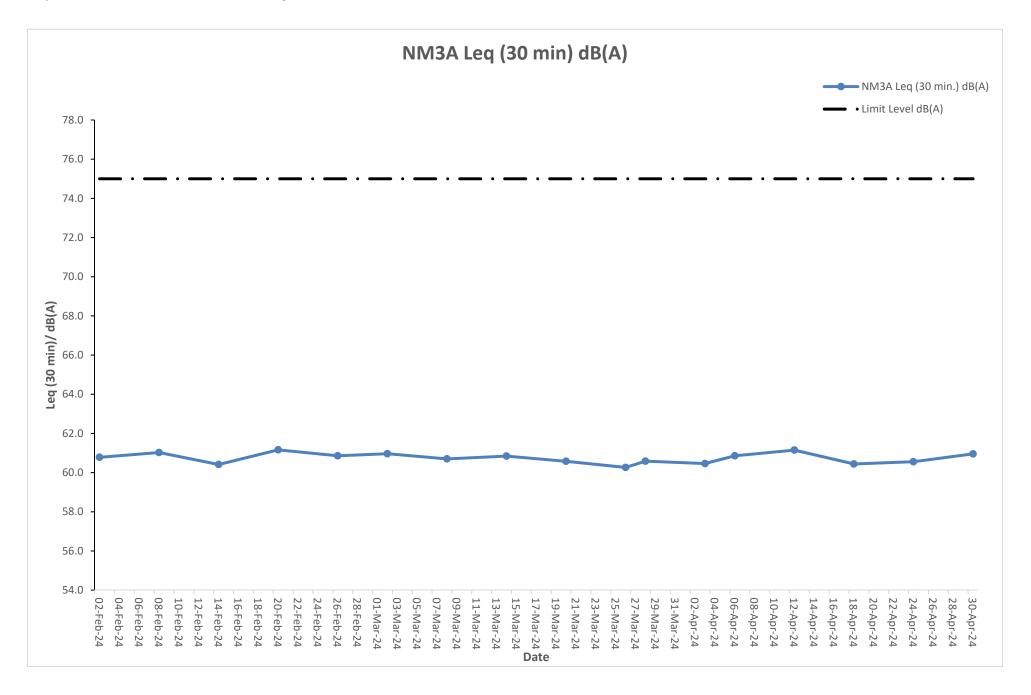
#### Noise Monitoring Result at Station NM3A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
28-Mar-24	10:21	63.2	57.1	
28-Mar-24	10:26	63.1	56.1	
28-Mar-24	10:31	62.2	56.1	60.6
28-Mar-24	10:36	62.3	57.1	00.0
28-Mar-24	10:41	62.7	56.1	
28-Mar-24	10:46	63.8	56.0	
03-Apr-24	16:07	62.5	56.6	
03-Apr-24	16:12	62.2	57.8	
03-Apr-24	16:17	63.3	56.8	60.5
03-Apr-24	16:22	63.1	56.7	00.5
03-Apr-24	16:27	63.2	57.1	
03-Apr-24	16:32	63.6	57.2	
06-Apr-24	10:12	63.0	57.1	
06-Apr-24	10:17	62.7	57.3	
06-Apr-24	10:22	62.6	56.9	60.9
06-Apr-24	10:27	62.8	57.2	00.9
06-Apr-24	10:32	63.8	57.3	
06-Apr-24	10:37	63.5	57.0	
12-Apr-24	16:05	62.8	56.1	
12-Apr-24	16:10	62.4	57.0	
12-Apr-24	16:15	63.2	56.2	64.4
12-Apr-24	16:20	63.8	56.4	61.1
12-Apr-24	16:25	63.0	57.8	
12-Apr-24	16:30	63.2	56.4	
18-Apr-24	10:03	63.8	56.7	
18-Apr-24	10:08	63.6	56.2	
18-Apr-24	10:13	63.0	56.5	60.4
18-Apr-24	10:18	63.8	56.9	60.4
18-Apr-24	10:23	62.9	57.8	
18-Apr-24	10:28	62.7	57.2	
24-Apr-24	16:02	63.5	56.3	
24-Apr-24	16:07	61.9	57.7	
24-Apr-24	16:12	63.0	56.0	60.6
24-Apr-24	16:17	62.8	57.7	60.6
24-Apr-24	16:22	62.3	56.1	
24-Apr-24	16:27	63.4	57.0	
30-Apr-24	10:14	63.1	57.6	
30-Apr-24	10:19	62.7	56.7	
30-Apr-24	10:24	62.9	57.0	04.0
30-Apr-24	10:29	62.4	57.3	61.0
30-Apr-24	10:34	63.7	56.7	
30-Apr-24	10:39	63.2	57.0	





The station set-up of a façade measurement at station NM3A.



#### Noise Monitoring Result at Station NM4A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-Feb-24	10:35	60.5	57.0	
02-Feb-24	10:40	59.6	55.8	
02-Feb-24	10:45	59.9	56.4	58.4
02-Feb-24	10:50	60.0	57.1	36.4
02-Feb-24	10:55	59.2	56.3	
02-Feb-24	11:00	60.3	57.0	
08-Feb-24	16:47	60.0	56.1	
08-Feb-24	16:52	59.3	56.4	
08-Feb-24	16:57	60.2	56.1	50.5
08-Feb-24	17:02	59.9	56.2	58.5
08-Feb-24	17:07	60.2	56.0	
08-Feb-24	17:12	60.6	56.6	
14-Feb-24	10:39	60.3	55.8	
14-Feb-24	10:44	59.7	56.0	
14-Feb-24	10:49	59.2	55.8	
14-Feb-24	10:54	60.5	57.0	58.4
		_		
14-Feb-24 14-Feb-24	10:59 11:04	59.5	55.7	
		59.3	56.0	
20-Feb-24	16:43	60.3	56.9	
20-Feb-24	16:48	59.6	57.1	
20-Feb-24	16:53	60.4	56.9	58.5
20-Feb-24	16:58	59.8	56.3	
20-Feb-24	17:03	59.7	55.8	
20-Feb-24	17:08	59.6	55.8	
26-Feb-24	10:37	59.4	56.7	
26-Feb-24	10:42	60.2	56.4	
26-Feb-24	10:47	59.9	56.1	58.1
26-Feb-24	10:52	59.4	57.0	36.1
26-Feb-24	10:57	60.1	56.4	
26-Feb-24	11:02	59.3	55.9	
02-Mar-24	16:37	59.4	55.9	
02-Mar-24	16:42	59.3	56.4	
02-Mar-24	16:47	59.8	56.4	50.4
02-Mar-24	16:52	59.4	56.5	58.1
02-Mar-24	16:57	60.4	56.4	
02-Mar-24	17:02	59.2	56.8	
08-Mar-24	10:41	59.9	56.7	
08-Mar-24	10:46	59.6	56.6	
08-Mar-24	10:51	59.4	55.9	
08-Mar-24	10:56	60.6	56.9	58.4
08-Mar-24	11:01	59.5	56.8	
08-Mar-24	11:06	59.8	56.6	
14-Mar-24	16:42	59.7	57.1	
14-Mar-24	16:47	60.1	56.2	
14-Mar-24		59.9	56.8	
14-Mar-24	16:52 16:57	59.9	56.9	58.1
14-Mar-24	17:02	59.2	56.6	
14-Mar-24	17:07	59.2	55.8	
20-Mar-24	10:44	60.4	55.9	
20-Mar-24	10:49	60.4	57.0	
20-Mar-24	10:54	60.5	55.9	58.7
20-Mar-24	10:59	60.1	56.4	
20-Mar-24	11:04	59.6	56.1	
20-Mar-24	11:09	59.3	56.0	
26-Mar-24	16:36	60.6	56.2	
26-Mar-24	16:41	59.5	55.7	
26-Mar-24	16:46	59.4	56.0	58.3
26-Mar-24	16:51	59.8	56.1	50.5
26-Mar-24	16:56	60.4	56.8	
26-Mar-24	17:01	59.8	55.9	
		-		

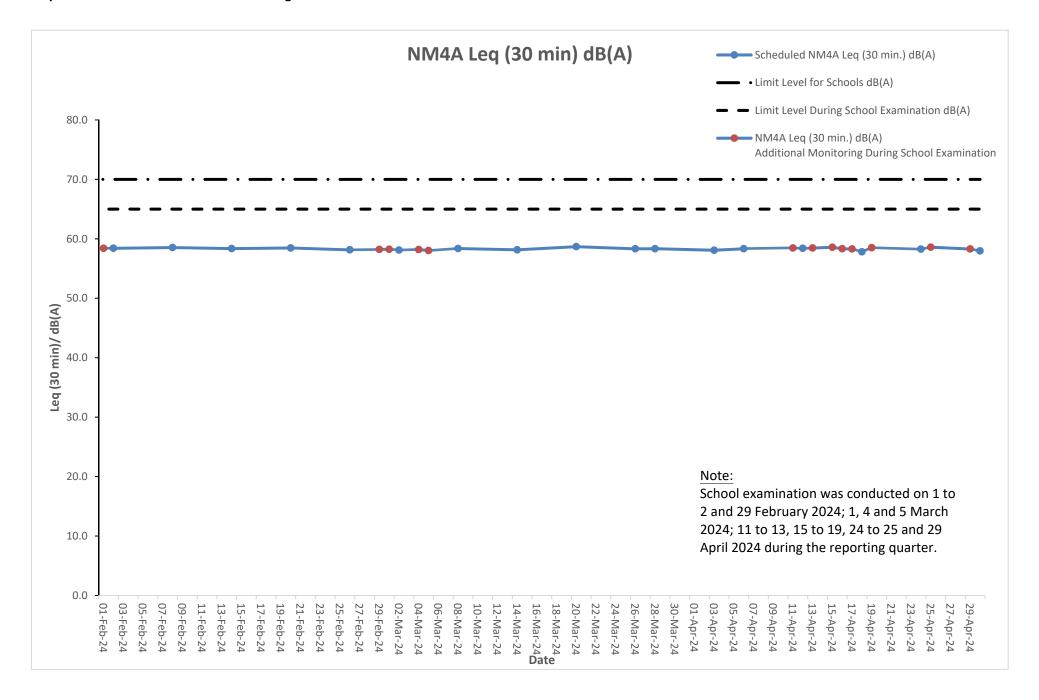
#### Noise Monitoring Result at Station NM4A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
28-Mar-24	10:56	59.9	56.9	
28-Mar-24	11:01	60.5	56.1	
28-Mar-24	11:06	60.5	56.2	58.3
28-Mar-24	11:11	60.6	55.8	30.3
28-Mar-24	11:16	59.9	55.8	
28-Mar-24	11:21	60.4	56.0	
03-Apr-24	16:42	59.9	56.3	
03-Apr-24	16:47	60.6	55.9	
03-Apr-24	16:52	60.3	55.9	58.1
03-Apr-24	16:57	59.9	56.0	30.1
03-Apr-24	17:02	59.3	56.0	
03-Apr-24	17:07	59.7	56.8	
06-Apr-24	10:47	59.4	55.9	
06-Apr-24	10:52	59.2	56.6	
06-Apr-24	10:57	60.1	56.2	58.3
06-Apr-24	11:02	60.4	56.6	30.3
06-Apr-24	11:07	60.3	56.9	
06-Apr-24	11:12	60.1	56.2	
12-Apr-24	16:40	59.5	57.1	
12-Apr-24	16:45	59.3	56.1	
12-Apr-24	16:50	60.5	56.7	58.4
12-Apr-24	16:55	60.1	56.7	30.4
12-Apr-24	17:00	59.9	55.9	
12-Apr-24	17:05	60.6	56.1	
18-Apr-24	10:38	59.5	56.7	
18-Apr-24	10:43	59.7	55.9	
18-Apr-24	10:48	60.4	56.9	E7 0
18-Apr-24	10:53	59.3	57.0	57.8
18-Apr-24	10:58	60.5	56.3	
18-Apr-24	11:03	59.4	55.7	
24-Apr-24	16:37	59.6	56.8	
24-Apr-24	16:42	60.2	56.7	
24-Apr-24	16:47	59.3	57.0	58.3
24-Apr-24	16:52	60.0	56.3	30.3
24-Apr-24	16:57	60.5	56.2	
24-Apr-24	17:02	60.1	56.0	
30-Apr-24	10:49	59.9	56.7	
30-Apr-24	10:54	60.2	56.7	
30-Apr-24	10:59	59.4	57.1	E0 0
30-Apr-24	11:04	59.2	56.7	58.0
30-Apr-24	11:09	60.5	56.8	
30-Apr-24	11:14	60.0	56.0	





The station set-up of a façade measurement at station NM4A.



#### Noise Monitoring Result at Station NM5A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)	Leq (30 min.) +3 dB(A)
02-Feb-24	9:20	62.7	59.1	204 (00 111111) 02 (11)	204 (00 111111) 10 02(51)
02-Feb-24	9:25	61.8	57.4		
02-Feb-24	9:30	61.8	59.2	60.9	63.9
02-Feb-24	9:35	62.8	59.3	60.9	63.9
02-Feb-24	9:40	61.4	58.4		
02-Feb-24	9:45	62.2	59.1		
08-Feb-24	15:31	62.8	58.6		
08-Feb-24	15:36	61.9	58.8		
08-Feb-24	15:41	61.6	58.4	60.3	63.3
08-Feb-24	15:46	62.1	58.4	00.0	00.0
08-Feb-24	15:51	62.2	59.2		
08-Feb-24	15:56	61.5	57.5		
14-Feb-24	9:24	62.1	57.5		
14-Feb-24	9:29	62.8	58.2		
14-Feb-24	9:34	62.1	58.3	60.1	63.1
14-Feb-24	9:39	62.0	57.6		
14-Feb-24	9:44	62.1	58.2		
14-Feb-24 20-Feb-24	9:49 15:27	62.6 61.4	57.8 58.0		
20-Feb-24 20-Feb-24	15:27	62.6	58.9		
20-Feb-24 20-Feb-24	15:32	62.0	58.6		
20-Feb-24 20-Feb-24	15:42	61.8	58.8	60.6	63.6
20-Feb-24	15:47	62.3	58.2		
20-Feb-24	15:52	61.7	58.7		
26-Feb-24	9:22	61.7	58.0		
26-Feb-24	9:27	61.8	58.0		
26-Feb-24	9:32	61.8	58.3		
26-Feb-24	9:37	61.7	57.8	60.5	63.5
26-Feb-24	9:42	62.7	59.1		
26-Feb-24	9:47	62.0	58.7		
02-Mar-24	15:22	62.2	59.3		
02-Mar-24	15:27	62.0	58.2		
02-Mar-24	15:32	61.6	57.9	60.6	63.6
02-Mar-24	15:37	62.1	57.8	00.0	03.0
02-Mar-24	15:42	62.2	59.2		
02-Mar-24	15:47	61.6	57.8		
08-Mar-24	9:25	61.9	58.1		
08-Mar-24	9:30	61.6	58.8		
08-Mar-24	9:35	61.6	58.9	60.8	63.8
08-Mar-24	9:40	62.8	58.4		- 3.3
08-Mar-24	9:45	62.7	58.8		
08-Mar-24	9:50	61.5	59.2		
14-Mar-24	15:27	61.4	58.0		
14-Mar-24	15:32	62.2	58.4		
14-Mar-24	15:37	62.4 62.0	58.2 58.8	60.3	63.3
14-Mar-24 14-Mar-24	15:42	62.3	58.8 58.0		
14-Mar-24	15:47 15:52	61.6	58.0		
20-Mar-24	9:28	62.5	59.0		
20-Mar-24	9:33	62.7	58.5		
20-Mar-24	9:38	62.6	58.4		
20-Mar-24	9:43	61.5	58.4	60.7	63.7
20-Mar-24	9:48	61.4	59.3		
20-Mar-24	9:53	61.7	58.1		
26-Mar-24	15:21	62.4	58.1		
26-Mar-24	15:26	61.9	59.0		
26-Mar-24	15:31	62.7	57.8	20.0	00.0
26-Mar-24	15:36	61.8	57.6	60.8	63.8
26-Mar-24	15:41	61.6	58.5		
26-Mar-24	15:46	62.1	58.0		
			·		

#### Noise Monitoring Result at Station NM5A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)	Leq (30 min.) +3 dB(A)		
28-Mar-24	9:40	62.6	58.3	, , ,	, , ,		
28-Mar-24	9:45	62.8	59.1				
28-Mar-24	9:50	62.6	57.8	60.4	63.4		
28-Mar-24	9:55	62.8	58.6	60.4	63.4		
28-Mar-24	10:00	62.3	57.7				
28-Mar-24	10:05	61.6	58.6				
03-Apr-24	15:27	62.5	59.0				
03-Apr-24	15:32	61.5	58.0				
03-Apr-24	15:37	62.5	57.4	60.6	63.6		
03-Apr-24	15:42	62.8	58.2	00.0	03.0		
03-Apr-24	15:47	62.4	57.4				
03-Apr-24	15:52	61.6	59.1				
06-Apr-24	9:31	62.0	58.1				
06-Apr-24	9:36	62.6	58.2				
06-Apr-24	9:41	62.4	57.8	60.5	63.5		
06-Apr-24	9:46	62.7	58.4	00.5	03.3		
06-Apr-24	9:51	62.5	57.7				
06-Apr-24	9:56	61.4	59.0				
12-Apr-24	15:25	61.4	58.3				
12-Apr-24	15:30	61.9	58.9				
12-Apr-24	15:35	62.6	58.4	60.2	63.2		
12-Apr-24	15:40	62.0	59.1	00.2	03.2		
12-Apr-24	15:45	62.3	59.3				
12-Apr-24	15:50	62.8	58.2				
18-Apr-24	9:22	62.1	57.9				
18-Apr-24	9:27	62.3	58.0				
18-Apr-24	9:32	61.8	58.0	60.6	63.6		
18-Apr-24	9:37	61.7	57.8	00.0	03.0		
18-Apr-24	9:42	61.4	58.5				
18-Apr-24	9:47	62.8	58.0				
24-Apr-24	15:22	61.7	58.7				
24-Apr-24	15:27	62.6	58.4				
24-Apr-24	15:32	61.4	58.8	60.6	63.6		
24-Apr-24	15:37	62.1	58.1	00.0	03.0		
24-Apr-24	15:42	62.5	58.2				
24-Apr-24	15:47	61.4	57.9				
30-Apr-24	9:33	61.9	59.2				
30-Apr-24	9:38	62.1	58.0				
30-Apr-24	9:43	62.1	57.7	60.7	63.7		
30-Apr-24	9:48	61.5	58.9	00.1	03.7		
30-Apr-24	9:53	62.5	57.4				
30-Apr-24	9:58	62.0	58.1				

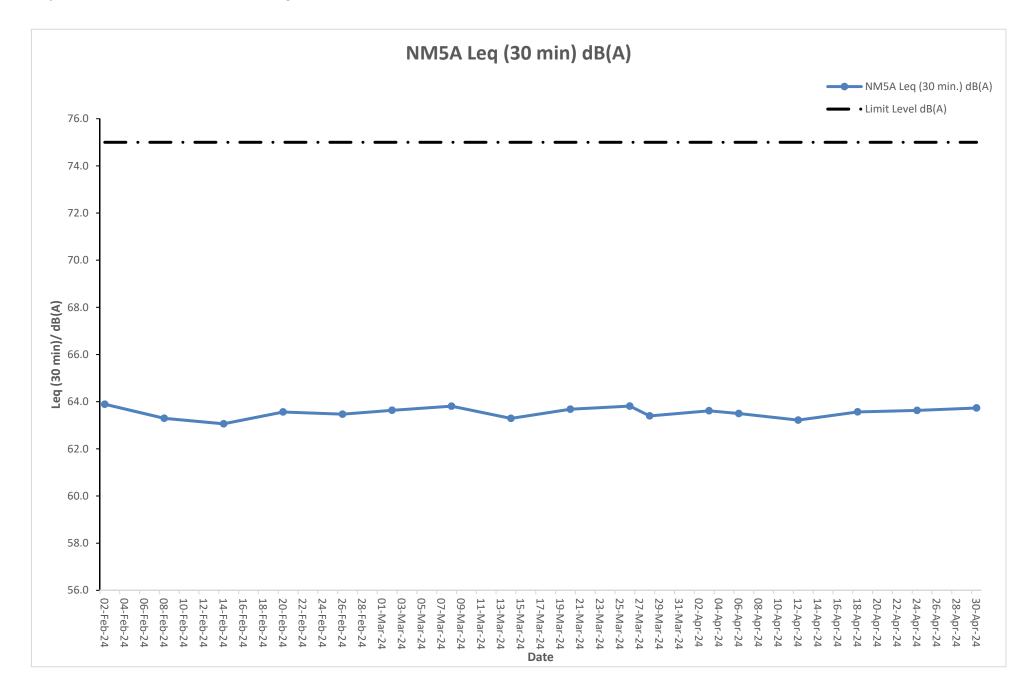
### Remarks:

+3dB(A) correction was applied to free-field measurement.





The station set-up of a free-field measurement at station NM5A.



## F. Waste Flow table

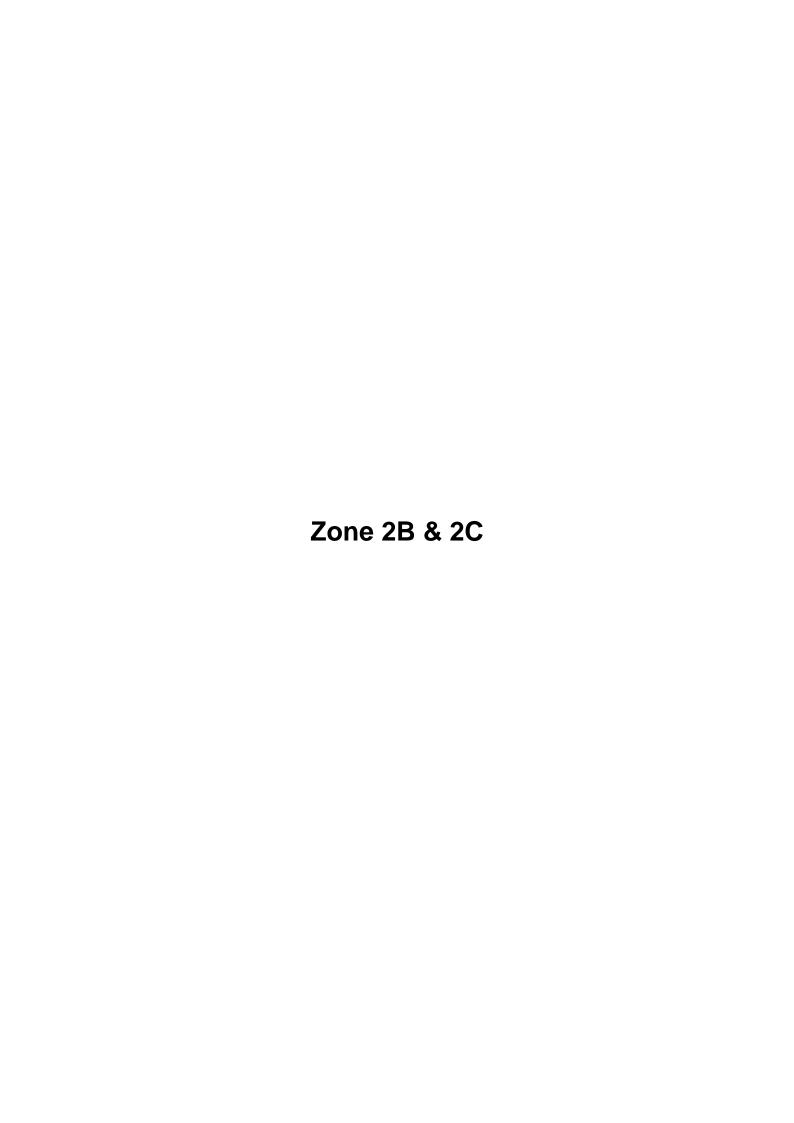


Table F-1: Monthly Waste Flow Table for Zone 2B & 2C

	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Materials Generated Monthly						
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sroting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2021		,	,	,		,	,	,	,	,		,	
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	22.58	22.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.19
Nov	9265.04	10.45	125.93	0.00	9128.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.12
Dec	13462.30	62.94	1041.17	0.00	12358.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.62
Sub-total (2021)	22749.92	95.97	1167.10	0.00	21486.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.93
2022													
Jan	17427.64	0.00	2091.32	100.04	15236.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60
Feb	18230.98	0.00	991.53	1719.99	15519.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.90
Mar	24777.12	0.00	2176.32	11721.21	10879.59	0.00	0.00	0.00	0.00	0.00	0.00	1.40	16.15
Apr	32749.58	0.00	2409.00	22393.87	7946.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.79
May	31115.05	0.00	3141.32	15121.57	12852.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.31
Jun	30747.96	0.00	3120.62	14645.87	12981.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.84
Jul	34017.48	0.00	3444.43	10214.91	20358.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.43
Aug	38065.92	0.00	3272.46	3610.61	31182.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.99
Sep	38896.62	0.00	3664.45	2790.24	32441.93	0.00	0.00	15.80	0.00	0.00	0.00	0.00	29.88
Oct	41174.38	0.00	4340.02	2447.22	34387.14	0.00	0.00	86.63	0.00	0.00	0.00	0.00	28.50
Nov	40031.63	0.00	4149.91	1021.06	34860.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.54
Dec	42615.90	0.00	4242.02	1655.36	36718.52	0.00	0.00	10.23	0.00	0.00	0.00	0.00	36.04
Sub-total (2022)	389850.25	0.00	37043.39	87441.95	265364.91	0.00	0.00	112.66	0.00	0.00	0.00	1.40	254.97

2023													
Jan	35248.24	0.00	2711.85	1182.55	31353.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.92
Feb	39553.32	0.00	4737.76	3184.34	31631.22	0.00	0.00	0.00	0.00	0.00	0.00	1.40	35.95
Mar	42528.10	0.00	4710.97	2381.39	35435.74	0.00	0.00	24.21	0.00	0.00	0.00	1.80	36.38
Apr	29352.63	0.00	3136.52	1211.00	25005.11	0.00	0.00	23.79	0.00	0.00	0.00	1.60	33.30
May	33842.57	0.00	3742.02	1113.13	28987.42	0.00	0.00	33.86	0.00	0.00	0.00	0.00	34.16
Jun	26638.62	0.00	3926.07	708.34	22004.21	0.00	0.00	90.36	0.00	0.00	0.00	0.40	40.29
Jul	16946.46	0.00	2228.35	30.63	14687.48	0.00	0.00	23.77	0.00	0.00	0.00	1.20	53.51
Aug	14143.71	0.00	2356.05	76.03	11711.63	0.00	0.00	14.84	0.00	0.00	0.00	1.40	44.35
Sep	7142.10	0.00	1423.05	0.00	5719.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.20
Oct	2847.84	0.00	0.00	0.00	2833.79	14.05	0.00	0.00	0.00	0.00	0.00	0.00	27.58
Nov	4052.81	0.00	0.00	0.00	4052.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.50
Dec	3119.02	0.00	0.00	0.00	3119.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.77
Sub-total (2023)	255415.42	0.00	28972.64	9887.41	216541.32	14.05	0.00	210.83	0.00	0.00	0.00	7.80	417.91
2024													
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.79
Feb	18.34	0.00	0.00	0.00	18.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.43
Mar	1836.65	0.00	0.00	0.00	1836.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.97
Apr	409.66	0.00	0.00	0.00	409.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.61
Sub-total (2024)	2264.65	0.00	0.00	0.00	2264.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.80
Total	670280.24	95.97	67183.13	97329.36	505657.73	14.05	0.00	323.49	0.00	0.00	0.00	9.20	772.61

#### Note:

<sup>-1994.14</sup> tonnes and 270.51 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 and Tuen Mun Area 38 respectively in the reporting quarter.

# G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction work to the end of the reporting quarter are summarized in the **Table G-1** below.

Table G-1: Statistics for complaints, notifications of summons and successful prosecutions for Zone 2B & 2C

 Complaints
 Notifications of summons
 Successful prosecutions

 This reporting quarter
 0
 0
 0

(Feb 24 – Apr 24)

From 30 September 2021 to

31 0 0

end of the reporting quarter

## **END OF THE REPORT**