

Our ref: 12-8-2022

12-8-2022

By hand

Environmental Protection Department  
Environmental Assessment Division  
Metro Assessment Group  
Kowloon Section (2)  
27th floor, Southorn Centre,  
130 Hennessy Road,  
Wan Chai, Hong Kong  
(Attn: Mr. TANG Ho Him, Matthew)

Dear Mr. TANG,

**Contract No. EDO 15/2018**

**Environmental Monitoring Works for Contract No. ED/2018/01 – Kai Tak Development – Stage 4  
infrastructure at the former runway and south apron**

**Submission of Quarterly EM&A Report (January 2022 to March 2022)**

I refer to the Environment Permit (EP) No. EP-337/2009 and EP-445/2013/A for the captioned project.

Pursuant to Condition 3.3 of the EP-337/2009 and Condition of the 3.2 of the EP-445/2013/A, please find enclosed four hard copies and one electronic copy of Quarterly EM&A Report for January 2022 to March 2022, which has been verified by the IEC for your reference.

Thank you very much for your attention and please feel free to contact Mr. Lee at 2618 2166 should you require further information.

Yours faithfully,

For and on behalf of  
Ka Shing Management Consultant Limited

***AKCL***

Applied knowledge center limited  
Company Secretary

Encl. Quarterly EM&A Report (January 2022 to March 2022)

Ref.: CEDKTDS4EM00\_0\_0243L.22

12 August 2022

AECOM Asia Company Limited  
12/F, Grand Central Plaza, Tower 2  
138 Shatin Rural Committee Road  
Shatin, Hong Kong

By Post and Email

Attention: Mr. Clive Cheng

Dear Mr. Cheng,

**Re: Contract No. ED/2018/01 – Kai Tak Development  
Stage 4 Infrastructure at the Former Runway and South Apron**

**Quarterly EM&A Summary Report for January 2022 to March 2022**

Reference is made to the Environmental Team's submission of the Quarterly EM&A Summary Report for January 2022 to March 2022 (Version 1.1) certified by the ET Leader and provided to us via email on 16 July 2022.

Please be informed that we have no adverse comment on the captioned submission.

Thank you for your attention. Please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,  
For and on behalf of  
Ramboll Hong Kong Limited



Y H Hui  
Independent Environmental Checker

c.c. CEDD  
Ka Shing  
Penta-Ocean

Attn.: Mr. Alex Wong  
Attn.: Mr. Chan Pang  
Attn.: Mr. Daniel Ho

Fax: 2739 0076  
By email  
Fax: 2572 4080

C:\Users\theoChan\Downloads\CEDKTDS4EM00\_0\_0243L.22.doc

**Quarterly Environmental Monitoring and Audit  
Summary Report (January 2022 – March 2022)  
for  
Contract No. ED/2018/01 –  
Kai Tak Development – Stage 4 infrastructure at the  
former runway and south apron**

**Contract No.: EDO 15/2018**

(Version 1.1)

Certified By: \_\_\_\_\_



(Environmental Team Leader)

<b>Table of Content</b>	<b>Page</b>
EXECUTIVE SUMMARY .....	6
Breaches of Action and Limit Levels .....	6
Complaint log .....	6
Notifications of Summons and Successful Prosecutions .....	7
Report changes .....	7
Major construction works in the reporting period.....	7
1. INTRODUCTION.....	9
Project Background .....	9
Project Organization .....	10
Works Area and Construction Programme.....	10
Construction works undertaken during reporting period.....	11
2. SUMMARY OF EM&A REQUIREMENTS AND MONITORING RESULTS ..	13
Monitoring Requirements .....	13
Air Quality Monitoring Locations .....	13
Air Quality Monitoring Parameters, Frequency and Duration .....	14
Air Quality Monitoring Equipment .....	14
Air Quality Monitoring Methodology and QA/QC Procedure.....	15
Wind Data Monitoring.....	17
Impact Air Quality Action and Limit Levels.....	17
Impact Air Quality Monitoring results .....	18
Noise Monitoring Locations .....	19
Noise Monitoring Parameters, Frequency and Duration .....	19
Noise Monitoring Equipment .....	20
Monitoring Methodology and QA/QC Procedure .....	20
Maintenance and Calibration .....	21
Impact Noise Action and Limit Levels.....	21

	Impact Noise Monitoring results .....	21
	Comparison of EM&A Results with EIA Predictions .....	22
3.	LANDSCAPE AND VISUAL MONITORING .....	26
4.	SOLID AND LIQUID WASTE MANAGEMENT .....	27
5.	ENVIRONMENTAL SITE INSPECTION AND AUDIT .....	28
	Site Inspection .....	28
	Implementation Status of Environmental Mitigation Measures .....	29
6.	SUMMARY OF NON-COMPLIANCE STATUS .....	30
	Breaches of Action and Limit Levels .....	30
	Environmental Complaint and Non-compliance .....	30
	Notifications of summons and successful prosecutions .....	31
7.	COMMENTS, RECOMMENDATIONS AND CONCLUSIONS .....	32
	Comments .....	32
	Recommendations.....	32
	Conclusions.....	33

**List of Tables**

Table I	Major construction activities in the reporting period
Table 1.1	Contact information of key personnel
Table 1.2	Major construction activities in the reporting period
Table 2.1	Locations of air quality monitoring stations
Table 2.2	Air quality monitoring parameters, frequency and duration
Table 2.3	Air Quality Monitoring Equipment
Table 2.4	Action and Limit Levels of 24-hour average TSP for construction dust monitoring
Table 2.5	Action and Limit Levels of 1-hour average TSP for construction dust monitoring
Table 2.6	Summary of 24-hour average TSP monitoring data during the reporting period
Table 2.7	Summary of 1-hour average TSP monitoring data during the reporting period

Table 2.8	Locations of noise monitoring stations
Table 2.9	Noise monitoring parameters, frequency and duration
Table 2.10	Noise Monitoring Equipment
Table 2.11	Baseline noise level and Action and Limit Levels for construction noise monitoring
Table 2.12	Summary of noise monitoring data during the reporting period
Table 2.13	Comparison of 24-hour average TSP monitoring data with EIA predictions
Table 2.14	Comparison of 1-hour average TSP monitoring data with EIA predictions
Table 2.15	Comparison of noise monitoring data with EIA predictions
Table 3.1	Summary of observations of Landscape and Visual impact during the reporting period
Table 5.1	Summary of site inspections observations during the reporting period
Table 6.1	Non-compliance record in the reporting period
Table 6.2	Summary of complaints in the reporting period
Table 6.3	Summary of summons and successful prosecutions in the reporting period
Table 7.1	Summary of recommendations / reminders made in site inspections during the reporting period

### **List of Figure**

Figure 1 – Proposed works of Contract No. ED/2018/01

Figure 2 – Proposed Bus Stop And Associated Noise Barrier At Road D3A

Figure 3 – Future Pedestrian Connection Between Landscaped Deck And Private Developments

Figure 4 – Site Layout Plan

Figure 5 – Air Quality Monitoring Stations

Figure 6 – Noise Monitoring Stations

## List of Appendices

Appendix A – Organization Chart of EM&A Team and Emergency Team

Appendix B – Construction Programme

Appendix C – Weather information

Appendix D – Monitoring data and graphical plots

Appendix E – Event and Action Plans for Construction Dust Monitoring, Construction Noise  
and Landscape and Visual Impact

Appendix F – Waste Flow Table

Appendix G – Environmental Mitigation Implementation Schedule (EMIS)

Appendix H – Summaries of Environmental Complaint, Warning, Summon and Notification  
of Successful Prosecution

## **EXECUTIVE SUMMARY**

1. This is the 9<sup>th</sup> Quarterly Environmental Monitoring & Audit (EM&A) Summary Report which summaries the findings of the EM&A Programme during the reporting period from 1 January 2022 to 31 March 2022 (the “reporting period”).

### **Breaches of Action and Limit Levels**

2. 1-hour TSP monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded. Due to the outbreak of COVID 19, The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop (AM4(A)), one of the impact monitoring stations, did not open to public starting from 23 February 2022 to 31 Mar 2022 and Environmental Team could not conduct impact monitoring on roof top. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.
3. 24-hour TSP monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded. Due to the outbreak of COVID 19, The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop (AM4(A)), one of the impact monitoring stations, did not open to public starting from 23 February 2022 to 31 Mar 2022 and Environmental Team could not conduct impact monitoring on roof top. No 24-hour TSP monitoring was conducted at AM4(A) because of the assess limitation during 23 February to 31 March 2022.
4. Construction noise monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded. Due to the outbreak of COVID 19, The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop (M11), one of the impact monitoring stations, did not open to public starting from 23 February 2022 to 31 Mar 2022 and Environmental Team could not conduct impact monitoring on roof top. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.

### **Complaint log**

5. No complaint was received in the reporting period.

**Notifications of Summons and Successful Prosecutions**

6. No notification of summons and successful prosecutions was received in the reporting period.

**Report changes**

7. There was no reporting change in the reporting period.

**Major construction works in the reporting period**

8. Major construction activities undertake during the reporting period included:

*Table I Major construction activities in the reporting period*

January 2022	February 2022	March 2022
<ul style="list-style-type: none"> <li>- North Approach Ramp – Construction of wall, roof slab, utilities trough</li> <li>- Bridge D3 – Construction of Bridge Deck and abutments</li> <li>- North Depressed Road – Construction of wall &amp; top slab</li> <li>- Underpass – Construction of walls and roof slab</li> <li>- South Approach Ramp – Construction of Permanent Structure</li> <li>- District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works</li> <li>- Lift 3 – Construction of linking platform</li> <li>- Lift 4 – Construction of Wall and Roof Slab /</li> </ul>	<ul style="list-style-type: none"> <li>- North Approach Ramp – Construction of wall, roof slab, utilities trough</li> <li>- Bridge D3 – Construction of Abutment, Pier, Bridge Deck</li> <li>- North Depressed Road – Construction of wall &amp; top slab</li> <li>- Underpass – Construction of walls and roof slab</li> <li>- South Approach Ramp – Construction of Permanent Structure</li> <li>- District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works</li> <li>- Lift 3 – Construction of linking platform</li> <li>- Lift 4 – Construction of Wall and Roof Slab /</li> </ul>	<ul style="list-style-type: none"> <li>- North Approach Ramp – Construction of utilities trough</li> <li>- Bridge D3 – Construction of Bridge Deck</li> <li>- North Depressed Road – Construction of wall &amp; top slab</li> <li>- Underpass – Construction of walls and roof slab</li> <li>- South Approach Ramp – Construction of Permanent Structure</li> <li>- District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works</li> <li>- Lift 3 – Construction of linking platform</li> <li>- Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel</li> </ul>

January 2022	February 2022	March 2022
<p>Installation of Steelworks and Glass Panel</p> <ul style="list-style-type: none"> <li>- South Depressed Road – Installation of ELS system / construction of permanent works</li> <li>- Rising Main and Water Pipe – Laying of sewage</li> <li>- Landscaped Deck – Construction of pile caps and installation of columns</li> <li>- Transformer Room – Installation of ELS system and construction of permanent structure</li> <li>- Road D3 Junction – Road works</li> <li>- Lift 1 &amp;2 – Installation of ELS system</li> </ul>	<p>Installation of Steelworks and Glass Panel</p> <ul style="list-style-type: none"> <li>- South Depressed Road – Installation of ELS system / construction of permanent works</li> <li>- Rising Main and Water Pipe – Laying of sewage</li> <li>- Landscaped Deck – Construction of pile caps and installation of columns</li> <li>- Transformer Room – Installation of ELS system and construction of permanent structure</li> <li>- Road D3 Junction – Road works</li> <li>- Lift 1 &amp;2 – Installation of ELS system</li> </ul>	<ul style="list-style-type: none"> <li>- South Depressed Road – Installation of ELS system / construction of permanent works</li> <li>- Rising Main and Water Pipe – Laying of sewage</li> <li>- Landscaped Deck – Construction of pile caps and installation of columns</li> <li>- Transformer Room – Installation of ELS system and construction of permanent structure</li> <li>- Road D3 Junction – Road works</li> <li>- Lift 1 &amp;2 – Installation of ELS system</li> </ul>

# 1. INTRODUCTION

## Project Background

- 1.1 The Kai Tak Development (KTD) is located in the south-eastern part of Kowloon Peninsula of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling.
- 1.2 Contract No. ED/2018/01 - Kai Tak Development – stage 4 infrastructure at the former runway and south apron (The Project), comprises mainly the design and construction of a dual two-lane Road D3 (Metro Park Section), a single 2-lane Road L12d, a salt water pumping station, a sewage pumping station, landscaped deck and promenade above and adjoining Road D3 (Metro Park Section) respectively, some remaining road works at Road L14, noise barrier at Road D3A, and other associated works at the former runway and south apron. The proposed works are shown in Figure 1 and Figure 2. During the course of the Contract No. ED/2018/01, there may be modification of noise barriers in association with the construction of footbridges connecting to the landscaped deck of Road D3A by developers of adjacent lands (Figure 3). The proposed works and site boundary are shown in Figure 4.
- 1.3 Civil Engineering and Development Department (CEDD) had completed an Environmental Impact Assessment (EIA) and is the Permit Holder.
- 1.4 The construction work under ED/2018/01 comprises the EM&A Manuals (EIA Register Nos. AEIAR-130/2009 for Kai Tak Development and EIA Register Nos. AEIAR-170/2013 for Roads D3A and D4A) and Environmental Permit (EP) Nos. EP-337/2009, EP-445/2013 and Variation to the EP (VEP) No. EP-445/2013/A.
- 1.5 Air quality and noise monitoring has been proposed in the EM&A Manual with EIA Register Nos. AEIAR-130/2009 for Kai Tak Development while no air quality and noise monitoring are proposed in EM&A Manual with EIA Register Nos. AEIAR-170/2013 for Roads D3A and D4A.

## **Project Organization**

1.6 The project organization chart and emergency team and with respect to the EM&A programme is shown in Appendix A. Information of key personnel contact names and telephone numbers are summarized in Table 1.1.

*Table 1.1 Contact information of key personnel*

Party	Role	Contact Person	Position	Phone No.	Fax No.
Civil Engineering and Development Department (CEDD)	Project Proponent	Mr. Alex Wong	Senior Engineer	3579 2452	2739 0076
		Ms. Chan Ka Yan	Engineer	3579 2458	2739 0076
AECOM Asia Co. Ltd. (AECOM)	Supervisor (act as Engineers' Representative (ER) listed in EM&A Manual)	Mr. Clive Cheng	CRE	3911 4201	3911 4288
Ramboll Hong Kong Limited (Ramboll)	Independent Environmental Checker (IEC)	Mr. Y H Hui	IEC	3465 2850	3465 2899
Ka Shing Management Consultant Limited (Ka Shing)	Environmental Team (ET)	Mr. Chan Pang	ET Leader	6082 2973	2120 7752
Penta-Ocean Construction Co., Ltd. (Penta-Ocean)	Contractor	Mr. Lulu Mar	Environmental Officer	6845 0626	3465 8898

## **Works Area and Construction Programme**

1.7 The construction works commenced on 20 January 2020. The construction programme of the Project is given in Appendix B.

**Construction works undertaken during reporting period**

1.8 Major construction works of the Project in the reporting period are summarized in Table 1.2:

*Table 1.2 Major construction activities in the reporting period*

January 2022	February 2022	March 2022
<ul style="list-style-type: none"> <li>- North Approach Ramp – Construction of wall, roof slab, utilities trough</li> <li>- Bridge D3 – Construction of Abutment, Pier, Bridge Deck</li> <li>- North Depressed Road – Construction of wall &amp; top slab / Sheet pile extraction</li> <li>- Underpass – Dismantle waling &amp; strut and excavation at formation level / Construction of base slab, wall and roof slab</li> <li>- South Approach Ramp – Construction of Permanent Structure</li> <li>- District Cooling System seawater intake box culvert – Construction of cofferdam and box structure</li> <li>- Noise barrier – Erection of steel working and PMMA panel / road and drainage works / Dismantle of working platform</li> <li>- Lift 3 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel</li> <li>- Lift 4 – Water Pipe Diversion</li> <li>- South Depressed Road – Installation of sheet pile / wailing &amp; strut for the cofferdam / excavation at formation level</li> <li>- Rising Main and Water Pipe – ELS works / Laying</li> <li>- Landscaped Deck –</li> </ul>	<ul style="list-style-type: none"> <li>- North Approach Ramp – Construction of wall, roof slab, utilities trough</li> <li>- Bridge D3 – Construction of Bridge Deck</li> <li>- North Depressed Road – Construction of wall &amp; top slab</li> <li>- Underpass – Dismantle waling &amp; strut and excavation at formation level / Construction of base slab, wall and roof slab</li> <li>- South Approach Ramp – Construction of Permanent Structure</li> <li>- District Cooling System seawater intake box culvert – Construction of cofferdam and box structure</li> <li>- Noise barrier – Erection of steel working and PMMA panel / road and drainage works / Dismantle of working platform</li> <li>- Lift 3 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel / Road and drainage works / Installation of lift and earthwork</li> <li>- Lift 4 – Water Pipe Diversion / Construction of Lift Shaft / Construction Wall and Roof Slab</li> <li>- South Depressed Road – Installation of sheet pile / wailing &amp; strut for the</li> </ul>	<ul style="list-style-type: none"> <li>- North Approach Ramp – Construction of wall, roof slab, utilities trough</li> <li>- Bridge D3 – Construction of Bridge Deck</li> <li>- North Depressed Road – Construction of wall &amp; top slab</li> <li>- Underpass – Construction of walls and roof slab</li> <li>- South Approach Ramp – Construction of Permanent Structure</li> <li>- District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works</li> <li>- Lift 3 – Construction of linking platform</li> <li>- Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel</li> <li>- South Depressed Road – Installation of ELS system / construction of permanent works</li> <li>- Rising Main and Water Pipe – Laying of sewage</li> <li>- Landscaped Deck – Construction of pile caps and installation of columns</li> <li>- Transformer Room – Installation of ELS system and construction of permanent structure</li> <li>- Road D3 Junction – Road works</li> <li>- Lift 1 &amp; 2 – Installation of</li> </ul>

January 2022	February 2022	March 2022
<p>Construction of pile caps</p> <ul style="list-style-type: none"> <li>- Transformer Room – Sheet pile installation/ Pre-drilling works</li> </ul>	<p>cofferdam / excavation at formation level</p> <ul style="list-style-type: none"> <li>- Rising Main and Water Pipe – ELS works / Laying</li> <li>- Landscaped Deck – Construction of pile caps</li> <li>- Transformer Room – Sheet pile installation / Installation of wailing &amp; strut for the cofferdam / Pre-drilling works</li> <li>- Road D3 Junction – Road works</li> <li>- Lift 1 &amp;2 – Sheet pile installation/ Installation of waling of street for cofferdam / Footing construction</li> </ul>	<p>ELS system</p>

## 2. SUMMARY OF EM&A REQUIREMENTS AND MONITORING RESULTS

### Monitoring Requirements

2.1 In accordance with EM&A Manuals (EIA Register Nos. AEIAR-130/2009), impact air quality monitoring and impact noise monitoring shall be carried out during the construction phase of the Project.

### Air Quality Monitoring Locations

2.2 Three designated monitoring stations were selected for air quality monitoring programme. Impact air quality monitoring was conducted at three air quality monitoring stations in the reporting period. Table 2.1 describes the air quality monitoring locations, which are also depicted in Figure 5.

*Table 2.1 Locations of air quality monitoring stations*

Air Quality Monitoring Locations for the Project	Location of Measurement
AM3 - Sky Tower	Podium floor near T7
AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*	Rooftop / Ground Floor*
AM7 – Hong Kong Children's Hospital	Rooftop

NOTE: \* Due to the outbreak of COVID 19, AM4(A) did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site while no 24-hr TSP monitoring was conducted because of the access limitation during 23 February to 31 March 2022.

## **Air Quality Monitoring Parameters, Frequency and Duration**

2.3 The air quality monitoring locations and monitoring frequency are listed in Table 2.2.

*Table 2.2 Air quality monitoring parameters, frequency and duration*

Air Monitoring Station	Location for Measurement	Parameter	Duration	Frequency
AM3 - Sky Tower	Podium floor near T7			
AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*	Rooftop / Ground Floor*	- 24-hour average TSP	- 24 hours	- Once every 6 days
		- 1-hour average TSP	- 1 hour	- Three times every 6 days
AM7 - Hong Kong Children's Hospital	Rooftop			

NOTE: \* Due to the outbreak of COVID 19, AM4(A) did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site while no 24-hr TSP monitoring was conducted because of the access limitation during 23 February to 31 March 2022.

## **Air Quality Monitoring Equipment**

2.4 24-hour average TSP and 1-hour average TSP levels were measured for impact monitoring. 24-hour average TSP levels were measured by the High Volume Samplers (HVS) and 1-hour average TSP levels were measured by direct reading method to indicate short-term impacts. Wind data monitoring equipment was set up at conspicuous locations for logging wind speed and wind direction near to the dust monitoring locations. Table 2.3 summarizes the equipment to be used in the air quality monitoring.

*Table 2.3 Air Quality Monitoring Equipment*

Equipment	Model	Quantity
HVS Sampler	TE-5170 X c/w of TSP sampling inlet	3
Calibrator	TISCH TE-5025A	1
1-hour TSP Dust Meter	TSI Model AM510 SidePak Personal Aerosol Monitor	4
Wind Anemometer	Davis Vantage Pro2 Weather Station	1

2.5 High volume samplers (HVS) (TE-5170 X c/w of TSP sampling inlet) comprising with appropriate sampling inlets were employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

## Air Quality Monitoring Methodology and QA/QC Procedure

### *24-hour TSP Monitoring*

#### Operating/Analytical Procedures

2.6 Setup criteria of HVS are shown as follows:

- A horizontal platform with appropriate support to secure the samplers against gusty wind was provided.
- No two samplers were placed less than 2m apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2m of separation from walls, parapets and penthouses was set for the rooftop samples.
- A minimum of 2m separation from any supporting structure, measured horizontally was set.
- No furnaces or incineration flues was nearby.
- Airflow around the sampler was unrestricted.
- Any wire fence and gate, to protect the samplers, was not caused any obstruction during monitoring.
- Permission were obtained to setup the samplers and to obtain access to the monitoring stations.
- A secured supply of electricity was provided to operate the samplers.

2.7 Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m<sup>3</sup>/min. and 1.7 m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

2.8 For TSP sampling, Glass Fiber Filter Media 8" x 10" have a collection efficiency of > 99 % for particles of 0.3 µm diameter were used.

2.9 The power supply was checked to ensure the sampler worked properly and then placed any filter media at the designated air monitoring station

2.10 The filter holding frame was removed by loosening the four nuts and a weighted and

conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

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

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

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

2.14 After sampling, the filter was removed from the HVS and put into a clean and labeled seal plastic bag to avoid cross contamination. The elapsed time was also be recorded. The sampled filters were sent to the HOKLAS accredited or other internationally accredited laboratory for weighting.

#### Maintenance/Calibration

2.15 The following maintenance/calibration are required for the HVS:

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

#### ***1-hour TSP Monitoring***

#### Measurement Procedures

2.16 The measurement procedures of the 1-hour TSP were conducted in accordance with the Manufacturer's Instruction Manual as follows:

- Set up the dust meter on a tripod at 1.2m level.
- Turned on the dust meter and check the battery, if too low, change new ones. Pointed the meter to the source area or the planned measurement area.
- The zero calibration of the instrument was conducted before and after each sampling.

- TSP levels were recorded for 1-hour with 5-minute data logging interval.
- Recorded down the general meteorological conditions, Test ID no., start/end time, spot checking reading at each sampling location for data processing.
- Recorded any activities that may generate dust during measurement period.

### Maintenance/Calibration

2.17 The following maintenance/calibration are required for the direct dust meters:

- To validity the accuracy of dust meter, compare the results measured by dust meter and HVS by direct reading method every 12 months throughout all stages of the air quality monitoring.

### Wind Data Monitoring

2.18 Wind Anemometer was installed at the roof-top of AM7 - Hong Kong Children's Hospital with 10m above ground and clear of constructions or turbulence caused by the buildings to record wind speed and wind direction.

2.19 Details of weather information during the monitoring period are shown in Appendix C.

### Impact Air Quality Action and Limit Levels

2.20 The Action and Limit Levels of 24-hour average TSP and 1-hour average TSP are summarized in Table 2.4 and Table 2.5 respectively.

*Table 2.4 Action and Limit Levels of 24-hour average TSP for construction dust monitoring*

Parameter	Air Monitoring Station	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
24-hour average TSP	AM3	182	260
	AM4(A)	187	260
	AM7	181	260

*Table 2.5 Action and Limit Levels of 1-hour average TSP for construction dust monitoring*

Parameter	Air Monitoring Station	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
1-hour average TSP	AM3	297	500
	AM4(A)	326	500
	AM7	315	500

### **Impact Air Quality Monitoring results**

2.21 Impact monitoring results for 24-hour average TSP and 1-hour average TSP levels at the designed air quality monitoring stations are summarized in Table 2.6 and Table 2.7 respectively.

*Table 2.6 Summary of 24-hour average TSP monitoring data during the reporting period*

Air Monitoring Station	January 2022		February 2022		March 2022		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	24-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$	24-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$	24-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$		
AM3	62	33 – 92	45	24 – 66	77	40 – 126	182	260
AM4(A)*	58	33 – 72	41	38 – 46	/	/ – /	187	260
AM7	56	36 – 89	44	34 – 65	67	33 – 109	181	260

Note: \* Due to the outbreak of COVID 19, AM4(A) did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. No 24-hr TSP monitoring was conducted because of the access limitation during 23 February to 31 March 2022.

*Table 2.7 Summary of 1-hour average TSP monitoring data during the reporting period*

Air Monitoring Station	January 2022		February 2022		March 2022		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$		
AM3	47	20 – 89	42	22 – 65	63	36 – 109	297	500
AM4(A)*	52	25 – 91	40	32 – 54	69	41 – 105	326	500
AM7	48	24 – 96	42	23 – 74	57	27 – 97	315	500

Note: \* Due to the outbreak of COVID 19, AM4(A) did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.

2.22 There was no Action and Limit Level exceedance of 24-hour average TSP and 1-hour average TSP levels recorded during the reporting period.

2.23 Graphical presentation and detailed monitoring results of 24-hour average TSP and 1-hour average TSP levels are shown in Appendix D.

2.24 The Event and Action Plan is provided in Appendix E.

2.25 Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

### **Noise Monitoring Locations**

2.26 Two designated monitoring stations were selected for noise monitoring programme. Impact noise monitoring was conducted at two noise monitoring stations in the reporting period. Table 2.8 describes the noise monitoring locations, which are also depicted in Figure 6.

*Table 2.8 Locations of noise monitoring stations*

Noise Monitoring Locations for the Project	Location of Measurement
M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*	Rooftop / Ground Floor (Façade)*
M12 - Hong Kong Children's Hospital	Rooftop (Façade)

NOTE: \* Due to the outbreak of COVID 19, M11 did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.

### **Noise Monitoring Parameters, Frequency and Duration**

2.27 The noise monitoring locations and monitoring frequency are listed in Table 2.9.

*Table 2.9 Noise monitoring parameters, frequency and duration*

Noise Monitoring Station	Location for Measurement	Parameter	Frequency and Duration
M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*	Rooftop / Ground Floor (Façade)*	$L_{Aeq}$ , $L_{A10}$ and $L_{A90}$	30 - minutes measurement at each monitoring station between 0700 – 1900 hrs on normal weekdays (Monday to Saturday) at frequency of once per week.
M12 - Hong Kong Children's Hospital	Rooftop (Façade)		

NOTE: \* Due to the outbreak of COVID 19, M11 did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.

## **Noise Monitoring Equipment**

2.28 As referred to in the Technical Memorandum (TM) issued under the Noise Control Ordinance (NCO), sound level meters in compliance with the IEC 61672-1 (Type 1) standard [this standard replaced the International Electrotechnical Commission Publications 60651:1979 (Type 1) and 60804:1985 (Type 1)] were used for noise monitoring. Table 2.10 summarizes the equipment to be used in the noise monitoring.

*Table 2.10 Noise Monitoring Equipment*

Equipment	Model	Quantity
Sound Level Meter	RION NL52	2
Sound Level Calibrator	RION NC 74	1
Sound Level Calibrator	RION NC 75	1
Air Flowmeter	TSI TA440 Air Velocity	2

## **Monitoring Methodology and QA/QC Procedure**

2.29 The noise level measurement was conducted at 1m from the exterior of the nearby noise sensitive receivers building façade and at 1.2m above the ground and facing to the source area or the planned measurement area.

2.30 No noise measurement was conducted in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. Air flow was measured by air flow meter.

2.31 Turned on the sound level meter and check the battery, if too low, change new ones.

2.32 Calibration was conducted immediately prior to and after each noise measurement, the accuracy of the sound level meters was checked by using sound calibrator generating 1,000 Hz with 94dB. Measurement data was found to be valid only if the calibration levels from before and after the noise measurement agreed to within 1.0 dB.

2.33 Noise level was recorded.

2.34 Recorded any activities that may generate noise during measurement period.

## **Maintenance and Calibration**

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

2.36 The sound level meter and sound calibrator were calibrated annually.

2.37 Calibration for sound level meter was conducted immediately prior to and following each noise measurement by using sound calibrator generating a known sound pressure level at a known frequency (1,000 Hz with 94dB). Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

## **Impact Noise Action and Limit Levels**

2.38 The Baseline Noise Levels and Action and Limit Levels for construction noise is presented in Table 2.11.

*Table 2.11 Baseline noise level and Action and Limit Levels for construction noise monitoring*

Time Period	Noise Monitoring Station	Baseline Noise Levels, dB (A)	Action Level	Limit Level ^
0700 – 1900 on normal weekdays	M11	68.3	When one documented complaint is received.	75 dB(A)
	M12	61.9		

Note: ^ If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

## **Impact Noise Monitoring results**

2.39 Impact noise monitoring results at the designed noise monitoring stations are summarized in Table 2.12.

*Table 2.12 Summary of noise monitoring data during the reporting period*

Noise Monitoring Station	January 2022		February 2022		March 2022		Action Level	Limit Level <sup>^</sup>
	Measured $L_{Aeq, 30-min}$ , Average, dB(A)	Measured $L_{Aeq, 30-min}$ , Range, dB(A)	Measured $L_{Aeq, 30-min}$ , Average, dB(A)	Measured $L_{Aeq, 30-min}$ , Range, dB(A)	Measured $L_{Aeq, 30-min}$ , Average, dB(A)	Measured $L_{Aeq, 30-min}$ , Range, dB(A)		
M11	68.1	65.5 – 68.8	67.6	67.4 – 67.8	72.6	71.5 – 73.8	When one documented complaint is received.	75 dB(A)
M12	64.9	60.3 – 68.1	64.6	64.1 – 65.4	64.1	62.2 – 65.3		

Note: ^ If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Note: \* Due to the outbreak of COVID 19, M11 did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. No construction noise monitoring was conducted on the ground floor outside M11 because of the access limitation during 23 February to 31 March 2022. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.

2.40 There were no Action Level exceedance of noise monitoring and Limit Level exceedance of  $L_{Aeq, 30min}$  recorded during the reporting period.

2.41 Graphical presentation and detailed monitoring results of impact noise are shown in Appendix D.

2.42 The Event and Action Plan is provided in Appendix E.

2.43 Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

### **Comparison of EM&A Results with EIA Predictions**

2.44 The environmental impacts predictions were given in Agreement No. CE 35/2006(CE) Kai Tak Development Engineering Study cum Design and Construction of Advance Works - Investigation, Design and Construction - Kai Tak Development Environmental Impact Assessment Report, EIA Register Nos. AEIAR-130/2009 for Kai Tak Development (The EIA Report). The EM&A data was compared with the EIA predictions as summarized in Table 2.13 to Table 2.15.

*Table 2.13 Comparison of 24-hour average TSP monitoring data with EIA predictions*

Air Monitoring Station	ASR No. in EIA report	Predicted Cumulative Maximum 24-hr average TSP concentration		Measured 24-hr average TSP in Reporting Month (January 2022), $\mu\text{g}/\text{m}^3$	Measured 24-hr average TSP in Reporting Month (February 2022), $\mu\text{g}/\text{m}^3$	Measured 24-hr average TSP in Reporting Month (March 2022), $\mu\text{g}/\text{m}^3$
		Scenario 1 (Mid 2009 to Mid 2013), $\mu\text{g}/\text{m}^3$	Scenario 2 (Mid 2013 to Late 2016), $\mu\text{g}/\text{m}^3$			
AM3 - Sky Tower	A40 <sup>^</sup>	106	138	33 – 92	24 – 66	40 – 126
AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop	A43 <sup>^</sup>	123	195	33 – 72	38 – 46	/ – /
AM7 – Hong Kong Children's Hospital	PA60	NA	NA	36 – 89	34 – 65	33 – 109

Note:

<sup>^</sup> Prediction results are given in the Table 3.13 of the EIA report EIA Register Nos. AEIAR-130/2009 for Kai Tak Development.

*Table 2.14 Comparison of 1-hour average TSP monitoring data with EIA predictions*

Air Monitoring Station	ASR No. in EIA report	Predicted Cumulative Maximum 1-hour average TSP concentration		Measured 1-hr average TSP in Reporting Month (January 2022), $\mu\text{g}/\text{m}^3$	Measured 1-hr average TSP in Reporting Month (February 2022), $\mu\text{g}/\text{m}^3$	Measured 1-hr average TSP in Reporting Month (March 2022), $\mu\text{g}/\text{m}^3$
		Scenario 1 (Mid 2009 to Mid 2013), $\mu\text{g}/\text{m}^3$	Scenario 2 (Mid 2013 to Late 2016), $\mu\text{g}/\text{m}^3$			
AM3 - Sky Tower	A40	217 <sup>^</sup>	247 <sup>^</sup>	20 – 89	22 – 65	36 – 109
AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop	A43	283 <sup>^</sup>	409 <sup>^</sup>	25 – 91	32 – 54	41 – 105
AM7 – Hong Kong Children's Hospital	PA60	NA	NA	24 – 96	23 – 74	27 – 97

Note:

<sup>^</sup> Prediction results are given in the Table 3.13 of the EIA report EIA Register Nos. AEIAR-130/2009 for Kai Tak Development.

*Table 2.15 Comparison of noise monitoring data with EIA predictions*

Noise Monitoring Station	NSR No. in EIA report	Predicted Mitigated Construction Noise Levels during Normal Daytime Working Hour L <sub>Aeq, 30min</sub> , dB(A)	Measured Noise Level in Reporting Month (January 2022) L <sub>Aeq, 30min</sub> , dB(A)	Measured Noise Level in Reporting Month (February 2022) L <sub>Aeq, 30min</sub> , dB(A)	Measured Noise Level in Reporting Month (March 2022) L <sub>Aeq, 30min</sub> , dB(A)
M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop	N18	50 – 76*	65.5 – 68.8	67.4 – 67.8	71.5 – 73.8
M12 - Hong Kong Children's Hospital	PN83, PN84, PN84A	NA	60.3 – 68.1	64.1 – 65.4	62.2 – 65.3

Note:

\* Prediction results are given in the Table 3.20 of the EIA report EIA Register Nos. AEIAR-130/2009 for Kai Tak Development.

2.45 For AM3, 24-hour TSP monitoring results recorded in March 2022 were higher than the Scenario 1 (Mid 2009 to Mid 2013) prediction but lower than the Scenario 2 (Mid 2013 to Late 2016) prediction in the EIA Report. 24-hour TSP monitoring results recorded in January and February 2022 at AM3 were lower than the prediction in the EIA Report. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

2.46 For AM4(A), 24-hour TSP monitoring results recorded in January to February 2022 were lower than the prediction in the EIA Report. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results. Due to the outbreak of COVID 19, The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), one of the impact monitoring stations, did not open to public starting from 23 February 2022 and Environmental Team could not conduct impact monitoring on roof top. No 24-hour TSP monitoring was conducted at AM4(A) because of the assess limitation during 23 February to 31 March 2022.

2.47 No prediction in the EIA Report for 24-hour TSP monitoring results at AM7.

2.48 1-hour TSP monitoring results at AM3 and AM4(A) recorded in the reporting period were recorded lower than the prediction in the EIA Report. Due to the outbreak of COVID 19, AM4(A) did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. 1-hour TSP monitoring was conducted on the ground floor

outside AM4(A) with facing to the Project Site during 23 February to 31 March 2022. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

2.49 No prediction in the EIA Report for 1-hour TSP monitoring results at AM7.

2.50 Noise monitoring results at M11 recorded in the reporting period were lower than the prediction in the EIA Report. Due to the outbreak of COVID 19, M11 did not open to public starting from 23 February 2022 and ET could not conduct impact monitoring on roof top. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site during 23 February to 31 March 2022. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

2.51 No prediction in the EIA Report for noise monitoring results at M12.

### 3. LANDSCAPE AND VISUAL MONITORING

3.1 In accordance with EM&A Manuals (EIA Register Nos. AEIAR-130/2009 and AEIAR-170/2013), Landscape and Visual Monitoring shall be carried out during the construction phase of the Project. Regular impact monitoring will be conducted at least once per week.

3.2 Site inspections were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. Due to the outbreak of COVID 19, the site inspections were cancelled on 24 February 2022 and 3 March 2022.

3.3 The summaries of site audits are attached in Table 3.1.

*Table 3.1 Summary of observations of Landscape and Visual impact during the reporting period*

Inspection Date	Key Observations	Recommendations / Actions	Close-out Date / Status
06 January 2022	NA	NA	NA
13 January 2022	NA	NA	NA
20 January 2022	NA	NA	NA
27 January 2022	NA	NA	NA
10 February 2022	NA	NA	NA
17 February 2022	NA	NA	NA
10 March 2022	NA	NA	NA
17 March 2022	NA	NA	NA
24 March 2022	NA	NA	NA
31 March 2022	NA	NA	NA

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

## **4. SOLID AND LIQUID WASTE MANAGEMENT**

- 4.1 The amount of wastes generated by the major site activities of the work contracts within the Project during the reporting period is shown in Appendix F.
- 4.2 The Contractor was registered as a chemical waste producer for the Project. The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.
- 4.3 Mitigation measures recommended in the EIA Report were implemented by the Contractor where applicable and were considered effective in reduction the waste generation during the reporting period.

## 5. ENVIRONMENTAL SITE INSPECTION AND AUDIT

### Site Inspection

- 5.1 Site inspections were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. Due to the outbreak of COVID 19, the site inspections were cancelled on 24 February 2022 and 3 March 2022.
- 5.2 All follow-up actions requested by ET and/or IEC during site inspections were undertaken by the Contractor and ET reviewed the effectiveness in the following weekly site inspection.
- 5.3 The summaries of site audits are attached in Table 5.1.

*Table 5.1 Summary of site inspections observations during the reporting period*

Inspection Date	Key Observations / Recommendations	Actions	Close-out Date / Status
06 January 2022	Observation: The accumulated waste should be removed.	Action Taken: The accumulated waste has been removed.	Closed-out on 13 January 2022
13 January 2022	NA	NA	NA
20 January 2022	Observation: Dust suppression should be enforced traffic road to reduce dust nuisance.	Action Taken: Dust suppression has been enforced traffic road to reduce dust nuisance.	Closed-out on 27 January 2022
27 January 2022	Observation: The accumulated waste should be removed	Action Taken: The accumulated waste was removed.	Closed-out on 10 February 2022
10 February 2022	Observation: Sawdust generated from formwork cutting machine at D3 bridge should be cleaned regularly.	Action Taken: Sawdust generated from formwork cutting machine at D3 bridge were cleaned regularly.	Closed-out on 17 February 2022
17 February 2022	NA	NA	NA
10 March 2022	Observation: Water spraying to the main haul	Action Taken: Water spraying to the main haul	Closed-out on 17

Inspection Date	Key Observations / Recommendations	Actions	Close-out Date / Status
	road should be enhanced to suppress the dust emission.	road has been enhanced to suppress the dust emission.	March 2022
17 March 2022	Observation: The accumulated waste should be removed.	Action Taken: The accumulated waste was cleared.	Closed-out on 24 March 2022
	Observation: The contractor was reminded to provide sufficient waste disposal points and regular collection for disposal.	Action Taken: The accumulated waste was cleared.	Closed-out on 24 March 2022
24 March 2022	NA	NA	NA
31 March 2022	Observation: Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	Action Taken: The open stockpiles were covered.	Closed-out on 7 April 2022

#### **Implementation Status of Environmental Mitigation Measures**

5.4 The Contractor has implemented environmental mitigation measures and requirement as stated in the EIA reports, the EPs and the EM&A Manuals. The implementation status of the mitigation measures during the reporting period is summarized in Appendix G.

## 6. SUMMARY OF NON-COMPLIANCE STATUS

### Breaches of Action and Limit Levels

- 6.1 1-hour TSP monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded.
- 6.2 24-hour TSP monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded.
- 6.3 Construction noise monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded.
- 6.4 Summary of the non-compliance in the reporting period for the Project is tabulated in Table 6.1.

*Table 6.1 Non-compliance record in the reporting period*

Parameter	Reporting Period	No. of Exceedance		Action Taken
		Action Level	Limit Level	
1-hr TSP	January 2022	0	0	N/A
	February 2022	0	0	N/A
	March 2022	0	0	N/A
24-hr TSP	January 2022	0	0	N/A
	February 2022	0	0	N/A
	March 2022	0	0	N/A
Construction noise	January 2022	0	0	N/A
	February 2022	0	0	N/A
	March 2022	0	0	N/A

### Environmental Complaint and Non-compliance

- 6.5 No complaint was received in the reporting period. Summary of complaints in the reporting period is tabulated in Table 6.2.

*Table 6.2 Summary of complaints in the reporting period*

Date of complaint received	Date of complaint	Description of complaint	Investigation / Recommendations / Action take	Close-out date / Status
No complaint was received in the reporting period.	NA	NA	NA	NA

6.6 Complaint log is shown in Appendix H.

**Notifications of summons and successful prosecutions**

6.7 No notification of summons and successful prosecutions was received in the reporting period. Summary of summons and successful prosecutions in the reporting period is tabulated in Table 6.3.

*Table 6.3 Summary of summons and successful prosecutions in the reporting period*

Date of receiving notification of summons or prosecutions	Date of event	Description of event	Action take	Close-out date / Status
No notification of summons and successful prosecutions were received in the reporting period.	NA	NA	NA	NA

6.8 The summaries of cumulative environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in Appendix H.

## 7. COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

### Comments

- 7.1 Mitigation measures in the EM&A Manuals were implemented during the reporting period. The effectiveness and efficiency of the mitigation measures were reviewed during the weekly environmental site inspection and audit.
- 7.2 Environmental monitoring works (air quality and construction noise) were performed in the reporting period to monitor the environmental impacts from the Project site.
- 7.3 Based on the observations from the site inspection and reviewing the environmental monitoring results, it would be considered that the mitigation measures were effective and efficient in controlling the environmental impacts generated from the construction activities of the Project site.

### Recommendations

- 7.4 During the weekly environmental site inspection and audit performed in the reporting period, the following recommendations were provided:

*Table 7.1 Summary of recommendations / reminders made in site inspections during the reporting period*

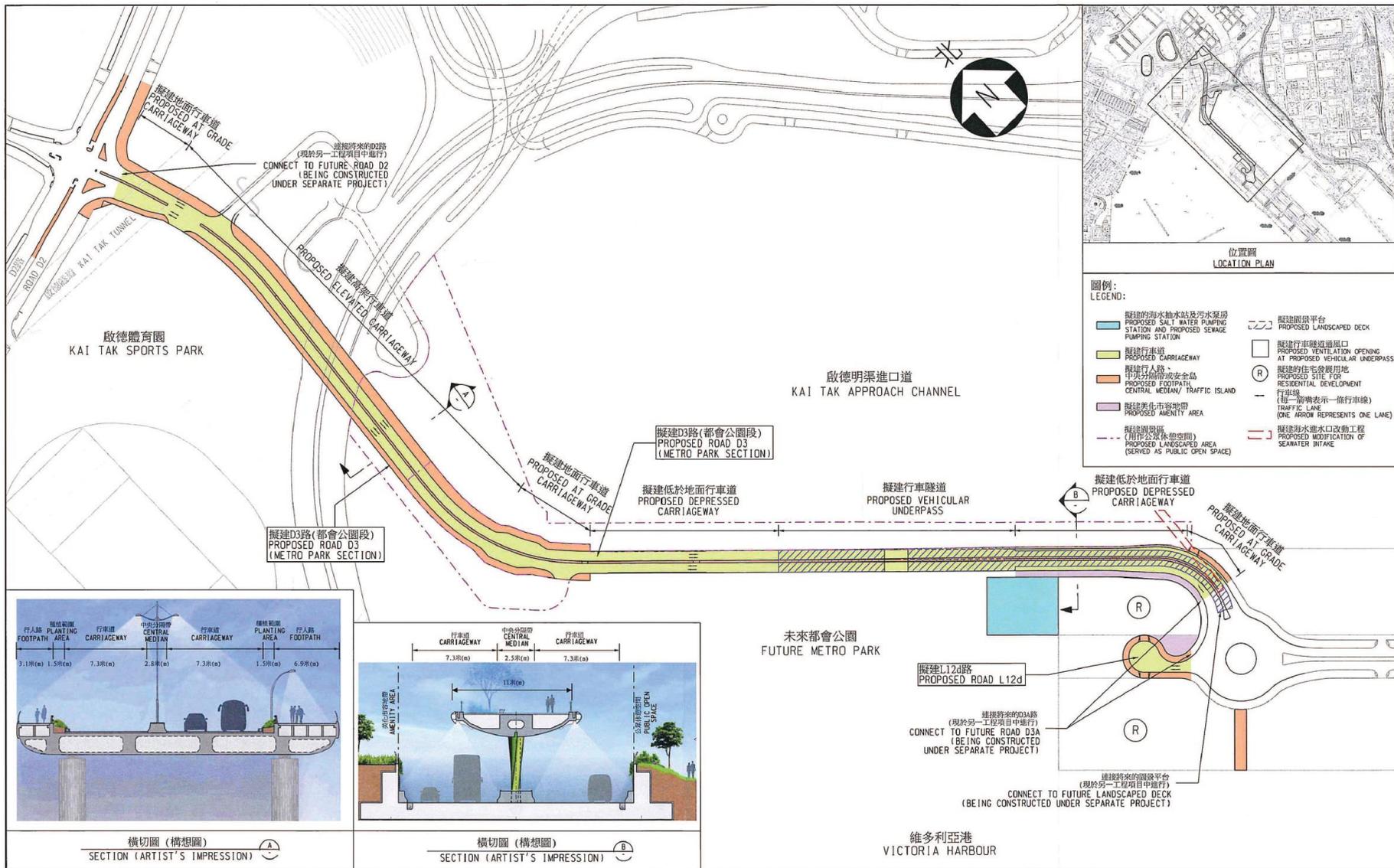
Inspection Date	Recommendations / Reminder
06 January 2022	The accumulated waste should be removed.
13 January 2022	No
20 January 2022	Dust suppression should be enforced traffic road to reduce dust nuisance.
27 January 2022	The accumulated waste should be removed.
10 February 2022	Sawdust generated from formwork cutting machine at D3 bridge should be cleaned regularly.
17 February 2022	NA
10 March 2022	Water spraying to the main haul road should be enhanced to suppress the dust emission.
17 March 2022	The accumulated waste should be cleared.
	The contractor was reminded to provide sufficient waste disposal points and regular collection for disposal.
24 March 2022	NA

Inspection Date	Recommendations / Reminder
31 March 2022	Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.

## **Conclusions**

- 7.5 Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed.
- 7.6 1-hour TSP monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded. Due to the outbreak of COVID 19, The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), one of the impact monitoring stations, did not open to public starting from 23 February 2022 and Environmental Team could not conduct impact monitoring on roof top. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.
- 7.7 24-hour TSP monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded. Due to the outbreak of COVID 19, The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), one of the impact monitoring stations, did not open to public starting from 23 February 2022 and Environmental Team could not conduct impact monitoring on roof top. No 24-hour TSP monitoring was conducted at AM4(A) because of the assess limitation during 23 February to 31 March 2022.
- 7.8 Construction noise monitoring was conducted as scheduled in the reporting period. No Action/Limit Level exceedance was recorded. Due to the outbreak of COVID 19, The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), one of the impact monitoring stations, did not open to public starting from 23 February 2022 and Environmental Team could not conduct impact monitoring on roof top. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.
- 7.9 No complaint was received in the reporting period.
- 7.10 No notification of summons and successful prosecutions was received in the reporting period.

**Figure**



S:\Drawing\CDEKAT\UN\atol\_coppy\CDEKAT20232\CDEKAT20232.dgn

A3 420MM X 297MM

Figure 1 – Proposed works of Contract No. ED/2018/01

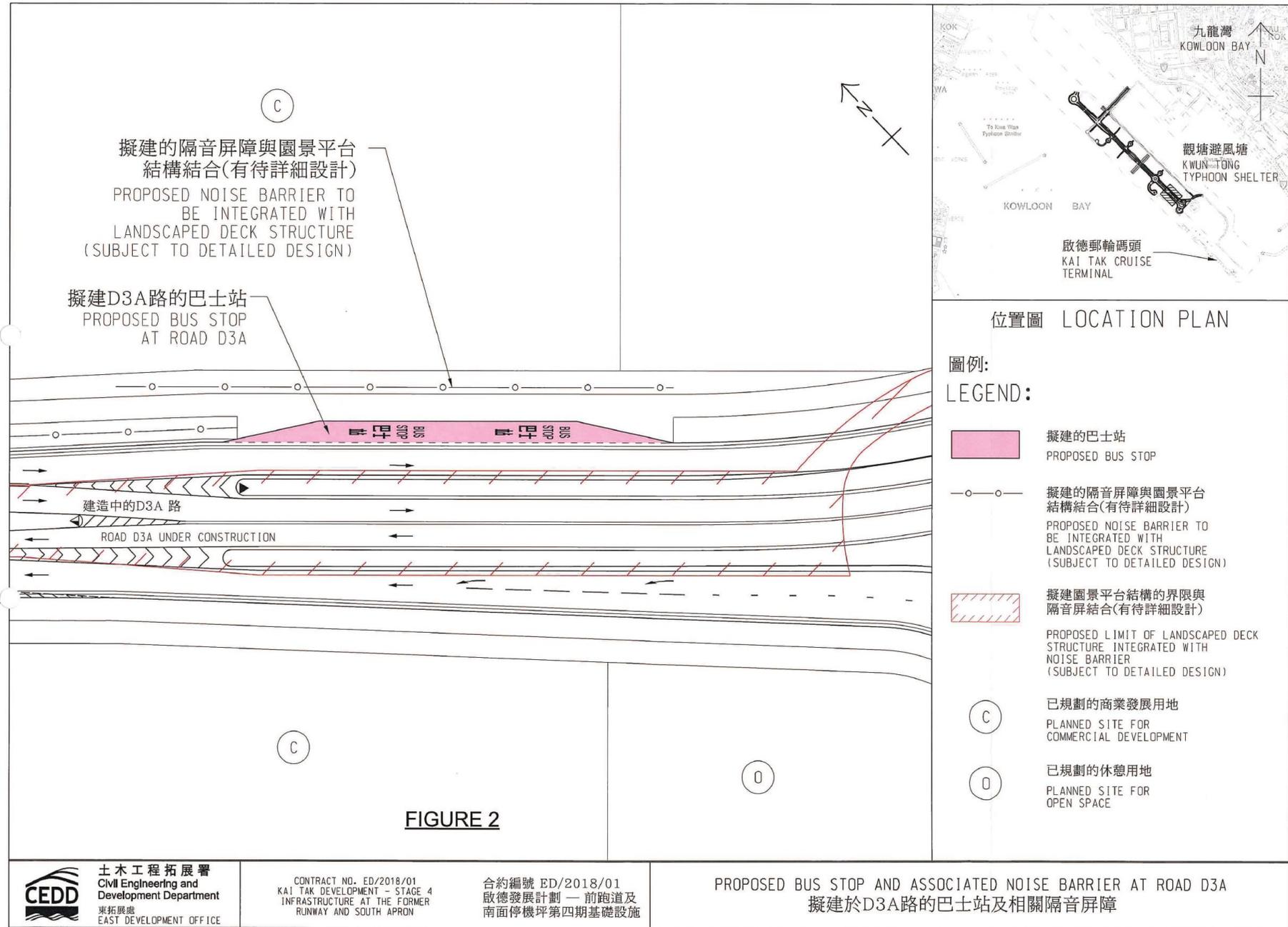


Figure 2 – Proposed Bus Stop And Associated Noise Barrier At Road D3A

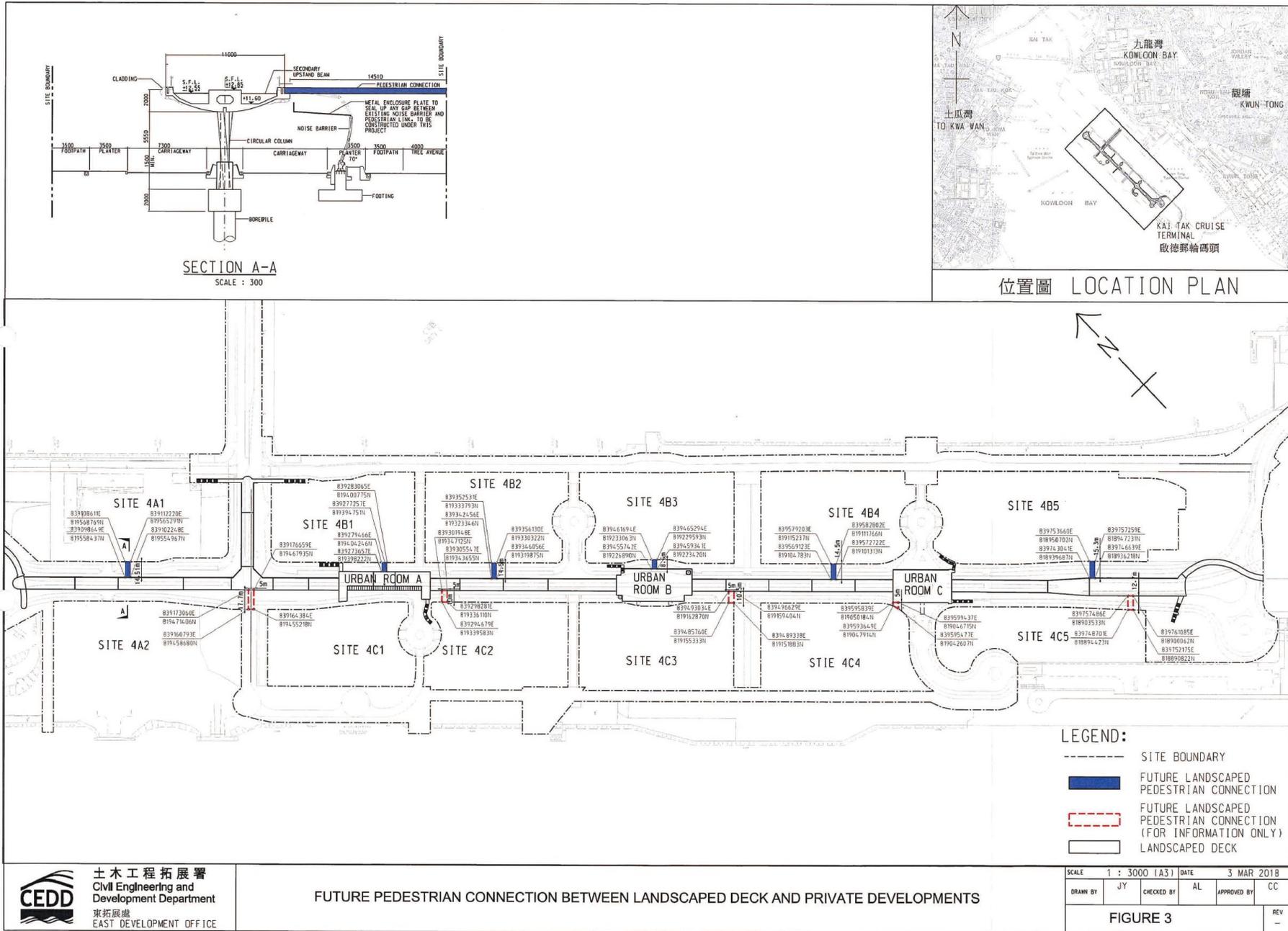


Figure 3 – Future Pedestrian Connection Between Landscaped Deck And Private Developments

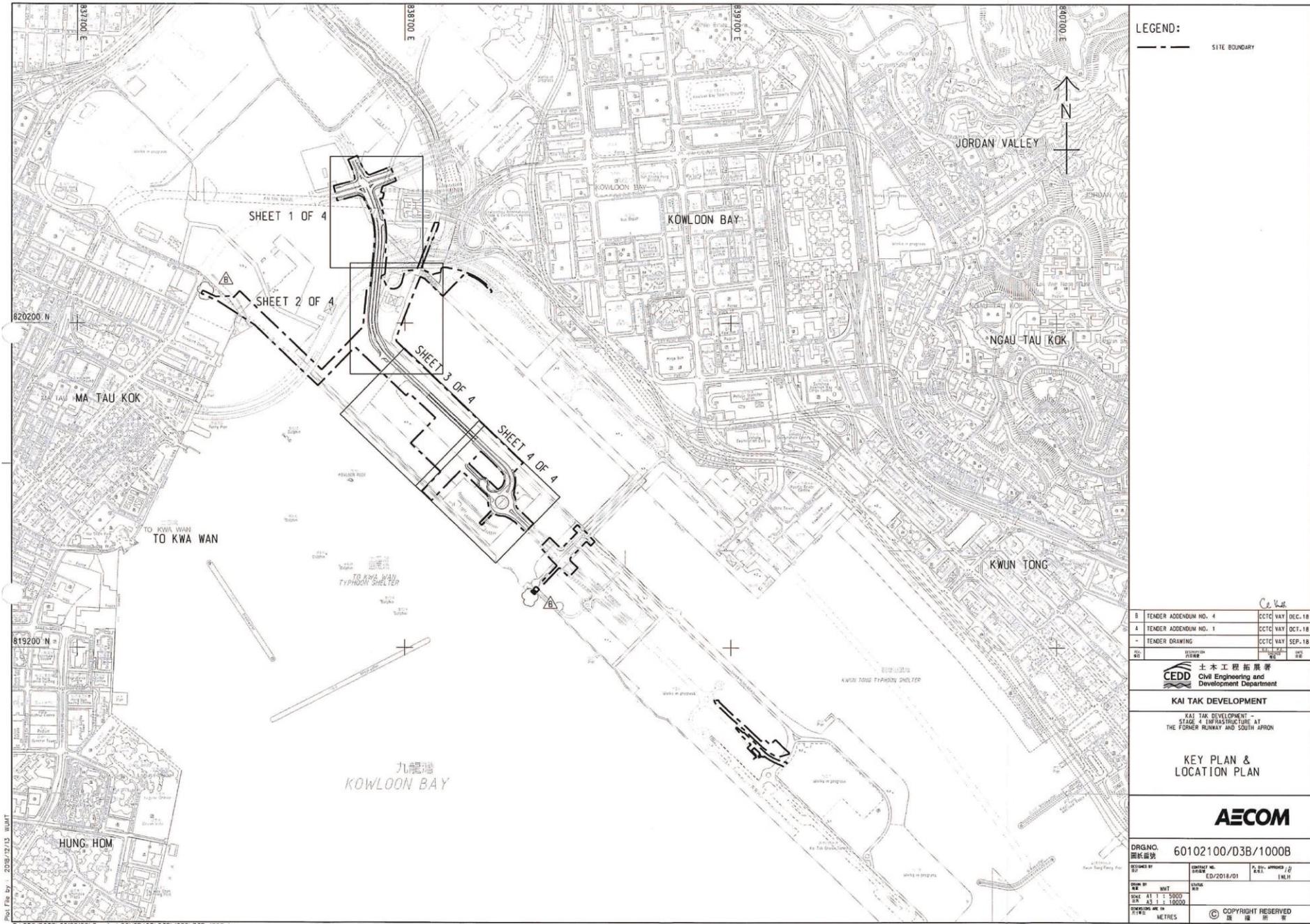


Figure 4 – Site Layout Plan

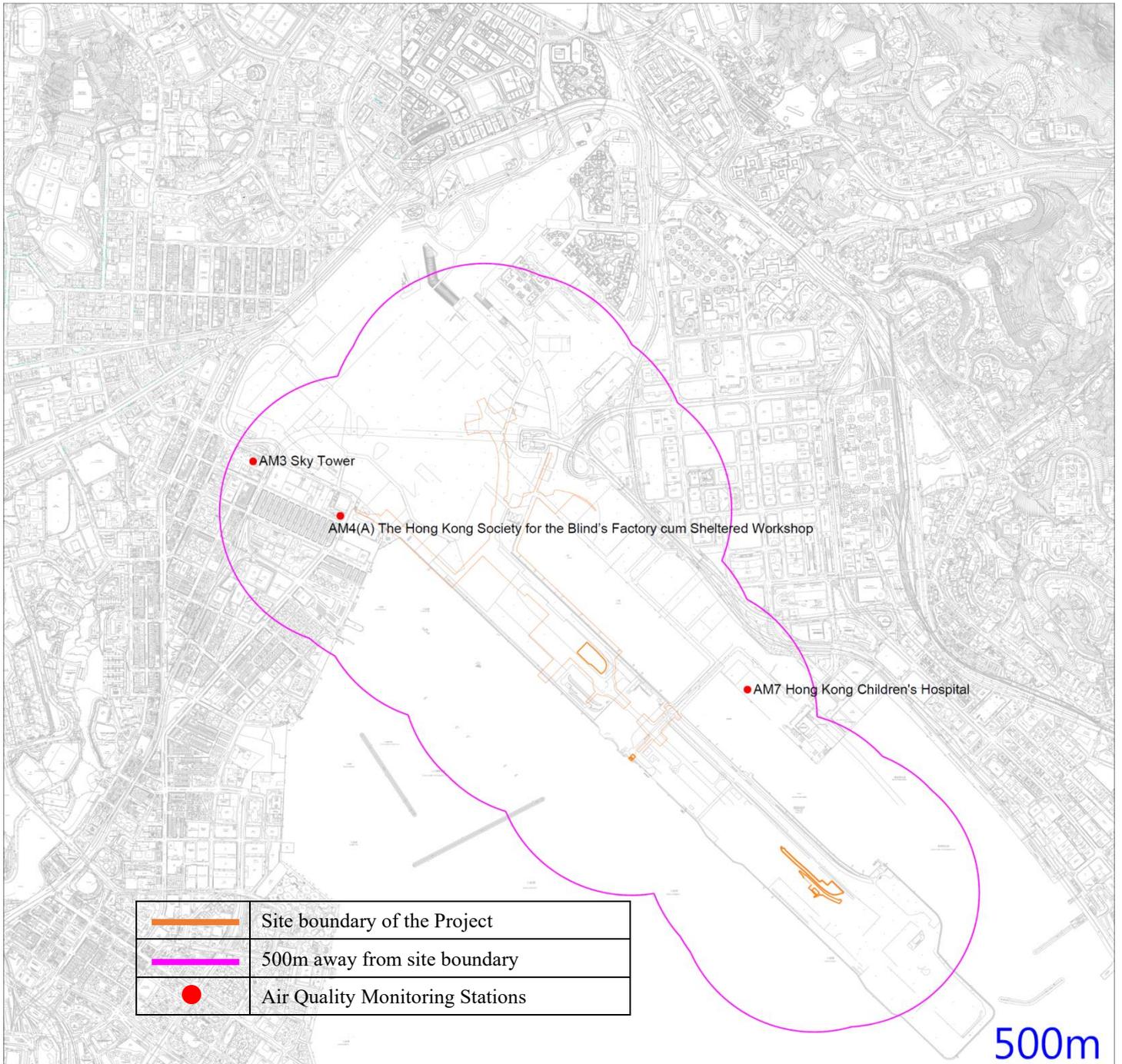


Figure 5 – Air Quality Monitoring Stations

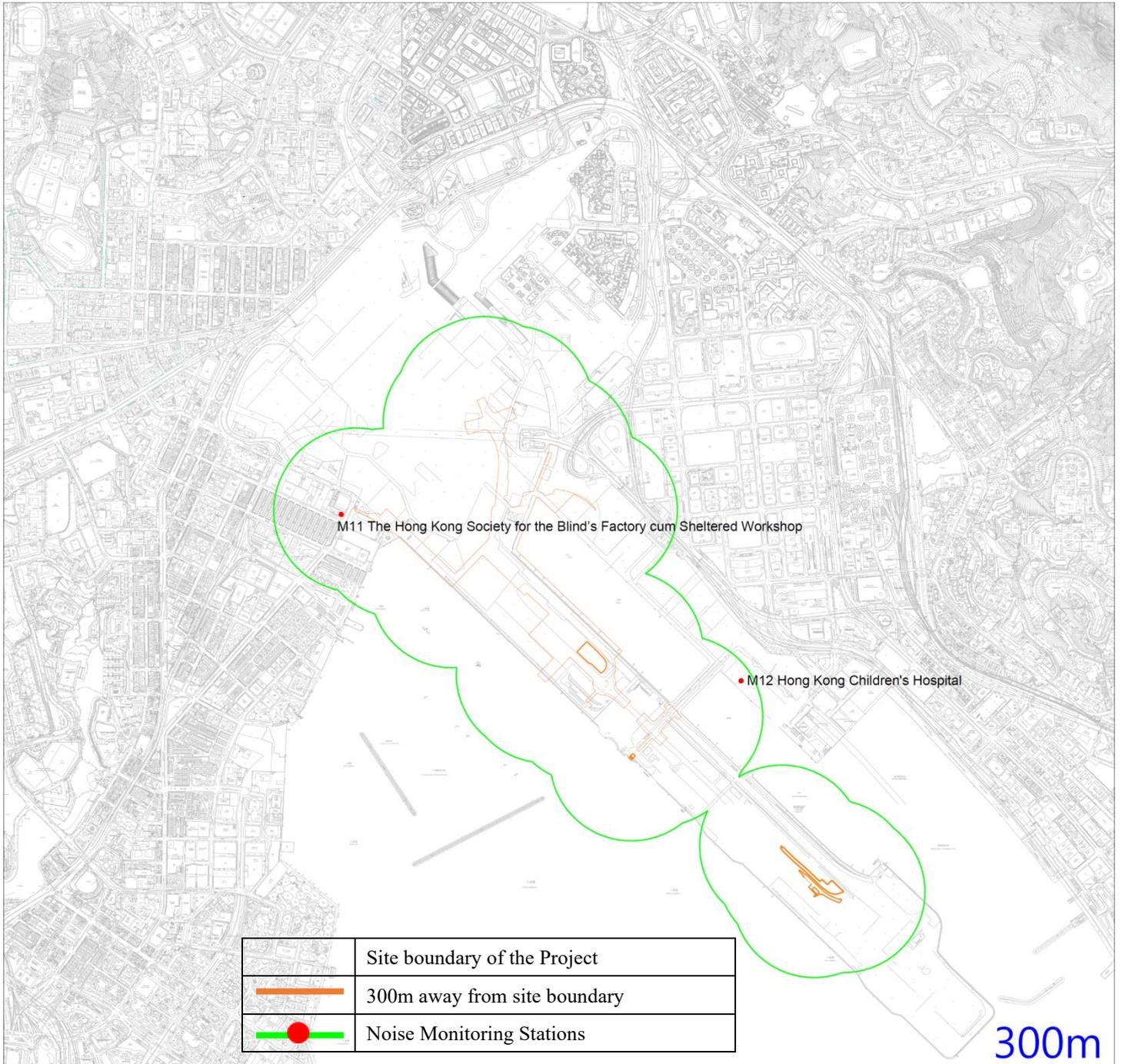
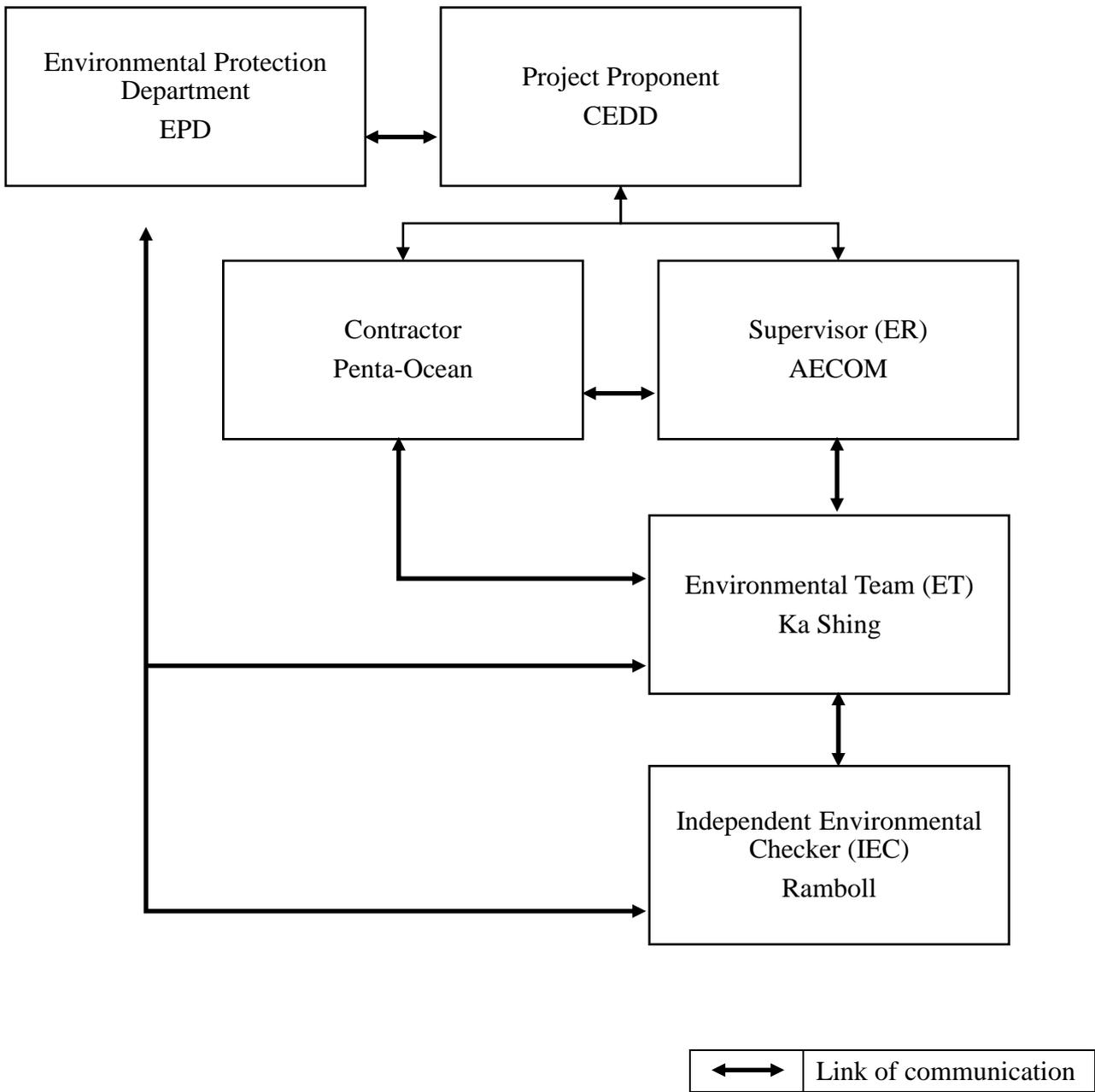


Figure 6 – Noise Monitoring Stations

**Appendix A – Organization Chart of EM&A Team and Emergency  
Team**



**Penta-Ocean Construction Co., Ltd**

Contract No. ED/2018/01 –Kai Tak development –  
stage 4 infrastructure at the former runway and south apron



**緊急應變小組成員及聯絡電話 Emergency Team Contact List**

NAME 姓名	TEAM MEMBER 成員	POSITION 職位	TEL. 電話
<b>Emergency Hotline : 9317-0821</b>			
何先生 Daniel HO	總隊長 Emergency Coordinator	地盤代表 Site Agent	9271-6455
林先生 C. K. LAM	副隊長 Asst. Emergency Coordinator	地盤總管 General Foreman	9869-9978
鄧先生 Nelson TANG	副隊長 (急救員) Asst. Emergency Coordinator (First Aider)	安全經理 Safety Manager	9630 1923 
蔣先生 Kay CHEUNG	副隊長 (急救員) Asst. Emergency Coordinator (First Aider)	安全主任 Safety Officer	9094-1110  
梁先生 Kevin LEUNG	隊員 (急救員) Member (First Aider)	安全督導員 Safety Supervisor	6015-7981 
鄧先生 Tony TANG	隊員 Member	助理地盤代表 Sub Agent	9433-2628
林先生 YS LAM	隊員 Member	電工 Electrician	9603-2722
<b>Emergency Contact of Authorities / Utility Companies</b>			
Authorities / Utility Companies 政府部門/公營機構名稱		Emergency Service Hotline 緊急服務召援電話	
<i>Ambulance Console (Hotline) 救護車總機 (Serious Injury)</i>		2735-3355	
<i>Fire Station (Ma Tau Chung) 消防處 (馬頭涌消防局)</i>		2711-0292	
<i>Police Station (Ngau Tau Kok) 警署 (牛頭角分區)</i>		3661-1626	
<i>LabourDept (Enquiry Hotline) 勞工處</i>		2717-1771	
<i>Environmental Protection Dept 環保處</i>		2802-3111	
<i>Marine Dept 海事處</i>			
Maritime Rescue Co-ordination Centre (24 hours)		2233-7999	
Marine Dept Harbour Division - Duty Officer		2885-9385	
<i>E&amp;MD Dept 機電工程</i>		2882-8011 / 2333-3762	
<i>Highways Dept (24hrs) 路政處熱線</i>		2923-7766	
<b>Utility Undertakers Companies</b>			
China Light Power Ltd 中華電力	2728-8333	HK Observatory 香港天文台	2835-1473
Hong Kong Electric 港燈電力	2555-4999	Weather Enquiry 查詢天氣	1878-200
Town Gas 中華煤氣	2963-1811 / 2880-6999	Security Guard Service 保安	5725-2784
Water Supplies Dept 水務署	2824-5000	Drainage Services Dept 渠務署	2300-1110
PCCW Limited 電話公司	109		

REV. D

# Appendix B – Construction Programme



































Contract No. ED/2018/01 KTD Project

Table with 20 columns for quarterly periods (Q1-Q4) across years 2020, 2021, 2022, 2023. Rows list tasks such as 'Sheetpile Driven along Western ELS Cofferdam' and 'Excavation with Shoring and Waling Installation'. Includes columns for Duration, Physical % Complete, and Start/Finish dates.

Legend for task types and progress: Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Critical, Critical Split, Progress, Manual Progress.





























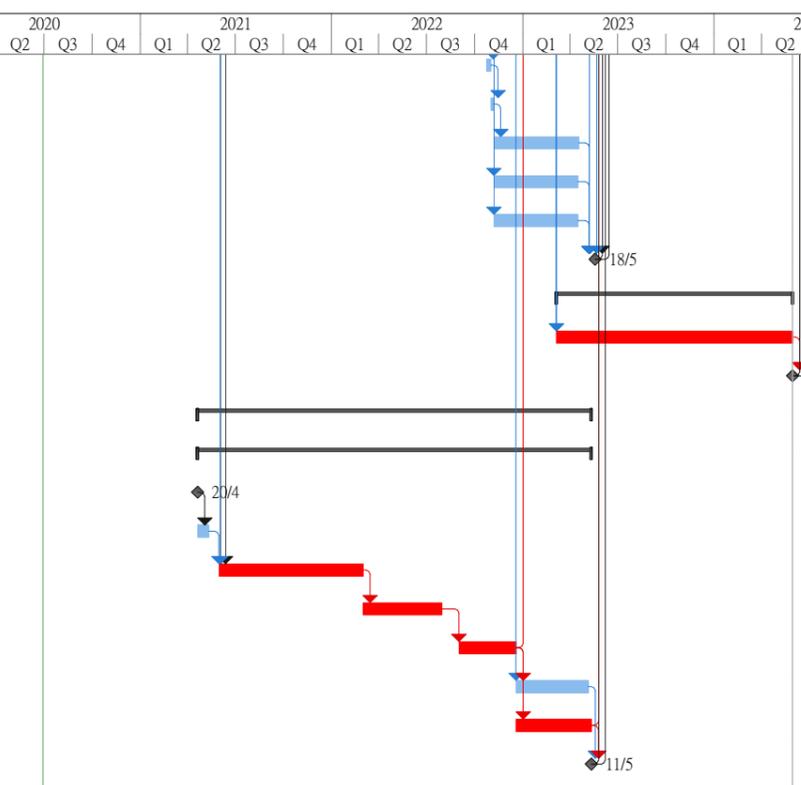






Contract No. ED/2018/01 KTD Project

ID	Task Name	Duration	Actual Duration	Remaining Duration	Physical % Complete	Early Start	Early Finish	Actual Start	Actual Finish	Late Start	Late Finish	Total Slack	TRA	Predecessors	2020		2021				2022				2023				
															Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1541	Concrete infill between profile barrier	7 days	0 days	7 days	0%	Mon 24/10/22	Mon 31/10/22	NA	NA	Sat 3/12/22	Sat 10/12/22	35 days	0 days	1540															
1542	Road pavement	5 days	0 days	5 days	0%	Tue 1/11/22	Sat 5/11/22	NA	NA	Mon 12/12/22	Fri 16/12/22	35 days	0 days	1541															
1543	Install street furniture (Part 1, 2A, 2B - Road L12)	131 days	0 days	131 days	0%	Mon 7/11/22	Mon 17/4/23	NA	NA	Sat 17/12/22	Tue 30/5/23	35 days	6 days	1542															
1544	Planting Works for Underpass, South Depress Road and At-Grade Road	130 days	0 days	130 days	0%	Mon 7/11/22	Sat 15/4/23	NA	NA	Mon 19/12/22	Tue 30/5/23	36 days	10 days	668															
1545	Landscaping Works for Underpass, South Depress Road and At-Grade	130 days	0 days	130 days	0%	Mon 7/11/22	Sat 15/4/23	NA	NA	Mon 19/12/22	Tue 30/5/23	36 days	10 days	668															
1546	Planned Completion for Section 6	0 days	0 days	0 days	0%	Thu 18/5/23	Thu 18/5/23	NA	NA	Tue 30/5/23	Tue 30/5/23	9 days	0 days	1533,1543,1532															
1547	Section 7	365 days	0 days	365 days	0%	Mon 6/3/23	Wed 29/5/24	NA	NA	Mon 6/3/23	Wed 29/5/24	0 days																	
1548	Establishment work for landscape softwork	365 days	0 days	365 days	0%	Mon 6/3/23	Wed 29/5/24	NA	NA	Mon 6/3/23	Wed 29/5/24	0 days	10 days	1533,1534															
1549	Planned Completion for Section 7	0 days	0 days	0 days	0%	Wed 29/5/24	Wed 29/5/24	NA	NA	Wed 29/5/24	Wed 29/5/24	0 days		1548,6															
1550	Section 10 (Subject to Excision)	614 days	0 days	614 days	0%	Tue 20/4/21	Thu 11/5/23	NA	NA	Mon 10/5/21	Tue 30/5/23	15 days																	
1551	Decking for Underpass (Rd L14)	614 days	0 days	614 days	0%	Tue 20/4/21	Thu 11/5/23	NA	NA	Mon 10/5/21	Tue 30/5/23	15 days																	
1552	Deck for Underpass (Road L14) - Temp. Works Design and Method Statement Submission	0 days	0 days	0 days	0%	Tue 20/4/21	Tue 20/4/21	NA	NA	Mon 10/5/21	Mon 10/5/21	20 days	0.5 day																
1553	Deck for Underpass (Road L14) - Temp. Works Design and Method Statement Comment & Approaoval	21 days	0 days	21 days	0%	Tue 20/4/21	Mon 10/5/21	NA	NA	Mon 10/5/21	Sun 30/5/21	20 days	0.5 day	1552															
1554	Support along U-through	225 days	0 days	225 days	0%	Mon 31/5/21	Tue 1/3/22	NA	NA	Mon 31/5/21	Tue 1/3/22	0 days	10 days	23,185,1553,192															
1555	Plinth installation along support	123 days	0 days	123 days	0%	Wed 2/3/22	Fri 29/7/22	NA	NA	Wed 2/3/22	Fri 29/7/22	0 days	6 days	1554															
1556	Placing of beam along underpass	90 days	0 days	90 days	0%	Thu 1/9/22	Sun 18/12/22	NA	NA	Thu 1/9/22	Mon 19/12/22	0 days	4 days	1555FS+28 days															
1557	Finishing and E&M Works	110 days	0 days	110 days	0%	Mon 19/12/22	Fri 5/5/23	NA	NA	Thu 12/1/23	Tue 30/5/23	20 days		1556,279															
1558	Cover-up (Roof)	115 days	0 days	115 days	0%	Mon 19/12/22	Thu 11/5/23	NA	NA	Mon 19/12/22	Thu 11/5/23	0 days	5 days	1556															
1559	Planned Completion for Section 10	0 days	0 days	0 days	0%	Thu 11/5/23	Thu 11/5/23	NA	NA	Tue 30/5/23	Tue 30/5/23	19 days	0.5 days	1558,158,1557															



Title: Rev.11 Prog with Progress as of 22-May-20	Task		Summary		Inactive Milestone		Duration-only		Start-only		External Milestone		Critical
	Split		Project Summary		Inactive Summary		Manual Summary Rollup		Finish-only		Deadline		Progress
	Milestone		Inactive Task		Manual Task		Manual Summary		External Tasks		Critical		Manual Progress

**Appendix C – Weather information**

General Information

Date	Absolute Daily Min Temperature (°C)	Absolute Daily Max Temperature (°C)	Total Rainfall (mm)	Date	Absolute Daily Min Temperature (°C)	Absolute Daily Max Temperature (°C)	Total Rainfall (mm)
01/01/2022	16.4	19.3	0	01/02/2022	12.9	15.7	1.2
02/01/2022	16	22	0	02/02/2022	14.5	17	1
03/01/2022	17	20.5	0	03/02/2022	11.7	14.5	1
04/01/2022	17.4	21.5	0	04/02/2022	11.9	18.5	0
05/01/2022	18.3	23.6	Trace	05/02/2022	13.2	17.7	0
06/01/2022	18.3	23.6	0	06/02/2022	14.6	18.2	0
07/01/2022	17.2	21.1	0	07/02/2022	15.1	17.7	Trace
08/01/2022	16	20.2	0	08/02/2022	15.8	18.1	Trace
09/01/2022	16.7	20.1	0	09/02/2022	15.3	17.4	0
10/01/2022	16.5	20.9	0	10/02/2022	15.4	18.1	0
11/01/2022	13.7	18.8	1.2	11/02/2022	16.3	22	0
12/01/2022	14.7	17.9	0	12/02/2022	17	21.3	0
13/01/2022	15.6	18.9	Trace	13/02/2022	15.1	18.7	1.2
14/01/2022	15.4	17.3	0	14/02/2022	14.1	21.3	1.2
15/01/2022	16.5	19.8	0	15/02/2022	15.8	21.8	0
16/01/2022	17.4	21.1	0	16/02/2022	15.6	18.5	0
17/01/2022	17.1	18.4	0	17/02/2022	15	16.9	4
18/01/2022	15.8	18.3	0.2	18/02/2022	15.2	16.7	Trace
19/01/2022	14.9	20.3	0	19/02/2022	9.7	15.9	21.3
20/01/2022	15.4	20.8	0	20/02/2022	8	9.8	43.4
21/01/2022	16.5	19.7	0	21/02/2022	7.5	10.1	43.3
22/01/2022	16.8	17.8	1.5	22/02/2022	9.2	12.2	39.9
23/01/2022	17.5	21.8	0.1	23/02/2022	9.4	16.2	11
24/01/2022	18.8	21.8	1	24/02/2022	10.7	14.9	0
25/01/2022	17.5	20.9	0	25/02/2022	12.2	20.1	0
26/01/2022	17.7	21.1	Trace	26/02/2022	13.6	21.4	0
27/01/2022	18.4	22.1	Trace	27/02/2022	14.8	21.7	0
28/01/2022	18.1	19.9	Trace	28/02/2022	16.4	22.5	0
29/01/2022	16.3	20.2	0.1				
30/01/2022	13.2	20	0				
31/01/2022	13.6	15.5	Trace				

NOTE1: The above weather information was obtained from manned weather station of Hong Kong Observatory.

NOTE2: Trace means rainfall less than 0.05 mm

<https://www.hko.gov.hk/en/cis/dailyExtract.htm?y=2022&m=01>

NOTE1: The above weather information was obtained from manned weather station of Hong Kong Observatory.

NOTE2: Trace means rainfall less than 0.05 mm

<https://www.hko.gov.hk/en/cis/dailyExtract.htm?y=2022&m=02>

General Information

Date	Absolute Daily Min Temperature (°C)	Absolute Daily Max Temperature (°C)	Total Rainfall (mm)
01/03/2022	19.1	26.3	0
02/03/2022	18.1	26.1	0
03/03/2022	17.4	22.6	0
04/03/2022	18.8	26.6	0
05/03/2022	17.9	24.6	0
06/03/2022	17.6	21.3	0
07/03/2022	16.8	24.6	4.8
08/03/2022	15	21.6	0
09/03/2022	15.1	24.3	0
10/03/2022	17.9	25	0
11/03/2022	18.8	26.9	0
12/03/2022	19.8	26	0
13/03/2022	21	27.7	0.1
14/03/2022	21.4	29	0
15/03/2022	21.1	28.4	0
16/03/2022	21.2	24.7	Trace
17/03/2022	22.1	27.7	Trace
18/03/2022	21.3	28.7	0
19/03/2022	22.3	25.8	0
20/03/2022	19.9	22.9	Trace
21/03/2022	21	23.7	Trace
22/03/2022	21.2	25.1	Trace
23/03/2022	16.3	21.6	54.8
24/03/2022	16.3	18.5	1.8
25/03/2022	18.1	26.7	0.7
26/03/2022	24.9	28.7	0.1
27/03/2022	19.1	25.4	Trace
28/03/2022	16.4	19.2	30.3
29/03/2022	17.4	21.2	0.1
30/03/2022	19.5	26.1	0
31/03/2022	21.9	29.3	Trace

NOTE1: The above weather information was obtained from manned weather station of Hong Kong Observatory.

NOTE2: Trace means rainfall less than 0.05 mm

<https://www.hko.gov.hk/en/cis/dailyExtract.htm?y=2022&m=03>

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
01/01/2022	0:00	1.3	67.5	02/01/2022	0:00	0.4	112.5	03/01/2022	0:00	0.4	315	04/01/2022	0:00	0.9	315
01/01/2022	1:00	1.3	45	02/01/2022	1:00	0.4	112.5	03/01/2022	1:00	0.4	315	04/01/2022	1:00	0.4	315
01/01/2022	2:00	1.3	22.5	02/01/2022	2:00	0.4	112.5	03/01/2022	2:00	0.4	90	04/01/2022	2:00	0.9	90
01/01/2022	3:00	0.9	337.5	02/01/2022	3:00	0.4	112.5	03/01/2022	3:00	0.4	270	04/01/2022	3:00	0.9	270
01/01/2022	4:00	1.3	45	02/01/2022	4:00	0.4	157.5	03/01/2022	4:00	1.3	112.5	04/01/2022	4:00	0.4	112.5
01/01/2022	5:00	1.3	90	02/01/2022	5:00	0.4	157.5	03/01/2022	5:00	1.3	45	04/01/2022	5:00	1.3	45
01/01/2022	6:00	1.3	45	02/01/2022	6:00	0.4	157.5	03/01/2022	6:00	1.8	90	04/01/2022	6:00	0.9	90
01/01/2022	7:00	0.9	315	02/01/2022	7:00	0.4	157.5	03/01/2022	7:00	1.8	90	04/01/2022	7:00	0.9	90
01/01/2022	8:00	0.9	45	02/01/2022	8:00	1.3	157.5	03/01/2022	8:00	1.3	67.5	04/01/2022	8:00	0.4	67.5
01/01/2022	9:00	1.3	67.5	02/01/2022	9:00	1.3	270	03/01/2022	9:00	1.8	90	04/01/2022	9:00	0.4	90
01/01/2022	10:00	1.8	45	02/01/2022	10:00	1.8	225	03/01/2022	10:00	1.3	45	04/01/2022	10:00	0.9	45
01/01/2022	11:00	1.8	67.5	02/01/2022	11:00	1.8	225	03/01/2022	11:00	1.3	112.5	04/01/2022	11:00	0.4	270
01/01/2022	12:00	1.8	45	02/01/2022	12:00	2.2	180	03/01/2022	12:00	2.2	90	04/01/2022	12:00	0.4	90
01/01/2022	13:00	1.3	67.5	02/01/2022	13:00	1.8	180	03/01/2022	13:00	1.8	45	04/01/2022	13:00	0.9	337.5
01/01/2022	14:00	0.9	112.5	02/01/2022	14:00	1.8	157.5	03/01/2022	14:00	2.2	112.5	04/01/2022	14:00	0.4	90
01/01/2022	15:00	0.9	112.5	02/01/2022	15:00	1.8	157.5	03/01/2022	15:00	1.8	135	04/01/2022	15:00	0.4	112.5
01/01/2022	16:00	1.3	112.5	02/01/2022	16:00	1.3	135	03/01/2022	16:00	2.2	90	04/01/2022	16:00	1.3	67.5
01/01/2022	17:00	1.3	112.5	02/01/2022	17:00	0.9	112.5	03/01/2022	17:00	2.2	135	04/01/2022	17:00	1.3	112.5
01/01/2022	18:00	0.4	112.5	02/01/2022	18:00	0.9	112.5	03/01/2022	18:00	2.2	90	04/01/2022	18:00	0.9	90
01/01/2022	19:00	0.9	112.5	02/01/2022	19:00	0.4	135	03/01/2022	19:00	1.8	90	04/01/2022	19:00	1.3	45
01/01/2022	20:00	0.4	112.5	02/01/2022	20:00	0.4	90	03/01/2022	20:00	1.8	90	04/01/2022	20:00	1.3	112.5
01/01/2022	21:00	0.9	112.5	02/01/2022	21:00	0.9	90	03/01/2022	21:00	1.8	112.5	04/01/2022	21:00	0.9	135
01/01/2022	22:00	0.4	135	02/01/2022	22:00	0.4	112.5	03/01/2022	22:00	1.3	112.5	04/01/2022	22:00	0.9	90
01/01/2022	23:00	0.4	112.5	02/01/2022	23:00	0.4	292.5	03/01/2022	23:00	0.9	112.5	04/01/2022	23:00	0.4	135

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
05/01/2022	0:00	0.4	112.5	06/01/2022	0:00	1.3	90	07/01/2022	0:00	0.9	45	08/01/2022	0:00	0.4	135
05/01/2022	1:00	0.4	90	06/01/2022	1:00	1.3	112.5	07/01/2022	1:00	0.9	90	08/01/2022	1:00	1.3	45
05/01/2022	2:00	0.4	45	06/01/2022	2:00	1.3	112.5	07/01/2022	2:00	0.9	270	08/01/2022	2:00	0.9	45
05/01/2022	3:00	1.3	45	06/01/2022	3:00	1.3	90	07/01/2022	3:00	0.9	22.5	08/01/2022	3:00	1.8	45
05/01/2022	4:00	1.3	112.5	06/01/2022	4:00	0.9	90	07/01/2022	4:00	1.3	45	08/01/2022	4:00	1.8	135
05/01/2022	5:00	1.3	112.5	06/01/2022	5:00	0.9	112.5	07/01/2022	5:00	0.4	22.5	08/01/2022	5:00	0.9	90
05/01/2022	6:00	1.8	90	06/01/2022	6:00	0.9	90	07/01/2022	6:00	0.9	22.5	08/01/2022	6:00	1.3	45
05/01/2022	7:00	1.8	90	06/01/2022	7:00	0.4	112.5	07/01/2022	7:00	1.3	180	08/01/2022	7:00	0.9	67.5
05/01/2022	8:00	1.3	112.5	06/01/2022	8:00	0.9	112.5	07/01/2022	8:00	0.9	90	08/01/2022	8:00	0.4	112.5
05/01/2022	9:00	1.8	45	06/01/2022	9:00	1.3	112.5	07/01/2022	9:00	1.3	135	08/01/2022	9:00	0.9	90
05/01/2022	10:00	1.3	45	06/01/2022	10:00	0.9	45	07/01/2022	10:00	1.3	45	08/01/2022	10:00	1.3	112.5
05/01/2022	11:00	1.3	112.5	06/01/2022	11:00	0.9	112.5	07/01/2022	11:00	0.9	45	08/01/2022	11:00	0.9	135
05/01/2022	12:00	2.2	135	06/01/2022	12:00	0.4	112.5	07/01/2022	12:00	1.8	45	08/01/2022	12:00	0.4	337.5
05/01/2022	13:00	1.8	90	06/01/2022	13:00	0.9	112.5	07/01/2022	13:00	1.3	135	08/01/2022	13:00	0.4	90
05/01/2022	14:00	1.8	112.5	06/01/2022	14:00	0.4	90	07/01/2022	14:00	1.3	90	08/01/2022	14:00	0.4	22.5
05/01/2022	15:00	1.3	112.5	06/01/2022	15:00	0.9	90	07/01/2022	15:00	1.8	45	08/01/2022	15:00	0.4	112.5
05/01/2022	16:00	1.3	112.5	06/01/2022	16:00	0.4	90	07/01/2022	16:00	2.2	67.5	08/01/2022	16:00	0.9	135
05/01/2022	17:00	1.3	112.5	06/01/2022	17:00	0.4	112.5	07/01/2022	17:00	1.8	112.5	08/01/2022	17:00	1.3	135
05/01/2022	18:00	0.9	45	06/01/2022	18:00	0.9	45	07/01/2022	18:00	1.3	90	08/01/2022	18:00	0.4	90
05/01/2022	19:00	0.9	112.5	06/01/2022	19:00	0.9	45	07/01/2022	19:00	1.8	112.5	08/01/2022	19:00	0.9	90
05/01/2022	20:00	0.9	112.5	06/01/2022	20:00	0.9	67.5	07/01/2022	20:00	1.3	135	08/01/2022	20:00	1.3	90
05/01/2022	21:00	1.3	90	06/01/2022	21:00	0.9	90	07/01/2022	21:00	0.4	337.5	08/01/2022	21:00	0.9	135
05/01/2022	22:00	1.8	45	06/01/2022	22:00	0.4	337.5	07/01/2022	22:00	0.4	90	08/01/2022	22:00	1.3	90
05/01/2022	23:00	1.8	45	06/01/2022	23:00	0.9	90	07/01/2022	23:00	0.4	22.5	08/01/2022	23:00	1.3	112.5

### Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
09/01/2022	0:00	1.3	135	10/01/2022	0:00	0.4	67.5	11/01/2022	0:00	0.4	112.5	12/01/2022	0:00	0.9	67.5
09/01/2022	1:00	1.3	45	10/01/2022	1:00	0.4	292.5	11/01/2022	1:00	0	135	12/01/2022	1:00	1.8	90
09/01/2022	2:00	1.8	45	10/01/2022	2:00	0.9	22.5	11/01/2022	2:00	0.4	22.5	12/01/2022	2:00	1.3	112.5
09/01/2022	3:00	1.3	45	10/01/2022	3:00	0.9	22.5	11/01/2022	3:00	0.9	135	12/01/2022	3:00	1.3	180
09/01/2022	4:00	1.3	135	10/01/2022	4:00	0.4	22.5	11/01/2022	4:00	1.3	112.5	12/01/2022	4:00	1.8	22.5
09/01/2022	5:00	0.9	90	10/01/2022	5:00	0.4	22.5	11/01/2022	5:00	1.8	112.5	12/01/2022	5:00	0.9	22.5
09/01/2022	6:00	0.9	45	10/01/2022	6:00	0.9	22.5	11/01/2022	6:00	1.3	337.5	12/01/2022	6:00	0.9	90
09/01/2022	7:00	1.3	67.5	10/01/2022	7:00	0.4	135	11/01/2022	7:00	0.9	45	12/01/2022	7:00	0.9	157.5
09/01/2022	8:00	0.9	112.5	10/01/2022	8:00	0.9	135	11/01/2022	8:00	0.9	45	12/01/2022	8:00	0.9	135
09/01/2022	9:00	0.9	90	10/01/2022	9:00	0.9	90	11/01/2022	9:00	1.3	45	12/01/2022	9:00	1.3	270
09/01/2022	10:00	1.3	112.5	10/01/2022	10:00	0.9	270	11/01/2022	10:00	0.4	45	12/01/2022	10:00	0.9	67.5
09/01/2022	11:00	1.8	135	10/01/2022	11:00	0.4	247.5	11/01/2022	11:00	0.9	247.5	12/01/2022	11:00	0.4	112.5
09/01/2022	12:00	1.8	337.5	10/01/2022	12:00	0.4	112.5	11/01/2022	12:00	0.9	22.5	12/01/2022	12:00	0.4	112.5
09/01/2022	13:00	1.3	90	10/01/2022	13:00	1.3	45	11/01/2022	13:00	1.3	22.5	12/01/2022	13:00	0.4	90
09/01/2022	14:00	1.3	22.5	10/01/2022	14:00	1.3	112.5	11/01/2022	14:00	1.3	45	12/01/2022	14:00	0.4	22.5
09/01/2022	15:00	1.3	112.5	10/01/2022	15:00	1.3	90	11/01/2022	15:00	0.4	67.5	12/01/2022	15:00	0.4	247.5
09/01/2022	16:00	1.3	135	10/01/2022	16:00	1.3	67.5	11/01/2022	16:00	0.4	135	12/01/2022	16:00	0.4	247.5
09/01/2022	17:00	0.4	135	10/01/2022	17:00	0.9	135	11/01/2022	17:00	0.4	202.5	12/01/2022	17:00	0.4	247.5
09/01/2022	18:00	0.4	90	10/01/2022	18:00	1.8	22.5	11/01/2022	18:00	0.4	45	12/01/2022	18:00	0.9	247.5
09/01/2022	19:00	0.4	90	10/01/2022	19:00	1.3	45	11/01/2022	19:00	0.4	315	12/01/2022	19:00	1.3	247.5
09/01/2022	20:00	0.9	135	10/01/2022	20:00	0.9	112.5	11/01/2022	20:00	0.4	337.5	12/01/2022	20:00	1.3	337.5
09/01/2022	21:00	0.9	135	10/01/2022	21:00	1.3	67.5	11/01/2022	21:00	0.4	67.5	12/01/2022	21:00	0.9	337.5
09/01/2022	22:00	0.4	112.5	10/01/2022	22:00	0.9	112.5	11/01/2022	22:00	0.4	45	12/01/2022	22:00	0.9	337.5
09/01/2022	23:00	0.4	90	10/01/2022	23:00	1.3	112.5	11/01/2022	23:00	0.9	22.5	12/01/2022	23:00	0.9	337.5

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
13/01/2022	0:00	1.3	90	14/01/2022	0:00	1.3	337.5	15/01/2022	0:00	1.3	292.5	16/01/2022	0:00	0.9	247.5
13/01/2022	1:00	0.9	112.5	14/01/2022	1:00	0.9	135	15/01/2022	1:00	0.4	225	16/01/2022	1:00	1.3	90
13/01/2022	2:00	1.3	112.5	14/01/2022	2:00	0.9	67.5	15/01/2022	2:00	0.9	112.5	16/01/2022	2:00	1.3	45
13/01/2022	3:00	1.3	45	14/01/2022	3:00	0.4	247.5	15/01/2022	3:00	0.9	67.5	16/01/2022	3:00	1.3	270
13/01/2022	4:00	1.3	45	14/01/2022	4:00	0.9	45	15/01/2022	4:00	0.9	67.5	16/01/2022	4:00	1.8	247.5
13/01/2022	5:00	0.9	45	14/01/2022	5:00	0.9	90	15/01/2022	5:00	0.4	22.5	16/01/2022	5:00	1.8	22.5
13/01/2022	6:00	0.9	90	14/01/2022	6:00	0.9	337.5	15/01/2022	6:00	0.9	67.5	16/01/2022	6:00	0.9	90
13/01/2022	7:00	0.9	67.5	14/01/2022	7:00	0.4	337.5	15/01/2022	7:00	0.9	67.5	16/01/2022	7:00	0.9	67.5
13/01/2022	8:00	0.9	247.5	14/01/2022	8:00	0.4	22.5	15/01/2022	8:00	0.9	45	16/01/2022	8:00	0.9	22.5
13/01/2022	9:00	0.9	45	14/01/2022	9:00	0.9	22.5	15/01/2022	9:00	1.3	67.5	16/01/2022	9:00	1.3	22.5
13/01/2022	10:00	0.4	67.5	14/01/2022	10:00	0.4	22.5	15/01/2022	10:00	0.4	45	16/01/2022	10:00	0.9	180
13/01/2022	11:00	0.9	315	14/01/2022	11:00	0.4	0	15/01/2022	11:00	0.9	135	16/01/2022	11:00	1.8	112.5
13/01/2022	12:00	1.3	315	14/01/2022	12:00	0.4	0	15/01/2022	12:00	0.9	135	16/01/2022	12:00	0.4	90
13/01/2022	13:00	0.4	45	14/01/2022	13:00	0.4	202.5	15/01/2022	13:00	0.4	22.5	16/01/2022	13:00	0.9	135
13/01/2022	14:00	0.9	90	14/01/2022	14:00	0.4	315	15/01/2022	14:00	1.3	45	16/01/2022	14:00	0.4	67.5
13/01/2022	15:00	0.4	67.5	14/01/2022	15:00	0.4	270	15/01/2022	15:00	1.3	45	16/01/2022	15:00	0.9	112.5
13/01/2022	16:00	0.9	90	14/01/2022	16:00	0.4	315	15/01/2022	16:00	1.3	45	16/01/2022	16:00	1.3	135
13/01/2022	17:00	1.3	90	14/01/2022	17:00	0.4	112.5	15/01/2022	17:00	1.3	90	16/01/2022	17:00	1.8	135
13/01/2022	18:00	0.9	90	14/01/2022	18:00	0.4	180	15/01/2022	18:00	0.9	22.5	16/01/2022	18:00	1.3	112.5
13/01/2022	19:00	0.9	135	14/01/2022	19:00	0.4	67.5	15/01/2022	19:00	1.8	22.5	16/01/2022	19:00	0.9	90
13/01/2022	20:00	0.4	90	14/01/2022	20:00	0.4	180	15/01/2022	20:00	1.8	90	16/01/2022	20:00	1.3	112.5
13/01/2022	21:00	0.4	90	14/01/2022	21:00	0.9	22.5	15/01/2022	21:00	1.3	90	16/01/2022	21:00	1.3	112.5
13/01/2022	22:00	0.4	45	14/01/2022	22:00	1.3	90	15/01/2022	22:00	1.3	135	16/01/2022	22:00	0.9	90
13/01/2022	23:00	0.9	90	14/01/2022	23:00	0.4	202.5	15/01/2022	23:00	1.8	45	16/01/2022	23:00	1.8	135

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
17/01/2022	0:00	1.3	45	18/01/2022	0:00	0.4	247.5	19/01/2022	0:00	1.3	90	20/01/2022	0:00	0.9	112.5
17/01/2022	1:00	1.8	112.5	18/01/2022	1:00	1.3	247.5	19/01/2022	1:00	0.9	112.5	20/01/2022	1:00	0.9	112.5
17/01/2022	2:00	1.3	22.5	18/01/2022	2:00	0.9	292.5	19/01/2022	2:00	0.9	112.5	20/01/2022	2:00	1.3	112.5
17/01/2022	3:00	1.8	67.5	18/01/2022	3:00	0.9	22.5	19/01/2022	3:00	1.8	67.5	20/01/2022	3:00	1.8	112.5
17/01/2022	4:00	1.8	67.5	18/01/2022	4:00	1.3	270	19/01/2022	4:00	1.3	90	20/01/2022	4:00	1.3	90
17/01/2022	5:00	1.8	270	18/01/2022	5:00	0.4	135	19/01/2022	5:00	1.3	45	20/01/2022	5:00	0.9	90
17/01/2022	6:00	1.8	112.5	18/01/2022	6:00	0.4	135	19/01/2022	6:00	0.4	135	20/01/2022	6:00	0.9	135
17/01/2022	7:00	1.8	112.5	18/01/2022	7:00	0.4	45	19/01/2022	7:00	0.4	67.5	20/01/2022	7:00	0.9	112.5
17/01/2022	8:00	1.3	67.5	18/01/2022	8:00	0.4	22.5	19/01/2022	8:00	0.9	90	20/01/2022	8:00	1.3	112.5
17/01/2022	9:00	1.3	157.5	18/01/2022	9:00	0.4	45	19/01/2022	9:00	1.3	90	20/01/2022	9:00	0.9	22.5
17/01/2022	10:00	1.3	45	18/01/2022	10:00	0.9	67.5	19/01/2022	10:00	1.3	90	20/01/2022	10:00	0.9	135
17/01/2022	11:00	1.3	22.5	18/01/2022	11:00	0.9	22.5	19/01/2022	11:00	1.3	112.5	20/01/2022	11:00	0.9	22.5
17/01/2022	12:00	1.3	90	18/01/2022	12:00	0.9	67.5	19/01/2022	12:00	1.3	135	20/01/2022	12:00	0.4	112.5
17/01/2022	13:00	1.3	135	18/01/2022	13:00	0.9	292.5	19/01/2022	13:00	0.9	90	20/01/2022	13:00	0.4	45
17/01/2022	14:00	1.8	315	18/01/2022	14:00	0.9	180	19/01/2022	14:00	0.9	112.5	20/01/2022	14:00	0.4	45
17/01/2022	15:00	1.3	112.5	18/01/2022	15:00	0.9	337.5	19/01/2022	15:00	0.9	90	20/01/2022	15:00	0.9	45
17/01/2022	16:00	0.9	337.5	18/01/2022	16:00	1.3	112.5	19/01/2022	16:00	0.9	90	20/01/2022	16:00	0.9	315
17/01/2022	17:00	1.3	337.5	18/01/2022	17:00	1.3	292.5	19/01/2022	17:00	1.8	135	20/01/2022	17:00	0.9	247.5
17/01/2022	18:00	0.9	270	18/01/2022	18:00	1.3	292.5	19/01/2022	18:00	0.9	135	20/01/2022	18:00	0.4	247.5
17/01/2022	19:00	1.3	337.5	18/01/2022	19:00	0.9	112.5	19/01/2022	19:00	0.9	112.5	20/01/2022	19:00	0.4	90
17/01/2022	20:00	0.9	112.5	18/01/2022	20:00	0.9	157.5	19/01/2022	20:00	0.9	90	20/01/2022	20:00	0.9	22.5
17/01/2022	21:00	0.9	292.5	18/01/2022	21:00	0.9	112.5	19/01/2022	21:00	1.8	112.5	20/01/2022	21:00	0.4	45
17/01/2022	22:00	0.9	292.5	18/01/2022	22:00	0.9	90	19/01/2022	22:00	1.3	112.5	20/01/2022	22:00	0.9	45
17/01/2022	23:00	0.4	112.5	18/01/2022	23:00	0.9	112.5	19/01/2022	23:00	1.3	112.5	20/01/2022	23:00	0.9	112.5

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
21/01/2022	0:00	0.9	45	22/01/2022	0:00	0.9	67.5	23/01/2022	0:00	1.3	22.5	24/01/2022	0:00	0.9	270
21/01/2022	1:00	0.4	45	22/01/2022	1:00	0.4	67.5	23/01/2022	1:00	0.9	22.5	24/01/2022	1:00	0.4	22.5
21/01/2022	2:00	0.4	45	22/01/2022	2:00	0.9	247.5	23/01/2022	2:00	0.4	45	24/01/2022	2:00	0.4	90
21/01/2022	3:00	0.4	90	22/01/2022	3:00	0.9	225	23/01/2022	3:00	0.4	225	24/01/2022	3:00	0.4	90
21/01/2022	4:00	0.4	90	22/01/2022	4:00	0.4	22.5	23/01/2022	4:00	0.9	247.5	24/01/2022	4:00	0.9	90
21/01/2022	5:00	0.4	45	22/01/2022	5:00	0.4	22.5	23/01/2022	5:00	1.3	112.5	24/01/2022	5:00	0.4	90
21/01/2022	6:00	0.4	337.5	22/01/2022	6:00	0.4	22.5	23/01/2022	6:00	0.9	45	24/01/2022	6:00	0.4	90
21/01/2022	7:00	0.4	270	22/01/2022	7:00	0.4	45	23/01/2022	7:00	0.9	67.5	24/01/2022	7:00	0.4	112.5
21/01/2022	8:00	0.9	247.5	22/01/2022	8:00	0.9	45	23/01/2022	8:00	0.4	67.5	24/01/2022	8:00	0.9	90
21/01/2022	9:00	0.9	247.5	22/01/2022	9:00	0.4	45	23/01/2022	9:00	0.4	67.5	24/01/2022	9:00	0.4	90
21/01/2022	10:00	1.3	247.5	22/01/2022	10:00	0.4	157.5	23/01/2022	10:00	0.9	67.5	24/01/2022	10:00	0.4	90
21/01/2022	11:00	0.9	247.5	22/01/2022	11:00	0.4	225	23/01/2022	11:00	0.9	112.5	24/01/2022	11:00	0.9	90
21/01/2022	12:00	0.9	270	22/01/2022	12:00	0.4	225	23/01/2022	12:00	0.4	112.5	24/01/2022	12:00	0.9	90
21/01/2022	13:00	0.4	22.5	22/01/2022	13:00	0.9	225	23/01/2022	13:00	0.4	90	24/01/2022	13:00	0.4	90
21/01/2022	14:00	0.4	247.5	22/01/2022	14:00	0.9	225	23/01/2022	14:00	0.9	22.5	24/01/2022	14:00	0.9	112.5
21/01/2022	15:00	1.3	45	22/01/2022	15:00	0.9	22.5	23/01/2022	15:00	0.4	22.5	24/01/2022	15:00	1.3	90
21/01/2022	16:00	0.9	337.5	22/01/2022	16:00	1.8	135	23/01/2022	16:00	1.3	315	24/01/2022	16:00	0.9	112.5
21/01/2022	17:00	0.4	337.5	22/01/2022	17:00	1.8	112.5	23/01/2022	17:00	0.9	112.5	24/01/2022	17:00	1.3	112.5
21/01/2022	18:00	0.4	270	22/01/2022	18:00	1.8	90	23/01/2022	18:00	0.9	67.5	24/01/2022	18:00	1.3	90
21/01/2022	19:00	0.4	157.5	22/01/2022	19:00	1.8	135	23/01/2022	19:00	1.3	202.5	24/01/2022	19:00	1.3	90
21/01/2022	20:00	0.9	292.5	22/01/2022	20:00	1.3	112.5	23/01/2022	20:00	0.9	45	24/01/2022	20:00	1.3	112.5
21/01/2022	21:00	0.4	292.5	22/01/2022	21:00	0.9	112.5	23/01/2022	21:00	1.3	90	24/01/2022	21:00	0.9	90
21/01/2022	22:00	0.9	337.5	22/01/2022	22:00	0.4	135	23/01/2022	22:00	1.3	90	24/01/2022	22:00	1.8	112.5
21/01/2022	23:00	0.4	247.5	22/01/2022	23:00	0.9	90	23/01/2022	23:00	0.9	135	24/01/2022	23:00	1.8	112.5

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
25/01/2022	0:00	0.4	90	26/01/2022	0:00	0.4	112.5	27/01/2022	0:00	0.4	135	28/01/2022	0:00	1.3	67.5
25/01/2022	1:00	0.4	90	26/01/2022	1:00	1.3	67.5	27/01/2022	1:00	0.4	112.5	28/01/2022	1:00	1.3	90
25/01/2022	2:00	0.4	337.5	26/01/2022	2:00	1.3	112.5	27/01/2022	2:00	0.4	112.5	28/01/2022	2:00	0.9	90
25/01/2022	3:00	0.4	45	26/01/2022	3:00	0.9	112.5	27/01/2022	3:00	0.9	112.5	28/01/2022	3:00	0.9	45
25/01/2022	4:00	1.3	90	26/01/2022	4:00	1.3	67.5	27/01/2022	4:00	0.4	112.5	28/01/2022	4:00	0.9	157.5
25/01/2022	5:00	0.9	112.5	26/01/2022	5:00	1.3	135	27/01/2022	5:00	0.4	112.5	28/01/2022	5:00	0.9	90
25/01/2022	6:00	0.9	112.5	26/01/2022	6:00	0.9	90	27/01/2022	6:00	1.3	135	28/01/2022	6:00	0.4	67.5
25/01/2022	7:00	0.4	67.5	26/01/2022	7:00	0.9	135	27/01/2022	7:00	1.3	337.5	28/01/2022	7:00	0.9	112.5
25/01/2022	8:00	0.4	90	26/01/2022	8:00	0.9	112.5	27/01/2022	8:00	1.3	45	28/01/2022	8:00	1.3	90
25/01/2022	9:00	0.9	90	26/01/2022	9:00	0.9	90	27/01/2022	9:00	1.3	112.5	28/01/2022	9:00	0.9	112.5
25/01/2022	10:00	0.9	90	26/01/2022	10:00	0.9	67.5	27/01/2022	10:00	0.9	67.5	28/01/2022	10:00	0.9	90
25/01/2022	11:00	0.9	45	26/01/2022	11:00	1.3	135	27/01/2022	11:00	1.3	67.5	28/01/2022	11:00	0.9	90
25/01/2022	12:00	0.9	45	26/01/2022	12:00	0.9	135	27/01/2022	12:00	1.3	337.5	28/01/2022	12:00	0.9	67.5
25/01/2022	13:00	0.9	247.5	26/01/2022	13:00	0.9	135	27/01/2022	13:00	1.3	90	28/01/2022	13:00	0.4	112.5
25/01/2022	14:00	0.9	135	26/01/2022	14:00	0.4	135	27/01/2022	14:00	1.3	45	28/01/2022	14:00	0.4	135
25/01/2022	15:00	0.9	22.5	26/01/2022	15:00	0.9	135	27/01/2022	15:00	1.3	67.5	28/01/2022	15:00	0.4	112.5
25/01/2022	16:00	1.3	22.5	26/01/2022	16:00	0.4	112.5	27/01/2022	16:00	1.8	45	28/01/2022	16:00	0.9	112.5
25/01/2022	17:00	1.3	112.5	26/01/2022	17:00	0.4	90	27/01/2022	17:00	0.9	90	28/01/2022	17:00	0.9	112.5
25/01/2022	18:00	1.3	112.5	26/01/2022	18:00	0.4	112.5	27/01/2022	18:00	0.9	67.5	28/01/2022	18:00	0.9	90
25/01/2022	19:00	1.3	112.5	26/01/2022	19:00	0.4	112.5	27/01/2022	19:00	1.8	90	28/01/2022	19:00	1.3	90
25/01/2022	20:00	0.4	67.5	26/01/2022	20:00	0.4	112.5	27/01/2022	20:00	2.2	90	28/01/2022	20:00	0.9	45
25/01/2022	21:00	0.9	112.5	26/01/2022	21:00	0.9	112.5	27/01/2022	21:00	2.2	112.5	28/01/2022	21:00	0.9	337.5
25/01/2022	22:00	0.9	112.5	26/01/2022	22:00	0.9	135	27/01/2022	22:00	2.7	112.5	28/01/2022	22:00	0.9	112.5
25/01/2022	23:00	1.3	112.5	26/01/2022	23:00	0.9	90	27/01/2022	23:00	2.7	67.5	28/01/2022	23:00	0.4	112.5

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
29/01/2022	0:00	1.3	22.5	30/01/2022	0:00	1.3	22.5	31/01/2022	0:00	1.8	112.5				
29/01/2022	1:00	1.3	90	30/01/2022	1:00	0.4	22.5	31/01/2022	1:00	0.9	112.5				
29/01/2022	2:00	0.9	67.5	30/01/2022	2:00	0.9	67.5	31/01/2022	2:00	0.4	112.5				
29/01/2022	3:00	0.9	90	30/01/2022	3:00	0.9	22.5	31/01/2022	3:00	0.4	45				
29/01/2022	4:00	0.9	22.5	30/01/2022	4:00	0.9	135	31/01/2022	4:00	0.9	337.5				
29/01/2022	5:00	0.9	45	30/01/2022	5:00	1.3	90	31/01/2022	5:00	1.3	112.5				
29/01/2022	6:00	1.3	337.5	30/01/2022	6:00	0.9	112.5	31/01/2022	6:00	0.9	112.5				
29/01/2022	7:00	1.3	67.5	30/01/2022	7:00	1.3	90	31/01/2022	7:00	1.3	337.5				
29/01/2022	8:00	1.3	315	30/01/2022	8:00	1.3	112.5	31/01/2022	8:00	0.9	45				
29/01/2022	9:00	0.9	112.5	30/01/2022	9:00	0.4	135	31/01/2022	9:00	0.9	337.5				
29/01/2022	10:00	0.9	90	30/01/2022	10:00	0.4	202.5	31/01/2022	10:00	0.9	112.5				
29/01/2022	11:00	1.3	157.5	30/01/2022	11:00	0.9	112.5	31/01/2022	11:00	1.3	270				
29/01/2022	12:00	1.3	90	30/01/2022	12:00	0.4	112.5	31/01/2022	12:00	1.8	225				
29/01/2022	13:00	0.9	202.5	30/01/2022	13:00	0.4	112.5	31/01/2022	13:00	2.2	135				
29/01/2022	14:00	0.9	112.5	30/01/2022	14:00	0.4	135	31/01/2022	14:00	1.3	90				
29/01/2022	15:00	0.9	112.5	30/01/2022	15:00	0.9	112.5	31/01/2022	15:00	0.9	45				
29/01/2022	16:00	2.7	90	30/01/2022	16:00	1.3	112.5	31/01/2022	16:00	0.9	45				
29/01/2022	17:00	2.2	112.5	30/01/2022	17:00	0.9	112.5	31/01/2022	17:00	0.9	22.5				
29/01/2022	18:00	1.8	112.5	30/01/2022	18:00	0.9	112.5	31/01/2022	18:00	0.9	225				
29/01/2022	19:00	1.8	112.5	30/01/2022	19:00	1.3	112.5	31/01/2022	19:00	1.3	225				
29/01/2022	20:00	1.8	112.5	30/01/2022	20:00	1.3	112.5	31/01/2022	20:00	0.9	225				
29/01/2022	21:00	2.2	112.5	30/01/2022	21:00	1.3	67.5	31/01/2022	21:00	1.3	315				
29/01/2022	22:00	1.3	135	30/01/2022	22:00	0.9	90	31/01/2022	22:00	0.9	112.5				
29/01/2022	23:00	1.8	112.5	30/01/2022	23:00	0.9	90	31/01/2022	23:00	0.9	337.5				

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
01/02/2022	0:00	0.4	135	02/02/2022	0:00	1.3	67.5	03/02/2022	0:00	0.4	315	04/02/2022	0:00	0.9	225
01/02/2022	1:00	0.9	135	02/02/2022	1:00	0.4	67.5	03/02/2022	1:00	0.4	225	04/02/2022	1:00	0.4	180
01/02/2022	2:00	1.3	22.5	02/02/2022	2:00	0.9	22.5	03/02/2022	2:00	0.9	247.5	04/02/2022	2:00	0.9	292.5
01/02/2022	3:00	1.8	337.5	02/02/2022	3:00	0.4	45	03/02/2022	3:00	1.3	45	04/02/2022	3:00	0.9	112.5
01/02/2022	4:00	0.9	135	02/02/2022	4:00	0.4	270	03/02/2022	4:00	0.9	247.5	04/02/2022	4:00	0.4	22.5
01/02/2022	5:00	0.9	247.5	02/02/2022	5:00	0.4	90	03/02/2022	5:00	1.3	22.5	04/02/2022	5:00	0.9	202.5
01/02/2022	6:00	0.9	247.5	02/02/2022	6:00	0.4	135	03/02/2022	6:00	0.9	180	04/02/2022	6:00	0.4	225
01/02/2022	7:00	1.3	247.5	02/02/2022	7:00	0.9	135	03/02/2022	7:00	0.9	180	04/02/2022	7:00	0.4	225
01/02/2022	8:00	0.9	337.5	02/02/2022	8:00	0.9	135	03/02/2022	8:00	0.9	135	04/02/2022	8:00	0.4	247.5
01/02/2022	9:00	1.3	292.5	02/02/2022	9:00	1.3	157.5	03/02/2022	9:00	0.4	22.5	04/02/2022	9:00	0.9	225
01/02/2022	10:00	0.4	225	02/02/2022	10:00	0.9	337.5	03/02/2022	10:00	0.9	315	04/02/2022	10:00	0.9	225
01/02/2022	11:00	0.4	247.5	02/02/2022	11:00	0.4	135	03/02/2022	11:00	0.9	112.5	04/02/2022	11:00	0.9	292.5
01/02/2022	12:00	0.4	135	02/02/2022	12:00	1.3	337.5	03/02/2022	12:00	0.9	337.5	04/02/2022	12:00	0.9	202.5
01/02/2022	13:00	1.3	22.5	02/02/2022	13:00	0.9	45	03/02/2022	13:00	0.9	135	04/02/2022	13:00	0.9	225
01/02/2022	14:00	0.9	270	02/02/2022	14:00	1.3	225	03/02/2022	14:00	0.9	202.5	04/02/2022	14:00	1.3	112.5
01/02/2022	15:00	0.4	225	02/02/2022	15:00	1.3	112.5	03/02/2022	15:00	0.4	67.5	04/02/2022	15:00	1.3	67.5
01/02/2022	16:00	0.9	135	02/02/2022	16:00	0.9	202.5	03/02/2022	16:00	0.9	270	04/02/2022	16:00	0.9	135
01/02/2022	17:00	1.3	45	02/02/2022	17:00	1.3	135	03/02/2022	17:00	0.4	247.5	04/02/2022	17:00	0.9	22.5
01/02/2022	18:00	0.9	90	02/02/2022	18:00	0.9	90	03/02/2022	18:00	0.4	247.5	04/02/2022	18:00	0.9	45
01/02/2022	19:00	0.4	67.5	02/02/2022	19:00	0.9	247.5	03/02/2022	19:00	0.9	180	04/02/2022	19:00	1.3	225
01/02/2022	20:00	0.4	90	02/02/2022	20:00	0.4	247.5	03/02/2022	20:00	0.4	180	04/02/2022	20:00	1.3	225
01/02/2022	21:00	0.4	112.5	02/02/2022	21:00	0.9	202.5	03/02/2022	21:00	0.4	270	04/02/2022	21:00	0.9	315
01/02/2022	22:00	0.4	112.5	02/02/2022	22:00	0.4	225	03/02/2022	22:00	0.4	247.5	04/02/2022	22:00	0.4	225
01/02/2022	23:00	0.4	67.5	02/02/2022	23:00	0.9	315	03/02/2022	23:00	0.4	180	04/02/2022	23:00	0.4	225

### Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
05/02/2022	0:00	0.4	45	06/02/2022	0:00	1.3	45	07/02/2022	0:00	0.9	247.5	08/02/2022	0:00	0.9	45
05/02/2022	1:00	0.9	180	06/02/2022	1:00	1.8	90	07/02/2022	1:00	0.9	157.5	08/02/2022	1:00	0.9	90
05/02/2022	2:00	0.4	22.5	06/02/2022	2:00	0.9	22.5	07/02/2022	2:00	1.3	90	08/02/2022	2:00	1.3	315
05/02/2022	3:00	0.9	135	06/02/2022	3:00	0.9	225	07/02/2022	3:00	1.3	45	08/02/2022	3:00	0.9	315
05/02/2022	4:00	0.9	90	06/02/2022	4:00	0.9	135	07/02/2022	4:00	1.8	90	08/02/2022	4:00	0.4	67.5
05/02/2022	5:00	0.9	90	06/02/2022	5:00	0.9	90	07/02/2022	5:00	0.9	112.5	08/02/2022	5:00	0.9	45
05/02/2022	6:00	1.3	135	06/02/2022	6:00	1.3	45	07/02/2022	6:00	1.3	90	08/02/2022	6:00	0.4	67.5
05/02/2022	7:00	0.9	67.5	06/02/2022	7:00	0.9	337.5	07/02/2022	7:00	1.3	90	08/02/2022	7:00	1.3	90
05/02/2022	8:00	1.3	45	06/02/2022	8:00	0.9	22.5	07/02/2022	8:00	1.3	90	08/02/2022	8:00	0.9	90
05/02/2022	9:00	1.3	45	06/02/2022	9:00	0.4	157.5	07/02/2022	9:00	1.8	67.5	08/02/2022	9:00	1.3	67.5
05/02/2022	10:00	0.9	67.5	06/02/2022	10:00	0.9	112.5	07/02/2022	10:00	1.8	90	08/02/2022	10:00	1.3	90
05/02/2022	11:00	0.4	45	06/02/2022	11:00	0.9	22.5	07/02/2022	11:00	0.9	112.5	08/02/2022	11:00	1.3	337.5
05/02/2022	12:00	1.3	67.5	06/02/2022	12:00	0.9	135	07/02/2022	12:00	2.2	67.5	08/02/2022	12:00	0.9	337.5
05/02/2022	13:00	1.3	67.5	06/02/2022	13:00	1.3	112.5	07/02/2022	13:00	2.2	112.5	08/02/2022	13:00	1.3	67.5
05/02/2022	14:00	0.9	45	06/02/2022	14:00	1.3	67.5	07/02/2022	14:00	0.9	67.5	08/02/2022	14:00	1.3	45
05/02/2022	15:00	0.9	112.5	06/02/2022	15:00	0.9	90	07/02/2022	15:00	0.9	112.5	08/02/2022	15:00	1.8	90
05/02/2022	16:00	0.9	67.5	06/02/2022	16:00	1.3	67.5	07/02/2022	16:00	1.3	112.5	08/02/2022	16:00	0.9	112.5
05/02/2022	17:00	0.4	180	06/02/2022	17:00	1.8	22.5	07/02/2022	17:00	0.9	112.5	08/02/2022	17:00	0.9	337.5
05/02/2022	18:00	0.4	22.5	06/02/2022	18:00	1.3	135	07/02/2022	18:00	0.4	135	08/02/2022	18:00	1.3	22.5
05/02/2022	19:00	0.4	337.5	06/02/2022	19:00	1.3	180	07/02/2022	19:00	0.4	135	08/02/2022	19:00	1.8	112.5
05/02/2022	20:00	0.4	22.5	06/02/2022	20:00	1.3	90	07/02/2022	20:00	0.9	157.5	08/02/2022	20:00	0.9	90
05/02/2022	21:00	0.9	67.5	06/02/2022	21:00	1.8	90	07/02/2022	21:00	0.4	157.5	08/02/2022	21:00	1.3	45
05/02/2022	22:00	0.9	45	06/02/2022	22:00	1.3	45	07/02/2022	22:00	0.4	157.5	08/02/2022	22:00	0.4	315
05/02/2022	23:00	0.9	67.5	06/02/2022	23:00	0.9	90	07/02/2022	23:00	0.4	157.5	08/02/2022	23:00	1.3	90

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
09/02/2022	0:00	1.8	22.5	10/02/2022	0:00	0.9	67.5	11/02/2022	0:00	0.9	225	12/02/2022	0:00	1.3	112.5
09/02/2022	1:00	1.8	90	10/02/2022	1:00	0.4	67.5	11/02/2022	1:00	0.9	225	12/02/2022	1:00	1.8	112.5
09/02/2022	2:00	1.3	180	10/02/2022	2:00	0.9	90	11/02/2022	2:00	0.9	225	12/02/2022	2:00	1.3	90
09/02/2022	3:00	0.9	270	10/02/2022	3:00	1.3	135	11/02/2022	3:00	1.3	225	12/02/2022	3:00	1.3	90
09/02/2022	4:00	0.9	157.5	10/02/2022	4:00	1.3	22.5	11/02/2022	4:00	1.3	247.5	12/02/2022	4:00	1.3	22.5
09/02/2022	5:00	1.8	90	10/02/2022	5:00	1.3	180	11/02/2022	5:00	0.9	247.5	12/02/2022	5:00	1.3	135
09/02/2022	6:00	0.9	337.5	10/02/2022	6:00	1.3	112.5	11/02/2022	6:00	1.3	90	12/02/2022	6:00	1.3	90
09/02/2022	7:00	0.9	67.5	10/02/2022	7:00	1.3	135	11/02/2022	7:00	0.9	112.5	12/02/2022	7:00	1.8	112.5
09/02/2022	8:00	1.3	337.5	10/02/2022	8:00	0.4	112.5	11/02/2022	8:00	1.3	90	12/02/2022	8:00	1.3	135
09/02/2022	9:00	1.3	112.5	10/02/2022	9:00	0.9	90	11/02/2022	9:00	1.3	90	12/02/2022	9:00	1.3	112.5
09/02/2022	10:00	1.3	22.5	10/02/2022	10:00	1.3	112.5	11/02/2022	10:00	0.9	67.5	12/02/2022	10:00	1.3	112.5
09/02/2022	11:00	1.3	67.5	10/02/2022	11:00	1.3	90	11/02/2022	11:00	1.3	45	12/02/2022	11:00	2.7	112.5
09/02/2022	12:00	1.8	45	10/02/2022	12:00	1.3	112.5	11/02/2022	12:00	1.3	45	12/02/2022	12:00	1.8	112.5
09/02/2022	13:00	1.3	90	10/02/2022	13:00	0.9	112.5	11/02/2022	13:00	1.3	67.5	12/02/2022	13:00	1.8	90
09/02/2022	14:00	0.9	112.5	10/02/2022	14:00	0.4	112.5	11/02/2022	14:00	2.2	67.5	12/02/2022	14:00	1.3	112.5
09/02/2022	15:00	1.3	90	10/02/2022	15:00	0.4	112.5	11/02/2022	15:00	1.3	90	12/02/2022	15:00	1.3	247.5
09/02/2022	16:00	1.3	112.5	10/02/2022	16:00	0.9	112.5	11/02/2022	16:00	1.3	90	12/02/2022	16:00	1.3	112.5
09/02/2022	17:00	1.3	67.5	10/02/2022	17:00	0.4	112.5	11/02/2022	17:00	1.8	135	12/02/2022	17:00	1.3	112.5
09/02/2022	18:00	0.9	112.5	10/02/2022	18:00	0.4	112.5	11/02/2022	18:00	0.9	22.5	12/02/2022	18:00	0.9	135
09/02/2022	19:00	0.4	45	10/02/2022	19:00	0.4	180	11/02/2022	19:00	0.9	180	12/02/2022	19:00	0.9	112.5
09/02/2022	20:00	0.4	90	10/02/2022	20:00	0	180	11/02/2022	20:00	0.4	112.5	12/02/2022	20:00	0.9	90
09/02/2022	21:00	0.9	45	10/02/2022	21:00	0	180	11/02/2022	21:00	1.8	135	12/02/2022	21:00	0.9	112.5
09/02/2022	22:00	0.4	90	10/02/2022	22:00	0	180	11/02/2022	22:00	1.3	112.5	12/02/2022	22:00	1.3	112.5
09/02/2022	23:00	0	135	10/02/2022	23:00	0.4	247.5	11/02/2022	23:00	0.9	90	12/02/2022	23:00	1.3	112.5

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
13/02/2022	0:00	0.9	67.5	14/02/2022	0:00	0	292.5	15/02/2022	0:00	1.3	112.5	16/02/2022	0:00	1.8	135
13/02/2022	1:00	0.4	45	14/02/2022	1:00	0	292.5	15/02/2022	1:00	1.3	90	16/02/2022	1:00	1.8	135
13/02/2022	2:00	0.4	45	14/02/2022	2:00	0	292.5	15/02/2022	2:00	1.8	337.5	16/02/2022	2:00	1.8	112.5
13/02/2022	3:00	0.4	45	14/02/2022	3:00	0.4	270	15/02/2022	3:00	2.2	22.5	16/02/2022	3:00	0.9	135
13/02/2022	4:00	0.9	22.5	14/02/2022	4:00	0.4	270	15/02/2022	4:00	2.2	90	16/02/2022	4:00	0.9	112.5
13/02/2022	5:00	0.4	22.5	14/02/2022	5:00	0.4	135	15/02/2022	5:00	2.2	67.5	16/02/2022	5:00	1.3	90
13/02/2022	6:00	0.4	112.5	14/02/2022	6:00	0.9	135	15/02/2022	6:00	1.3	90	16/02/2022	6:00	1.3	112.5
13/02/2022	7:00	0.4	22.5	14/02/2022	7:00	0.9	112.5	15/02/2022	7:00	1.8	90	16/02/2022	7:00	0.9	90
13/02/2022	8:00	0.4	45	14/02/2022	8:00	0.9	135	15/02/2022	8:00	1.8	112.5	16/02/2022	8:00	1.3	112.5
13/02/2022	9:00	0.4	90	14/02/2022	9:00	0.4	135	15/02/2022	9:00	2.2	135	16/02/2022	9:00	1.3	112.5
13/02/2022	10:00	0.9	90	14/02/2022	10:00	0.4	135	15/02/2022	10:00	2.2	112.5	16/02/2022	10:00	1.3	90
13/02/2022	11:00	0.9	67.5	14/02/2022	11:00	0.9	112.5	15/02/2022	11:00	1.3	90	16/02/2022	11:00	1.3	90
13/02/2022	12:00	0.9	22.5	14/02/2022	12:00	0.4	22.5	15/02/2022	12:00	1.8	67.5	16/02/2022	12:00	0.9	112.5
13/02/2022	13:00	0.9	22.5	14/02/2022	13:00	0.4	45	15/02/2022	13:00	1.3	67.5	16/02/2022	13:00	2.2	112.5
13/02/2022	14:00	0.4	45	14/02/2022	14:00	0.9	90	15/02/2022	14:00	1.3	90	16/02/2022	14:00	1.8	112.5
13/02/2022	15:00	1.3	22.5	14/02/2022	15:00	0.9	22.5	15/02/2022	15:00	0.9	22.5	16/02/2022	15:00	1.3	90
13/02/2022	16:00	1.3	22.5	14/02/2022	16:00	0.9	157.5	15/02/2022	16:00	1.8	112.5	16/02/2022	16:00	1.3	157.5
13/02/2022	17:00	1.3	157.5	14/02/2022	17:00	0.4	22.5	15/02/2022	17:00	0.9	270	16/02/2022	17:00	1.3	337.5
13/02/2022	18:00	0.9	315	14/02/2022	18:00	0.4	270	15/02/2022	18:00	0.9	135	16/02/2022	18:00	0.9	270
13/02/2022	19:00	0.4	315	14/02/2022	19:00	0.9	225	15/02/2022	19:00	0.9	90	16/02/2022	19:00	1.3	90
13/02/2022	20:00	1.3	292.5	14/02/2022	20:00	1.3	67.5	15/02/2022	20:00	0.9	90	16/02/2022	20:00	1.3	315
13/02/2022	21:00	0.9	247.5	14/02/2022	21:00	1.8	157.5	15/02/2022	21:00	0.9	90	16/02/2022	21:00	0.9	180
13/02/2022	22:00	1.8	270	14/02/2022	22:00	1.3	315	15/02/2022	22:00	0.9	135	16/02/2022	22:00	1.3	247.5
13/02/2022	23:00	0.4	22.5	14/02/2022	23:00	1.3	90	15/02/2022	23:00	0.9	157.5	16/02/2022	23:00	1.3	90

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children’s Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
17/02/2022	0:00	1.3	90	18/02/2022	0:00	1.8	90	19/02/2022	0:00	1.8	45	20/02/2022	0:00	0.9	270
17/02/2022	1:00	1.3	67.5	18/02/2022	1:00	1.8	112.5	19/02/2022	1:00	1.3	45	20/02/2022	1:00	0.4	270
17/02/2022	2:00	1.3	67.5	18/02/2022	2:00	0.9	90	19/02/2022	2:00	1.3	22.5	20/02/2022	2:00	0.4	135
17/02/2022	3:00	0.9	67.5	18/02/2022	3:00	1.3	90	19/02/2022	3:00	1.3	112.5	20/02/2022	3:00	0.9	270
17/02/2022	4:00	1.8	45	18/02/2022	4:00	0.9	112.5	19/02/2022	4:00	1.3	90	20/02/2022	4:00	0.4	45
17/02/2022	5:00	1.8	67.5	18/02/2022	5:00	1.3	90	19/02/2022	5:00	1.3	90	20/02/2022	5:00	0.4	45
17/02/2022	6:00	1.8	90	18/02/2022	6:00	0.9	112.5	19/02/2022	6:00	1.8	90	20/02/2022	6:00	0.9	225
17/02/2022	7:00	1.3	67.5	18/02/2022	7:00	1.8	90	19/02/2022	7:00	1.8	22.5	20/02/2022	7:00	0.9	180
17/02/2022	8:00	1.3	90	18/02/2022	8:00	1.8	45	19/02/2022	8:00	1.8	45	20/02/2022	8:00	0.4	22.5
17/02/2022	9:00	1.3	90	18/02/2022	9:00	1.8	22.5	19/02/2022	9:00	1.8	45	20/02/2022	9:00	0.4	270
17/02/2022	10:00	1.8	67.5	18/02/2022	10:00	1.3	67.5	19/02/2022	10:00	0.4	315	20/02/2022	10:00	0.9	22.5
17/02/2022	11:00	1.8	45	18/02/2022	11:00	0.9	247.5	19/02/2022	11:00	0.4	292.5	20/02/2022	11:00	1.3	270
17/02/2022	12:00	1.8	90	18/02/2022	12:00	1.8	67.5	19/02/2022	12:00	0.4	22.5	20/02/2022	12:00	0.9	90
17/02/2022	13:00	0.9	67.5	18/02/2022	13:00	1.3	90	19/02/2022	13:00	0.4	270	20/02/2022	13:00	0.4	90
17/02/2022	14:00	1.3	90	18/02/2022	14:00	0.9	90	19/02/2022	14:00	0.9	22.5	20/02/2022	14:00	0.9	247.5
17/02/2022	15:00	1.8	90	18/02/2022	15:00	0.9	90	19/02/2022	15:00	0.9	90	20/02/2022	15:00	0.4	202.5
17/02/2022	16:00	1.3	67.5	18/02/2022	16:00	0.9	67.5	19/02/2022	16:00	0.4	45	20/02/2022	16:00	0.4	180
17/02/2022	17:00	2.2	67.5	18/02/2022	17:00	1.3	67.5	19/02/2022	17:00	0.9	247.5	20/02/2022	17:00	0.4	247.5
17/02/2022	18:00	2.2	90	18/02/2022	18:00	1.3	90	19/02/2022	18:00	0.9	45	20/02/2022	18:00	0.4	247.5
17/02/2022	19:00	2.7	112.5	18/02/2022	19:00	1.3	90	19/02/2022	19:00	0.9	225	20/02/2022	19:00	0.4	292.5
17/02/2022	20:00	2.7	90	18/02/2022	20:00	0.9	112.5	19/02/2022	20:00	0.9	180	20/02/2022	20:00	0.9	292.5
17/02/2022	21:00	3.1	67.5	18/02/2022	21:00	1.3	112.5	19/02/2022	21:00	0.9	180	20/02/2022	21:00	1.3	67.5
17/02/2022	22:00	1.8	67.5	18/02/2022	22:00	1.8	90	19/02/2022	22:00	0.9	202.5	20/02/2022	22:00	0.9	135
17/02/2022	23:00	1.8	112.5	18/02/2022	23:00	1.3	90	19/02/2022	23:00	0.9	22.5	20/02/2022	23:00	0.4	315

Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
21/02/2022	0:00	0.9	270	22/02/2022	0:00	0.4	225	23/02/2022	0:00	0.4	22.5	24/02/2022	0:00	0.9	315
21/02/2022	1:00	0.4	225	22/02/2022	1:00	0.4	270	23/02/2022	1:00	0.9	247.5	24/02/2022	1:00	1.3	337.5
21/02/2022	2:00	0.9	225	22/02/2022	2:00	0.9	270	23/02/2022	2:00	0.9	45	24/02/2022	2:00	1.3	225
21/02/2022	3:00	0.4	157.5	22/02/2022	3:00	0.4	247.5	23/02/2022	3:00	0.4	45	24/02/2022	3:00	1.3	225
21/02/2022	4:00	0.4	247.5	22/02/2022	4:00	0.9	225	23/02/2022	4:00	0.4	315	24/02/2022	4:00	1.3	225
21/02/2022	5:00	0.4	270	22/02/2022	5:00	0.4	225	23/02/2022	5:00	0.9	45	24/02/2022	5:00	1.3	180
21/02/2022	6:00	0.4	247.5	22/02/2022	6:00	0.4	247.5	23/02/2022	6:00	0.9	45	24/02/2022	6:00	0.9	202.5
21/02/2022	7:00	0.9	247.5	22/02/2022	7:00	0.9	337.5	23/02/2022	7:00	0.9	180	24/02/2022	7:00	1.3	22.5
21/02/2022	8:00	0.9	247.5	22/02/2022	8:00	0.4	247.5	23/02/2022	8:00	1.3	90	24/02/2022	8:00	0.9	22.5
21/02/2022	9:00	0.4	225	22/02/2022	9:00	0.9	202.5	23/02/2022	9:00	1.3	45	24/02/2022	9:00	0.9	22.5
21/02/2022	10:00	0.9	247.5	22/02/2022	10:00	0.9	247.5	23/02/2022	10:00	0.9	45	24/02/2022	10:00	0.9	157.5
21/02/2022	11:00	0.9	180	22/02/2022	11:00	0.4	247.5	23/02/2022	11:00	0.9	270	24/02/2022	11:00	1.3	22.5
21/02/2022	12:00	0.4	202.5	22/02/2022	12:00	0.4	270	23/02/2022	12:00	0.9	337.5	24/02/2022	12:00	0.9	112.5
21/02/2022	13:00	0.9	225	22/02/2022	13:00	0.4	337.5	23/02/2022	13:00	0.4	45	24/02/2022	13:00	0.9	135
21/02/2022	14:00	0.9	270	22/02/2022	14:00	0.4	337.5	23/02/2022	14:00	0.9	247.5	24/02/2022	14:00	0.9	135
21/02/2022	15:00	0.9	270	22/02/2022	15:00	0.4	270	23/02/2022	15:00	0.4	270	24/02/2022	15:00	0.9	112.5
21/02/2022	16:00	0.4	337.5	22/02/2022	16:00	0.4	247.5	23/02/2022	16:00	0.9	22.5	24/02/2022	16:00	0.9	112.5
21/02/2022	17:00	0.4	315	22/02/2022	17:00	0.4	247.5	23/02/2022	17:00	0.9	22.5	24/02/2022	17:00	0.9	112.5
21/02/2022	18:00	0.4	270	22/02/2022	18:00	0.4	247.5	23/02/2022	18:00	0.4	337.5	24/02/2022	18:00	0.9	135
21/02/2022	19:00	1.3	270	22/02/2022	19:00	0.9	225	23/02/2022	19:00	0.9	225	24/02/2022	19:00	1.3	90
21/02/2022	20:00	0.9	270	22/02/2022	20:00	0.9	225	23/02/2022	20:00	0.4	112.5	24/02/2022	20:00	1.3	135
21/02/2022	21:00	0.4	292.5	22/02/2022	21:00	0.9	247.5	23/02/2022	21:00	0.9	90	24/02/2022	21:00	1.3	112.5
21/02/2022	22:00	0.4	315	22/02/2022	22:00	0.4	247.5	23/02/2022	22:00	0.9	247.5	24/02/2022	22:00	0.9	112.5
21/02/2022	23:00	0.4	270	22/02/2022	23:00	0.4	247.5	23/02/2022	23:00	0.9	135	24/02/2022	23:00	0.9	90



Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
01/03/2022	0:00	0	180	02/03/2022	0:00	0.4	45	03/03/2022	0:00	0.9	45	04/03/2022	0:00	1.3	90
01/03/2022	1:00	0	180	02/03/2022	1:00	0.4	315	03/03/2022	1:00	0.9	112.5	04/03/2022	1:00	0.9	45
01/03/2022	2:00	0.4	157.5	02/03/2022	2:00	0.9	135	03/03/2022	2:00	0.9	22.5	04/03/2022	2:00	0.9	90
01/03/2022	3:00	0.4	135	02/03/2022	3:00	0.9	112.5	03/03/2022	3:00	1.3	45	04/03/2022	3:00	1.3	112.5
01/03/2022	4:00	0.4	112.5	02/03/2022	4:00	1.8	90	03/03/2022	4:00	1.3	45	04/03/2022	4:00	0.9	90
01/03/2022	5:00	0.4	135	02/03/2022	5:00	1.8	112.5	03/03/2022	5:00	1.3	45	04/03/2022	5:00	0.4	112.5
01/03/2022	6:00	0.9	112.5	02/03/2022	6:00	1.3	90	03/03/2022	6:00	1.3	135	04/03/2022	6:00	1.3	90
01/03/2022	7:00	0.9	112.5	02/03/2022	7:00	0.9	90	03/03/2022	7:00	0.4	112.5	04/03/2022	7:00	0.9	112.5
01/03/2022	8:00	1.8	135	02/03/2022	8:00	0.9	135	03/03/2022	8:00	0.4	90	04/03/2022	8:00	0.9	135
01/03/2022	9:00	1.8	112.5	02/03/2022	9:00	0.9	112.5	03/03/2022	9:00	0.4	45	04/03/2022	9:00	1.3	112.5
01/03/2022	10:00	1.3	112.5	02/03/2022	10:00	0.9	112.5	03/03/2022	10:00	0.4	112.5	04/03/2022	10:00	0.9	112.5
01/03/2022	11:00	0.9	45	02/03/2022	11:00	1.3	90	03/03/2022	11:00	1.3	90	04/03/2022	11:00	0.9	112.5
01/03/2022	12:00	0.9	67.5	02/03/2022	12:00	0.9	22.5	03/03/2022	12:00	0.9	112.5	04/03/2022	12:00	0.9	67.5
01/03/2022	13:00	0.9	315	02/03/2022	13:00	0.9	67.5	03/03/2022	13:00	0.4	22.5	04/03/2022	13:00	1.8	135
01/03/2022	14:00	1.3	225	02/03/2022	14:00	1.3	45	03/03/2022	14:00	0.4	112.5	04/03/2022	14:00	0.9	112.5
01/03/2022	15:00	0.9	202.5	02/03/2022	15:00	1.3	67.5	03/03/2022	15:00	0.9	112.5	04/03/2022	15:00	1.3	90
01/03/2022	16:00	0.9	45	02/03/2022	16:00	0.4	90	03/03/2022	16:00	1.3	135	04/03/2022	16:00	0.9	112.5
01/03/2022	17:00	1.3	225	02/03/2022	17:00	1.3	67.5	03/03/2022	17:00	1.8	112.5	04/03/2022	17:00	1.3	90
01/03/2022	18:00	1.3	180	02/03/2022	18:00	0.9	67.5	03/03/2022	18:00	1.3	90	04/03/2022	18:00	1.3	67.5
01/03/2022	19:00	1.3	135	02/03/2022	19:00	0.9	112.5	03/03/2022	19:00	1.3	112.5	04/03/2022	19:00	1.3	292.5
01/03/2022	20:00	1.3	337.5	02/03/2022	20:00	1.3	90	03/03/2022	20:00	1.3	90	04/03/2022	20:00	1.3	67.5
01/03/2022	21:00	0.9	315	02/03/2022	21:00	0.9	112.5	03/03/2022	21:00	1.8	112.5	04/03/2022	21:00	0.4	45
01/03/2022	22:00	0.9	112.5	02/03/2022	22:00	0.9	67.5	03/03/2022	22:00	1.8	112.5	04/03/2022	22:00	0.4	90
01/03/2022	23:00	1.3	337.5	02/03/2022	23:00	0.9	45	03/03/2022	23:00	1.3	112.5	04/03/2022	23:00	0.4	337.5













Mean Wind Speed and Wind Direction recorded by the weather station setup at the rooftop of Hong Kong Children's Hospital

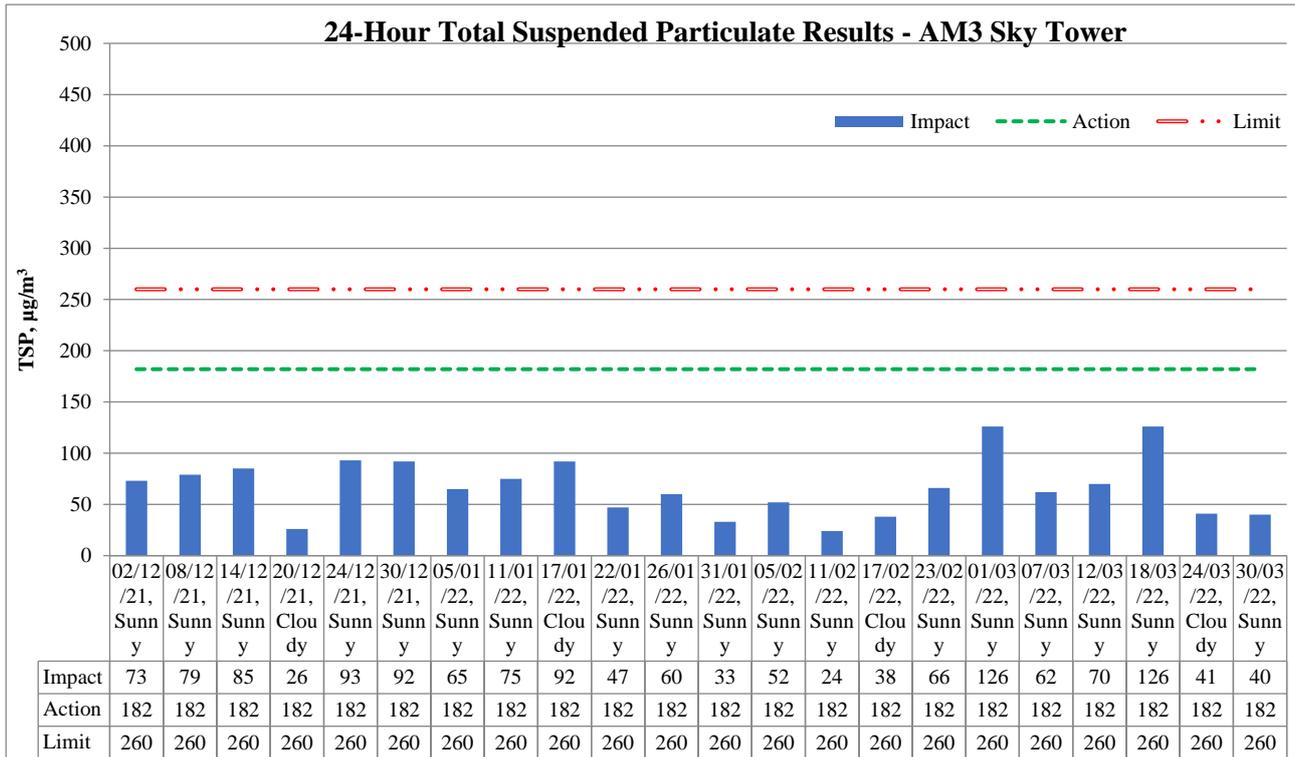
Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction	Date	Time	Wind Speed (m/s)	Wind Direction
29/03/2022	0:00	1.8	45	30/03/2022	0:00	1.3	90	31/03/2022	0:00	0.9	90				
29/03/2022	1:00	0.4	112.5	30/03/2022	1:00	0.9	112.5	31/03/2022	1:00	0.4	45				
29/03/2022	2:00	0.4	112.5	30/03/2022	2:00	0.9	135	31/03/2022	2:00	0.4	22.5				
29/03/2022	3:00	0.9	112.5	30/03/2022	3:00	0.9	135	31/03/2022	3:00	0.9	67.5				
29/03/2022	4:00	1.3	157.5	30/03/2022	4:00	0.9	112.5	31/03/2022	4:00	2.2	90				
29/03/2022	5:00	1.3	67.5	30/03/2022	5:00	1.3	112.5	31/03/2022	5:00	1.8	90				
29/03/2022	6:00	0.9	45	30/03/2022	6:00	1.3	112.5	31/03/2022	6:00	1.3	112.5				
29/03/2022	7:00	0.9	67.5	30/03/2022	7:00	0.9	112.5	31/03/2022	7:00	1.3	112.5				
29/03/2022	8:00	0.4	90	30/03/2022	8:00	1.3	90	31/03/2022	8:00	1.3	337.5				
29/03/2022	9:00	0.9	112.5	30/03/2022	9:00	1.3	112.5	31/03/2022	9:00	1.3	315				
29/03/2022	10:00	0.4	112.5	30/03/2022	10:00	1.8	135	31/03/2022	10:00	1.3	112.5				
29/03/2022	11:00	0.4	112.5	30/03/2022	11:00	1.3	112.5	31/03/2022	11:00	1.3	112.5				
29/03/2022	12:00	0.4	337.5	30/03/2022	12:00	1.8	90	31/03/2022	12:00	1.3	112.5				
29/03/2022	13:00	1.3	22.5	30/03/2022	13:00	1.8	135	31/03/2022	13:00	1.8	112.5				
29/03/2022	14:00	1.3	315	30/03/2022	14:00	0.4	112.5	31/03/2022	14:00	1.8	90				
29/03/2022	15:00	1.3	22.5	30/03/2022	15:00	0.9	90	31/03/2022	15:00	1.8	112.5				
29/03/2022	16:00	0.9	225	30/03/2022	16:00	0.9	135	31/03/2022	16:00	2.2	90				
29/03/2022	17:00	0.9	180	30/03/2022	17:00	0.9	90	31/03/2022	17:00	1.8	90				
29/03/2022	18:00	1.3	247.5	30/03/2022	18:00	0.9	135	31/03/2022	18:00	0.9	112.5				
29/03/2022	19:00	1.8	22.5	30/03/2022	19:00	0.4	135	31/03/2022	19:00	0.9	90				
29/03/2022	20:00	1.3	90	30/03/2022	20:00	0.9	90	31/03/2022	20:00	1.8	135				
29/03/2022	21:00	2.2	112.5	30/03/2022	21:00	0.9	90	31/03/2022	21:00	0.4	135				
29/03/2022	22:00	1.3	225	30/03/2022	22:00	0.4	112.5	31/03/2022	22:00	0.4	90				
29/03/2022	23:00	0.4	225	30/03/2022	23:00	0.4	112.5	31/03/2022	23:00	0.9	112.5				

# **Appendix D – Monitoring data and graphical plots**

## 24-hour average TSP

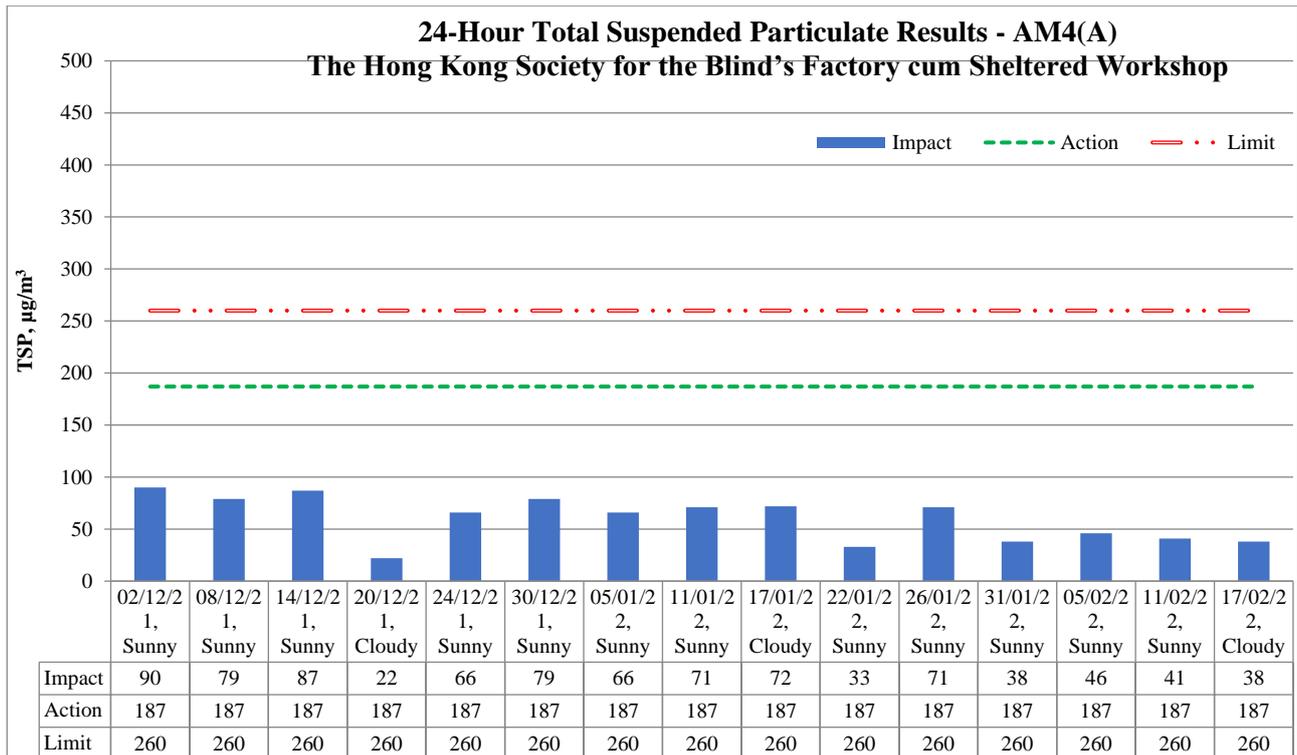
Air Monitoring Station		AM3 – Sky Tower	AM4(A) – The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop*	AM7 – Hong Kong Children’s Hospital
Start Date	Weather	24-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	24-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$	24-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$
02/12/2021	Sunny	73	90	79
08/12/2021	Sunny	79	79	80
14/12/2021	Sunny	85	87	81
20/12/2021	Cloudy	26	22	24
24/12/2021	Sunny	93	66	109
30/12/2021	Sunny	92	79	109
05/01/2022	Sunny	65	66	63
11/01/2022	Sunny	75	71	61
17/01/2022	Cloudy	92	72	89
22/01/2022	Sunny	47	33	39
26/01/2022	Sunny	60	71	47
31/01/2022	Sunny	33	38	36
05/02/2022	Sunny	52	46	43
11/02/2022	Sunny	24	41	35
17/02/2022	Cloudy	38	38	34
23/02/2022	Sunny	66	/	65
01/03/2022	Sunny	126	/	109
07/03/2022	Sunny	62	/	56
12/03/2022	Sunny	70	/	59
18/03/2022	Sunny	126	/	99
24/03/2022	Cloudy	41	/	33
30/03/2022	Sunny	40	/	46

NOTE: \*Due to the outbreak of COVID 19, The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop (AM4(A)), one of the impact monitoring stations, did not open to public starting from 23 February 2022 and Environmental Team could not conduct impact monitoring on roof top. No 24-hour TSP monitoring was conducted at AM4(A) because of the assess limitation during 23 February 2022.



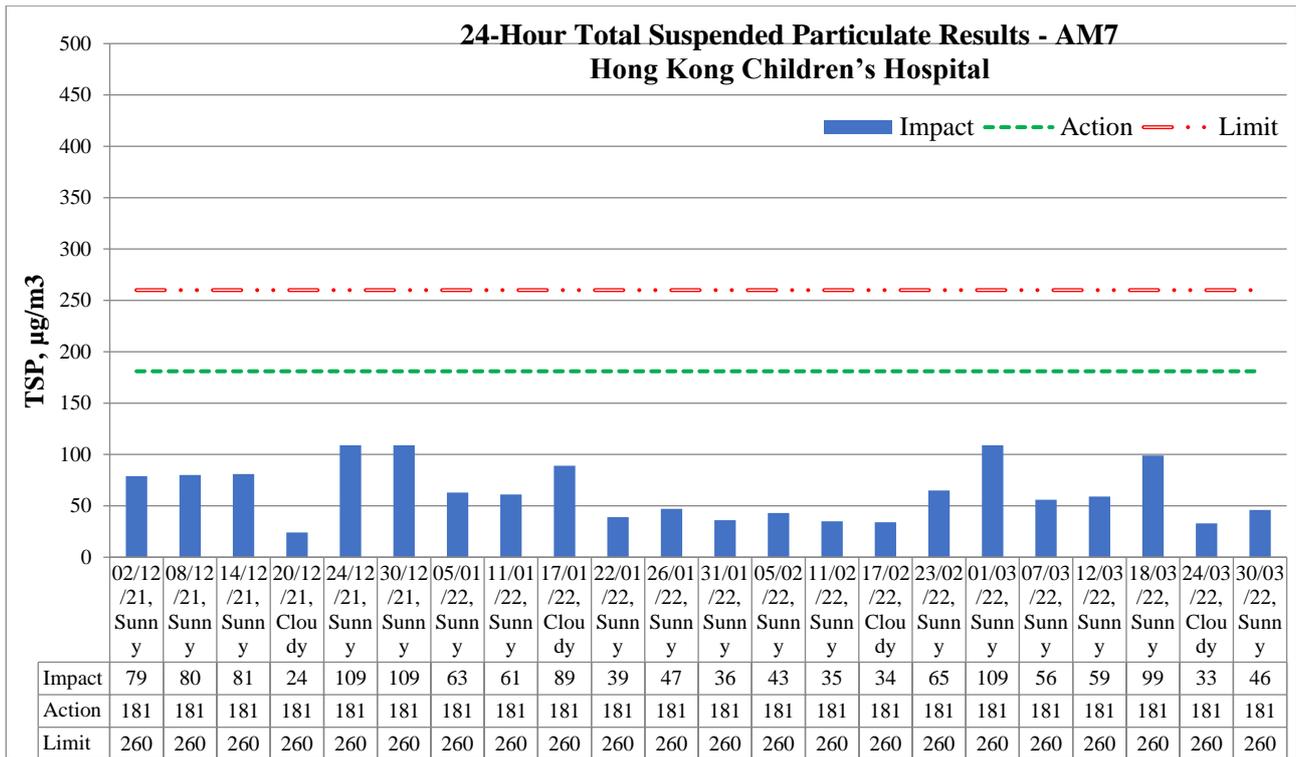
Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓



Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓



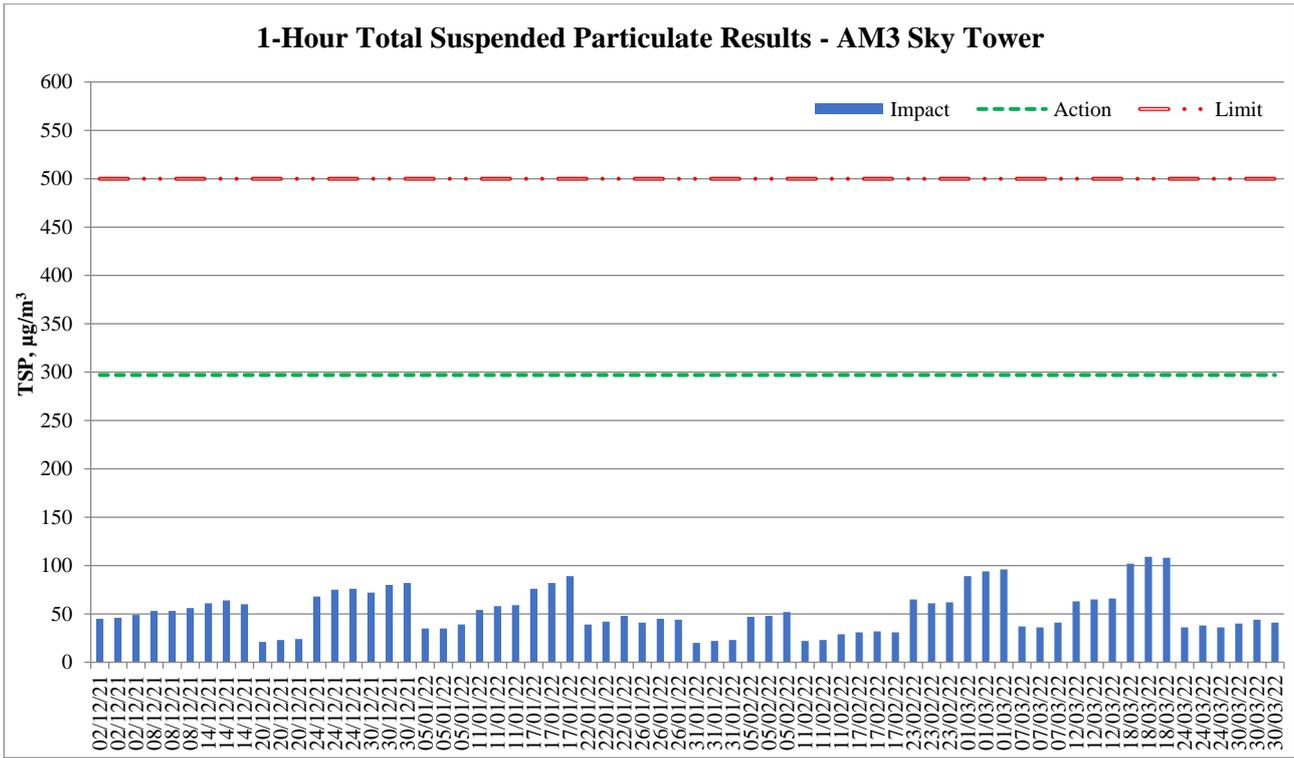
Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓

## 1-hour average TSP

Air Monitoring Station				AM3 – Sky Tower	
Date	Measurement Period			Weather	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$
2/12/2021	9:00	-	10:00	Sunny	45
2/12/2021	10:00	-	11:00		46
2/12/2021	11:00	-	12:00		49
8/12/2021	13:00	-	14:00	Sunny	53
8/12/2021	14:00	-	15:00		53
8/12/2021	15:00	-	16:00		56
14/12/2021	9:00	-	10:00	Sunny	61
14/12/2021	10:00	-	11:00		64
14/12/2021	11:00	-	12:00		60
20/12/2021	13:00	-	14:00	Cloudy	21
20/12/2021	14:00	-	15:00		23
20/12/2021	15:00	-	16:00		24
24/12/2021	13:00	-	14:00	Sunny	68
24/12/2021	14:00	-	15:00		75
24/12/2021	15:00	-	16:00		76
30/12/2021	9:00	-	10:00	Sunny	72
30/12/2021	10:00	-	11:00		80
30/12/2021	11:00	-	12:00		82
5/1/2022	13:00	-	14:00	Sunny	35
5/1/2022	14:00	-	15:00		35
5/1/2022	15:00	-	16:00		39
11/1/2022	9:00	-	10:00	Sunny	54
11/1/2022	10:00	-	11:00		58
11/1/2022	11:00	-	12:00		59
17/1/2022	9:00	-	10:00	Cloudy	76
17/1/2022	10:00	-	11:00		82
17/1/2022	11:00	-	12:00		89
22/1/2022	13:00	-	14:00	Sunny	39
22/1/2022	14:00	-	15:00		42
22/1/2022	15:00	-	16:00		48
26/1/2022	13:00	-	14:00	Sunny	41
26/1/2022	14:00	-	15:00		45
26/1/2022	15:00	-	16:00		44
31/1/2022	9:00	-	10:00	Sunny	20
31/1/2022	10:00	-	11:00		22
31/1/2022	11:00	-	12:00		23
5/2/2022	9:00	-	10:00	Sunny	47
5/2/2022	10:00	-	11:00		48
5/2/2022	11:00	-	12:00		52
11/2/2022	13:00	-	14:00	Sunny	22
11/2/2022	14:00	-	15:00		23
11/2/2022	15:00	-	16:00		29
17/2/2022	14:00	-	15:00	Cloudy	31
17/2/2022	15:00	-	16:00		32
17/2/2022	16:00	-	17:00		31
23/2/2022	9:00	-	10:00	Sunny	65
23/2/2022	10:00	-	11:00		61

Air Monitoring Station				AM3 – Sky Tower	
Date	Measurement Period			Weather	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$
23/2/2022	11:00	-	12:00		62
1/3/2022	13:00	-	14:00	Sunny	89
1/3/2022	14:00	-	15:00		94
1/3/2022	15:00	-	16:00		96
7/3/2022	9:00	-	10:00		Sunny
7/3/2022	10:00	-	11:00	36	
7/3/2022	11:00	-	12:00	41	
12/3/2022	13:00	-	14:00	Sunny	63
12/3/2022	14:00	-	15:00		65
12/3/2022	15:00	-	16:00		66
18/3/2022	9:00	-	10:00	Sunny	102
18/3/2022	10:00	-	11:00		109
18/3/2022	11:00	-	12:00		108
24/3/2022	9:00	-	10:00	Cloudy	36
24/3/2022	10:00	-	11:00		38
24/3/2022	11:00	-	12:00		36
30/3/2022	13:00	-	14:00	Sunny	40
30/3/2022	14:00	-	15:00		44
30/3/2022	15:00	-	16:00		41



Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

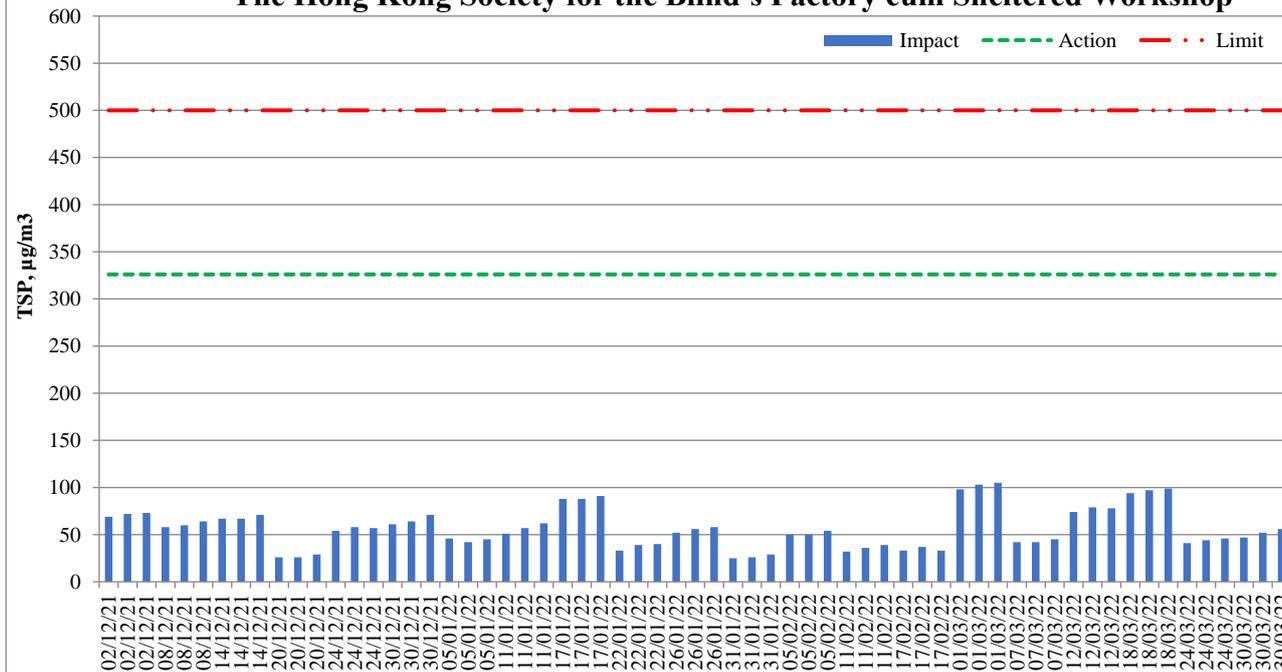
Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓

Air Monitoring Station				AM4(A) – The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop*	
Date	Measurement Period			Weather	1-hr Average TSP Concentration, µg/m <sup>3</sup>
2/12/2021	13:00	-	14:00	Sunny	69
2/12/2021	14:00	-	15:00		72
2/12/2021	15:00	-	16:00		73
8/12/2021	9:00	-	10:00	Sunny	58
8/12/2021	10:00	-	11:00		60
8/12/2021	11:00	-	12:00		64
14/12/2021	9:00	-	10:00	Sunny	67
14/12/2021	10:00	-	11:00		67
14/12/2021	11:00	-	12:00		71
20/12/2021	13:00	-	14:00	Cloudy	26
20/12/2021	14:00	-	15:00		26
20/12/2021	15:00	-	16:00		29
24/12/2021	13:00	-	14:00	Sunny	54
24/12/2021	14:00	-	15:00		58
24/12/2021	15:00	-	16:00		57
30/12/2021	9:00	-	10:00	Sunny	61
30/12/2021	10:00	-	11:00		64
30/12/2021	11:00	-	12:00		71
5/1/2022	9:00	-	10:00	Sunny	46
5/1/2022	10:00	-	11:00		42
5/1/2022	11:00	-	12:00		45
11/1/2022	13:00	-	14:00	Sunny	51
11/1/2022	14:00	-	15:00		57
11/1/2022	15:00	-	16:00		62
17/1/2022	9:00	-	10:00	Cloudy	88
17/1/2022	10:00	-	11:00		88
17/1/2022	11:00	-	12:00		91
22/1/2022	9:00	-	10:00	Sunny	33
22/1/2022	10:00	-	11:00		39
22/1/2022	11:00	-	12:00		40
26/1/2022	13:00	-	14:00	Sunny	52
26/1/2022	14:00	-	15:00		56
26/1/2022	15:00	-	16:00		58
31/1/2022	13:00	-	14:00	Sunny	25
31/1/2022	14:00	-	15:00		26
31/1/2022	15:00	-	16:00		29
5/2/2022	9:00	-	10:00	Sunny	50
5/2/2022	10:00	-	11:00		50
5/2/2022	11:00	-	12:00		54
11/2/2022	13:00	-	14:00	Sunny	32
11/2/2022	14:00	-	15:00		36
11/2/2022	15:00	-	16:00		39
17/2/2022	13:00	-	14:00	Sunny	33
17/2/2022	14:00	-	15:00		37
17/2/2022	15:00	-	16:00		33
23/2/2022	/	-	/	/	/
23/2/2022	/	-	/		/
23/2/2022	/	-	/		/
1/3/2022	13:00	-	14:00	Sunny	98

Air Monitoring Station				AM4(A) – The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop*	
Date	Measurement Period			Weather	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$
1/3/2022	14:00	-	15:00		103
1/3/2022	15:00	-	16:00		105
7/3/2022	13:00	-	14:00	Sunny	42
7/3/2022	14:00	-	15:00		42
7/3/2022	15:00	-	16:00		45
12/3/2022	9:00	-	10:00	Cloudy	74
12/3/2022	10:00	-	11:00		79
12/3/2022	11:00	-	12:00		78
18/3/2022	9:00	-	10:00	Sunny	94
18/3/2022	10:00	-	11:00		97
18/3/2022	11:00	-	12:00		99
24/3/2022	9:00	-	10:00	Sunny	41
24/3/2022	10:00	-	11:00		44
24/3/2022	11:00	-	12:00		46
30/3/2022	13:00	-	14:00	Sunny	47
30/3/2022	14:00	-	15:00		52
30/3/2022	15:00	-	16:00		56

NOTE: \* Due to the outbreak of COVID 19, The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop (AM4(A)), one of the impact monitoring stations, did not open to public starting from 23 February 2022 and Environmental Team could not conduct impact monitoring on roof top. No 1-hour TSP monitoring was conducted on 23 February 2022. 1-hour TSP monitoring was conducted on the ground floor outside AM4(A) with facing to the Project Site because of the access limitation in March 2022.

### 1-Hour Total Suspended Particulate Results - AM4(A) The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

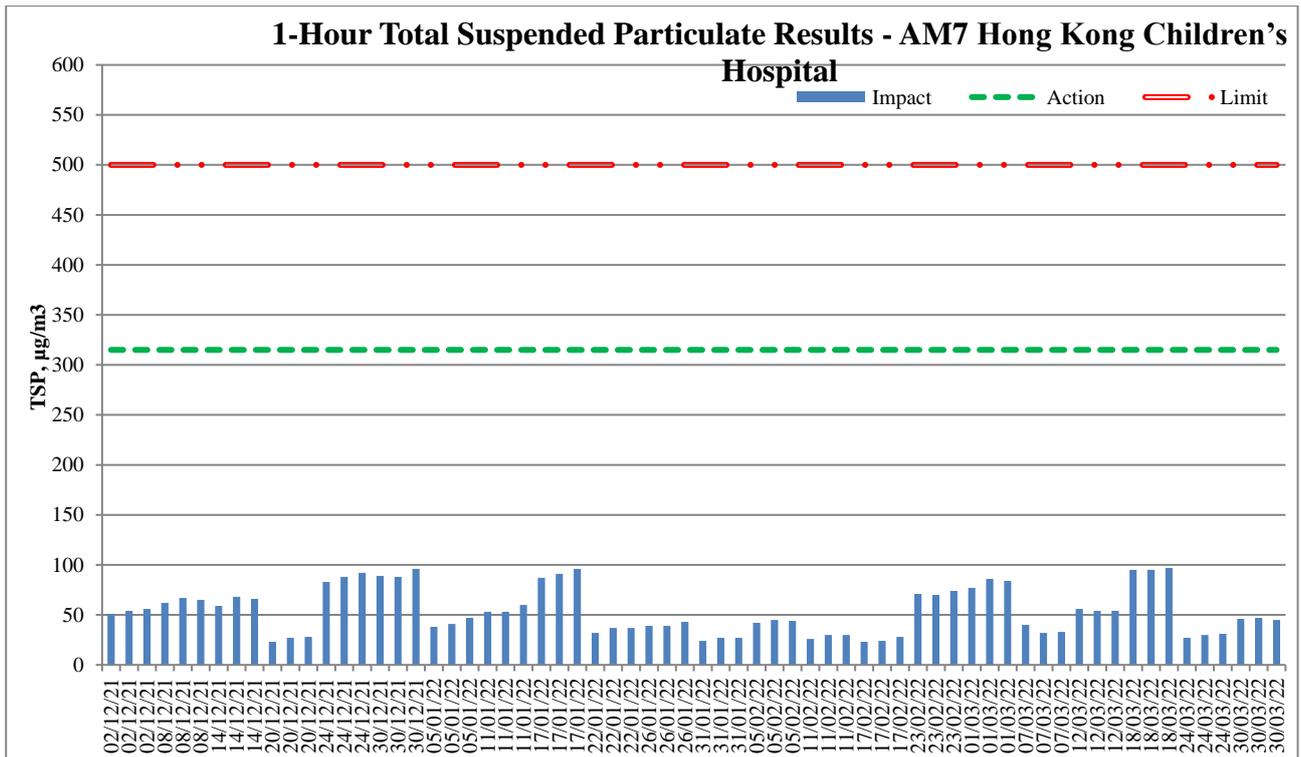


Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓

Air Monitoring Station				AM7 – Hong Kong Children’s Hospital	
Date	Measurement Period			Weather	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$
2/12/2021	13:00	-	14:00	Sunny	51
2/12/2021	14:00	-	15:00		54
2/12/2021	15:00	-	16:00		56
8/12/2021	9:00	-	10:00	Sunny	62
8/12/2021	10:00	-	11:00		67
8/12/2021	11:00	-	12:00		65
14/12/2021	13:00	-	14:00	Sunny	59
14/12/2021	14:00	-	15:00		68
14/12/2021	15:00	-	16:00		66
20/12/2021	9:00	-	10:00	Cloudy	23
20/12/2021	10:00	-	11:00		27
20/12/2021	11:00	-	12:00		28
24/12/2021	9:00	-	10:00	Sunny	83
24/12/2021	10:00	-	11:00		88
24/12/2021	11:00	-	12:00		92
30/12/2021	13:00	-	14:00	Sunny	89
30/12/2021	14:00	-	15:00		88
30/12/2021	15:00	-	16:00		96
5/1/2022	13:00	-	14:00	Sunny	38
5/1/2022	14:00	-	15:00		41
5/1/2022	15:00	-	16:00		47
11/1/2022	9:00	-	10:00	Sunny	53
11/1/2022	10:00	-	11:00		53
11/1/2022	11:00	-	12:00		60
17/1/2022	13:00	-	14:00	Cloudy	87
17/1/2022	14:00	-	15:00		91
17/1/2022	15:00	-	16:00		96
22/1/2022	13:00	-	14:00	Sunny	32
22/1/2022	14:00	-	15:00		37
22/1/2022	15:00	-	16:00		37
26/1/2022	9:00	-	10:00	Sunny	39
26/1/2022	10:00	-	11:00		39
26/1/2022	11:00	-	12:00		43
31/1/2022	9:00	-	10:00	Sunny	24
31/1/2022	10:00	-	11:00		27
31/1/2022	11:00	-	12:00		27
5/2/2022	13:00	-	14:00	Sunny	42
5/2/2022	14:00	-	15:00		45
5/2/2022	15:00	-	16:00		44
11/2/2022	9:00	-	10:00	Sunny	26
11/2/2022	10:00	-	11:00		30
11/2/2022	11:00	-	12:00		30
17/2/2022	9:00	-	10:00	Cloudy	23
17/2/2022	10:00	-	11:00		24
17/2/2022	11:00	-	12:00		28
23/2/2022	13:00	-	14:00	Sunny	71
23/2/2022	14:00	-	15:00		70
23/2/2022	15:00	-	16:00		74
1/3/2022	9:00	-	10:00	Sunny	77
1/3/2022	10:00	-	11:00		86

Air Monitoring Station				AM7 – Hong Kong Children’s Hospital	
Date	Measurement Period			Weather	1-hr Average TSP Concentration, $\mu\text{g}/\text{m}^3$
1/3/2022	11:00	-	12:00		84
7/3/2022	9:00	-	10:00	Sunny	40
7/3/2022	10:00	-	11:00		32
7/3/2022	11:00	-	12:00		33
12/3/2022	13:00	-	14:00		56
12/3/2022	14:00	-	15:00	Sunny	54
12/3/2022	15:00	-	16:00		54
18/3/2022	13:00	-	14:00		95
18/3/2022	14:00	-	15:00	Sunny	95
18/3/2022	15:00	-	16:00		97
24/3/2022	13:00	-	14:00		27
24/3/2022	14:00	-	15:00	Cloudy	30
24/3/2022	15:00	-	16:00		31
30/3/2022	9:00	-	10:00		Sunny
30/3/2022	10:00	-	11:00	47	
30/3/2022	11:00	-	12:00	45	



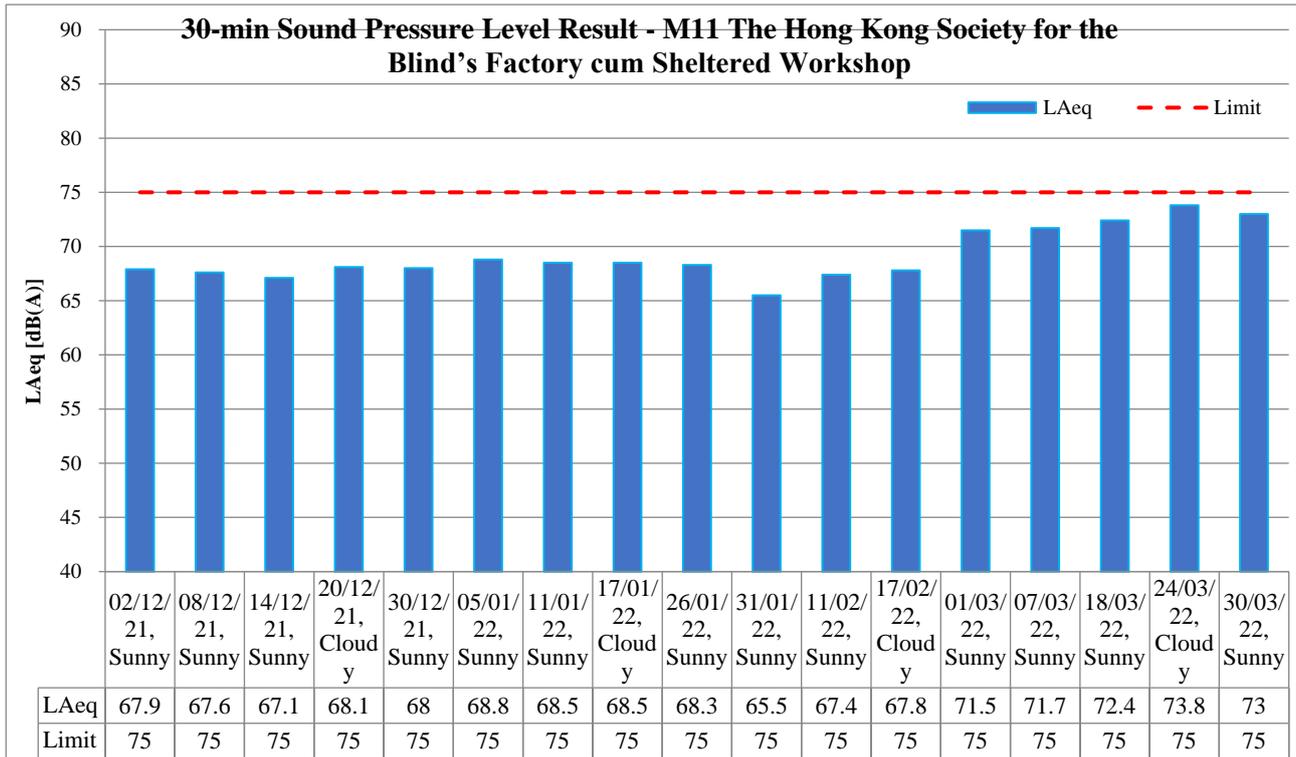
Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓

### 30-minute Noise

Noise Monitoring Station				M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*			
Date	Measurement Period			Weather	L <sub>Aeq</sub> , dB(A)	L <sub>A10</sub> , dB(A)	L <sub>A90</sub> , dB(A)
02/12/2021	14:12	-	14:42	Sunny	67.9	70.7	61.9
08/12/2021	10:30	-	11:00	Sunny	67.6	70.4	62.4
14/12/2021	10:05	-	10:35	Sunny	67.1	70.4	60.5
20/12/2021	14:25	-	14:55	Cloudy	68.1	70.7	63.1
30/12/2021	9:27	-	9:57	Sunny	68.0	71.1	62.5
05/01/2022	10:11	-	10:41	Sunny	68.8	71.6	63.7
11/01/2022	14:04	-	14:34	Sunny	68.5	71.0	64.0
17/01/2022	9:27	-	9:57	Cloudy	68.5	71.0	64.2
26/01/2022	14:33	-	15:03	Sunny	68.3	70.3	62.5
31/01/2022	13:55	-	14:25	Sunny	65.5	68.3	59.0
11/02/2022	14:18	-	14:48	Sunny	67.4	70.3	62.0
17/02/2022	13:59	-	14:29	Cloudy	67.8	70.4	63.0
01/03/2022	13:01	-	13:31	Sunny	71.5	74.1	57.6
07/03/2022	14:32	-	15:02	Sunny	71.7	75.3	60.8
18/03/2022	10:09	-	10:39	Sunny	72.4	75.9	63.9
24/03/2022	10:00	-	10:30	Cloudy	73.8	77.1	64.9
30/03/2022	13:36	-	14:06	Sunny	73.0	76.4	63.7

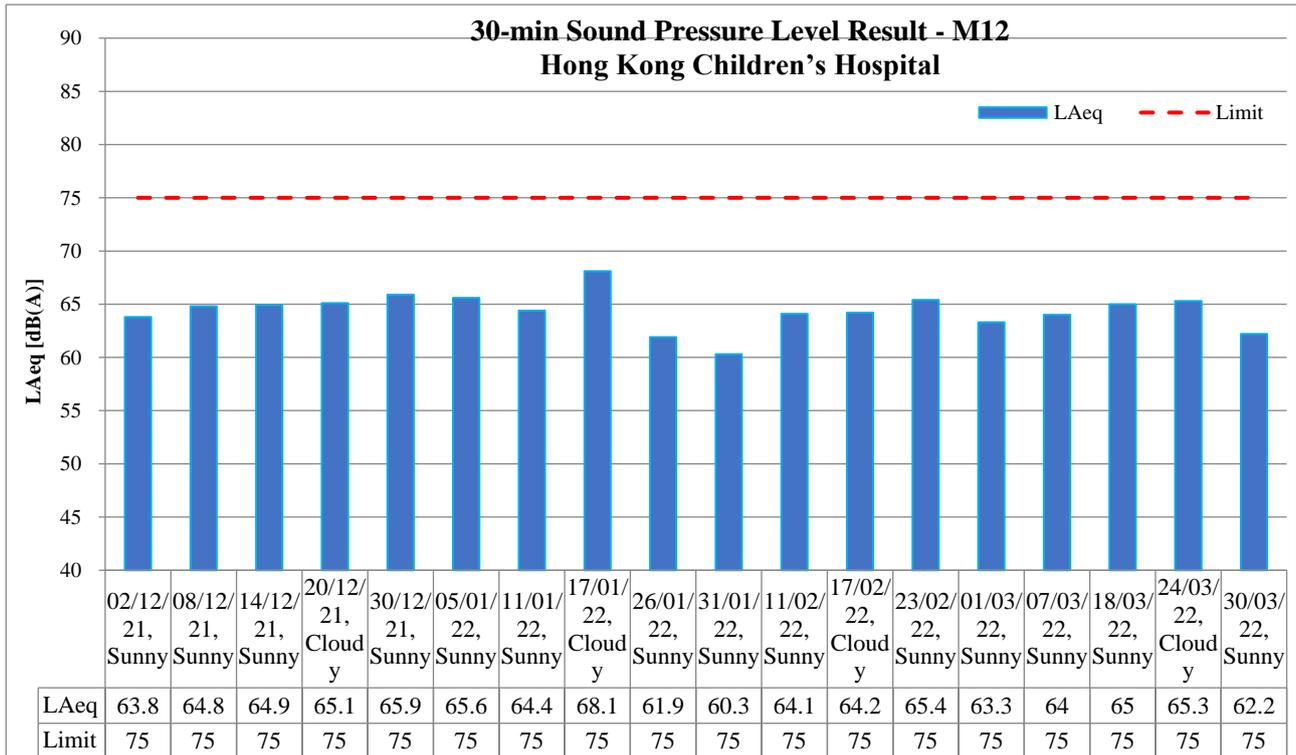
NOTE: \* Due to the outbreak of COVID 19, The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), one of the impact monitoring stations, did not open to public starting from 23 February 2022 and Environmental Team could not conduct impact monitoring on roof top. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation during 23 February to 31 March 2022.



Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓

Noise Monitoring Station				M12 - Hong Kong Children's Hospital			
Date	Measurement Period			Weather	L <sub>Aeq</sub> , dB(A)	L <sub>A10</sub> , dB(A)	L <sub>A90</sub> , dB(A)
02/12/2021	13:49	-	14:19	Sunny	63.8	65.4	62.1
08/12/2021	11:02	-	11:32	Sunny	64.8	67.0	61.9
14/12/2021	14:17	-	14:47	Sunny	64.9	66.6	62.4
20/12/2021	10:54	-	11:24	Cloudy	65.1	67.2	62.3
30/12/2021	13:22	-	13:52	Sunny	65.9	68.1	62.9
05/01/2022	15:03	-	15:33	Sunny	65.6	67.5	62.7
11/01/2022	10:54	-	11:24	Sunny	64.4	66.9	61.3
17/01/2022	14:34	-	15:04	Cloudy	68.1	71.4	64.0
26/01/2022	10:41	-	11:11	Sunny	61.9	64.0	58.1
31/01/2022	11:10	-	11:40	Sunny	60.3	62.2	55.4
11/02/2022	11:25	-	11:55	Sunny	64.1	67.2	60.0
17/02/2022	11:17	-	11:47	Cloudy	64.2	67.3	60.0
23/02/2022	13:53	-	14:23	Sunny	65.4	67.6	62.1
01/03/2022	10:19	-	10:49	Sunny	63.3	66.6	58.1
07/03/2022	10:36	-	11:06	Sunny	64	65.3	57.9
18/03/2022	14:38	-	15:08	Sunny	65.0	67.4	61.8
24/03/2022	14:16	-	14:46	Cloudy	65.3	67.3	62.3
30/03/2022	10:37	-	11:07	Sunny	62.2	64.6	58.9



Major Construction Activities	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
North Approach Ramp – Construction of wall, roof slab, utilities trough	✓	✓		
South Approach Ramp – Construction of Permanent Structure	✓	✓	✓	✓
Underpass – Construction of walls and roof slab	✓	✓	✓	✓
Road D3 Junction – Road works	✓	✓	✓	✓
Bridge D3 – Construction of Bridge Deck and abutments	✓	✓		
North Depressed Road – Construction of wall & top slab	✓	✓		
District Cooling System seawater intake box culvert – Installation of precast units and backfilling works, reinstatement of the seawall and backfilling works	✓	✓	✓	✓
Lift 3 – Construction of linking platform	✓	✓	✓	✓
Lift 4 – Construction of Wall and Roof Slab / Installation of Steelworks and Glass Panel	✓	✓	✓	✓
South Depressed Road – Installation of ELS system / construction of permanent works	✓	✓	✓	✓
Rising Main and Water Pipe – Laying of sewage	✓	✓	✓	✓
Landscaped Deck – Construction of pile caps and installation of columns	✓	✓	✓	✓
Transformer Room – Installation of ELS system and construction of permanent structure	✓	✓	✓	✓
Lift 1 & 2 – Installation of ELS system	✓	✓	✓	✓
North Approach Ramp – Construction of utilities trough			✓	✓
Bridge D3 – Construction of Bridge Deck			✓	✓
North Depressed Road – Construction of wall & top slab			✓	✓

Factors might affect the monitoring results	Reporting Period			
	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Non-project related construction activities in the adjacent construction sites were observed.	✓	✓	✓	✓

**Appendix E – Event and Action Plans for Construction Dust  
Monitoring, Construction Noise and Landscape and Visual Impact**

<b>Event and Action Plans for Construction Dust Monitoring</b>				
<b>Event</b>	<b>Action</b>			
	<b>ET</b>	<b>IEC</b>	<b>Supervisor / ER</b>	<b>Contractor</b>
Action Level being exceeded by one sampling	<ol style="list-style-type: none"> <li>1. Identify source and investigate the causes of exceedance;</li> <li>2. Inform Contractor, IEC and Supervisor /ER;</li> <li>3. Repeat measurement to confirm finding.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rectify any unacceptable practice;</li> <li>2. Amend working methods if appropriate.</li> </ol>
Action Level being exceeded by two or more consecutive sampling	<ol style="list-style-type: none"> <li>1. Identify source and investigate the causes of exceedance;</li> <li>2. Inform Contractor, IEC and Supervisor /ER;</li> <li>3. Increase monitoring frequency to daily;</li> <li>4. Discuss with IEC and Contractor on remedial actions required;</li> <li>5. Assess the effectiveness of Contractor's remedial actions;</li> <li>6. If exceedance continues, arrange meeting with IEC and Supervisor /ER;</li> <li>7. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the Supervisor /ER on the effectiveness of the proposed remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Supervise implementation of remedial measures;</li> <li>5. Conduct meeting with ET and IEC if exceedance continues.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET and IEC on proper remedial actions;</li> <li>2. Submit proposals for remedial actions to Supervisor /ER and IEC within three working day of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Amend proposal if appropriate.</li> </ol>
Limit Level being exceeded by one sampling	<ol style="list-style-type: none"> <li>1. Identify source and investigate the causes of exceedance;</li> <li>2. Inform Contractor, IEC, Supervisor /ER, and EPD;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Assess effectiveness of</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss possible remedial measures with ET and Contractor;</li> <li>4. Advise the Supervisor /ER</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Discuss with ET and IEC on proper remedial actions;</li> <li>3. Submit proposal for remedial actions to Supervisor /ER and IEC</li> </ol>

<b>Event and Action Plans for Construction Dust Monitoring</b>				
<b>Event</b>	<b>Action</b>			
	<b>ET</b>	<b>IEC</b>	<b>Supervisor / ER</b>	<b>Contractor</b>
	Contractor's remedial actions and keep EPD, IEC and Supervisor /ER informed of the results.	on the effectiveness of the proposed remedial measures.	implemented; 4. Supervise implementation of remedial measures; 5. Conduct meeting with ET and IEC if exceedance continues.	within three working days of notification; 4. Implement the agreed proposals.
Limit Level being exceeded by two or more consecutive sampling	<ol style="list-style-type: none"> <li>1. Notify IEC, Supervisor /ER, Contractor and EPD;</li> <li>2. Repeat measurement to confirm findings;</li> <li>3. Carry out analysis of Contractor's working procedures to identify source and investigate the causes of exceedance;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Arrange meeting with IEC, Supervisor /ER and Contractor to discuss the remedial action to be taken;</li> <li>6. Assess effectiveness of Contractor's remedial actions and keep EPD, IEC and Supervisor /ER informed of the results;</li> <li>7. If exceedance stop, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with Supervisor /ER, ET, and Contractor on the potential remedial actions;</li> <li>4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the Supervisor /ER accordingly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Supervise implementation of remedial measures;</li> <li>5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Discuss with ET and IEC on proper remedial actions;</li> <li>3. Submit proposal for remedial actions to Supervisor /ER and IEC within three working days of notification;</li> <li>4. Implement the agreed proposals;</li> <li>5. Submit further remedial actions if problem still not under control;</li> <li>6. Stop the relevant portion of works as instructed by the Supervisor /ER until the exceedance is abated.</li> </ol>

Event and Action Plans for Construction Noise				
Event	Action			
	ET	IEC	Supervisor / ER	Contractor
Action Level being exceeded	<ol style="list-style-type: none"> <li>1. Notify Supervisor / ER, IEC and Contractor;</li> <li>2. Carry out investigation;</li> <li>3. Report the results of investigation to the IEC, Supervisor / ER and Contractor;</li> <li>4. Discuss with the IEC and Contractor on remedial measures required;</li> <li>5. Increase monitoring frequency to check mitigation effectiveness.</li> </ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> <li>1. Review the investigation results submitted by the ET;</li> <li>2. Review the proposed remedial measures submitted by the Contractor and advise the ER accordingly;</li> <li>3. Advise the Supervisor / ER on the proposed remedial measures.</li> </ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Supervise the implementation of remedial measures.</li> </ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposal to IEC and Supervisor / ER;</li> <li>2. Implement noise mitigation proposals.</li> </ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>
Limit Level being exceeded	<ol style="list-style-type: none"> <li>1. Inform IEC, Supervisor /ER, Contractor and EPD;</li> <li>2. Repeat measurement to confirm findings;</li> <li>3. Increase monitoring frequency;</li> <li>4. Identify source and investigate the cause of exceedance;</li> <li>5. Carry out analysis of Contract's working procedure;</li> <li>6. Discuss remedial measures required with the IEC, Contractor and Supervisor /ER;</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss the potential remedial actions with Supervisor /ER, ET and Contractor;</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the Supervisor /ER accordingly.</li> </ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Supervise the implementation of remedial measures;</li> <li>5. If exceedance continues, consider stopping the Contractor to continue working on that portion of</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC and Supervisor /ER within 3 working days of notification;</li> <li>3. Implement the agreed proposal;</li> <li>4. Submit further proposal if problem still not under control;</li> <li>5. Stop the relevant portion of works as instructed by the Supervisor /ER until the exceedance is abated.</li> </ol>

<b>Event and Action Plans for Construction Noise</b>				
<b>Event</b>	<b>Action</b>			
	<b>ET</b>	<b>IEC</b>	<b>Supervisor / ER</b>	<b>Contractor</b>
	7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD, and Supervisor /ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified.)		work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified.)	(The above actions should be taken within 2 working days after the exceedance is identified.)

<b>Event and Action Plans for Landscape and Visual Impact</b>				
<b>Event</b>	<b>Action</b>			
	<b>ET</b>	<b>IEC</b>	<b>Supervisor / ER</b>	<b>Contractor</b>
Design Check	<ol style="list-style-type: none"> <li>1. Check final design conforms to the requirements of EP and prepare report.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check report.</li> <li>2. Recommend remedial design if necessary.</li> </ol>	<ol style="list-style-type: none"> <li>1. Undertake remedial design if necessary.</li> </ol>	
Non-conformity on one occasion	<ol style="list-style-type: none"> <li>1. Identify Source.</li> <li>2. Inform IEC and Supervisor /ER.</li> <li>3. Discuss remedial actions with IEC, Supervisor /ER and Contractor.</li> <li>4. Monitor remedial actions until rectification has been completed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check report.</li> <li>2. Check Contractor's working method.</li> <li>3. Discuss with ET and Contractor on possible remedial measures.</li> <li>4. Advise Supervisor /ER on effectiveness of proposed remedial measures.</li> <li>5. Check implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor.</li> <li>2. Ensure remedial measures are properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Amend working methods.</li> <li>2. Rectify damage and undertake any necessary replacement.</li> </ol>
Repeated Non-conformity	<ol style="list-style-type: none"> <li>1. Identify Source.</li> <li>2. Inform IEC and Supervisor /ER.</li> <li>3. Increase monitoring frequency.</li> <li>4. Discuss remedial actions with IEC, Supervisor /ER and Contractor.</li> <li>5. Monitor remedial actions until rectification has been completed.</li> <li>6. If non-conformity stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring report.</li> <li>2. Check Contractor's working method.</li> <li>3. Discuss with ET and Contractor on possible remedial measures.</li> <li>4. Advise Supervisor /ER on effectiveness of proposed remedial measures.</li> <li>5. Supervise implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor.</li> <li>2. Ensure remedial measures are properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Amend working methods.</li> <li>2. Rectify damage and undertake any necessary replacement.</li> </ol>

**Appendix F – Waste Flow Table**

## Appendix F - Monthly Summary Waste Flow Table

Name of Department: CEDD

Contract No.: ED/2018/01

**Monthly Summary Waste Flow Table for March 2022**

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	0.832	--	--	--	0.832	--	--	0.100	--	--	0.144
Feb	0.749	--	0.450	--	0.299	--	--	--	--	--	0.124
Mar	0.768	--	--	--	0.768	--	--	--	--	--	0.154
Apr											
May											
Jun											
<b>Sub-total</b>	<b>2.349</b>	<b>--</b>	<b>0.450</b>	<b>--</b>	<b>1.899</b>	<b>--</b>	<b>--</b>	<b>0.100</b>	<b>--</b>	<b>--</b>	<b>0.422</b>
July											
Aug											
Sep											
Oct											
Nov											
Dec											
<b>Total</b>	<b>2.349</b>	<b>--</b>	<b>0.450</b>	<b>--</b>	<b>1.899</b>	<b>--</b>	<b>--</b>	<b>0.100</b>	<b>--</b>	<b>--</b>	<b>0.422</b>
Forecast of Total Quantities of C&D Materials to be Generated from the Contract*											
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse	
(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )	
<b>195.01</b>	<b>2.103</b>	<b>10.2</b>	<b>140</b>	<b>19.81</b>	<b>25</b>	<b>200</b>	<b>0.8</b>	<b>0.1</b>	<b>--</b>	<b>3.4</b>	

- Notes: (1) The performance targets are given in **ER Appendix 8I Clause 14** and the EM&A Manual  
 (2) The waste flow table shall also include C&D materials to be imported for use at the Site  
 (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material and water barrier  
 (4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m<sup>3</sup> (**ER Part 8 Clause 8.7.5(d)(ii)** refers)  
 (5) Assume inert C&D materials density and non-inert C&D materials are 1.9 m<sup>3</sup>/ton and 1.5 m<sup>3</sup>/ton

**Appendix G – Environmental Mitigation Implementation Schedule  
(EMIS)**

<b>Implementation Schedule for Air Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.2		8 times daily watering of the work site with active dust emitting activities.	^
S3.2	S4.8	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimize cumulative dust impacts.	^*
		- Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	^*
		- Misting for the dusty material should be carried out before being loaded into the vehicle.	^
		- Any vehicle with an open load carrying area should have properly fitted side and tail boards.	^
		- Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin.	^
		- The tarpaulin should be properly secured and should extent at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary, before transportation.	^
		- The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways insider the site. On- site unpaved roads should be compacted and kept free of lose materials.	^
		- Vehicle washing facilities should be provided at every vehicle exit point.	^
		- The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	^
		- Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	^*
		- Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the three sides.	^
		- Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	^

<b>Implementation Schedule for Noise Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.3		Use of quiet PME, movable barriers barrier for Asphalt Paver, Breaker, Excavator and Hand-held breaker and full enclosure for Air Compressor, Bar Bender, Concrete Pump, Generator and Water Pump.	^
S3.3		Good Site Practice:	
S3.3		- Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	^
		- Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.	^
		- Mobile plant, if any, should be sited as far away from NSRs as possible.	^
		- Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.	^
		- Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	^
		- Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	^
		- Scheduling of Construction Works during School Examination Period	^

<b>Implementation Schedule for Water Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.4		<u>Construction Runoff</u> Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include:	^
S3.4		- use of sediment traps.	^
S3.4		- adequate maintenance of drainage systems to prevent flooding	^

<b>Implementation Schedule for Water Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
		and overflow.	
	S5.8	- Surface run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins.	^
	S5.8	- Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	^
	S5.8	- Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains. Minimum distance of 100 m should be maintained between the discharge points of construction site run-off and the existing saltwater intakes.	^
	S5.8	- Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	^
	S5.8	- Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	^
	S5.8	- Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.	^
	S5.8	- Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must	^

<b>Implementation Schedule for Water Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
		always be prevented in order not to unduly overload the foul sewerage system.	
	S5.8	- Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.	^
S3.4		Construction site should be provided with adequately designed perimeter channel and pre-treatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94.	^
S3.4	S5.8	Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable.  If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.  If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.	^
S3.4		Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m <sup>3</sup> capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is	^

<b>Implementation Schedule for Water Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
		flexible and able to handle multiple inputs from a variety of sources and particularly suited to applications where the influent is pumped.	
S3.4		Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m <sup>3</sup> 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.	^
S3.4		Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.	^
S3.4		Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events.	^
S3.4		Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	NA
S3.4	S5.8	<u>Wheel Washing Water</u> All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	^
S3.4		<u>Drainage</u> It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There should be no direct discharge of effluent from the site into the sea.	^

<b>Implementation Schedule for Water Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.4		All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.	^
S3.4		All fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour WCZ.	^
S3.4	S5.8	<p><u>Sewage Effluent</u></p> <p>Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor should also be responsible for waste disposal and maintenance practices.</p> <p>Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site will provide an effective control of any malpractices and can encourage continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the project would not cause water pollution problem after undertaking all required measures.</p>	^
S3.4		<p><u>Stormwater Discharges</u></p> <p>Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes</p>	^
S3.4		<p><u>Debris and Litter</u></p> <p>In order to maintain water quality in acceptable conditions with regard to aesthetic quality, contractors should be required, under</p>	^

<b>Implementation Schedule for Water Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
		conditions of contract, to ensure that site management is optimised and that disposal of any solid materials, litter or wastes to marine waters does not occur.	
	S5.8	<u>Boring and Drilling Water</u> Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.	^
	S5.8	<u>Acid Cleaning, Etching and Pickling Wastewater</u> Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers.	NA
	S5.8	<u>Effluent Discharge</u> There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. Minimum distance of 100 m should be maintained between the discharge points of construction site effluent and the existing seawater intakes and the planned WSR mentioned in S5.3.1 as appropriate. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence which is under the ambit of regional office (RO) of EPD.	^
	S5.8	<u>Accidental Spillage</u> Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes.	^

<b>Implementation Schedule for Water Quality Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
		Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	
	S5.8	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: - Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.	^
	S5.8	- Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.	^
	S5.8	- Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.	^

<b>Implementation Schedule for Waste Management Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.5		<u>Good Site Practices</u> It is not anticipated that adverse waste management related impacts would arise, provided that good site practices are adhered to. Recommendations for good site practices during construction activities include:	
S3.5		- 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.	^
	S6.7	- Prepare a Waste Management Plan, which becomes a part of the Environmental Management Plan, in accordance with the requirements stipulated in ETWB TC(W) No. 19/2005, approved by the Engineer/Supervising Officer of the Project based on current practices on construction sites.	^

<b>Implementation Schedule for Waste Management Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.5	S6.7	- Training of site personnel in proper waste management and chemical waste handling procedures.	^
S3.5	S6.7	- Provision of sufficient waste disposal points and regular collection for disposal.	^*
S3.5	S6.7	- Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	^
S3.5		- A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	^
	S6.7	- Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	^*
	S6.7	- Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycle.	^
S3.5		<u>Waste Reduction Measures</u> Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:	^
S3.5	S6.7	- Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals.	NA
S3.5	S6.7	- Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	^
S3.5	S6.7	- Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force.	^
S3.5		- Any unused chemicals or those with remaining functional capacity should be recycled.	^
S3.5	S6.7	- Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	^
S3.5		<u>Construction and Demolition Materials</u> Mitigation measures and good site practices should be incorporated in the contract document to control potential environmental impact from handling and transportation of C&D material. The mitigation measures include:	

<b>Implementation Schedule for Waste Management Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.5		- Where it is unavoidable to have transient stockpiles of C&D material within the Project work site pending collection for disposal, the transient stockpiles shall be located away from waterfront or storm drains as far as possible.	^
S3.5		- Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	^
S3.5		- Skip hoist for material transport should be totally enclosed by impervious sheeting.	^
S3.5		- Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site.	^
S3.5		- The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	^
S3.5		- The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle.	^
S3.5		- All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	^
S3.5		- The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading.	^
S3.5		- When delivering inert C&D material to public fill reception facilities, the material should consist entirely of inert construction waste and of size less than 250mm or other sizes as agreed with the Secretary of the Public Fill Committee. In order to monitor the disposal of the surplus C&D material at the designed public fill reception facility and to control fly tipping, a trip-ticket system as stipulated in the ETWB TCW No. 31/2004 “Trip Ticket System for Disposal of Construction and Demolition Materials” should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.	^

<b>Implementation Schedule for Waste Management Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
	S6.7	- Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste.	^
S3.5		<u>Chemical Waste</u> After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be collected by a licensed collector for disposal at the CWTF or other licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	^
	S6.7	Separation of chemical wastes for special handling and appropriate treatment.	^
S3.5		<u>General Refuse</u> General refuse should be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Effective collection and storage methods (including enclosed and covered area) of site wastes would be required to prevent waste materials from being blown around by wind, wastewater discharge by flushing or leaching into the marine environment, or creating odour nuisance or pest and vermin problem.	^

<b>Implementation Schedule for Landscape and Visual Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
S3.8.12		All existing trees should be carefully protected during construction	^
S3.8.12		Trees unavoidably affected by the works should be transplanted where practical. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees should be agreed prior to commencement of the work.	NA
S3.8.12		Control of night-time lighting.	^
S3.8.12		Erection of decorative screen hoarding.	^
	S7.9	<u>Construction Site Control</u> - CM1 - Minimized construction area and contractor's temporary works areas.	^
		- CM2- Control of night-time lighting and glare by hooding all	^

<b>Implementation Schedule for Landscape and Visual Measures</b>			
<b>EIA for KTD Development Ref.</b>	<b>EIA for KTD – Roads D3A &amp; D4A Ref.</b>	<b>Environmental Protection Measures / Mitigation Measures</b>	<b>Status</b>
		lights.	
		- CM3 - Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	^
		- CM4 - Reduction of construction period to practical minimum.	^
		- CM5 - Limitation of / Ensuring no run-off into surrounding landscape and adjacent seawater areas.	^
		- CM6 - Temporary or advance landscape should be provided along the temporary access roads to the Cruise Terminal until such time as road D3 is open.	NA

<b>Remarks:</b>			
^	Compliance of mitigation measure.	X	Non-compliance of mitigation measure.
N/A	Not Applicable at this stage.	●	Non-compliance but rectified by the contractor.
N/A (1)	Not observed.		
*	Recommendation was made during site audit but improved/rectified by the contractor.	#	Recommendation was made during audit and to be improved/ rectified by the contractor.

**Appendix H – Summaries of Environmental Complaint, Warning,  
Summon and Notification of Successful Prosecution**

**Reporting Period: January 2022 to March 2022**

<b>Contract No.</b>	<b>Record of Complaint (Yes/No)</b>	<b>Record of Warning (Yes/No)</b>	<b>Notification of Summons and Successful Prosecutions (Yes/No)</b>
ED/2018/01	No	No	No

**Cumulative Statistics on Complaints, Notification of Summons and Successful Prosecutions upto reporting period**

<b>Contract No.</b>	<b>Record of Complaint</b>	<b>Record of Warning</b>	<b>Notification of Summons and Successful Prosecutions</b>
ED/2018/01	3	0	0

<b>Complaint Log for ED/2018/01</b>				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Recommendations / Actions	Close-Out Date / Status
C0001	A dust complaint was referred from the Contractor on 21 October 2020 regarding a public complaint via 1823 hotline (Case no. 3-6518939602) on 20 October 2020.	<ol style="list-style-type: none"> <li>1. The water spraying system was not operated in proper time.</li> <li>2. Stockpile was not covered properly.</li> <li>3. Haul road was not wetted.</li> <li>4. Materials transported on trucks were not provided with mechanical covers.</li> </ol>	<p><u>Investigation</u></p> <ol style="list-style-type: none"> <li>1. Based on the information provided by the Contractor on 22 October 2020, the water sprinklers system was sprayed every 15 minutes with 70 seconds interval automatically. For the area that water sprinklers system was not covered, manual water spraying was provided. Dump trucks were covered with mechanical cover after loading the materials. The stockpile area was covered by the tarpaulin during night time.</li> <li>2. Based on the monitoring results on 16 October 2020, the 1-hour and 24-hour TSP results were below the Action Levels and Limit Levels.</li> <li>3. Regular site inspection was conducted by ET on 22 October 2020, no adverse observation against the dust impact was recorded.</li> </ol> <p><u>Recommendations</u></p> <p>To minimize the impact for air quality, mitigation measures should be enhanced specially in dry seasons are recommended:</p> <ol style="list-style-type: none"> <li>1. Increase the frequency and duration for automatic water spraying system.</li> <li>2. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted by water trucks or manually in regular basis.</li> <li>3. Ensure stockpiling sites should be lined with impermeable sheeting and banded. Stockpiles should be fully covered by impermeable sheeting at all time except</li> </ol>	<ul style="list-style-type: none"> <li>- Closed-out on 5 Nov 2020</li> <li>- No further complaint was received.</li> </ul>

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Recommendations / Actions	Close-Out Date / Status
			<p>during working process.</p> <p><u>Action taken</u> As per the Contractor, the water sprinklers are now adjusted to start at 8:00am and end at 6:00pm for Monday to Saturday while from 8:00am to 5:00pm on Sunday. Water spraying are set with 5-minute time interval with duration 30-60 seconds.</p>	
C0002	A dust complaint was referred from the Contractor on 8 September 2021 through E-Mail regarding a complaint received by EPD (EPD ref.: K19/RE/00021205-21) on 7 September 2021.	Complaint of dust problem at the pavement of Muk Tai Street near Sports Park.	<p><u>Investigation</u> As per contractor, part of the complaint area was within the site boundary of the project.</p> <ul style="list-style-type: none"> <li>- Manual water spraying was provided.</li> <li>- The exposed surface and stockpile areas were covered by the impermeable tarpaulin sheet.</li> </ul> <p><u>Recommendations</u> There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however the contractor is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> <li>1. Ensure stockpiling sites should be lined with impermeable sheeting and banded.</li> <li>2. Stockpiles should be fully covered by impermeable sheeting at all time except during working process.</li> <li>3. Ensure the work fulfill the relevant statutory requirements on control of air pollution.</li> <li>4. Take necessary measures to minimize the environmental nuisance arising from the</li> </ol>	<ul style="list-style-type: none"> <li>- Closed-out on 4 Oct 2021</li> <li>- No further complaint was received.</li> </ul>

<b>Complaint Log for ED/2018/01</b>				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Recommendations / Actions	Close-Out Date / Status
			<p>construction site.</p> <p><u>Action taken</u> The exposed surface and stockpile area was covered by the impermeable tarpaulin sheet.</p>	
C0003	A water discharge complaint was referred from the Contractor on 10 December 2021 through E-Mail regarding a complaint received by EPD (ref.: K19/RE/00029046-21) on 9 December 2021.	Complaint of muddy water being discharged into the sea of To Kwa Wan Typhoon Shelter via a DSD outfall near the roundabout of Shing Fung Road.	<p><u>Investigation</u> Joint site inspection was conducted by ER, IEC, ET and the contractor on 14 December 2021, no adverse observation against the water impact was recorded.</p> <ul style="list-style-type: none"> <li>- There was no muddy water discharge to DSD outfall near the roundabout of Shing Fung Road.</li> <li>- The sand bag with layers and filter were provided at the manholes.</li> </ul> <p><u>Recommendations</u> There was no direct evidence showing that the water nuisance was caused by the contractor at the complaint area. Some of muddy water generated from wheel washing might be flow to the outfall inside the site boundary, however the contractor had taken the mitigation measure by using sand bag and filter to ease the nuisance. The contractor is recommended to implement the following measures to minimize the impact for waste water:</p> <ul style="list-style-type: none"> <li>- Enhance the sand bag with several layers instead of one layer only and replace the filter frequently.</li> <li>- Modify the wheel washing area such that the muddy water will be directly flow to</li> </ul>	<ul style="list-style-type: none"> <li>- Closed-out on 5 Jan 2022</li> <li>- No further complaint was received.</li> </ul>

<b>Complaint Log for ED/2018/01</b>				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Recommendations / Actions	Close-Out Date / Status
			<p>the pit and then waste water treatment facility.</p> <ul style="list-style-type: none"> <li>- Take necessary measures to minimize the environmental nuisance arising from the construction site.</li> </ul> <p><u>Action taken</u></p> <ul style="list-style-type: none"> <li>- Sand bags and filter were used to block the manholes.</li> <li>- Manholes had been adequately covered and replace the filter frequently.</li> </ul>	