

Ref.: CEDKTDS4EM00_0_0347L.24

11 April 2024

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

By Post and Email

Attention: Ms. Fanny Lau

Dear Madam,

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

Monthly EM&A Report for March 2024

Reference is made to the Environmental Team's submission of the Monthly EM&A Report for March 2024 (Version 1.1) certified by the ET Leader and provided to us via email on 11 April 2024.

Please be advised that we have no further comment on the captioned Monthly EM&A Report in accordance with Condition 3.3 of EP-337/2009 and Condition 3.2 of EP-445/2013/B.

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

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



Y H Hui
Independent Environmental Checker

c.c. CEDD
Ka Shing
Penta-Ocean

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

Fax: 2739 0076
By Email
Fax: 2572 4080

Q:\Projects\CEDKTDS4EM00\02 Proj_Mgt\02 Corr\CEDKTDS4EM00_0_0347L.24.doc

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

Contract No.: EDO 15/2018

March 2024

(Version 1.1)

Certified By: _____



(Environmental Team Leader)

Table of Content

Page

EXECUTIVE SUMMARY	1
Breaches of Action and Limit Levels	1
Complaint log	1
Notifications of summons and successful prosecutions	2
Report changes	2
Key construction works in the reporting month	2
Future key issues	3
1. INTRODUCTION	5
Project Background	5
Project Organization	6
Works Area and Construction Programme	6
Construction works undertaken during reporting month	7
Submission Status under the Environmental Permits	7
2. AIR QUALITY MONITORING	8
Monitoring Requirements	8
Monitoring Locations	8
Monitoring Parameters, Frequency and Duration	10
Monitoring Equipment	11
Monitoring Methodology and QA/QC Procedure	11
Wind Data Monitoring	14
Action and Limit Levels	14
Impact Air Quality Monitoring results	14
3. NOISE MONITORING	16
Monitoring Requirements	16
Monitoring Locations	16
Monitoring Parameters, Frequency and Duration	18

	Monitoring Equipment	18
	Monitoring Methodology and QA/QC Procedure	19
	Maintenance and Calibration.....	19
	Action and Limit Levels.....	20
	Impact Noise Monitoring results	20
4.	COMPARISON OF EM&A RESULTS WITH EIA PREDICTIONS	22
5.	LANDSCAPE AND VISUAL MONITORING	25
	Results and Observations	25
6.	ENVIRONMENTAL SITE INSPECTION AND AUDIT	26
	Site Inspection	26
	Status of Waste Management	28
	Status of Environmental Licenses, Notification and Permits	28
	Implementation Status of Environmental Mitigation Measures	29
	Environmental Complaint and Non-compliance	29
	Notifications of summons and successful prosecutions	29
7.	FUTURE KEY ISSUES	31
	Construction Programme in the coming month.....	31
	Environmental Site Inspection and Monitoring Schedule for next month	32
8.	CONCLUSIONS.....	33

List of Tables

Table I	Non-compliance Record in the Reporting Month
Table II	Summary of complaints in the Reporting Month
Table III	Summary of summons and successful prosecutions in the Reporting Month
Table IV	Summary of future key issues and potential impact in the coming month
Table 1.1	Contact Information of Key Personnel
Table 1.2	Major activities of the Project during reporting month
Table 1.3	Summary of Status of Required Submission of EPs

Table 2.1	Locations of Air Quality Monitoring Stations
Table 2.2	Proposed alternative monitoring locations for AM4(A)
Table 2.3	Air Quality Monitoring Parameters, Frequency and Duration
Table 2.4	Air Quality Monitoring Equipment
Table 2.5	Action and Limit Levels of 24-hour average TSP for Construction Dust Monitoring
Table 2.6	Action and Limit Levels of 1-hour average TSP for Construction Dust Monitoring
Table 2.7	Summary of 24-hour average TSP Monitoring Data during the reporting month
Table 2.8	Summary of 1-hour average TSP Monitoring Data during the reporting month
Table 3.1	Locations of Noise Monitoring Stations
Table 3.2	Proposed alternative monitoring locations for M11
Table 3.3	Noise Monitoring Parameters, Frequency and Duration
Table 3.4	Noise Monitoring Equipment
Table 3.5	Baseline Noise Level and Action and Limit Levels for Construction Noise Monitoring
Table 3.6	Summary of Noise Monitoring Data during the reporting month
Table 4.1	Comparison of 24-hour average TSP Monitoring Data with EIA predictions
Table 4.2	Comparison of 1-hour average TSP Monitoring Data with EIA predictions
Table 4.3	Comparison of Noise Monitoring Data with EIA predictions
Table 5.1	Summary of observations of Landscape and Visual impact during the reporting month
Table 6.1	Summary of site inspections observations during the reporting month
Table 6.2	Summary of Environmental Licenses, Notifications and Permits
Table 6.3	Summary of complaints in the Reporting Month
Table 6.4	Summary of summons and successful prosecutions in the Reporting Month
Table 7.1	Summary of future key issues and potential impact in the coming month

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 – New Opened Road on 31 December 2022

Figure 6 – Air Quality Monitoring Stations

Figure 7 – Proposed Alternative Monitoring Locations for AM4(A)

Figure 8 – Noise Monitoring Stations

Figure 9 – Proposed Alternative Monitoring Locations for M11

List of Appendices

Appendix A – Organization Chart of EM&A Team

Appendix B – Construction Programme

Appendix C – Apply permission for Environmental Monitoring

Appendix D – Environmental monitoring schedules

Appendix E – Photographic records

Appendix F – Calibration certificates, catalogue of air quality monitoring equipment

Appendix G – Weather information

Appendix H – 24-hr TSP monitoring results and graphical presentation

Appendix I – 1-hr TSP monitoring results and graphical presentation

Appendix J – Event and Action Plan for air quality

Appendix K – Calibration certificates, catalogue of noise monitoring equipment

Appendix L – Noise monitoring results and graphical presentation

Appendix M – Event and Action Plan for noise

Appendix N – Event and Action Plan for Landscape and Visual Impact

Appendix O – Waste Flow Table

Appendix P – Environmental Mitigation Implementation Schedule (EMIS)

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

EXECUTIVE SUMMARY

This is the 51st Monthly Environmental Monitoring & Audit (EM&A) report which summaries the findings of the EM&A Programme during the reporting period from 1 to 31 March 2024.

Breaches of Action and Limit Levels

- 1) 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.
- 2) 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.
- 3) Construction noise monitoring was conducted as scheduled in the reporting month. No Action Level and Limit Level exceedance was recorded in the reporting month.
- 4) Summary of the non-compliance in the reporting month for the Project is tabulated in Table I.

Table I Non-compliance Record in the Reporting Month

Parameter	No. of Exceedance		Action Taken
	Action Level	Limit Level	
1-hr TSP	0	0	N/A
24-hr TSP	0	0	N/A
Construction noise	0	0	N/A

Complaint log

- 5) No complaint was received in the reporting month. Summary of complaints in the reporting month is tabulated in Table II.

Table II Summary of complaints in the Reporting Month

Date of complaint received	Description of complaint	Investigation / Recommendations / Action taken	Close-out date / Status
NA	NA	NA	NA

Notifications of summons and successful prosecutions

- 6) No notification of summons and successful prosecutions was received in the reporting month. Summary of summons and successful prosecutions in the reporting month is tabulated in Table III.

Table III Summary of summons and successful prosecutions in the Reporting Month

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 month.	NA	NA	NA	NA

Report changes

- 7) There was no reporting change in the reporting month.

Key construction works in the reporting month

- 8) Major construction activities undertake during the reporting month included:
- Laying of stormwater drainage pipes/ sewer pipes/watermains and construction of associated manholes at Road L12d and at-grade road.
 - E&M works for Underpass 03
 - Construction of remaining works for Noise Barrier
 - Construction of RC structure for Lift LT-1 and LT-2
 - Construction of permanent railing for NDR
 - Modification works at Shing Kai Road

- Install the lift cart for Lift LT-4;
- Laying of stormwater drainage pipes/ sewer pipes/ watermains
- Waterproofing works for ELD
- Construction of Seawater Intake Box Culvert
- Concreting and RC structure of Pumping Stations
- Construction of Observation Deck
- Construction of LCSD Temporary Office;
- Construction of Harbour Steps
- Concreting and RC structure of Toilet cum Changing Room
- Construction of pedestrian street near Shing Fung Road Roundabout
- Construction of Floating Stage
- Construction of Outfall 1&2

Future key issues

9) The future key issues and potential impact in the coming month are given in Table IV.

Table IV Summary of future key issues and potential impact in the coming month

Future key issues in the coming month	Potential impact
Construction of manholes and chambers at Shing Kai Road and the at-grade road near NDR, SDR, South Depressed Road, Lift LT-4 and Noise Barrier;	Noise and Air Quality, Chemical and Waste Management
Watermain connection and pressure test for watermains at Shing Kai Road and at-grade road near NDR;	Noise, Air and Water Quality
Construction of LCSD Temporary Office	Noise and Air Quality, Chemical and Waste Management
Construction of bus stop at at-grade road and noise barrier	Noise and Air Quality, Chemical and Waste Management
Installation of precast parapet for Bridge D3;	Noise and Air Quality, Chemical and Waste Management
Construction of Toilet cum Changing Room;	Noise, Air and Water Quality
Install the lift cart for Lift LT-4;	Noise and Air Quality, Chemical and Waste Management
Construction of Pumping Stations;	Noise and Air Quality, Chemical and Waste Management
Construction of Seawater Intake Box Culvert;	Noise and Air Quality, Chemical and Waste Management
Construction of Lift LT-1 & LT-2;	Noise, Air and Water Quality
Construction of Floating Stage;	Noise, Air and Water Quality
Construction of Harbour Steps.	Noise, Air and Water Quality
Diversion/ connection works (involving confined space) of Box Culvert	Noise and Air Quality, Chemical and Waste Management
Construction of Outfall 1&2	Noise, Air and Water Quality
Rising main laying works	Noise, Air and Water Quality

Future key issues in the coming month	Potential impact
Construction of theater and dry fountain system near Toilet cum	Noise, Air and Water Quality
E&M works for Underpass D3;	Noise and Air Quality, Chemical and Waste Management
Construction of Observation Deck	Noise, Air and Water Quality

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 The new road connecting Shing Fung Road & Shing Kai Road has been open for public vehicles since 31 December 2022. Detailed location referring to Figure 5.
- 1.4 Civil Engineering and Development Department (CEDD) had completed an Environmental Impact Assessment (EIA) and is the Permit Holder.
- 1.5 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 and Variation to the EP (VEP) No. EP-445/2013/B.
- 1.6 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

1.7 The project organization chart 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. Jason Wong	Senior Engineer	3579 2453	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)	Ms. Fanny Lau	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. Tony Tang	Environmental Officer	9433 2628	3465 8898

Works Area and Construction Programme

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

Construction works undertaken during reporting month

1.9 Major construction works of the Project in the reporting month are summarized in Table 1.2:

Table 1.2 Major activities of the Project during reporting month

Laying of stormwater drainage pipes/ sewer pipes/watermains and construction of associated manholes at Road L12d and at-grade road	E&M works for Underpass 03
Construction of remaining works for Noise Barrier	Construction of RC structure for Lift LT-1 and LT-2
Construction of Permanent railing for NDR	Modification works at Shing Kai Road
Install the lift cart for Lift LT-4	Laying of stormwater drainage pipes/ sewer pipes/ watermains
Waterproofing works for ELD	Construction of Seawater Intake Box Culvert;
Concreting and RC structure of Pumping Stations	Construction of Observation Deck
Construction of LCSD Temporary Office;	Construction of Harbour Steps;
Concreting and RC structure of Toilet cum Changing Room	Construction of pedestrian street near Shing Fung Road Roundabout
Construction of Floating Stage	Construction of Outfall 1&2

Submission Status under the Environmental Permits

1.10 The status of required submission under Environmental Permit (EP) conditions under EP-337/2009 and Variation to the EP (VEP) No. EP-445/2013/B are summarized in Table 1.3.

Table 1.3 Summary of Status of Required Submission of EPs

EP Condition EP-337/2009	EP Condition EP-445/2013/B	Submission	Submission Date
Condition 1.11	Condition 1.12	Notification of Commencement Date of Construction of the Project	6 Jan 2020
Condition 2.3	Condition 2.3	Management Organization of Main Construction Companies	9 Sep 2019
Condition 2.3	Condition 2.3	Updated Management Organization of Main Construction Companies	17 Aug 2021
Condition 2.4	Condition 2.4	Design Drawings	6 Jan 2020
Condition 2.11	Condition 2.5	Landscape Mitigation Plans	13 Nov 2020
Condition 2.1	Condition 2.5	Landscape Mitigation Plans (Revision 2)	18 May 2021
NA	Condition 2.9	Detailed Design Plan of Traffic Noise Mitigation Measures	9 Dec 2022
Condition 3.2	NA	Baseline Monitoring Report	2 Jan 2020

EP Condition EP-337/2009	EP Condition EP-445/2013/B	Submission	Submission Date
Condition 3.2	NA	Revised Baseline Monitoring Report	28 Mar 2020
Condition 3.3	Condition 3.2	Monthly EM&A Report (February 2024)	11 Mar 2024

2. AIR QUALITY MONITORING

Monitoring Requirements

2.1 In accordance with EM&A Manuals (EIA Register Nos. AEIAR-130/2009), impact air quality monitoring shall be carried out during the construction phase of the Project. For regular impact monitoring, a sampling frequency of at least once in every six days will be strictly observed at all of the monitoring stations for 24-hour TSP. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days will be undertaken when the highest dust impact occurs.

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 month. Table 2.1 describes the air quality monitoring locations, which are also depicted in Figure 6.

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	Ground
AM7 – Hong Kong Children's Hospital	Rooftop

2.3 Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) while 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site.

2.4 ET approached the potential sensitive receivers for monitoring station relocation since May 2022. ET conducted site visit in nearby area and found that there was no property management

company in most of the nearby premises and could not approach the residents regarding the environmental monitoring. No permission can be applied for environmental monitoring.

2.5 For those premises have property management company, ET sent the proposal to owner / property management company and explained the purpose of environmental monitoring (refer to Appendix C – Apply permission for Environmental Monitoring). Figure 7 shows the proposed alternative monitoring locations. No permission of setup and entry is received until the reporting month.

2.6 Summary of the status of for proposed alternative monitoring locations for AM4(A) are given in Table 2.2.

Table 2.2 Proposed alternative monitoring locations for AM4(A)

Proposed alternative monitoring locations for M11	Status upto reporting month
A1 - The Lok Sin Tong Modular Social Housing Scheme	Rejected application on 13 Oct 2022
A2 - Freder Centre	No reply from building management office
A3 - New Port Centre	No reply from building management office
A4 - 112 - 138 To Kwa Wan Road	No property management company and could not apply the permission.
A5 - 2 - 26 Hok Ling Street	No property management company and could not apply the permission.
A6 - 1 - 27 Hok Ling Street	No property management company and could not apply the permission.
A7 - 2 - 28 Tsun Fat Street	No property management company and could not apply the permission.
A8 - 1 - 27 Tsun Fat Street	No property management company and could not apply the permission.
A9 - 2 - 28 Yin On Street	No property management company and could not apply the permission.
A10 - 1 - 27 Yin On Street	No property management company and could not apply the permission.
A11 - 2 - 28 Shim Luen Street	No property management company and could not apply the permission.
A12 - 1 - 27 Shim Luen Street	No property management company and could not apply the permission.
A13 - 2 - 28 Hung Wan Street	No property management company and could not apply the permission.
A14 - 1 - 27 Hung Wan Street	No property management company and could not apply the permission.
A15 - 2 - 28 Pang Ching Street	No property management company and could not apply the permission.
A16 - 1 - 27 Pang Ching Street	No property management company and could not apply the permission.
A17 - 2 - 28 Ying Yeung Street	No property management company and could not apply the permission.

Proposed alternative monitoring locations for M11	Status upto reporting month
	not apply the permission.
A18 - 1 - 27 Ying Yeung Street	No property management company and could not apply the permission.
A19 - 2 - 28 Lun Cheung Street	No property management company and could not apply the permission.
A20 - 1 - 27 Lun Cheung Street	No property management company and could not apply the permission.
A21 - 2 - 28 Luk Ming Street	No property management company and could not apply the permission.
A22 - 1 - 27 Luk Ming Street	No property management company and could not apply the permission.
A23 - 2 - 28 Fung Yi Street	No property management company and could not apply the permission.

2.7 No update for the approval of monitoring relocation in the reporting month and ET will resume the impact monitoring once the alternative monitoring location for AM4(A) are confirmed.

Monitoring Parameters, Frequency and Duration

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

Table 2.3 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	Ground	- 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			

2.9 The monitoring schedule for reporting month and next month is presented in Appendix D

2.10 Photographic records of the impact monitoring setup are shown in Appendix E.

Monitoring Equipment

2.11 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 2.4 summarizes the equipment to be used in the air quality monitoring.

Table 2.4 Air Quality Monitoring Equipment

Equipment	Model	Quantity
HVS Sampler	TE-5170 X c/w of TSP sampling inlet	2
Calibrator	TISCH TE-5025A	1
1-hour TSP Dust Meter	TSI Model AM510 SidePak Personal Aerosol Monitor	2
Wind Anemometer	Davis Vantage Pro2 Weather Station	1

2.12 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).

2.13 Calibration certificates, catalogue of equipment are given in Appendix F.

Monitoring Methodology and QA/QC Procedure

24-hour TSP Monitoring

Operating/Analytical Procedures

2.14 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.

2.15 Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m³/min. and 1.7 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

2.16 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.

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

2.18 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.

2.19 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.

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

2.21 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).

2.22 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

2.23 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

2.24 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 check reading at each sampling location for data processing.
- Recorded any activities that may generate dust during measurement period.

Maintenance/Calibration

2.25 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

2.26 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.

2.27 The wind data was captured by a data logger and the data was downloaded at least once per month for analysis.

2.28 The wind data monitoring equipment will be re-calibrated at least once every six months.

2.29 Wind direction is divided into 16 sectors of 22.5 degrees each.

2.30 Details of weather information during the monitoring period are shown in Appendix G.

Action and Limit Levels

2.31 The Action and Limit Levels of 24-hour average TSP and 1-hour average TSP are summarized in Table 2.5 and Table 2.6 respectively.

Table 2.5 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 2.6 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

2.32 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 2.7 and Table 2.8

respectively.

2.33 Due to the relocation of The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) while 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

Table 2.7 Summary of 24-hour average TSP Monitoring Data during the reporting month

Air Monitoring Station	Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM3	65	36 – 98	182	260
AM4(A)	/	/ – /	187	260
AM7	71	50 – 93	181	260

Table 2.8 Summary of 1-hour average TSP Monitoring Data during the reporting month

Air Monitoring Station	Average TSP Concentration, $\mu\text{g}/\text{m}^3$	Range, $\mu\text{g}/\text{m}^3$	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM3	63	33 – 90	297	500
AM4(A)	72	47 – 98	326	500
AM7	69	41 – 89	315	500

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

2.35 Graphical presentation and detailed monitoring results of 24-hour average TSP and 1-hour average TSP levels are shown in Appendix H and Appendix I respectively.

2.36 The Event and Action Plan is provided in Appendix J.

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

3. NOISE MONITORING

Monitoring Requirements

- 3.1 In accordance with EM&A Manuals (EIA Register Nos. AEIAR-130/2009), impact noise monitoring shall be carried out during the construction phase of the Project.
- 3.2 Regular monitoring, $L_{Aeq, 30\text{-minute}}$, for each station will be on a weekly basis and conduct one set of measurements between 0700 – 1900 on normal weekdays.
- 3.3 If construction works are extended to include works during 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring will be carried out during the respective restricted hours periods.

Monitoring Locations

- 3.4 Two designated monitoring stations were selected for noise monitoring programme. Impact noise monitoring was conducted at two noise monitoring stations in the reporting month. Table 3.1 describes the noise monitoring locations, which are also depicted in Figure 8.

Table 3.1 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	Ground (Façade)
M12 - Hong Kong Children's Hospital	Rooftop (Façade)

- 3.5 Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022.
- 3.6 ET approached the potential sensitive receivers for monitoring station relocation since May 2022. ET conducted site visit in nearby area and found that there was no property management company in most of the nearby premises and could not approach the residents regarding the environmental monitoring. No permission can be applied for environmental monitoring.

3.7 For those premises have property management company, ET sent the proposal to owner / property management company and explained the purpose of environmental monitoring (refer to Appendix C – Apply permission for Environmental Monitoring). Figure 9 shows the proposed alternative monitoring locations. No permission of setup and entry is received until the reporting month.

3.8 Summary of the status of for proposed alternative monitoring locations for M11 are given in Table 3.2.

Table 3.2 Proposed alternative monitoring locations for M11

Proposed alternative monitoring locations for M11	Status upto reporting month
A1 - The Lok Sin Tong Modular Social Housing Scheme	Rejected application on 13 Oct 2022
A2 - Freder Centre	No reply from building management office
A3 - New Port Centre	No reply from building management office
A4 - 112 - 138 To Kwa Wan Road	No property management company and could not apply the permission.
A5 - 2 - 26 Hok Ling Street	No property management company and could not apply the permission.
A6 - 1 - 27 Hok Ling Street	No property management company and could not apply the permission.
A7 - 2 - 28 Tsun Fat Street	No property management company and could not apply the permission.
A8 - 1 - 27 Tsun Fat Street	No property management company and could not apply the permission.
A9 – 2 - 28 Yin On Street	No property management company and could not apply the permission.
A10 – 1 – 27 Yin On Street	No property management company and could not apply the permission.
A11 – 2 – 28 Shim Luen Street	No property management company and could not apply the permission.
A12 - 1 - 27 Shim Luen Street	No property management company and could not apply the permission.
A13 - 2 - 28 Hung Wan Street	No property management company and could not apply the permission.
A14 - 1 - 27 Hung Wan Street	No property management company and could not apply the permission.
A15 - 2 - 28 Pang Ching Street	No property management company and could not apply the permission.
A16 - 1 - 27 Pang Ching Street	No property management company and could not apply the permission.
A17 - 2 - 28 Ying Yeung Street	No property management company and could not apply the permission.
A18 - 1 - 27 Ying Yeung Street	No property management company and could not apply the permission.
A19 - 2 - 28 Lun Cheung Street	No property management company and could

Proposed alternative monitoring locations for M11	Status upto reporting month
	not apply the permission.
A20 - 1 - 27 Lun Cheung Street	No property management company and could not apply the permission.
A21 - 2 - 28 Luk Ming Street	No property management company and could not apply the permission.
A22 - 1 - 27 Luk Ming Street	No property management company and could not apply the permission.
A23 - 2 - 28 Fung Yi Street	No property management company and could not apply the permission.

3.9 No update for the approval of monitoring relocation in the reporting month and ET will resume the impact monitoring once the alternative monitoring location for M11 are confirmed.

Monitoring Parameters, Frequency and Duration

3.10 The noise monitoring locations and monitoring frequency are listed in Table 3.3.

Table 3.3 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*	Ground (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)		

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022.

3.11 The monitoring schedule for reporting month and next month is presented in Appendix D.

3.12 Photographic records of the monitoring setup are shown in Appendix E.

Monitoring Equipment

3.13 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 3.4 summarizes the equipment to be used in the noise monitoring.

Table 3.4 Noise Monitoring Equipment

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

3.14 Calibration certificates, catalogue of equipment are given in Appendix K.

Monitoring Methodology and QA/QC Procedure

3.15 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.

3.16 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.

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

3.18 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.

3.19 Noise level was recorded.

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

Maintenance and Calibration

3.21 The microphone head of the sound level meter and calibrator was cleaned with a soft cloth at

quarterly intervals.

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

3.23 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.

Action and Limit Levels

3.24 The Baseline Noise Levels and Action and Limit Levels for construction noise is presented in Table 3.5.

Table 3.5 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

3.25 Impact noise monitoring results at the designed noise monitoring stations are summarized in Table 3.6 respectively.

3.26 Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 30-min noise monitoring at M11 were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for M11 is confirmed.

Table 3.6 Summary of Noise Monitoring Data during the reporting month

Noise Monitoring Station	Measured $L_{Aeq, 30\text{-min}}$, Average, dB(A)	Measured $L_{Aeq, 30\text{-min}}$, Range, dB(A)	Action Level	Limit Level [^]
M11	73.8	73.5 – 74.1	When one documented complaint is received	75 dB(A)
M12	65.6	63.5 – 66.4		

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.

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

3.28 Graphical presentation and detailed monitoring results are shown in Appendix L.

3.29 The Event and Action Plan is provided in Appendix J.

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

4. COMPARISON OF EM&A RESULTS WITH EIA PREDICTIONS

4.1 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 4.1 to Table 4.3.

Table 4.1 Comparison of 24-hour average TSP Monitoring Data with EIA predictions

Air Monitoring Station	ASR No. in EIA report	Predicted Cumulative Maximum 24-hour average TSP concentration		Measured 24-hr average TSP in Reporting Month (March 2024) $\mu\text{g}/\text{m}^3$
		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 [^]	106	138	36 – 98
AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*	A43 [^]	123	195	/ – /
AM7 – Hong Kong Children's Hospital	PA60	NA	NA	50 – 93

Note:

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

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) because of the assess limitation in the reporting month.

Table 4.2 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 (March 2024) $\mu\text{g}/\text{m}^3$
		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 [^]	247 [^]	33 – 90
AM4(A) - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*	A43	283 [^]	409 [^]	47 – 98
AM7 – Hong Kong Children's Hospital	PA60	NA	NA	41 – 89

Note:

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

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 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 the reporting month.

Table 4.3 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 _{Aeq, 30min} , dB(A)	Measured Noise Level in Reporting Month (March 2024) L _{Aeq, 30min} , dB(A)
M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop*	N18	50 – 76*	73.5 – 74.1
M12 - Hong Kong Children's Hospital	PN83, PN84, PN84A	NA	63.5 – 66.4

Note:

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

*Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Construction noise monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month.

4.2 24-hr TSP monitoring result at AM3 were recorded lower than the prediction in the EIA Report. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) because of the assess limitation in the reporting month. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

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

4.4 1-hour TSP monitoring results at AM3 and AM4(A) were recorded lower than the prediction in the EIA Report. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 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 the reporting month. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

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

4.6 Noise monitoring results at M11 were recorded lower than the prediction in the EIA Report.

Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Construction noise monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month. Non-project related construction activities in the adjacent construction sites were observed during the reporting period and may affect the monitoring results.

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

5. LANDSCAPE AND VISUAL MONITORING

5.1 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.

Results and Observations

5.2 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.

5.3 Site inspections were conducted on 7, 12, 21 and 28 March 2024 in the reporting month.

5.4 The summaries of site audits are attached in Table 5.1.

Table 5.1 Summary of observations of Landscape and Visual impact during the reporting month

Inspection Date	Key Observations	Recommendations / Actions	Close-out Date / Status
07 March 2024	No	NA	NA
12 March 2024	No	NA	NA
21 March 2024	No	NA	NA
28 March 2024	No	NA	NA

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





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





6. ENVIRONMENTAL SITE INSPECTION AND AUDIT

Site Inspection

- 6.1 Site inspections were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site.
- 6.2 Site inspections were conducted on 7, 12, 21 and 28 March 2024 in the reporting month.
- 6.3 The summaries of site audits are attached in Table 6.1.

Table 6.1 Summary of site inspections observations during the reporting month

Inspection Date	Key Observations	Recommendations / Actions	Close-out Date / Status
07 March 2024	No	NA	NA
12 March 2024	 <p>Observation: The NRMM Label for the crane is missing. Please ensure the label is properly demonstrated.</p>	 <p>Action Taken: The NRMM Label has been demonstrated properly for the crane.</p>	Closed-out on 21 March 2024
	 <p>Observation: The QPME label for the generator is missing. Please ensure the label is properly</p>	 <p>Action Taken: The QPME label for the generator is properly demonstrated.</p>	

Inspection Date	Key Observations	Recommendations / Actions	Close-out Date / Status
	<p>demonstrated.</p>  <p>Observation: Secondary container should be provided for the plastic chemicals to prevent soil contamination.</p>	 <p>Action Taken: Secondary container has been provided for the plastic chemicals to prevent soil contamination.</p>	<p>Closed-out on 21 March 2024</p>
<p>21 March 2024</p>	<p>No</p>	<p>NA</p>	<p>NA</p>
<p>28 March 2024</p>	 <p>Observation: The stockpiling of construction materials should be covered in harbour step area.</p>  <p>Observation: The dusty road should be watered regularly within site office area.</p>	 <p>Action Taken: The stockpiling of construction materials has been covered in harbour step area.</p>  <p>Action Taken: The dusty road has been watered regularly within site office area.</p>	<p>Closed-out on 3 April 2024</p> <p>Closed-out on 3 April 2024</p>

Inspection Date	Key Observations	Recommendations / Actions	Close-out Date / Status

Status of Waste Management

- 6.4 The amount of wastes generated by the major site activities of the work contracts within the Project during the reporting month is shown in Appendix O.
- 6.5 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.

Status of Environmental Licenses, Notification and Permits

- 6.6 A summary of the relevant permits, licenses and/or notifications on environmental protection for the Project is shown in Table 6.2.

Table 6.2 Summary of Environmental Licenses, Notifications and Permits

Environmental Licenses, Notifications and Permits	Ref. No.	Valid Form	Valid Till
Environmental Permit under EIAO	EP-337/2009	23 Apr 2009	N/A
	EP-445/2013/B	3 May 2022	N/A
Construction Dust Notification under APCO	445956	6 Jun 2019	N/A
Wastewater Discharge License under WPCO	WT00034610-2019	26 Sep 2019	30 Sep 2024
Waste Disposal Billing Account	7034450	28 Jun 2019	N/A
Registration as a Chemical Waste Producer	5218-286-P3182-03	18 Jul 2019	N/A
Construction Noise Permit	GW-RE0063-24	30 Jan 2024	28 Jul 2024
	GW-RE0064-24	05 Feb 2024	04 Jul 2024
	GW-RE0082-24	14 Feb 2024	13 Aug 2024
	GW-RE0090-24	07 Feb 2024	29 Apr 2024
	GW-RE0092-24	01 Feb 2024	29 Apr 2024
	GW-RE1252-23	19 Oct 2023	15 Apr 2024
	GW-RE1296-23	02 Nov 2023	01 Mar 2024
	GW-RE1364-23	14 Nov 2023	13 May 2024
	GW-RE1368-23	15 Nov 2023	14 May 2024
	GW-RE1436-23	01 Dec 2023	31 Mar 2024
GW-RE1438-23	01 Dec 2023	31 Mar 2024	
GW-RE1654-23	07 Jan 2024	29 Apr 2024	

Implementation Status of Environmental Mitigation Measures

6.7 The Contractor has implemented environmental mitigation measures and requires as stated in the EIA reports, the EP and the EM&A Manuals. The implementation status of the mitigation measures during the reporting month is summarized in Appendix P.

6.8 In response to the site audit findings, the Contractor carried out corrective actions with summary given in Appendix P.

Environmental Complaint and Non-compliance

6.9 No complaint was received in the reporting month. Summary of complaints in the reporting month is tabulated in Table 6.3.

Table 6.3 Summary of complaints in the Reporting Month

Date of complaint received	Description of complaint	Investigation / Recommendations / Action taken	Close-out date / Status
NA	NA	NA	NA

6.10 Complaint log and Complaint Investigation report are shown in Appendix Q.

Notifications of summons and successful prosecutions

6.11 No notification of summons and successful prosecutions was received in the reporting month. Summary of summons and successful prosecutions in the reporting month is tabulated in Table 6.4.

Table 6.4 Summary of summons and successful prosecutions in the Reporting Month

Date of receiving notification of summons or prosecutions	Date of event	Description of event	Action taken	Close-out date / Status
---	---------------	----------------------	--------------	-------------------------

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

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

7. FUTURE KEY ISSUES

Construction Programme in the coming month

7.1 The major construction activities and potential impacts in the next reporting month as follow:

Table 7.1 Summary of future key issues and potential impact in the coming month

Future key issues in the coming month	Potential impact
Construction of manholes and chambers at Shing Kai Road and the at-grade road near NDR, SDR, Lift LT-4 and Noise Barrier	Noise and Air Quality, Chemical and Waste Management
Watermain connection and pressure test for watermains at Shing Kai Road and at-grade road near NDR	Noise and Air Quality, Landscape and Visual
Construction of LCSD Temporary Office	Noise and Air Quality, Chemical and Waste Management
Construction of bus stop at at-grade road and noise barrier	Noise and Air Quality, Chemical and Waste Management
Installation of precast parapet for Bridge D3	Noise and Air Quality, Chemical and Waste Management
Concreting and RC structure of Toilet cum Changing Room	Noise, Air and Water Quality
Install the lift cart for Lift LT-4	Noise and Air Quality, Chemical and Waste Management
Construction of Pumping Stations;	Noise and Air Quality, Chemical and Waste Management
Construction of Seawater Intake Box Culvert;	Noise and Air Quality, Chemical and Waste Management
Construction of Lift LT-1 & LT-2;	Noise, Air and Water Quality
Construction of Floating Stage;	Noise, Air and Water Quality
Construction of Harbour Steps	Noise, Air and Water Quality
Diversion/ connection works (involving confined space) of Box Culvert	Noise, Air and Water Quality
Construction of Outfall 1&2	Noise, Air and Water Quality
Rising main laying works	Noise, Air and Water Quality
Construction of theater and dry fountain system near Toilet cum	Noise, Air and Water Quality
E&M works for Underpass D3	Noise and Air Quality, Chemical and Waste Management
Construction of Observation Deck	Noise, Air and Water Quality

7.2 The mitigation measures for environmental impact including Air Quality, Construction Noise, Water Quality, Chemical and Waste Management, Landscape and Visual shall be implemented:

- Sufficient watering of the works site with the active dust emitting activities,

- Limitation of the speed for vehicles on unpaved site roads,
- Properly cover the stockpiles,
- Good maintenance to the plant and equipment,
- Use of quieter plant and Quality Powered Mechanical Equipment (QPME),
- Provide movable noise barriers,
- Appropriate desilting/ sedimentation devices provided on site for treatment before discharge,
- Well maintain the drainage system to prevent the spillage of wastewater during heavy rainfall,
- Onsite waste sorting and implementation of trip ticket system,
- Good management and control on construction waste reduction,
- Erection of decorative screen hoarding,
- Strictly following the Environmental Permits and Licenses, and
- Provide sufficient mitigation measures as recommended in Approved EIA Reports.

Environmental Site Inspection and Monitoring Schedule for next month

7.3 The tentative schedule for weekly site inspection and air quality and noise monitoring in the next month is provided in Appendix D.

8. CONCLUSIONS

- 8.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.
- 8.2 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 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 the reporting month.
- 8.3 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-hour TSP monitoring was conducted at AM4(A) because of the assess limitation in the reporting month.
- 8.4 Construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Impact monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month.
- 8.5 No complaint was received in the reporting month.
- 8.6 No notification of summons and successful prosecutions was received in the reporting month.

Figure

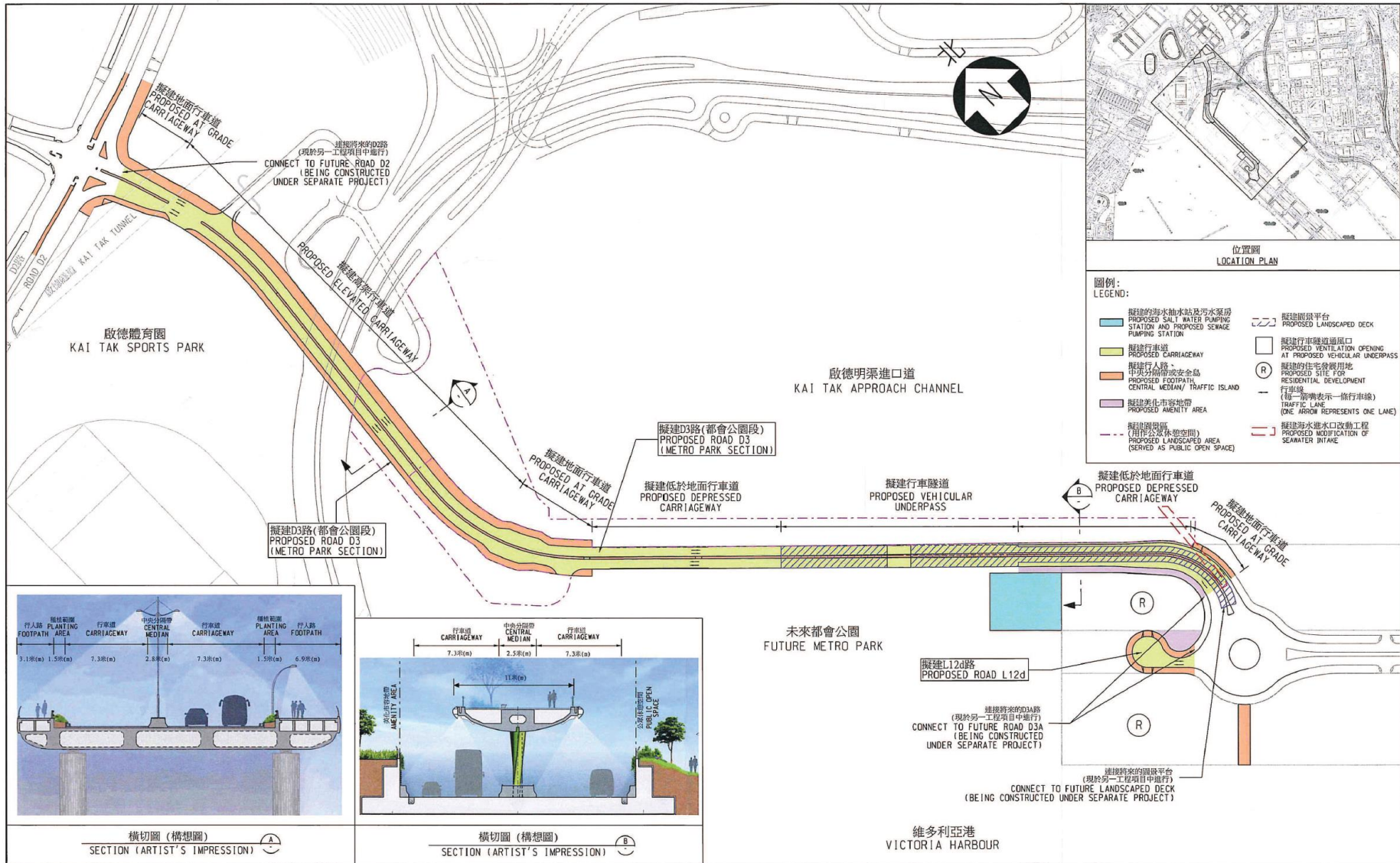


Figure 1 – Proposed works of Contract No. ED/2018/01

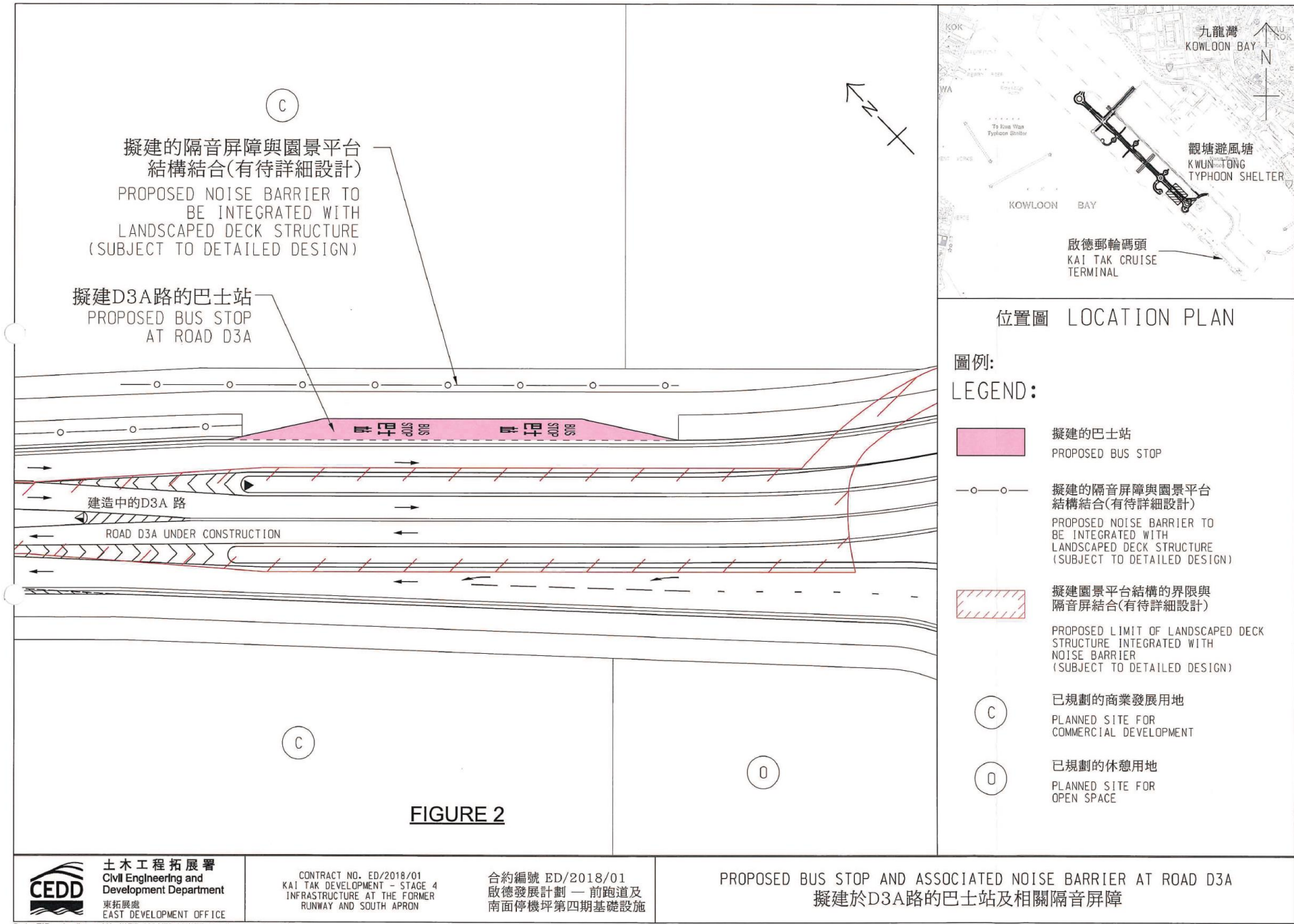
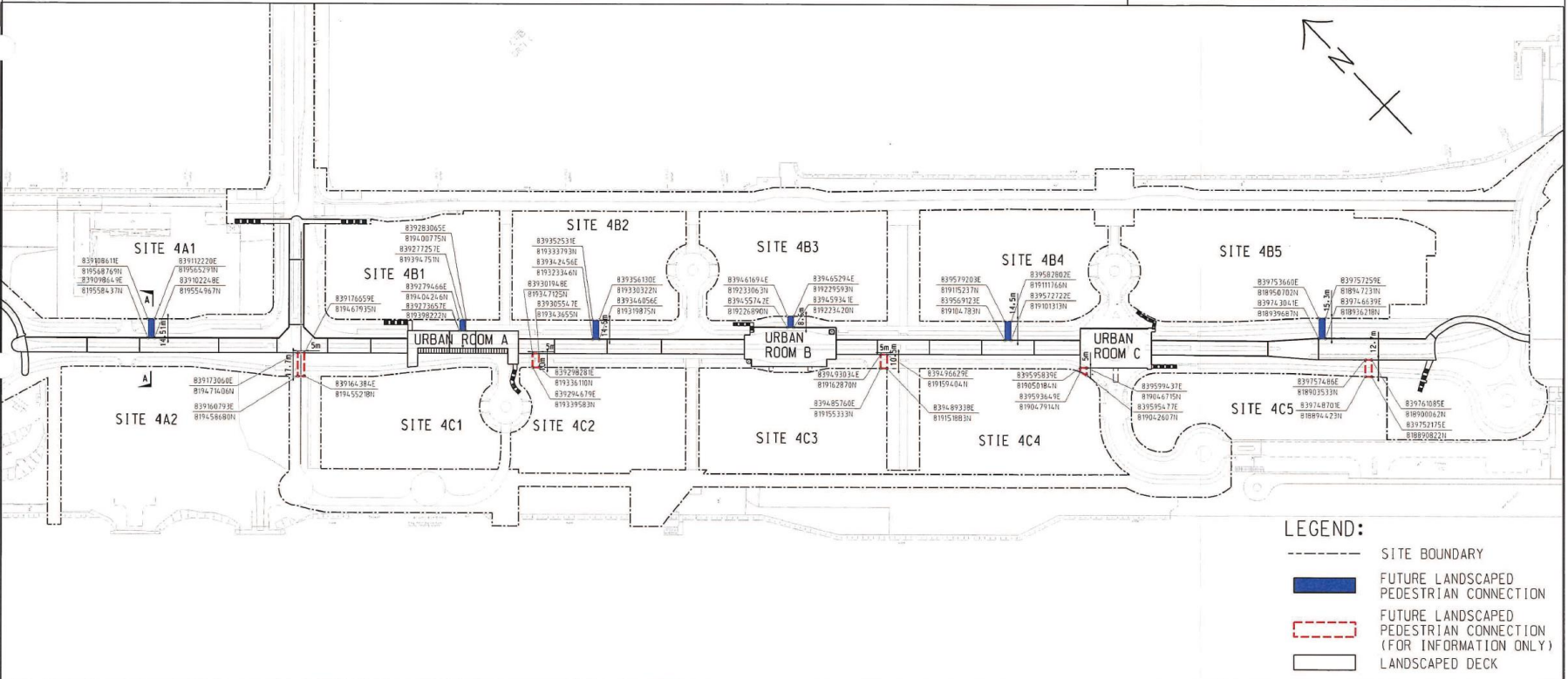
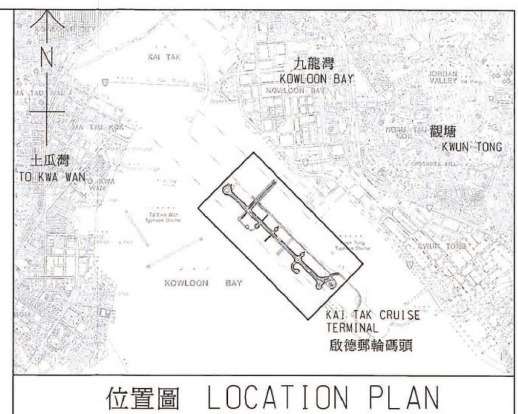
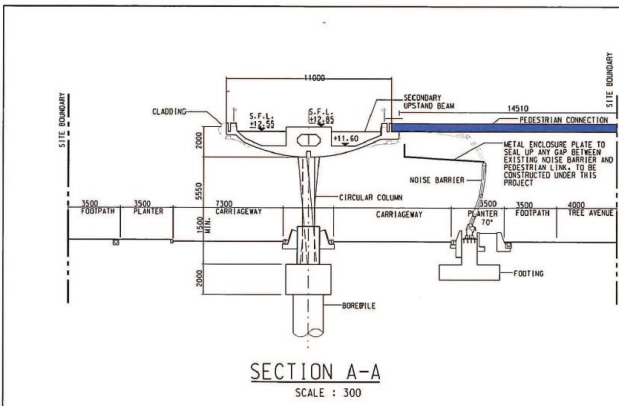


Figure 2 – Proposed Bus Stop And Associated Noise Barrier At Road D3A



LEGEND:

- SITE BOUNDARY
- FUTURE LANDSCAPED PEDESTRIAN CONNECTION
- FUTURE LANDSCAPED PEDESTRIAN CONNECTION (FOR INFORMATION ONLY)
- LANDSCAPED DECK

CEDD 土木工程拓展署
Civil Engineering and
Development Department
東拓展處
EAST DEVELOPMENT OFFICE

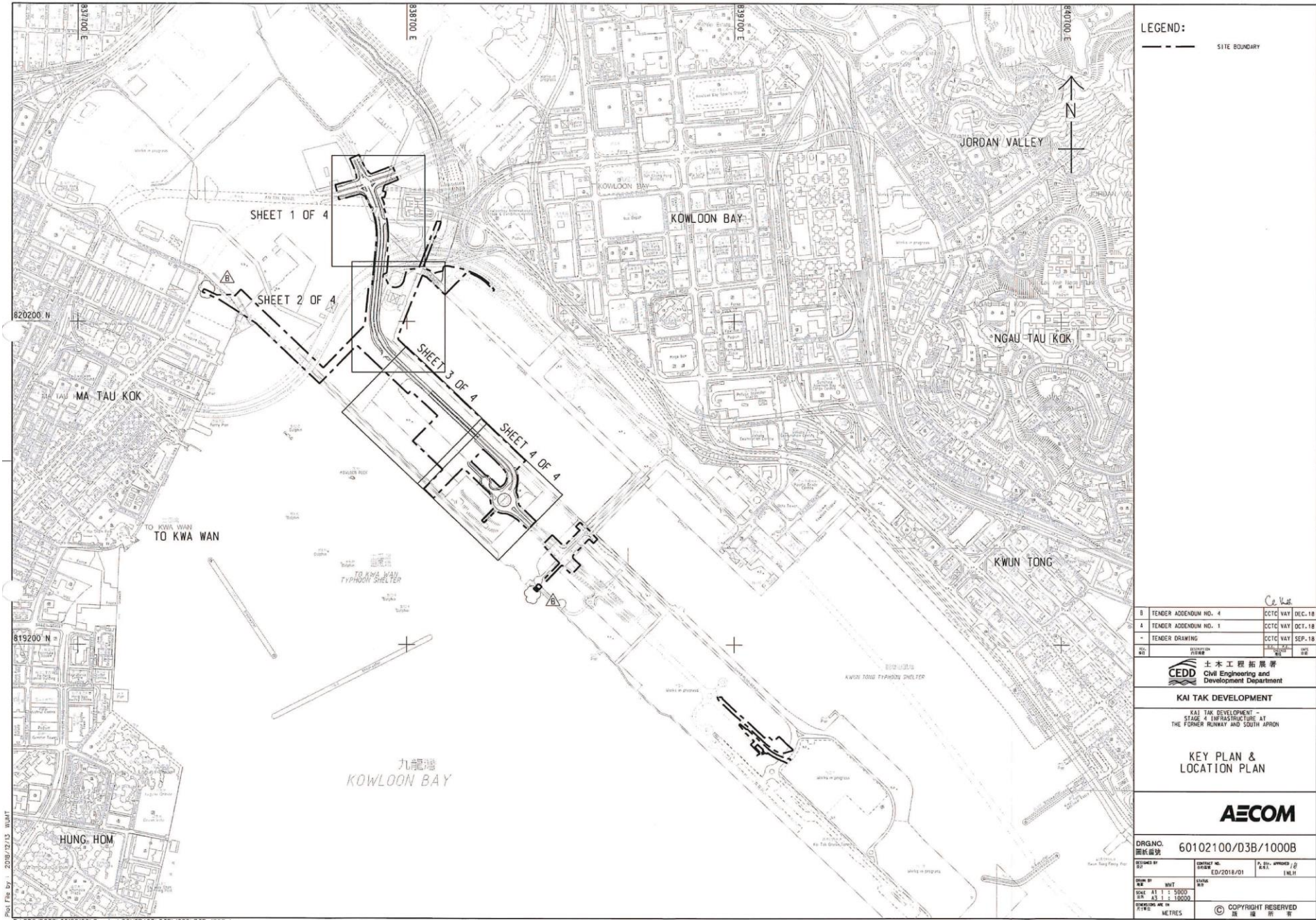
FUTURE PEDESTRIAN CONNECTION BETWEEN LANDSCAPED DECK AND PRIVATE DEVELOPMENTS

SCALE	1 : 3000 (A3)	DATE	3 MAR 2018
DRAWN BY	JY	CHECKED BY	AL
		APPROVED BY	CC
FIGURE 3			REV -

Path : Z:\KL2014011TO Team\Drawing (Internal Use)\KTD-400-KTD-499\KTD-414 (PL Location).dgn

Print Date : 7/3/2019

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



LEGEND:
 --- SITE BOUNDARY

B	TENDER ADDENDUM NO. 4	CCTC VAY	DEC. 18
A	TENDER ADDENDUM NO. 1	CCTC VAY	DEC. 18
-	TENDER DRAWING	CCTC VAY	SEP. 18

CE 10/18
 CEDD 土木工程拓展署
 Civil Engineering and
 Development Department

KAI TAK DEVELOPMENT
 KAI TAK DEVELOPMENT -
 STAGE 4 INFRASTRUCTURE AT
 THE FORMER RUNWAY AND SOUTH APRON

KEY PLAN &
 LOCATION PLAN

AECOM

DRGNO. 圖紙編號	60102100/D3B/1000B		
DESIGNED BY 設計	CONTRACT NO. 合約編號	DATE 日期	APPROVED BY 核准
	ED-2018/D1		IMEH
SHEET NO. 圖號	SCALE 比例尺	DATE 日期	
1	A1 1:5000 A3 1:10000		
REVISION NO. 修訂編號	METRES		
	© COPYRIGHT RESERVED 版權保留		

Figure 4 – Site Layout Plan

Special Traffic & Transport Arrangement

Notices on Clearways

Notices on Public Transports

Notices on Prohibited Zone

Notices on Temporary Speed Limits

Notices on Temporary Road Closure

Notices on Expressways

Other Notices

TRAFFIC NOTICES

TRANSPORT DEPARTMENT NOTICE

Temporary Traffic Arrangement on Newly Constructed Unnamed Road (Road D3 - (Metro Park Section)), Kowloon City

Notice is hereby given that the newly constructed unnamed road (Kai Tak Development - Road D3 (Metro Park Section)) connecting Shing Fung Road and Shing Kai Road/Muk Tai Street junction in Kowloon City District will be partially opened with effect from 2:00 p.m. on 31 December 2022.

Appropriate traffic signs will be erected on site to guide motorists.

LEE Sui-chun, Macella Commissioner for Transport (Acting)

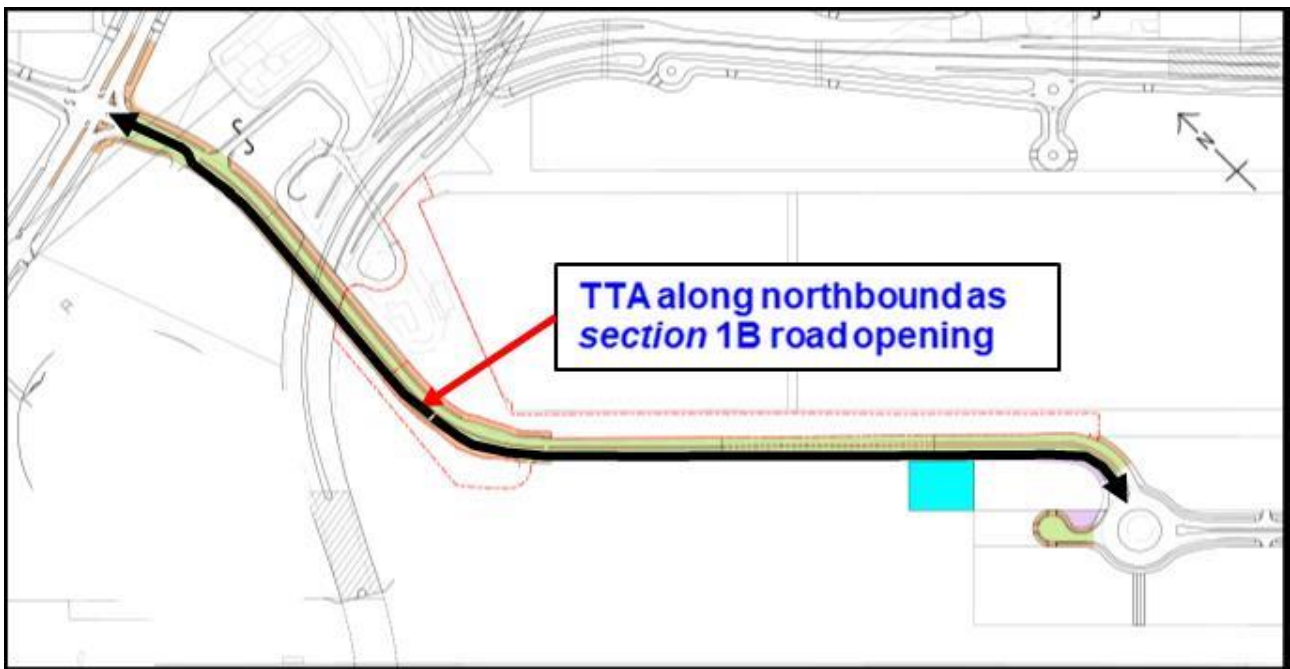


Figure 5 – New Opened Road on 31 December 2022

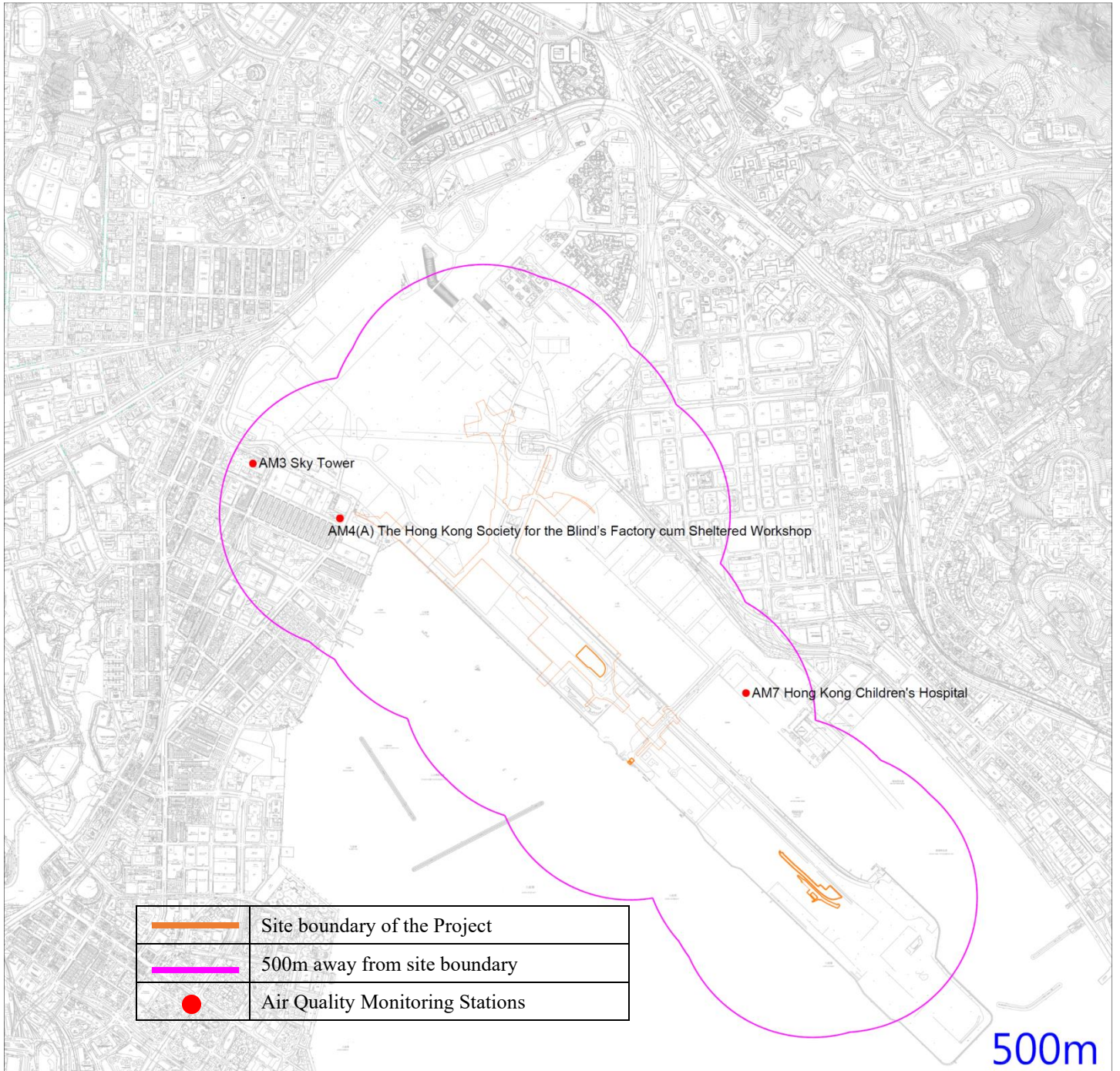


Figure 6 – Air Quality Monitoring Stations

* Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. Construction noise monitoring was conducted on the ground floor outside M11 with facing to the Project Site because of the access limitation in the reporting month.

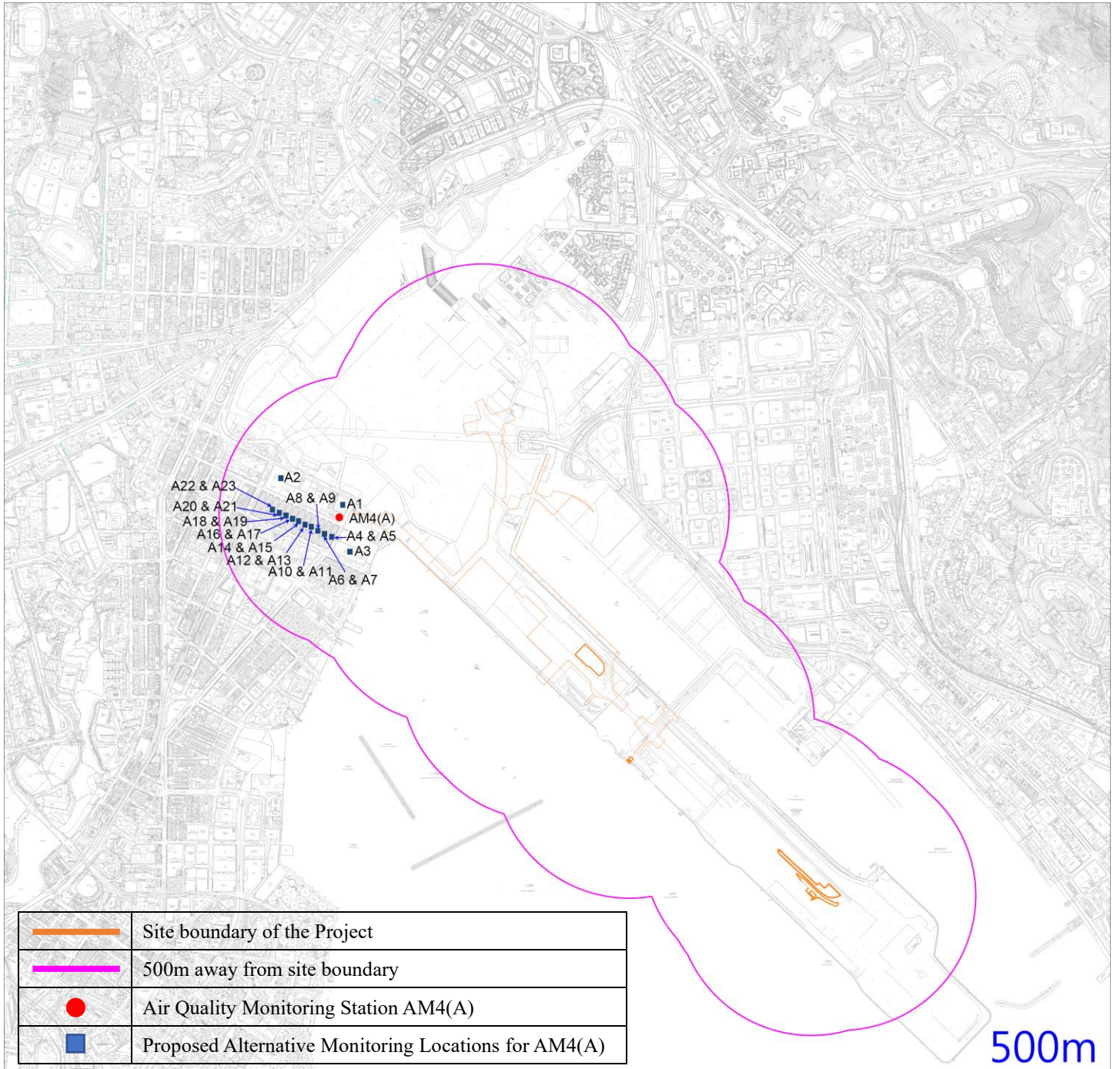


Figure 7 – Proposed Alternative Monitoring Locations for AM4(A)

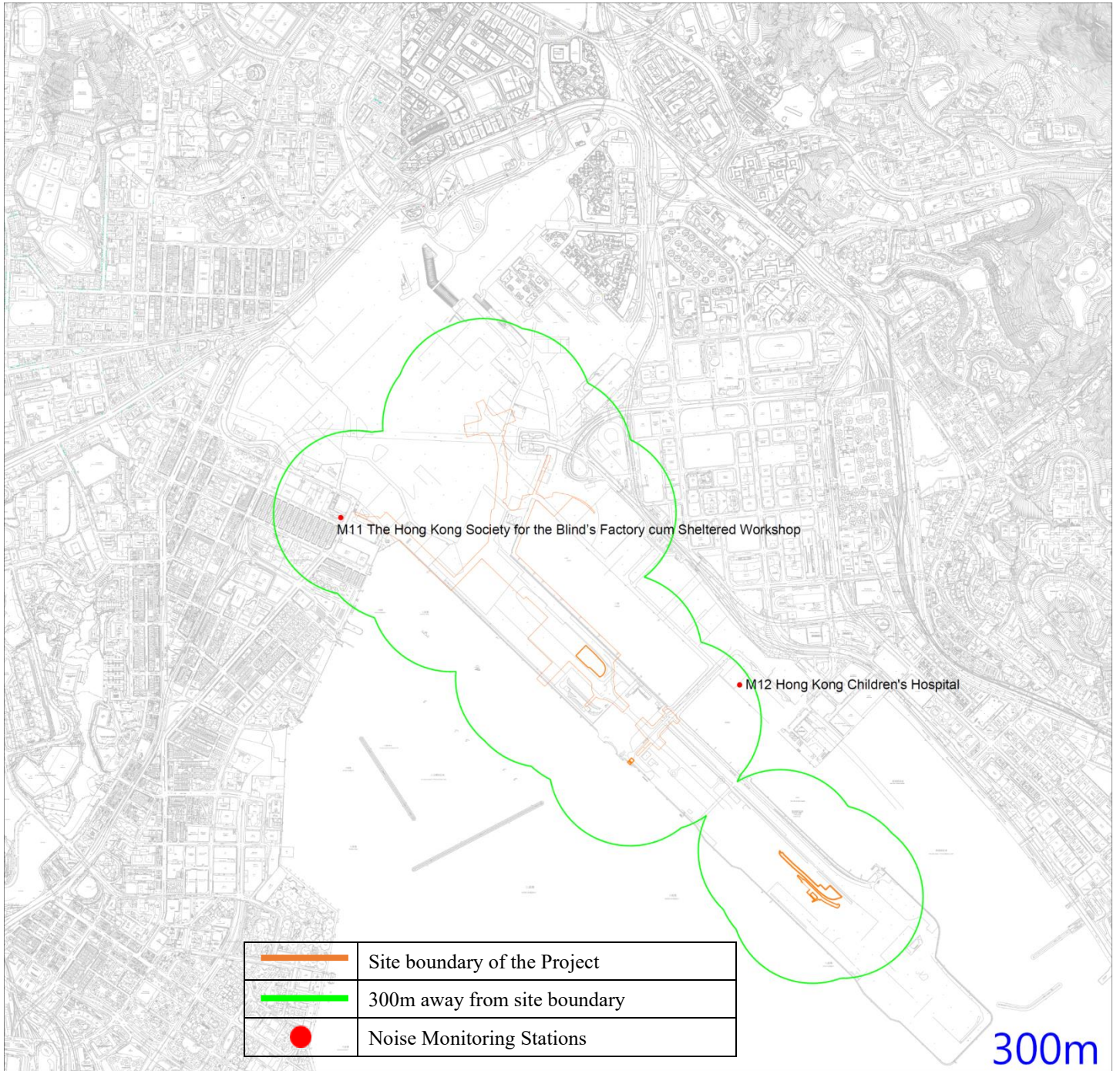


Figure 8 – Noise Monitoring Stations

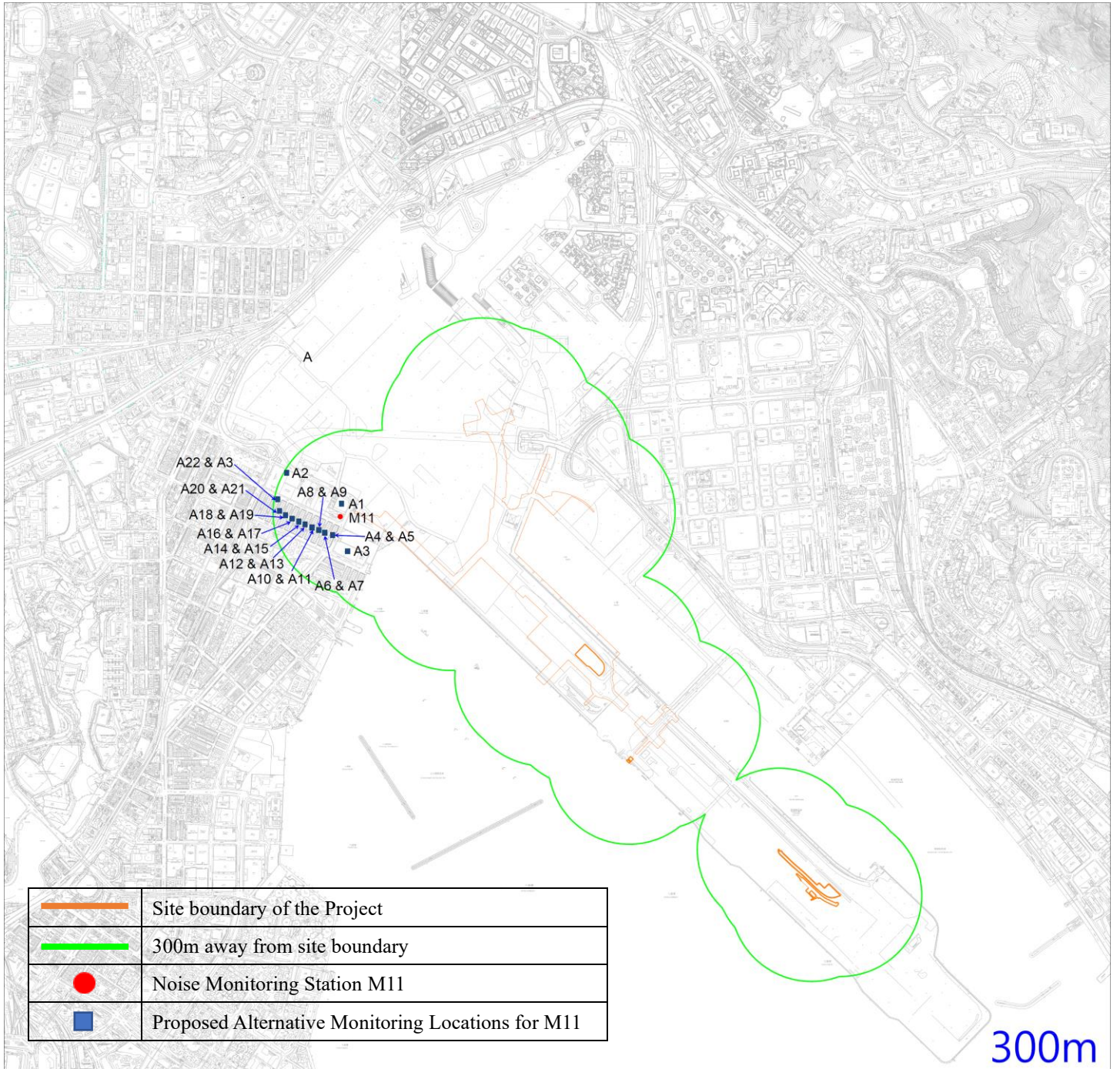
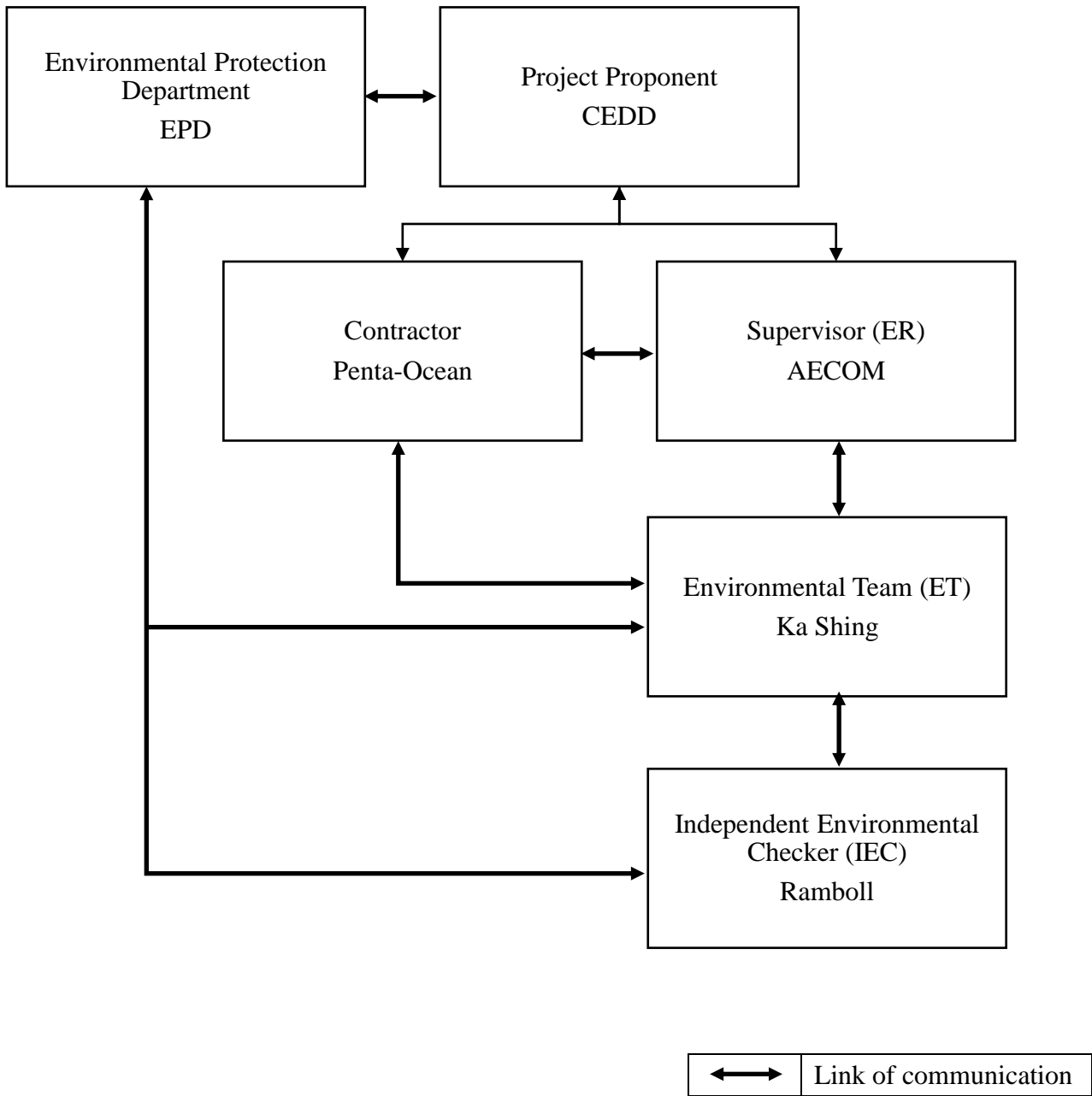


Figure 9 – Proposed Alternative Monitoring Locations for M11

Appendix A – Organization Chart of EM&A Team



Appendix B – Construction Programme

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	Q1	
220	D3 North Approach Ramp (Structure)	398 days	348.95 days	49.05 days	0%	Mon 3/6/19	Sat 4/7/20	Mon 3/6/19	NA	Mon 3/6/19	Thu 8/10/20	96 days																			
221	Prepare AIP and ICE certification (Draft))	51 days	51 days	0 days	100%	Mon 3/6/19	Tue 23/7/19	Mon 3/6/19	Tue 23/7/19	Mon 3/6/19	Tue 23/7/19	0 days	3 days	4																	
222	Submit & endorse by PM and Statutory Authorities/Gov. Dept	100 days	100 days	0 days	100%	Thu 25/7/19	Fri 1/11/19	Thu 25/7/19	Fri 1/11/19	Thu 25/7/19	Fri 1/11/19	0 days	1 days	221																	
223	Prepare AIP and ICE certification (Final)	14 days	14 days	0 days	100%	Tue 6/8/19	Thu 19/12/19	Tue 6/8/19	Thu 19/12/19	Tue 6/8/19	Thu 19/12/19	0 days	0 days	221,222																	
224	Prepare DDA (Draft) with ICE certification	66 days	66 days	0 days	100%	Fri 19/7/19	Thu 20/2/20	Fri 19/7/19	Thu 20/2/20	Fri 19/7/19	Thu 20/2/20	0 days	5 days	221,223FF																	
225	Submit & endorse by PM/Statutory Authorities/Gov. Dept	31 days	31 days	0 days	100%	Mon 20/1/20	Mon 23/3/20	Mon 20/1/20	Mon 23/3/20	Mon 20/1/20	Mon 23/3/20	0 days	3 days	224																	
226	Prepare DDA for and ICE certification (Final)	45 days	45 days	0 days	100%	Wed 1/4/20	Fri 15/5/20	Wed 1/4/20	Fri 15/5/20	Wed 1/4/20	Fri 15/5/20	0 days		225																	
227	Submit & endorse by PM/Statutory Authorities/Gov. Dept	50 days	6 days	44 days	12%	Sat 16/5/20	Sat 4/7/20	Sat 16/5/20	NA	Sat 16/5/20	Thu 8/10/20	96 days	0.5 days	226																	
228	D3 North Approach Ramp (E&M Works)	329 days	0 days	329 days	0%	Thu 2/7/20	Wed 26/5/21	NA	NA	Fri 27/11/20	Thu 21/10/21	148 days																			
229	Prepare AIP (E&M works) and ICE certification (Draft)	32 days	0 days	32 days	0%	Thu 2/7/20	Sun 2/8/20	NA	NA	Fri 27/11/20	Mon 28/12/20	148 days	2 days																		
230	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Mon 3/8/20	Sat 3/10/20	NA	NA	Tue 29/12/20	Sun 28/2/21	148 days	2 days	229																	
231	Prepare AIP (E&M works) and ICE certification (Final)	32 days	0 days	32 days	0%	Sun 4/10/20	Wed 4/11/20	NA	NA	Mon 1/3/21	Thu 1/4/21	148 days	2 days	230																	
232	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Thu 5/11/20	Tue 5/1/21	NA	NA	Fri 2/4/21	Wed 2/6/21	148 days	2 days	231																	
233	Prepare DDA (E&M works) and ICE certification (Draft)	32 days	0 days	32 days	0%	Sat 5/12/20	Tue 5/1/21	NA	NA	Sun 2/5/21	Wed 2/6/21	148 days	2 days	232FF																	
234	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Wed 6/1/21	Mon 8/3/21	NA	NA	Thu 3/6/21	Tue 3/8/21	148 days	2 days	233																	
235	Prepare DDA (E&M works) and ICE certification (Final)	17 days	0 days	17 days	0%	Tue 9/3/21	Thu 25/3/21	NA	NA	Wed 4/8/21	Fri 20/8/21	148 days	2 days	234																	
236	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Fri 26/3/21	Wed 26/5/21	NA	NA	Sat 21/8/21	Thu 21/10/21	148 days	2 days	235																	
237	D3 South Approach Ramp	507 days	322.64 days	184.36 days	0%	Thu 30/5/19	Sat 17/10/20	Thu 30/5/19	NA	Thu 30/5/19	Tue 16/2/21	122 days																			
238	Prepare AIP and ICE certification (Draft)	96 days	96 days	0 days	100%	Thu 30/5/19	Mon 2/9/19	Thu 30/5/19	Mon 2/9/19	Thu 30/5/19	Mon 2/9/19	0 days	3 days																		
239	Submit & endorse by PM and Statutory Authorities/Gov. Dept	35 days	35 days	0 days	100%	Wed 25/9/19	Tue 29/10/19	Wed 25/9/19	Tue 29/10/19	Wed 25/9/19	Tue 29/10/19	0 days	1 day	238																	
240	Prepare AIP Submission (Final)	76 days	76 days	0 days	100%	Fri 7/2/20	Mon 4/5/20	Fri 7/2/20	Mon 4/5/20	Fri 7/2/20	Mon 4/5/20	0 days	1 day	238,239																	
241	Prepare DDA and ICE certification (Draft)	50 days	50 days	0 days	100%	Wed 1/4/20	Wed 20/5/20	Wed 1/4/20	Wed 20/5/20	Wed 1/4/20	Wed 20/5/20	0 days	5 days	240FF+15 days																	
242	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	2 days	58 days	3%	Thu 21/5/20	Sun 19/7/20	Thu 21/5/20	NA	Thu 21/5/20	Wed 18/11/20	122 days	1 day	238,241																	
243	Prepare DDA for and ICE certification (Final)	30 days	0 days	30 days	0%	Mon 20/7/20	Tue 18/8/20	NA	NA	Thu 19/11/20	Fri 18/12/20	122 days	1 day	242,240FF+12 d																	
244	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Wed 19/8/20	Sat 17/10/20	NA	NA	Sat 19/12/20	Tue 16/2/21	122 days	1 day	243																	
245	D3 South Approach Ramp (E&M Works)	392 days	0 days	392 days	0%	Sat 23/5/20	Fri 18/6/21	NA	NA	Wed 18/11/20	Tue 14/12/21	179 days																			
246	Prepare AIP (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Sat 23/5/20	Mon 22/6/20	NA	NA	Wed 18/11/20	Fri 18/12/20	179 days	1 day																		
247	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Tue 23/6/20	Sun 6/9/20	NA	NA	Sat 19/12/20	Thu 4/3/21	179 days	1 day	246																	
248	Prepare AIP (E&M works) and ICE certification (Final)	31 days	0 days	31 days	0%	Mon 7/9/20	Wed 7/10/20	NA	NA	Fri 5/3/21	Sun 4/4/21	179 days	1 day	247																	
249	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Thu 8/10/20	Tue 22/12/20	NA	NA	Mon 5/4/21	Sat 19/6/21	179 days	1 day	248																	
250	Prepare DDA (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Sun 22/11/20	Tue 22/12/20	NA	NA	Thu 20/5/21	Sat 19/6/21	179 days	1 day	249FF																	
251	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Wed 23/12/20	Mon 8/3/21	NA	NA	Sun 20/6/21	Fri 3/9/21	179 days	1 day	250																	
252	Prepare DDA (E&M works) and ICE certification (Final)	26 days	0 days	26 days	0%	Tue 9/3/21	Sat 3/4/21	NA	NA	Sat 4/9/21	Wed 29/9/21	179 days	1 day	251																	
253	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Sun 4/4/21	Fri 18/6/21	NA	NA	Thu 30/9/21	Tue 14/12/21	179 days	1 day	252																	
254	Road D3 Underpass and Depressed Road	823 days	236.99 days	586.01 days	0%	Thu 30/5/19	Sun 29/8/21	Thu 30/5/19	NA	Thu 30/5/19	Wed 11/1/23	500 days																			
255	Underpass (Structure)	486 days	320.41 days	165.59 days	0%	Thu 30/5/19	Sat 26/9/20	Thu 30/5/19	NA	Thu 30/5/19	Wed 2/12/20	67 days																			
256	Prepare AIP and ICE certification (Draft)	96 days	96 days	0 days	100%	Thu 30/5/19	Mon 2/9/19	Thu 30/5/19	Mon 2/9/19	Thu 30/5/19	Mon 2/9/19	0 days	3 days	4																	
257	Submit & endorse by PM and Statutory Authorities/Gov. Dept	17 days	17 days	0 days	100%	Tue 3/9/19	Thu 19/9/19	Tue 3/9/19	Thu 19/9/19	Tue 3/9/19	Thu 19/9/19	0 days	1 days	256																	
258	Prepare AIP and ICE certification (Final)	84 days	84 days	0 days	100%	Tue 14/1/20	Mon 6/4/20	Tue 14/1/20	Mon 6/4/20	Tue 14/1/20	Mon 6/4/20	0 days	2 days	256,257																	
259	Prepare DDA (Draft) Preparation	156 days	156 days	0 days	100%	Tue 3/9/19	Wed 5/2/20	Tue 3/9/19	Wed 5/2/20	Tue 3/9/19	Wed 5/2/20	0 days	3 days	256																	
260	DDA (Draft) Submit & endorse by PM & Statutory Authorities/Gov. Dept	169 days	34 days	135 days	20%	Thu 6/2/20	Thu 23/7/20	Thu 6/2/20	NA	Thu 6/2/20	Mon 28/9/20	67 days	0.5 days	259																	
261	Prepare DDA for and ICE certification (Final)	15 days	0 days	15 days	0%	Fri 24/7/20	Fri 7/8/20	NA	NA	Tue 29/9/20	Tue 13/10/20	67 days	1 day	260,258FF+21 d																	
262	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Sat 8/8/20	Sat 26/9/20	NA	NA	Wed 14/10/20	Wed 2/12/20	67 days	1 day	261																	
263	Underpass (E&M Works)	392 days	0 days	392 days	0%	Mon 3/8/20	Sun 29/8/21	NA	NA	Tue 10/11/20	Wed 11/1/23	99 days																			
264	Prepare AIP (E&M works) and ICE certification (Draft)	32 days	0 days	32 days	0%	Mon 5/10/20	Thu 5/11/20	NA	NA	Tue 10/11/20	Fri 11/12/20	36 days	2 days																		

Title: Rev.11 Prog with Progress as of 22-May-20

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Critical Split
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	Progress
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Critical	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				20									
															Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		Q4	Q1	Q2						
265	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Fri 6/11/20	Wed 6/1/21	NA	NA	Sat 12/12/20	Thu 11/2/21	36 days	2 days	264																								
266	Prepare AIP (E&M works) and ICE certification (Final)	32 days	0 days	32 days	0%	Thu 7/1/21	Sun 7/2/21	NA	NA	Fri 12/2/21	Mon 15/3/21	36 days	2 days	265																								
267	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Mon 8/2/21	Sat 10/4/21	NA	NA	Tue 16/3/21	Sun 16/5/21	36 days	2 days	266																								
268	Prepare DDA (E&M works) and ICE certification (Draft)	32 days	0 days	32 days	0%	Wed 10/3/21	Sat 10/4/21	NA	NA	Thu 15/4/21	Sun 16/5/21	36 days	2 days	267FF																								
269	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Sun 11/4/21	Fri 11/6/21	NA	NA	Mon 17/5/21	Sat 17/7/21	36 days	2 days	268																								
270	Prepare DDA (E&M works) and ICE certification (Final)	17 days	0 days	17 days	0%	Sat 12/6/21	Mon 28/6/21	NA	NA	Sun 18/7/21	Tue 3/8/21	36 days	2 days	269																								
271	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Tue 29/6/21	Sun 29/8/21	NA	NA	Wed 4/8/21	Mon 4/10/21	36 days	2 days	270																								
272	Prepare AIP (E&M works) and Architectural Finishes of Underpass (Road L14) and ICE certification (Draft)	31 days	0 days	31 days	0%	Mon 3/8/20	Wed 2/9/20	NA	NA	Thu 31/3/22	Sat 30/4/22	605 days	1 day																									
273	Submit & endorse by PM and Statutory Authorities/Gov. Dept	51 days	0 days	51 days	0%	Thu 3/9/20	Fri 23/10/20	NA	NA	Sun 1/5/22	Mon 20/6/22	605 days	1 day	272																								
274	Prepare AIP (E&M works) and Architectural Finishes of Underpass (Road L14) and ICE certification (Final)	14 days	0 days	14 days	0%	Sat 24/10/20	Fri 6/11/20	NA	NA	Tue 21/6/22	Mon 4/7/22	605 days	2 days	273																								
275	Submit & endorse by PM and Statutory Authorities/Gov. Dept	74 days	0 days	74 days	0%	Sat 7/11/20	Tue 19/1/21	NA	NA	Tue 5/7/22	Fri 16/9/22	605 days	1 day	274																								
276	Prepare DDA (E&M works) and Architectural Finishes of Underpass (Road L14) and ICE certification (Draft)	31 days	0 days	31 days	0%	Sun 20/12/20	Tue 19/1/21	NA	NA	Wed 17/8/22	Fri 16/9/22	605 days	1 day	275FF																								
277	Submit & endorse by PM and Statutory Authorities/Gov. Dept	51 days	0 days	51 days	0%	Wed 20/1/21	Thu 11/3/21	NA	NA	Sat 17/9/22	Sun 6/11/22	605 days	1 day	276																								
278	Prepare DDA (E&M works) and Architectural Finishes of Underpass (Road L14) and ICE certification (Final)	15 days	0 days	15 days	0%	Fri 12/3/21	Fri 26/3/21	NA	NA	Mon 7/11/22	Mon 21/11/22	605 days	1 day	277																								
279	Submit & endorse by PM and Statutory Authorities/Gov. Dept	51 days	0 days	51 days	0%	Sat 27/3/21	Sun 16/5/21	NA	NA	Tue 22/11/22	Wed 11/1/23	605 days	1 day	278																								
280	E&M Work for Pump House of Underpass D3	364 days	83.71 days	280.29 days	0%	Mon 24/2/20	Sun 21/2/21	Mon 24/2/20	NA	Mon 24/2/20	Wed 18/8/21	178 days																										
281	Prepare AIP (E&M works) Submission (Draft)	11 days	11 days	0 days	0%	Mon 24/2/20	Thu 5/3/20	Mon 24/2/20	Thu 5/3/20	Mon 24/2/20	Thu 5/3/20	0 days	2 days																									
282	Submit & endorse by PM and Statutory Authorities/Gov. Dept	160 days	78 days	82 days	49%	Fri 6/3/20	Wed 12/8/20	Fri 6/3/20	NA	Fri 6/3/20	Sat 15/8/20	3 days	2 days	281																								
283	Prepare AIP (E&M works) and ICE certification (Final)	21 days	0 days	21 days	0%	Thu 13/8/20	Wed 2/9/20	NA	NA	Sun 16/8/20	Sat 5/9/20	3 days	2 days	282,44FF+12 da																								
284	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Thu 3/9/20	Thu 22/10/20	NA	NA	Sun 6/9/20	Sun 25/10/20	3 days	2 days	283																								
285	Prepare DDA (E&M works) and ICE certification (Draft)	30 days	0 days	30 days	0%	Wed 30/9/20	Thu 29/10/20	NA	NA	Sat 3/10/20	Sun 1/11/20	3 days	2 days	284FF+7 days																								
286	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Fri 30/10/20	Fri 18/12/20	NA	NA	Mon 2/11/20	Mon 21/12/20	3 days	2 days	285																								
287	Prepare DDA (E&M works) and ICE certification (Final)	15 days	0 days	15 days	0%	Sat 19/12/20	Sat 2/1/21	NA	NA	Tue 22/12/20	Tue 5/1/21	3 days	2 days	286																								
288	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Sun 3/1/21	Sun 21/2/21	NA	NA	Wed 30/6/21	Wed 18/8/21	178 days	2 days	287																								
289	Depressed Road (North) Structure	463 days	335.18 days	127.82 days	0%	Thu 16/5/19	Thu 20/8/20	Thu 16/5/19	NA	Thu 16/5/19	Thu 11/5/23	994 days																										
290	Prepare AIP and ICE certification (Draft)	65 days	65 days	0 days	100%	Thu 16/5/19	Fri 2/8/19	Thu 16/5/19	Fri 2/8/19	Thu 16/5/19	Fri 2/8/19	0 days	1 days	4																								
291	Submit & endorse by PM and Statutory Authorities/Gov. Dept	33 days	33 days	0 days	100%	Sat 3/8/19	Wed 4/9/19	Sat 3/8/19	Wed 4/9/19	Sat 3/8/19	Wed 4/9/19	0 days	2 days	290																								
292	Prepare AIP and ICE certification (Final)	44 days	44 days	0 days	100%	Mon 9/12/19	Tue 21/1/20	Mon 9/12/19	Tue 21/1/20	Mon 9/12/19	Tue 21/1/20	0 days	0 days	291																								
293	Prepare DDA and ICE certification (Draft)	57 days	57 days	0 days	100%	Tue 24/9/19	Tue 19/11/19	Tue 24/9/19	Tue 19/11/19	Tue 24/9/19	Tue 19/11/19	0 days	5 days	290																								
294	Submit & endorse by PM	17 days	17 days	0 days	100%	Tue 19/11/19	Thu 5/12/19	Tue 19/11/19	Thu 5/12/19	Tue 19/11/19	Thu 5/12/19	0 days	1 day	293																								
295	Submit & endorse by Statutory Authorities/Gov. Dept	20 days	20 days	0 days	100%	Wed 19/2/20	Mon 9/3/20	Wed 19/2/20	Mon 9/3/20	Wed 19/2/20	Mon 9/3/20	0 days	1 day	293																								
296	Prepare DDA for and ICE certification (Final)	30 days	0 days	30 days	0%	Sat 23/5/20	Sun 21/6/20	NA	NA	Sat 11/2/23	Sun 12/3/23	994 days	3 days	294,292FF,295																								
297	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Mon 22/6/20	Thu 20/8/20	NA	NA	Mon 13/3/23	Thu 11/5/23	994 days	5 days	296																								
298	Depressed Road (North) E&M Works	322 days	0 days	322 days	0%	Mon 21/9/20	Sun 8/8/21	NA	NA	Tue 17/11/20	Mon 4/10/21	57 days																										
299	Prepare AIP (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Mon 21/9/20	Wed 21/10/20	NA	NA	Tue 17/11/20	Thu 17/12/20	57 days	1 day																									
300	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Thu 22/10/20	Mon 21/12/20	NA	NA	Fri 18/12/20	Tue 16/2/21	57 days	1 day	299																								
301	Prepare AIP (E&M works) and ICE certification (Final)	31 days	0 days	31 days	0%	Tue 22/12/20	Thu 21/1/21	NA	NA	Wed 17/2/21	Fri 19/3/21	57 days	1 day	300																								
302	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Fri 22/1/21	Tue 23/3/21	NA	NA	Sat 20/3/21	Wed 19/5/21	57 days	1 day	301																								
303	Prepare DDA (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Sun 21/2/21	Tue 23/3/21	NA	NA	Mon 19/4/21	Wed 19/5/21	57 days	1 day	302FF																								
304	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Wed 24/3/21	Sun 23/5/21	NA	NA	Thu 20/5/21	Mon 19/7/21	57 days	1 day	303																								
305	Prepare DDA (E&M works) and ICE certification (Final)	16 days	0 days	16 days	0%	Mon 24/5/21	Tue 8/6/21	NA	NA	Tue 20/7/21	Wed 4/8/21	57 days	1 day	304																								
306	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Wed 9/6/21	Sun 8/8/21	NA	NA	Thu 5/8/21	Mon 4/10/21	57 days	1 day	305																								

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	Q1	Q2				
310	Prepare AIP and ICE certification (Final)	270 days	222 days	48 days	82%	Tue 15/10/19	Fri 10/7/20	Tue 15/10/19	NA	Tue 15/10/19	Mon 10/8/20	31 days	0 days	309,44FF+12 da																					
311	Prepare DDA certification (Draft)	27 days	27 days	0 days	100%	Mon 10/2/20	Sat 7/3/20	Mon 10/2/20	Sat 7/3/20	Mon 10/2/20	Sat 7/3/20	0 days	5 days	308																					
312	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	24 days	51 days	32%	Wed 29/4/20	Thu 16/7/20	Wed 29/4/20	NA	Wed 29/4/20	Sun 16/8/20	31 days	1 days	311,310FF+6 days																					
313	Prepare DDA for and ICE certification (Final)	10 days	0 days	10 days	0%	Fri 17/7/20	Sun 26/7/20	NA	NA	Mon 17/8/20	Wed 26/8/20	31 days	0.5 days	312																					
314	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Mon 27/7/20	Mon 14/9/20	NA	NA	Thu 27/8/20	Thu 15/10/20	31 days	0.5 days	313																					
315	South Depressed Road (E&M Works)	382 days	0 days	382 days	0%	Mon 7/9/20	Thu 23/9/21	NA	NA	Fri 18/9/20	Mon 4/10/21	11 days																							
316	Prepare AIP (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Mon 7/9/20	Wed 7/10/20	NA	NA	Fri 18/9/20	Sun 18/10/20	11 days	1 day																						
317	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Thu 8/10/20	Tue 22/12/20	NA	NA	Mon 19/10/20	Sat 2/1/21	11 days	1 day	316																					
318	Prepare AIP (E&M works) and ICE certification (Final)	31 days	0 days	31 days	0%	Wed 23/12/20	Fri 22/1/21	NA	NA	Sun 3/1/21	Tue 2/2/21	11 days	1 day	317																					
319	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Sat 23/1/21	Thu 8/4/21	NA	NA	Wed 3/2/21	Mon 19/4/21	11 days	1 day	318																					
320	Prepare DDA (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Tue 9/3/21	Thu 8/4/21	NA	NA	Sat 20/3/21	Mon 19/4/21	11 days	1 day	319FF																					
321	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Fri 9/4/21	Wed 23/6/21	NA	NA	Tue 20/4/21	Sun 4/7/21	11 days	1 day	320																					
322	Prepare DDA (E&M works) and ICE certification (Final)	16 days	0 days	16 days	0%	Thu 24/6/21	Fri 9/7/21	NA	NA	Mon 5/7/21	Tue 20/7/21	11 days	1 day	321																					
323	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Sat 10/7/21	Thu 23/9/21	NA	NA	Wed 21/7/21	Mon 4/10/21	11 days	1 day	322																					
324	Road Works (Civil Works)	662 days	196.01 days	465.99 days	0%	Tue 13/8/19	Fri 4/6/21	Tue 13/8/19	NA	Tue 13/8/19	Tue 14/12/21	193 days																							
325	Prepare AIP for At-grade Road D3 and ICE certification (Draft)	57 days	57 days	0 days	100%	Tue 13/8/19	Tue 8/10/19	Tue 13/8/19	Tue 8/10/19	Tue 13/8/19	Tue 8/10/19	0 days	1 day	293SS+75 days																					
326	Submit & endorse by PM	21 days	21 days	0 days	100%	Wed 9/10/19	Tue 29/10/19	Wed 9/10/19	Tue 29/10/19	Wed 9/10/19	Tue 29/10/19	0 days	0.5 days	325																					
327	Submit & endorse by Statutory Authorities/Gov. Dept	24 days	24 days	0 days	100%	Wed 30/10/19	Fri 22/11/19	Wed 30/10/19	Fri 22/11/19	Wed 30/10/19	Fri 22/11/19	0 days	1 day	325																					
328	Prepare AIP for At-grade Road D3 and ICE certification (Final)	57 days	57 days	0 days	100%	Thu 5/3/20	Mon 4/5/20	Thu 5/3/20	Mon 4/5/20	Thu 5/3/20	Mon 4/5/20	0 days	0 days	326FS+12 days,327,44FF+																					
329	Prepare DDA for At-grade Road D3 and ICE certification (Draft)	210 days	0 days	210 days	0%	Sat 23/5/20	Fri 18/12/20	NA	NA	Wed 2/12/20	Tue 29/6/21	193 days	5 days	325FS+100 days,328FF+6																					
330	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Sat 19/12/20	Wed 3/3/21	NA	NA	Wed 30/6/21	Sun 12/9/21	193 days	0.5 days	329																					
331	Prepare DDA for At-grade Road D3 and ICE certification (Final)	16 days	0 days	16 days	0%	Thu 4/3/21	Fri 19/3/21	NA	NA	Mon 13/9/21	Tue 28/9/21	193 days	1 day	330																					
332	Submit & endorse by PM and Statutory Authorities/Gov. Dept	77 days	0 days	77 days	0%	Sat 20/3/21	Fri 4/6/21	NA	NA	Wed 29/9/21	Tue 14/12/21	193 days	2 days	331																					
333	Remaining Road Works (E&M Works)	382 days	0 days	382 days	0%	Mon 5/10/20	Thu 21/10/21	NA	NA	Sat 13/2/21	Tue 1/3/22	131 days																							
334	Prepare AIP (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Mon 5/10/20	Wed 4/11/20	NA	NA	Sat 13/2/21	Mon 15/3/21	131 days	1 day																						
335	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Thu 5/11/20	Tue 19/1/21	NA	NA	Tue 16/3/21	Sun 30/5/21	131 days	1 day	334																					
336	Prepare AIP (E&M works) and ICE certification (Final)	31 days	0 days	31 days	0%	Wed 20/1/21	Fri 19/2/21	NA	NA	Mon 31/5/21	Wed 30/6/21	131 days	1 day	335																					
337	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Sat 20/2/21	Thu 6/5/21	NA	NA	Thu 1/7/21	Tue 14/9/21	131 days	1 day	336																					
338	Prepare DDA (E&M works) and ICE certification (Draft)	31 days	0 days	31 days	0%	Tue 6/4/21	Thu 6/5/21	NA	NA	Sun 15/8/21	Tue 14/9/21	131 days	1 day	337FF																					
339	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Fri 7/5/21	Wed 21/7/21	NA	NA	Wed 15/9/21	Mon 29/11/21	131 days	1 day	338																					
340	Prepare DDA (E&M works) and ICE certification (Final)	16 days	0 days	16 days	0%	Thu 22/7/21	Fri 6/8/21	NA	NA	Tue 30/11/21	Wed 15/12/21	131 days	1 day	339																					
341	Submit & endorse by PM and Statutory Authorities/Gov. Dept	76 days	0 days	76 days	0%	Sat 7/8/21	Thu 21/10/21	NA	NA	Thu 16/12/21	Tue 1/3/22	131 days	1 day	340																					
342	Road L12d Works (Roadworks)	791 days	261.27 days	529.73 days	0%	Tue 6/8/19	Mon 4/10/21	Tue 6/8/19	NA	Tue 6/8/19	Tue 28/2/23	512 days																							
343	Prepare AIP for Road L12d Submission (Draft)	64 days	64 days	0 days	100%	Tue 6/8/19	Tue 8/10/19	Tue 6/8/19	Tue 8/10/19	Tue 6/8/19	Tue 8/10/19	0 days	1 day	325																					
344	Submit & endorse by PM and Statutory Authorities/Gov. Dept	377 days	227 days	150 days	60%	Wed 9/10/19	Mon 19/10/20	Wed 9/10/19	NA	Wed 9/10/19	Tue 15/3/22	512 days																							
345	Prepare AIP for Road L12d (Include E&M Provision Works) and ICE certification (Final)	120 days	0 days	120 days	0%	Tue 20/10/20	Tue 16/2/21	NA	NA	Wed 16/3/22	Wed 13/7/22	512 days	0 days	343,44FF+12 days,344																					
346	Prepare DDA for Road L12d (Include E&M Provision Works) and ICE certification (Draft)	120 days	0 days	120 days	0%	Thu 19/11/20	Thu 18/3/21	NA	NA	Fri 15/4/22	Fri 12/8/22	512 days	1 day	343FS+260 days,345FF+30																					
347	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Fri 19/3/21	Tue 1/6/21	NA	NA	Sat 13/8/22	Wed 26/10/22	512 days	0.5 days	346																					
348	Prepare DDA for Road L12d (Include E&M Provision Works) and ICE certification (Final)	50 days	0 days	50 days	0%	Wed 2/6/21	Wed 21/7/21	NA	NA	Thu 27/10/22	Thu 15/12/22	512 days	0 days	347,345FF																					
349	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Thu 22/7/21	Mon 4/10/21	NA	NA	Fri 16/12/22	Tue 28/2/23	512 days	0 days	348																					
350	Road Lighting of Road D3 (E&M)	469 days	129.19 days	339.81 days	0%	Mon 6/1/20	Sun 18/4/21	Mon 6/1/20	NA	Mon 6/1/20	Sun 1/8/21	105 days																							
351	Prepare AIP (E&M works) Submission (Draft)	30 days	30 days	0 days	100%	Mon 6/1/20	Tue 4/2/20	Mon 6/1/20	Tue 4/2/20	Mon 6/1/20	Tue 4/2/20	0 days	2 days																						
352	Submit & endorse by Statutory Authorities/Gov. Dept and PM	190 days	108 days	82 days	57%	Wed 5/2/20	Wed 12/8/20	Wed 5/2/20	NA	Wed 5/2/20	Wed 25/11/20	105 days		351																					
353	Prepare AIP (E&M works) and ICE certification (Final)	32 days	0 days	32 days	0%	Thu 13/8/20	Sun 13/9/20	NA	NA	Thu 26/11/20	Sun 27/12/20	105 days	2 days	352																					
354	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Mon 14/9/20	Thu 12/11/20	NA	NA	Mon 28/12/20	Thu 25/2/21	105 days	2 days	353																					

Title: Rev.11 Prog with Progress as of 22-May-20

Task		Summary		Inactive Milestone		Duration-only		Start-only		External Milestone		Critical Split	
Split		Project Summary		Inactive Summary		Manual Summary Rollup		Finish-only		Deadline		Progress	
Milestone		Inactive Task		Manual Task		Manual Summary		External Tasks		Critical		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				2024							
															Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1		Q2	Q3	Q4	Q1	Q2		
400	Prepare DDA (E&M works) and ICE certification (Final)	16 days	0 days	16 days	0%	Thu 4/3/21	Fri 19/3/21	NA	NA	Mon 8/3/21	Tue 23/3/21	4 days	1 day	399																								
401	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Sat 20/3/21	Wed 19/5/21	NA	NA	Wed 24/3/21	Sun 23/5/21	4 days	1 day	400																								
402	DCS Seawater & Intake Box Culverts (approx 88m) (Section 2)	479 days	304.41 days	174.59 days	0%	Tue 13/8/19	Thu 3/12/20	Tue 13/8/19	NA	Tue 13/8/19	Tue 3/8/21	243 days																										
403	Prepare AIP Subm with ICE certification (Draft)	165 days	165 days	0 days	100%	Tue 13/8/19	Fri 24/1/20	Tue 13/8/19	Fri 24/1/20	Tue 13/8/19	Fri 24/1/20	0 days	3 days																									
404	Submit & endorse by PM	85 days	85 days	0 days	100%	Thu 23/1/20	Thu 16/4/20	Thu 23/1/20	Thu 16/4/20	Thu 23/1/20	Thu 16/4/20	0 days	1 day	403																								
405	Submit & endorse by Statutory Authorities/Gov. Dept	90 days	90 days	0 days	100%	Fri 24/1/20	Mon 27/4/20	Fri 24/1/20	Mon 27/4/20	Fri 24/1/20	Mon 27/4/20	0 days	1 day	403																								
406	Prepare AIP and ICE certification (Final)	0 days	0 days	0 days	100%	Thu 23/4/20	Mon 27/4/20	Thu 23/4/20	Mon 27/4/20	Thu 23/4/20	Mon 27/4/20	0 days	1 days	403,405,404																								
407	Prepare DDA and ICE certification	80 days	0 days	80 days	0%	Sat 23/5/20	Mon 10/8/20	NA	NA	Thu 21/1/21	Sat 10/4/21	243 days	5 days	403SS,406FF+15																								
408	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Tue 11/8/20	Tue 29/9/20	NA	NA	Sun 11/4/21	Sun 30/5/21	243 days	3 days	407																								
409	Prepare DDA for and ICE certification (Final)	15 days	0 days	15 days	0%	Wed 30/9/20	Wed 14/10/20	NA	NA	Mon 31/5/21	Mon 14/6/21	243 days	1 day	408																								
410	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Thu 15/10/20	Thu 3/12/20	NA	NA	Tue 15/6/21	Tue 3/8/21	243 days	2 days	409																								
411	Seawater & Intake Box Culverts Diversion	248 days	49.98 days	198.02 days	0%	Wed 1/4/20	Fri 4/12/20	Wed 1/4/20	NA	Wed 1/4/20	Wed 6/10/21	306 days																										
412	Prepare AIP Subm (Draft)	32 days	32 days	0 days	100%	Wed 1/4/20	Sat 2/5/20	Wed 1/4/20	Sat 2/5/20	Wed 1/4/20	Sat 2/5/20	0 days	3 days																									
413	Submit & endorse by PM and Statutory Authorities/Gov. Dept	51 days	21 days	30 days	41%	Sat 2/5/20	Mon 22/6/20	Sat 2/5/20	NA	Sat 2/5/20	Tue 17/11/20	148 days	3 days	412																								
414	Prepare AIP and ICE certification (Final)	15 days	0 days	15 days	0%	Tue 23/6/20	Tue 7/7/20	NA	NA	Wed 18/11/20	Wed 2/12/20	148 days	1 days	412,413																								
415	Prepare DDA and ICE certification	50 days	0 days	50 days	0%	Tue 23/6/20	Tue 11/8/20	NA	NA	Sun 25/4/21	Sun 13/6/21	306 days	5 days	412SS,413FF+50																								
416	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Wed 12/8/20	Wed 30/9/20	NA	NA	Mon 14/6/21	Mon 2/8/21	306 days	3 days	415																								
417	Prepare DDA for and ICE certification (Final)	15 days	0 days	15 days	0%	Thu 1/10/20	Thu 15/10/20	NA	NA	Tue 3/8/21	Tue 17/8/21	306 days	1 day	416																								
418	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Fri 16/10/20	Fri 4/12/20	NA	NA	Wed 18/8/21	Wed 6/10/21	306 days	2 days	417																								
419	Rising Main (Sewerage Works)	402 days	134 days	268 days	0%	Thu 2/1/20	Sat 6/2/21	Thu 2/1/20	NA	Thu 2/1/20	Sun 7/3/21	29 days																										
420	Prepare AIP (Draft)	35 days	35 days	0 days	100%	Thu 2/1/20	Wed 5/2/20	Thu 2/1/20	Wed 5/2/20	Thu 2/1/20	Wed 5/2/20	0 days	3 days	4																								
421	Submit & endorse by PM	19 days	19 days	0 days	100%	Thu 6/2/20	Mon 24/2/20	Thu 6/2/20	Mon 24/2/20	Thu 6/2/20	Mon 24/2/20	0 days	1 day																									
422	Submit & endorse by PM and Statutory Authorities/Gov. Dept	56 days	56 days	0 days	100%	Thu 27/2/20	Fri 22/5/20	Thu 27/2/20	Fri 22/5/20	Thu 27/2/20	Fri 22/5/20	0 days	2 days	420																								
423	Prepare AIP and ICE certification (Final)	75 days	0 days	75 days	0%	Thu 2/7/20	Mon 14/9/20	NA	NA	Fri 31/7/20	Tue 13/10/20	29 days	0 days	420,422,421																								
424	Prepare DDA and ICE certification (Draft)	30 days	0 days	30 days	0%	Tue 15/9/20	Wed 14/10/20	NA	NA	Wed 14/10/20	Thu 12/11/20	29 days	4 days	420SS,423																								
425	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Thu 15/10/20	Thu 3/12/20	NA	NA	Fri 13/11/20	Fri 1/1/21	29 days	3 days	424,420																								
426	Prepare DDA and ICE certification (Final)	15 days	0 days	15 days	0%	Fri 4/12/20	Fri 18/12/20	NA	NA	Sat 2/1/21	Sat 16/1/21	29 days	0 days	425																								
427	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Sat 19/12/20	Sat 6/2/21	NA	NA	Sun 17/1/21	Sun 7/3/21	29 days	3 days	426,423																								
428	Stormwater, Sewage, Salt Water and Fresh Water Works for Underpass and Depressed Road	641 days	151.9 days	489.1 days	0%	Fri 13/9/19	Mon 14/6/21	Fri 13/9/19	NA	Fri 13/9/19	Mon 28/6/21	14 days																										
429	Stormwater Drainage AIP for Underpass and Depressed Roads and ICE certification (Draft)	72 days	72 days	0 days	100%	Mon 2/12/19	Tue 11/2/20	Mon 2/12/19	Tue 11/2/20	Mon 2/12/19	Tue 11/2/20	0 days	1 day																									
430	Submit & endorse by PM	51 days	51 days	0 days	30%	Wed 12/2/20	Thu 2/4/20	Wed 12/2/20	Thu 2/4/20	Wed 12/2/20	Thu 2/4/20	0 days	0.5 days	429																								
431	Submit & endorse by Statutory Authorities/Gov. Dept	139 days	64 days	75 days	46%	Fri 20/3/20	Wed 5/8/20	Fri 20/3/20	NA	Fri 20/3/20	Fri 30/10/20	86 days		429																								
432	Prepare AIP and ICE certification (Final)	150 days	50 days	100 days	33%	Fri 3/4/20	Sun 30/8/20	Fri 3/4/20	NA	Fri 3/4/20	Sat 14/11/20	76 days		431FF+15 days																								
433	Prepare DDA and ICE certification (Draft)	150 days	0 days	150 days	0%	Sat 23/5/20	Mon 19/10/20	NA	NA	Sat 18/7/20	Mon 14/12/20	56 days	1 day	429,432FF+30 d																								
434	Submit & endorse by PM and Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Tue 20/10/20	Sun 17/1/21	NA	NA	Tue 15/12/20	Sun 14/3/21	56 days	0.5 days	433																								
435	Prepare DDA and ICE certification (Final)	31 days	0 days	31 days	0%	Mon 18/1/21	Wed 17/2/21	NA	NA	Mon 15/3/21	Wed 14/4/21	56 days	1 day	434																								
436	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Thu 18/2/21	Mon 3/5/21	NA	NA	Thu 15/4/21	Mon 28/6/21	56 days	5 days	435																								
437	Fresh and Salt Water Works AIP for Underpass, Depressed Road and ICE certification (Draft)	51 days	51 days	0 days	100%	Tue 8/10/19	Wed 27/11/19	Tue 8/10/19	Wed 27/11/19	Tue 8/10/19	Wed 27/11/19	0 days	1 day																									
438	Submit & endorse by PM	26 days	26 days	0 days	100%	Thu 28/11/19	Mon 23/12/19	Thu 28/11/19	Mon 23/12/...	Thu 28/11/19	Mon 23/12/19	0 days	0.5 days	437																								
439	Submit & endorse by Statutory Authorities/Gov. Dept	14 days	14 days	0 days	100%	Wed 8/4/20	Fri 24/4/20	Wed 8/4/20	Fri 24/4/20	Wed 8/4/20	Fri 24/4/20	0 days	3 days	437																								
440	Prepare AIP for Underpass, Depressed Road and ICE certification (Final)	22 days	22 days	0 days	100%	Sat 25/4/20	Sat 16/5/20	Sat 25/4/20	Sat 16/5/20	Sat 25/4/20	Sat 16/5/20	0 days	0 days	438,439																								
441	Prepare DDA for Underpass, Depressed Road and ICE certification (Draft)	90 days	0 days	90 days	0%	Sun 17/5/20	Fri 14/8/20	NA	NA	Fri 2/10/20	Wed 30/12/20	138 days	1 day	440																								
442	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Sat 15/8/20	Wed 28/10/20	NA	NA	Thu 31/12/20	Mon 15/3/21	138 days	0.5 days	441																								
443	Prepare DDA for Underpass, Depressed Road and ICE certification (Final)	30 days	0 days	30 days	0%	Thu 29/10/20	Fri 27/11/20	NA	NA	Tue 16/3/21	Wed 14/4/21	138 days	0 days	442																								
444	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Sat 28/11/20	Wed 10/2/21	NA	NA	Thu 15/4/21	Mon 28/6/21	138 days	0 days	443																								

Title: Rev.11 Prog with Progress as of 22-May-20

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Critical Split
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	Progress
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Critical	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	Q1	Q2									
445	AIP for Water Works (Sewerage Works of Gravity Sewers)	88 days	88 days	0 days	100%	Fri 13/9/19	Mon 9/12/19	Fri 13/9/19	Mon 9/12/19	Fri 13/9/19	Mon 9/12/19	0 days	1 day																											
446	Submit & endorse by PM	19 days	19 days	0 days	100%	Mon 23/12/19	Fri 10/1/20	Mon 23/12/19	Fri 10/1/20	Mon 23/12/19	Fri 10/1/20	0 days	0.5 days	445																										
447	Submit & endorse by Statutory Authorities/Gov. Dept	18 days	18 days	0 days	100%	Fri 21/2/20	Mon 9/3/20	Fri 21/2/20	Mon 9/3/20	Fri 21/2/20	Mon 9/3/20	0 days	0.5 days	445																										
448	AIP for Water Works (Sewerage Works of Gravity Sewers) (Final)	11 days	11 days	0 days	100%	Tue 10/3/20	Fri 20/3/20	Tue 10/3/20	Fri 20/3/20	Tue 10/3/20	Fri 20/3/20	0 days	0.5 days	445,446,447																										
449	DDA for Water Works (Sewerage Works of Gravity Sewers)	60 days	0 days	60 days	0%	Sat 23/5/20	Tue 21/7/20	NA	NA	Wed 16/12/20	Sat 13/2/21	207 days	1 day	445																										
450	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Wed 22/7/20	Wed 9/9/20	NA	NA	Sun 14/2/21	Sun 4/4/21	207 days	0.5 days	449																										
451	DDA for Water Works - (Sewerage Works of Gravity Sewers)	35 days	0 days	35 days	0%	Thu 10/9/20	Wed 14/10/20	NA	NA	Mon 5/4/21	Sun 9/5/21	207 days	1 day	448,449,450																										
452	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Thu 15/10/20	Thu 3/12/20	NA	NA	Mon 10/5/21	Mon 28/6/21	207 days	0.5 days	451																										
453	AIP for Stormwater Works - Waterfront Promenade and at grade Open Space (Draft)	80 days	0 days	80 days	0%	Mon 6/7/20	Wed 23/9/20	NA	NA	Mon 20/7/20	Wed 7/10/20	14 days	1 day	445																										
454	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Thu 24/9/20	Sun 22/11/20	NA	NA	Thu 8/10/20	Sun 6/12/20	14 days	0.5 days	453																										
455	AIP for Stormwater Works - Waterfront Promenade and at grade Open Space (Final)	30 days	0 days	30 days	0%	Mon 23/11/20	Tue 22/12/20	NA	NA	Mon 7/12/20	Tue 5/1/21	14 days	0.5 days	453,454																										
456	DDA for Stormwater Works - Waterfront Promenade and at grade Open Space (Draft)	120 days	0 days	120 days	0%	Thu 24/9/20	Thu 21/1/21	NA	NA	Thu 8/10/20	Thu 4/2/21	14 days	1 day	453,455FF+30 days																										
457	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Fri 22/1/21	Mon 22/3/21	NA	NA	Fri 5/2/21	Mon 5/4/21	14 days	0.5 days	456																										
458	DDA for Stormwater Works - Waterfront Promenade and at grade Open Space (Final)	24 days	0 days	24 days	0%	Tue 23/3/21	Thu 15/4/21	NA	NA	Tue 6/4/21	Thu 29/4/21	14 days	1 day	455,456,457																										
459	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Fri 16/4/21	Mon 14/6/21	NA	NA	Fri 30/4/21	Mon 28/6/21	14 days	0.5 days	458																										
460	AIP for Water Works - Remaining Stormwater works (Draft)	0 days	0 days	0 days	100%	Mon 2/3/20	Thu 9/4/20	Mon 2/3/20	Thu 9/4/20	Mon 2/3/20	Thu 9/4/20	0 days	1 day	453																										
461	Submit & endorse by PM and Statutory Authorities/Gov. Dept	27 days	27 days	0 days	100%	Fri 10/4/20	Wed 6/5/20	Fri 10/4/20	Wed 6/5/20	Fri 10/4/20	Wed 6/5/20	0 days	0.5 days	460																										
462	AIP for Water Works - Remaining Stormwater works (Final)	1 day	1 day	0 days	100%	Wed 29/4/20	Thu 7/5/20	Wed 29/4/20	Thu 7/5/20	Wed 29/4/20	Thu 7/5/20	0 days	0.5 days	460,461																										
463	DDA for Water Works - Remaining Stormwater works (Draft)	90 days	0 days	90 days	0%	Tue 2/6/20	Sun 30/8/20	NA	NA	Fri 6/11/20	Wed 3/2/21	157 days	1 day	460																										
464	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Mon 31/8/20	Thu 29/10/20	NA	NA	Thu 4/2/21	Sun 4/4/21	157 days	0.5 days	463																										
465	DDA for Water Works - Remaining Stormwater works (Final)	25 days	0 days	25 days	0%	Fri 30/10/20	Mon 23/11/20	NA	NA	Mon 5/4/21	Thu 29/4/21	157 days	1 day	462,463,464																										
466	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Tue 24/11/20	Fri 22/1/21	NA	NA	Fri 30/4/21	Mon 28/6/21	157 days	0.5 days	465																										
467	Stormwater, Sewage, Salt Water and Fresh Water Works for Bridge B3	530 days	132.36 days	397.64 days	0%	Tue 22/10/19	Sat 3/4/21	Tue 22/10/19	NA	Tue 22/10/19	Wed 6/10/21	186 days																												
468	Fresh and Salt Water Works AIP for Bridge D3 (Draft)	37 days	37 days	0 days	100%	Tue 22/10/19	Wed 27/11/19	Tue 22/10/19	Wed 27/11/...	Tue 22/10/19	Wed 27/11/19	0 days	1 day																											
469	Submit & endorse by PM	22 days	22 days	0 days	100%	Thu 28/11/19	Thu 19/12/19	Thu 28/11/19	Thu 19/12/19	Thu 28/11/19	Thu 19/12/19	0 days	0.5 days	468																										
470	Submit & endorse by Statutory Authorities/Gov. Dept	26 days	26 days	0 days	100%	Thu 9/4/20	Mon 4/5/20	Thu 9/4/20	Mon 4/5/20	Thu 9/4/20	Mon 4/5/20	0 days	0.5 days																											
471	Prepare AIP for Bridge D3 and ICE certification (Final)	3 days	3 days	0 days	100%	Mon 4/5/20	Wed 6/5/20	Mon 4/5/20	Wed 6/5/20	Mon 4/5/20	Wed 6/5/20	0 days	0 days	468,469,470FF+																										
472	Prepare DDA for Bridge D3 and ICE certification (Draft)	60 days	0 days	60 days	0%	Mon 8/6/20	Thu 6/8/20	NA	NA	Sat 19/9/20	Tue 17/11/20	103 days	1 day	471FF+15 days,																										
473	Submit & endorse by PM and Statutory Authorities/Gov. Dept	55 days	0 days	55 days	0%	Fri 7/8/20	Wed 30/9/20	NA	NA	Wed 18/11/20	Mon 11/1/21	103 days	0.5 days	472																										
474	Prepare DDA for Dridge D3 and ICE certification (Final)	30 days	0 days	30 days	0%	Thu 1/10/20	Fri 30/10/20	NA	NA	Tue 12/1/21	Wed 10/2/21	103 days	0 days	473																										
475	Submit & endorse by PM and Statutory Authorities/Gov. Dept	55 days	0 days	55 days	0%	Sat 31/10/20	Thu 24/12/20	NA	NA	Thu 11/2/21	Tue 6/4/21	103 days	0 days	474																										
476	Stormwater Works AIP for Bridge D3 and ICE certification (Draft)	20 days	20 days	0 days	100%	Thu 23/1/20	Tue 11/2/20	Thu 23/1/20	Tue 11/2/20	Thu 23/1/20	Tue 11/2/20	0 days	1 day	468SS																										
477	Submit & endorse by PM	9 days	9 days	0 days	100%	Wed 12/2/20	Thu 20/2/20	Wed 12/2/20	Thu 20/2/20	Wed 12/2/20	Thu 20/2/20	0 days	0.5 days	476																										
478	Submit & endorse by Statutory Authorities/Gov. Dept	28 days	28 days	0 days	100%	Wed 19/2/20	Tue 17/3/20	Wed 19/2/20	Tue 17/3/20	Wed 19/2/20	Tue 17/3/20	0 days	3 days																											
479	Stormwater Works AIP for Bridge D3 and ICE certification (Final)	26 days	26 days	0 days	100%	Mon 2/3/20	Fri 27/3/20	Mon 2/3/20	Fri 27/3/20	Mon 2/3/20	Fri 27/3/20	0 days	1 day	477,476																										
480	Prepare DDA for Bridge D3 and ICE certification (Draft)	65 days	0 days	65 days	0%	Sat 23/5/20	Sun 26/7/20	NA	NA	Fri 9/10/20	Sat 12/12/20	139 days	1 day	476,479SS,478,4																										
481	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Mon 27/7/20	Mon 14/9/20	NA	NA	Sun 13/12/20	Sun 31/1/21	139 days	0.5 days	480																										
482	Stormwater Works DDA for Bridge D3 and ICE certification (Final)	15 days	0 days	15 days	0%	Tue 15/9/20	Tue 29/9/20	NA	NA	Mon 1/2/21	Mon 15/2/21	139 days	1 day	481																										
483	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Wed 30/9/20	Wed 18/11/20	NA	NA	Tue 16/2/21	Tue 6/4/21	139 days	1 day	482																										
484	AIP for Stormwater Drainage Works of Pump Rooms EVA & Road L12d (Draft)	11 days	11 days	0 days	100%	Tue 28/4/20	Fri 8/5/20	Tue 28/4/20	Fri 8/5/20	Tue 28/4/20	Fri 8/5/20	0 days	1 day																											
485	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	15 days	45 days	25%	Fri 8/5/20	Tue 7/7/20	Fri 8/5/20	NA	Fri 8/5/20	Sat 9/1/21	186 days	0.5 days	484																										
486	AIP for Stormwater Drainage Works (Final)	45 days	0 days	45 days	0%	Wed 8/7/20	Fri 21/8/20	NA	NA	Sun 10/1/21	Tue 23/2/21	186 days	0.5 days	484,485																										
487	DDA for Stormwater Drainage Works (Draft)	60 days	0 days	60 days	0%	Sat 22/8/20	Tue 20/10/20	NA	NA																															

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				20														
															Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2								
490	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Wed 3/2/21	Sat 3/4/21	NA	NA	Sun 8/8/21	Wed 6/10/21	186 days	0.5 days	489																													
491	AIP for Saltwater & Freshwater - Road L12d (Draft)	40 days	40 days	0 days	100%	Fri 1/11/19	Tue 10/12/19	Fri 1/11/19	Tue 10/12/19	Fri 1/11/19	Tue 10/12/19	0 days	1 day																														
492	Submit & endorse by PM	31 days	31 days	0 days	100%	Wed 11/12/19	Fri 10/1/20	Wed 11/12/19	Fri 10/1/20	Wed 11/12/19	Fri 10/1/20	0 days	0.5 days	491																													
493	Submit & endorse by Statutory Authorities/Gov. Dept	14 days	14 days	0 days	100%	Thu 9/4/20	Wed 6/5/20	Thu 9/4/20	Wed 6/5/20	Thu 9/4/20	Wed 6/5/20	0 days	1 day	491																													
494	AIP for Saltwater & Freshwater Works - Road L12d (Final)	12 days	12 days	0 days	100%	Thu 7/5/20	Mon 18/5/20	Thu 7/5/20	Mon 18/5/20	Thu 7/5/20	Mon 18/5/20	0 days	0.5 days	491,492,493																													
495	DDA for Saltwater & Freshwater Works - Road L12d (Draft)	60 days	0 days	60 days	0%	Tue 19/5/20	Fri 17/7/20	NA	NA	Thu 11/3/21	Sun 9/5/21	296 days	1 day	491,494																													
496	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Sat 18/7/20	Tue 15/9/20	NA	NA	Mon 10/5/21	Thu 8/7/21	296 days	0.5 days	495																													
497	DDA for Saltwater & Freshwater Works - Road L12d (Final)	30 days	0 days	30 days	0%	Wed 16/9/20	Thu 15/10/20	NA	NA	Fri 9/7/21	Sat 7/8/21	296 days	1 day	494,495,496																													
498	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Fri 16/10/20	Mon 14/12/20	NA	NA	Sun 8/8/21	Wed 6/10/21	296 days	0.5 days	497																													
499	Fresh and Salt Works AIP - Waterfront Promenade and at grade Open Space (Draft)	40 days	40 days	0 days	100%	Fri 1/11/19	Tue 10/12/19	Fri 1/11/19	Tue 10/12/19	Fri 1/11/19	Tue 10/12/19	0 days	1 day																														
500	Submit & endorse by PM	31 days	31 days	0 days	100%	Wed 11/12/19	Fri 10/1/20	Wed 11/12/19	Fri 10/1/20	Wed 11/12/19	Fri 10/1/20	0 days	0.5 days	499																													
501	Submit & endorse by PM/Statutory Authorities/Gov. Dept	14 days	14 days	0 days	100%	Thu 9/4/20	Mon 18/5/20	Thu 9/4/20	Mon 18/5/20	Thu 9/4/20	Mon 18/5/20	0 days	0.5 days																														
502	Fresh and Salt Works AIP - Waterfront Promenade and at grade Open Space (Final)	0 days	0 days	0 days	100%	Mon 11/5/20	Mon 18/5/20	Mon 11/5/20	Mon 18/5/20	Mon 11/5/20	Mon 18/5/20	0 days	0.5 days	499,500,501																													
503	Fresh and Salt Works DDA - Waterfront Promenade and at grade Open Space (Draft)	90 days	0 days	90 days	0%	Tue 19/5/20	Sun 16/8/20	NA	NA	Sat 19/12/20	Thu 18/3/21	214 days	1 day	499,502																													
504	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Mon 17/8/20	Fri 30/10/20	NA	NA	Fri 19/3/21	Tue 1/6/21	214 days	0.5 days	503																													
505	Fresh and Salt Works DDA - Waterfront Promenade and at grade Open Space (Final)	52 days	0 days	52 days	0%	Sat 31/10/20	Mon 21/12/20	NA	NA	Wed 2/6/21	Fri 23/7/21	214 days	1 day	502,503,504																													
506	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Tue 22/12/20	Sat 6/3/21	NA	NA	Sat 24/7/21	Wed 6/10/21	214 days	0.5 days	505																													
507	AIP for Water Works - Remaining Fresh Water and Salt Water works (Draft)	40 days	40 days	0 days	100%	Fri 1/11/19	Tue 10/12/19	Fri 1/11/19	Tue 10/12/19	Fri 1/11/19	Tue 10/12/19	0 days	1 day	499SS																													
508	Submit & endorse by PM	31 days	31 days	0 days	100%	Wed 11/12/19	Fri 10/1/20	Wed 11/12/19	Fri 10/1/20	Wed 11/12/19	Fri 10/1/20	0 days	0.5 days	507																													
509	Submit & endorse by PM/Statutory Authorities/Gov. Dept	14 days	14 days	0 days	100%	Thu 9/4/20	Thu 7/5/20	Thu 9/4/20	Thu 7/5/20	Thu 9/4/20	Thu 7/5/20	0 days	2 days	507																													
510	AIP for Water Works - Remaining Fresh Water and Salt Water works (Final)	11 days	11 days	0 days	100%	Thu 7/5/20	Mon 18/5/20	Thu 7/5/20	Mon 18/5/20	Thu 7/5/20	Mon 18/5/20	0 days	0.5 days	507,508,509																													
511	DDA for Water Works - Remaining Fresh Water and Salt Water works (Draft)	50 days	0 days	50 days	0%	Mon 8/6/20	Mon 27/7/20	NA	NA	Fri 19/2/21	Fri 9/4/21	256 days	1 day	507,510																													
512	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Tue 28/7/20	Sat 10/10/20	NA	NA	Sat 10/4/21	Wed 23/6/21	256 days	0.5 days	511																													
513	DDA for Water Works - Remaining Fresh Water and Salt Water works (Final)	30 days	0 days	30 days	0%	Sun 11/10/20	Mon 9/11/20	NA	NA	Thu 24/6/21	Fri 23/7/21	256 days	1 day	510,511,512																													
514	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Tue 10/11/20	Sat 23/1/21	NA	NA	Sat 24/7/21	Wed 6/10/21	256 days	0.5 days	513																													
515	Pumping Stations, Box Culverts and Intake Structures	845 days	100.29 days	744.71 days	0%	Mon 2/12/19	Fri 25/3/22	Mon 2/12/19	NA	Mon 2/12/19	Thu 5/5/22	41 days																															
516	Prepare AIP for Salt Water and Sewage Pumping Structures (Draft)	29 days	29 days	0 days	100%	Mon 2/12/19	Mon 30/12/19	Mon 2/12/19	Mon 30/12/19	Mon 2/12/19	Mon 30/12/19	0 days	1 day	4																													
517	Submit & endorse by PM	11 days	11 days	0 days	100%	Tue 31/12/19	Fri 10/1/20	Tue 31/12/19	Fri 10/1/20	Tue 31/12/19	Fri 10/1/20	0 days	0.5 days	516																													
518	Submit & endorse by Statutory Authorities/Gov. Dept	27 days	27 days	0 days	100%	Fri 27/3/20	Wed 29/4/20	Fri 27/3/20	Wed 29/4/20	Fri 27/3/20	Wed 29/4/20	0 days	2 days																														
519	Prepare AIP for Salt Water & Sewage Pumping Structures and ICE certification (Final)	36 days	0 days	36 days	0%	Thu 2/7/20	Thu 6/8/20	NA	NA	Thu 10/6/21	Thu 15/7/21	343 days	1 day	516,517,518FF+ days																													
520	Prepare DDA for Salt Water & Sewage Pumping Structures and ICE certification (Draft)	45 days	0 days	45 days	0%	Tue 1/9/20	Thu 15/10/20	NA	NA	Tue 10/8/21	Thu 23/9/21	343 days	1 day	516,518FF+21 days,519FF+70																													
521	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Fri 16/10/20	Fri 4/12/20	NA	NA	Fri 24/9/21	Fri 12/11/21	343 days	0.5 days	520																													
522	Prepare DDA for Salt Water & Sewage Pumping Structures and ICE certification (Final)	45 days	0 days	45 days	0%	Sat 5/12/20	Mon 18/1/21	NA	NA	Sat 13/11/21	Mon 27/12/21	343 days	0.5 days	521,519FF																													
523	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Tue 19/1/21	Tue 9/3/21	NA	NA	Tue 28/12/21	Tue 15/2/22	343 days		522																													
524	Prepare E&M Works AIP for Sewage Pumping Station (Draft)	29 days	29 days	0 days	100%	Tue 7/1/20	Tue 4/2/20	Tue 7/1/20	Tue 4/2/20	Tue 7/1/20	Tue 4/2/20	0 days	2 days																														
525	Submit & endorse by PM	10 days	10 days	0 days	100%	Wed 5/2/20	Fri 14/2/20	Wed 5/2/20	Fri 14/2/20	Wed 5/2/20	Fri 14/2/20	0 days	0.5 days	516,524																													
526	Submit & endorse by Statutory Authorities/Gov. Dept	55 days	30 days	25 days	55%	Thu 23/4/20	Tue 16/6/20	Thu 23/4/20	NA	Thu 23/4/20	Sun 13/9/20	89 days	2 days	524,525																													
527	Prepare AIP for Sewage Pumping Station E&M works and ICE certification (Final)	77 days	0 days	77 days	0%	Wed 17/6/20	Tue 1																																				

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				20								
															Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		Q4	Q1	Q2					
535	Prepare AIP for Salt Water Pumping Station E&M works and ICE certification (Final)	77 days	0 days	77 days	0%	Mon 17/8/20	Sun 1/11/20	NA	NA	Sun 13/9/20	Sat 28/11/20	27 days	2 days	534																							
536	Prepare DDA for Salt Water Pumping Station E&M works and ICE certification (Draft)	120 days	0 days	120 days	0%	Tue 4/8/20	Tue 1/12/20	NA	NA	Mon 31/8/20	Mon 28/12/20	27 days	1 day	534FF+30 days,516																							
537	Submit to WSD for Plumbing and Irrigation Works for approval	0 days	0 days	0 days	0%	Tue 1/12/20	Tue 1/12/20	NA	NA	Tue 29/12/20	Tue 29/12/20	27 days	1 day	536																							
538	Submit & endorse by PM and Statutory Authorities/Gov. Dept	91 days	0 days	91 days	0%	Wed 2/12/20	Tue 2/3/21	NA	NA	Tue 29/12/20	Mon 29/3/21	27 days	1 day	536,537																							
539	Prepare DDA for Salt Water Pumping Station and ICE certification (Final)	31 days	0 days	31 days	0%	Wed 3/3/21	Fri 2/4/21	NA	NA	Tue 30/3/21	Thu 29/4/21	27 days	1 day	535FF+6 days,538																							
540	Submit & endorse by PM and Statutory Authorities/Gov. Dept	91 days	0 days	91 days	0%	Sat 3/4/21	Fri 2/7/21	NA	NA	Fri 30/4/21	Thu 29/7/21	27 days	1 day	539																							
541	AIP for Remaining Works of Salt Water & Sewerage Pumping and ICE certification (Draft)	41 days	41 days	0 days	0%	Mon 17/2/20	Sat 28/3/20	Mon 17/2/20	Sat 28/3/20	Mon 17/2/20	Sat 28/3/20	0 days	1 day	4																							
542	Submit & endorse by PM	18 days	18 days	0 days	100%	Mon 30/3/20	Thu 16/4/20	Mon 30/3/20	Thu 16/4/20	Mon 30/3/20	Thu 16/4/20	0 days																									
543	Submit & endorse by Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Mon 3/8/20	Sat 31/10/20	NA	NA	Sun 14/3/21	Fri 11/6/21	223 days	0.5 days	541,542																							
544	AIP for Remaining Works of Salt Water Pumping & Sewage and ICE certification (Final)	90 days	0 days	90 days	0%	Sun 1/11/20	Fri 29/1/21	NA	NA	Sat 12/6/21	Thu 9/9/21	223 days	3 days	543																							
545	DDA for Remaining Works of Salt Water & Sewage Pumping and ICE certification (Draft)	90 days	0 days	90 days	0%	Sun 6/12/20	Fri 5/3/21	NA	NA	Sat 17/7/21	Thu 14/10/21	223 days	1 day	541,544FF+35 days																							
546	Submit & endorse by PM and Statutory Authorities/Gov. Dept	93 days	0 days	93 days	0%	Sat 6/3/21	Sun 6/6/21	NA	NA	Fri 15/10/21	Sat 15/1/22	223 days	3 days	545																							
547	DDA for Remaining Works of Salt Water & Sewage Pumping and ICE certification (Final)	35 days	0 days	35 days	0%	Mon 7/6/21	Sun 11/7/21	NA	NA	Sun 16/1/22	Sat 19/2/22	223 days	3 days	546,544FF+12 days																							
548	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Mon 12/7/21	Fri 24/9/21	NA	NA	Sun 20/2/22	Thu 5/5/22	223 days	2 days	547																							
549	AIP for Architectural works of Salt Water & Sewage Pumping and ICE certification (Draft)	45 days	0 days	45 days	0%	Mon 5/4/21	Wed 19/5/21	NA	NA	Mon 3/5/21	Wed 16/6/21	28 days	1 day	4																							
550	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Thu 20/5/21	Sun 18/7/21	NA	NA	Thu 17/6/21	Sun 15/8/21	28 days	0.5 days	549																							
551	AIP for Architectural works of Salt Water Pumping & Sewage and ICE certification (Final)	62 days	0 days	62 days	0%	Mon 19/7/21	Sat 18/9/21	NA	NA	Mon 16/8/21	Sat 16/10/21	28 days	2 days	549,550																							
552	DDA for Architectural works of Salt Water & Sewage Pumping and ICE certification (Draft)	60 days	0 days	60 days	0%	Fri 20/8/21	Mon 18/10/21	NA	NA	Fri 17/9/21	Mon 15/11/21	28 days	1 day	549,551FF+30 days																							
553	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Tue 19/10/21	Fri 17/12/21	NA	NA	Tue 16/11/21	Fri 14/1/22	28 days	0.5 days	552																							
554	DDA for Architectural works of Salt Water & Sewage Pumping and ICE certification (Final)	36 days	0 days	36 days	0%	Sat 18/12/21	Sat 22/1/22	NA	NA	Sat 15/1/22	Sat 19/2/22	28 days	2 days	551FF+12 days,553																							
555	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Sun 23/1/22	Fri 25/3/22	NA	NA	Sun 20/2/22	Fri 22/4/22	28 days	2 days	554																							
556	AIP for Landscaping works of Salt Water & Sewage Pumping and ICE certification (Draft)	45 days	0 days	45 days	0%	Mon 5/4/21	Wed 19/5/21	NA	NA	Sun 2/5/21	Tue 15/6/21	27 days	1 day	4																							
557	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Thu 20/5/21	Mon 19/7/21	NA	NA	Wed 16/6/21	Sun 15/8/21	27 days	0.5 days	556																							
558	AIP for Landscaping works of Salt Water Pumping & Sewage and ICE certification (Final)	62 days	0 days	62 days	0%	Tue 20/7/21	Sun 19/9/21	NA	NA	Mon 16/8/21	Sat 16/10/21	27 days	2 days	556,557																							
559	DDA for Landscaping works of Salt Water & Sewage Pumping and ICE certification (Draft)	62 days	0 days	62 days	0%	Thu 19/8/21	Tue 19/10/21	NA	NA	Wed 15/9/21	Mon 15/11/21	27 days	2 days	556,558FF+30 days																							
560	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Wed 20/10/21	Sun 19/12/21	NA	NA	Tue 16/11/21	Sat 15/1/22	27 days	0.5 days	559																							
561	DDA for Landscaping works of Salt Water & Sewage Pumping and ICE certification (Final)	35 days	0 days	35 days	0%	Mon 20/12/21	Sun 23/1/22	NA	NA	Sun 16/1/22	Sat 19/2/22	27 days	2 days	558FF+12 days,560																							
562	Submit & endorse by PM and Statutory Authorities/Gov. Dept	61 days	0 days	61 days	0%	Mon 24/1/22	Fri 25/3/22	NA	NA	Sun 20/2/22	Thu 21/4/22	27 days	2 days	561																							
563	AIP for Seawater Intake and Box Culvert Structures for Pumping Station (approx. 160m) (Section 6) Submission (Draft)	58 days	58 days	0 days	100%	Tue 10/12/19	Wed 5/2/20	Tue 10/12/19	Wed 5/2/20	Tue 10/12/19	Wed 5/2/20	0 days	1 day																								
564	Submit & endorse by PM	25 days	25 days	0 days	33%	Wed 5/2/20	Thu 5/3/20	Wed 5/2/20	Thu 5/3/20	Wed 5/2/20	Thu 5/3/20	0 days	0.5 days	563																							
565	Submit & endorse by Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Sat 23/5/20	Sat 11/7/20	NA	NA	Sun 28/3/21	Sun 16/5/21	309 days	0.5 days	563																							
566	AIP for Seawater Intake and Box Culvert Structure (Final)	21 days	0 days	21 days	0%	Sun 12/7/20	Sat 1/8/20	NA	NA	Mon 17/5/21	Sun 6/6/21	309 days	0.5 days	563,565,564																							
567	DDA for Seawater Intake and Box Culvert Structure (Draft)	15 days	0 days	15 days	0%	Sat 25/7/20	Sat 8/8/20	NA	NA	Sun 30/5/21	Sun 13/6/21	309 days	1 day	563,565,564,566																							
568	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Sun 9/8/20	Sun 27/9/20	NA	NA	Mon 14/6/21	Mon 2/8/21	309 days	0.5 days	567																							
569	DDA for Seawater Intake and Box Culvert Structure (Final)	15 days	0 days	15 days	0%	Mon 28/9/20	Mon 12/10/20	NA	NA	Tue 3/8/21	Tue 17/8/21	309 days	1 day	567,568,566FF+																							
570	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Tue 13/10/20	Tue 1/12/20	NA	NA	Wed 18/8/21	Wed 6/10/21	309 days	0.5 days	569																							
571	Elevated Landscape Deck Staircase & Associated Work	714 days	268.49 days	445.51 days	0%	Thu 30/5/19	Wed 12/5/21	Thu 30/5/19	NA	Thu 30/5/19	Mon 5/7/21	54 days																									
572	Elevated Landscape Deck Superstructure AIP and ICE certification (Draft)	96 days	96 days	0 days	100%	Thu 30/5/19	Mon 2/9/19	Thu 30/5/19	Mon 2/9/19	Thu 30/5/19	Mon 2/9/19	0 days	3 days	4																							
573	Submit & endorse by PM	15 days	15 days	0 days	100%	Tue 3/9/19	Tue 17/9/19	Tue 3/9/19	Tue 17/9/19	Tue 3/9/19	Tue 17/9/19	0 days	1 days	572																							
574	Submit & endorse by Statutory Authorities/Gov. Dept	162 days	162 days	0 days	0%	Tue 24/9/19	Tue 3/3/20	Tue 24/9/19	Tue 3/3/20	Tue 24/9/19	Tue 3/3/20	0 days	0.5 days	573																							
575	Prepare AIP and ICE certification (Final)	255 days	155 days	100 days	61%	Wed 20/11/19	Fri 31/7/20	Wed 20/11/19	NA	Wed 20/11/19	Thu 26/11/20	118 days	0.5 days	44FF+12 days																							
576	Prepare DDA and ICE certification (Draft)	75 days	0 days	75 days	0%	Fri 12/6/20	Sun 30/8/20	NA	NA	Thu 8/10/20	Sat 26/12/20	118 days	1 day	574FF+30 days,5																							
577	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Mon 31/8/20	Mon 19/10/20	NA	NA	Sun 27/12/20	Sun 14/2/21	118 days	0.5 days	576																							
578	Prepare DDA for and ICE certification (Final)	22 days	0 days	22 days	0%	Tue 20/10/20	Tue 10/11/20	NA	NA	Mon 15/2/21	Mon 8/3/21	118 days	1 day	577																							

Title: Rev.11 Prog with Progress
as of 22-May-20

Task	
------	--

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				2024			
															Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
579	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Wed 11/11/20	Wed 30/12/20	NA	NA	Tue 9/3/21	Tue 27/4/21	118 days	1 day	578																		
580	Elevated Landscape Deck - Lift (LT1<2)& Staircase include E&M Provision: AIP and ICE Certification (Draft)	50 days	50 days	0 days	100%	Mon 7/10/19	Mon 25/11/19	Mon 7/10/19	Mon 25/11/19	Mon 7/10/19	Mon 25/11/19	0 days	3 days	44FF+12 days																		
581	Submit & endorse by PM	21 days	21 days	0 days	100%	Tue 26/11/19	Mon 16/12/19	Tue 26/11/19	Mon 16/12/...	Tue 26/11/19	Mon 16/12/19	0 days	1 days	580																		
582	Submit & endorse by Statutory Authorities/Gov. Dept	120 days	85 days	35 days	71%	Fri 28/2/20	Fri 26/6/20	Fri 28/2/20	NA	Fri 28/2/20	Thu 13/8/20	48 days	1 days	580																		
583	Prepare AIP and ICE certification (Final)	60 days	0 days	60 days	0%	Sat 27/6/20	Tue 25/8/20	NA	NA	Fri 14/8/20	Mon 12/10/20	48 days	0 days	580,581,582,44F																		
584	Prepare DDA and ICE certification (Draft)	60 days	0 days	60 days	0%	Tue 11/8/20	Wed 14/10/20	NA	NA	Mon 28/9/20	Tue 1/12/20	48 days	1 day	580,583FF+50 d																		
585	Submit & endorse by PM and Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Thu 15/10/20	Tue 12/1/21	NA	NA	Wed 2/12/20	Mon 1/3/21	48 days	0.5 days	584																		
586	Prepare DDA for and ICE certification (Final)	30 days	0 days	30 days	0%	Wed 13/1/21	Thu 11/2/21	NA	NA	Tue 2/3/21	Wed 31/3/21	48 days	0.5 days	585,583FF+12 d																		
587	Submit & endorse by PM and Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Fri 12/2/21	Wed 12/5/21	NA	NA	Thu 1/4/21	Tue 29/6/21	48 days	2 days	586																		
588	Elevated Landscape Deck - Open Space AIP Subm (Draft)	50 days	50 days	0 days	100%	Mon 10/2/20	Mon 30/3/20	Mon 10/2/20	Mon 30/3/20	Mon 10/2/20	Mon 30/3/20	0 days	3 days																			
589	Submit & endorse by PM	21 days	21 days	0 days	100%	Mon 30/3/20	Mon 20/4/20	Mon 30/3/20	Mon 20/4/20	Mon 30/3/20	Mon 20/4/20	0 days	0.5 days	588																		
590	Submit & endorse by Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Mon 6/7/20	Mon 24/8/20	NA	NA	Mon 28/9/20	Mon 16/11/20	84 days	1 days	588																		
591	Prepare AIP and ICE certification (Final)	30 days	0 days	30 days	0%	Tue 25/8/20	Wed 23/9/20	NA	NA	Tue 17/11/20	Wed 16/12/20	84 days	2 days	588,590,44FF+1																		
592	Prepare DDA and ICE certification (Draft)	75 days	0 days	75 days	0%	Thu 24/9/20	Sat 12/12/20	NA	NA	Thu 17/12/20	Sat 6/3/21	84 days	1 day	590SS,591																		
593	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Sun 13/12/20	Sun 31/1/21	NA	NA	Sun 7/3/21	Sun 25/4/21	84 days	0.5 days	592																		
594	Prepare DDA for and ICE certification (Final)	21 days	0 days	21 days	0%	Mon 1/2/21	Sun 21/2/21	NA	NA	Mon 26/4/21	Sun 16/5/21	84 days	0 days	593,591FF+6 da																		
595	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Mon 22/2/21	Mon 12/4/21	NA	NA	Mon 17/5/21	Mon 5/7/21	84 days	0 days	594																		
596	EVA for Open Space AIP Subm (Draft)	71 days	71 days	0 days	100%	Mon 10/2/20	Mon 20/4/20	Mon 10/2/20	Mon 20/4/20	Mon 10/2/20	Mon 20/4/20	0 days	3 days																			
597	Submit & endorse by PM	2 days	2 days	0 days	100%	Tue 21/4/20	Mon 27/4/20	Tue 21/4/20	Mon 27/4/20	Tue 21/4/20	Mon 27/4/20	0 days	1 day	596																		
598	Submit & endorse by Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Mon 6/7/20	Mon 24/8/20	NA	NA	Sun 4/10/20	Sun 22/11/20	90 days	1 days	596																		
599	Prepare AIP and ICE certification (Final)	30 days	0 days	30 days	0%	Tue 25/8/20	Wed 23/9/20	NA	NA	Mon 23/11/20	Tue 22/12/20	90 days	2 days	596,598,44FF+1																		
600	Prepare DDA and ICE certification (Draft)	60 days	0 days	60 days	0%	Thu 24/9/20	Fri 27/11/20	NA	NA	Wed 23/12/20	Thu 25/2/21	90 days	1 day	598SS,599																		
601	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Sat 28/11/20	Sat 16/1/21	NA	NA	Fri 26/2/21	Fri 16/4/21	90 days	0.5 days	600																		
602	Prepare DDA for and ICE certification (Final)	30 days	0 days	30 days	0%	Sun 17/1/21	Mon 15/2/21	NA	NA	Sat 17/4/21	Sun 16/5/21	90 days	0 days	599FF+6 days,60																		
603	Submit & endorse by PM and Statutory Authorities/Gov. Dept	50 days	0 days	50 days	0%	Tue 16/2/21	Tue 6/4/21	NA	NA	Mon 17/5/21	Mon 5/7/21	90 days	0 days	602																		
604	Waterfront Promenade and At-grade Open Space	533 days	5.98 days	527.02 days	0%	Wed 1/4/20	Wed 15/9/21	Wed 1/4/20	NA	Wed 1/4/20	Tue 28/9/21	13 days																				
605	Prepare AIP for Observation Deck with Lift (LT5) and Staircase and ICE (Include E&M Provision Works) certification (Draft)	24 days	24 days	0 days	100%	Wed 1/4/20	Fri 24/4/20	Wed 1/4/20	Fri 24/4/20	Wed 1/4/20	Fri 24/4/20	0 days	1 day																			
606	Submit & endorse by PM and Statutory Authorities/Gov. Dept	14 days	14 days	0 days	0%	Fri 24/4/20	Fri 8/5/20	Fri 24/4/20	Fri 8/5/20	Fri 24/4/20	Fri 8/5/20	0 days	1 day	605																		
607	Prepare AIP for Observation Deck with Lift (LT5) and Staircase and ICE (Include E&M Provision Works) certification (Final)	31 days	0 days	31 days	0%	Wed 16/9/20	Fri 16/10/20	NA	NA	Thu 22/10/20	Sat 21/11/20	36 days	1 day	605,606,647FF,6																		
608	Prepare DDA for Observation Deck with Lift and Staircase and ICE (Include E&M Provision Works) certification (Draft)	100 days	0 days	100 days	0%	Sat 17/10/20	Sun 24/1/21	NA	NA	Sun 22/11/20	Mon 1/3/21	36 days	1 day	605,647,654,607																		
609	Submit & endorse by PM and Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Mon 25/1/21	Sat 24/4/21	NA	NA	Tue 2/3/21	Sun 30/5/21	36 days	0.5 days	608,607																		
610	Prepare DDA for Observation Deck with Lift and Staircase and ICE (Include E&M Provision Works) certification (Final)	31 days	0 days	31 days	0%	Sun 25/4/21	Tue 25/5/21	NA	NA	Mon 31/5/21	Wed 30/6/21	36 days	1 day	609																		
611	Submit & endorse by PM and Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Wed 26/5/21	Mon 23/8/21	NA	NA	Thu 1/7/21	Tue 28/9/21	36 days	2 days	610																		
612	Prepare AIP for Remaining Works at Waterfront Promenade and ICE (Include E&M Provision Works) certification (Draft)	51 days	0 days	51 days	0%	Mon 14/9/20	Tue 3/11/20	NA	NA	Sun 27/9/20	Mon 16/11/20	13 days	2 days																			
613	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Wed 4/11/20	Sun 17/1/21	NA	NA	Tue 17/11/20	Sat 30/1/21	13 days	0.5 days	612																		
614	Prepare AIP for Remaining Works at Waterfront Promenade and ICE (Include E&M Provision Works) certification (Final)	60 days	0 days	60 days	0%	Mon 18/1/21	Thu 18/3/21	NA	NA	Sun 31/1/21	Wed 31/3/21	13 days	2 days	612,613																		
615	Prepare DDA for Remaining Works at Waterfront Promenade and ICE (Include E&M Provision Works) certification (Draft)	75 days	0 days	75 days	0%	Tue 2/2/21	Sat 17/4/21	NA	NA	Mon 15/2/21	Fri 30/4/21	13 days	1 day	612,614FF+30 days																		
616	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Sun 18/4/21	Wed 16/6/21	NA	NA	Sat 1/5/21	Tue 29/6/21	13 days	1 day	615																		
617	Prepare DDA for Remaining Works at Waterfront Promenade and ICE (Include E&M Provision Works) certification (Final)	31 days	0 days	31 days	0%	Thu 17/6/21	Sat 17/7/21	NA	NA	Wed 30/6/21	Fri 30/7/21	13 days	1 day	616,614FF+15 days																		
618	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Sun 18/7/21	Wed 15/9/21	NA	NA	Sat 31/7/21	Tue 28/9/21	13 days	1 day	617																		
619	AIP for Cladding Design of Landscape Deck, Lifts and associated Works (Draft)	31 days	0 days	31 days	0%	Mon 20/7/20	Wed 19/8/20	NA	NA	Fri 21/8/20	Sun 20/9/20	32 days	1 day																			

<p>Title: Rev.11 Prog with Progress as of 22-May-20</p>	Task		Summary		Inactive Milestone		Duration-only		Start-only		External Milestone		Critical Split	
	Split		Project Summary		Inactive Summary		Manual Summary Rollup		Finish-only		Deadline		Progress	
	Milestone		Inactive Task		Manual Task		Manual Summary		External Tasks		Critical		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									
620	Submit & endorse by PM and Statutory Authorities/Gov. Dept	63 days	0 days	63 days	0%	Thu 20/8/20	Wed 21/10/20	NA	NA	Mon 21/9/20	Sun 22/11/20	32 days	3 days	619																								
621	AIP for Cladding Design of Landscape Deck, Lifts and associated Works (Final)	52 days	0 days	52 days	0%	Thu 22/10/20	Sat 12/12/20	NA	NA	Mon 23/11/20	Wed 13/1/21	32 days	2 days	619,620																								
622	DDA for Cladding Design of Landscape Deck, Lifts and associated Works (Draft)	61 days	0 days	61 days	0%	Thu 12/11/20	Mon 11/1/21	NA	NA	Mon 14/12/20	Fri 12/2/21	32 days	1 day	619,621FF+30 days																								
623	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Tue 12/1/21	Fri 12/3/21	NA	NA	Sat 13/2/21	Tue 13/4/21	32 days	1 day	622																								
624	DDA for Cladding Design of Landscape Deck, Lifts and associated Works (Final)	21 days	0 days	21 days	0%	Sat 13/3/21	Fri 2/4/21	NA	NA	Wed 14/4/21	Tue 4/5/21	32 days	1 day	621FF,622,623																								
625	Submit & endorse by PM and Statutory Authorities/Gov. Dept	62 days	0 days	62 days	0%	Sat 3/4/21	Thu 3/6/21	NA	NA	Wed 5/5/21	Mon 5/7/21	32 days	2 days	624																								
626	AIP for Balustrade and Railing of Promenade, Open Space and Associated Works (Draft)	30 days	0 days	30 days	0%	Sat 1/8/20	Sun 30/8/20	NA	NA	Tue 29/9/20	Wed 28/10/20	59 days	1 day																									
627	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Mon 31/8/20	Thu 29/10/20	NA	NA	Thu 29/10/20	Sun 27/12/20	59 days	1 day	626																								
628	AIP for Balustrade and Railing of Promenade, Open Space and Associated Works (Final)	25 days	0 days	25 days	0%	Fri 30/10/20	Mon 23/11/20	NA	NA	Mon 28/12/20	Thu 21/1/21	59 days	0.5 days	626,627																								
629	DDA for Balustrade and Railing of Promenade, Open Space and Associated Works (Draft)	50 days	0 days	50 days	0%	Wed 4/11/20	Wed 23/12/20	NA	NA	Sat 2/1/21	Sat 20/2/21	59 days	1 day	626,628FF+30 days																								
630	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Thu 24/12/20	Sun 21/2/21	NA	NA	Sun 21/2/21	Wed 21/4/21	59 days	0 days	629																								
631	DDA for Balustrade and Railing of Promenade, Open Space and Associated Works (Final)	15 days	0 days	15 days	0%	Mon 22/2/21	Mon 8/3/21	NA	NA	Thu 22/4/21	Thu 6/5/21	59 days	1 day	628,629,630																								
632	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Tue 9/3/21	Fri 7/5/21	NA	NA	Fri 7/5/21	Mon 5/7/21	59 days	0 days	631																								
633	Prepare AIP for Permanent Building Works (i.e. Amphitheater, Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) and ICE certification (Draft)	60 days	0 days	60 days	0%	Wed 29/7/20	Sat 26/9/20	NA	NA	Thu 20/8/20	Sun 18/10/20	22 days	1 day	149FF+7 days																								
634	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Sun 27/9/20	Wed 25/11/20	NA	NA	Tue 3/11/20	Fri 1/1/21	37 days	0.5 days	633																								
635	Prepare AIP for Permanent Building Works (i.e.Amphitheater, Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) and ICE certification (Final)	30 days	0 days	30 days	0%	Thu 26/11/20	Fri 25/12/20	NA	NA	Sat 2/1/21	Sun 31/1/21	37 days	0 days	633,634																								
636	Prepare DDA for Permanent Building Works (i.e. Amphitheater, Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) and ICE certification (Draft)	100 days	0 days	100 days	0%	Fri 2/10/20	Sat 9/1/21	NA	NA	Sun 8/11/20	Mon 15/2/21	37 days	1 day	633,635FF+15 days,151FF+15 days																								
637	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Sun 10/1/21	Thu 25/3/21	NA	NA	Tue 16/2/21	Sat 1/5/21	37 days	0.5 days	635,636																								
638	Prepare DDA for Permanent Building Works (i.e. Amphitheater, Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) nd ICE certification (Final)	30 days	0 days	30 days	0%	Fri 26/3/21	Sat 24/4/21	NA	NA	Sun 2/5/21	Mon 31/5/21	37 days	0 days	637																								
639	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Sun 25/4/21	Thu 8/7/21	NA	NA	Tue 1/6/21	Sat 14/8/21	37 days	0.5 days	635,636,638																								
640	Prepare AIP for Permanent Building E&M Works (i.e. Amphitheater, Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) and ICE certification (Draft)	75 days	0 days	75 days	0%	Tue 14/7/20	Sat 26/9/20	NA	NA	Wed 5/8/20	Sun 18/10/20	22 days	1 day	149FF+7 days																								
641	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Sun 27/9/20	Wed 25/11/20	NA	NA	Mon 19/10/20	Thu 17/12/20	22 days	0.5 days	640																								
642	Prepare AIP for Permanent Building E&M Works (i.e. Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) and ICE certification (Final)	30 days	0 days	30 days	0%	Thu 26/11/20	Fri 25/12/20	NA	NA	Fri 18/12/20	Sat 16/1/21	22 days	0 days	640,641																								
643	Prepare DDA for Permanent Building E&M Works (i.e.Amphitheater, Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) and ICE (Include E&M Provision Works) certification (Draft)	120 days	0 days	120 days	0%	Sun 27/9/20	Sun 24/1/21	NA	NA	Mon 19/10/20	Mon 15/2/21	22 days	1 day	640,642FF+30 days,151FF+15 days																								
644	Submit & endorse by PM and Statutory Authorities/Gov. Dept	60 days	0 days	60 days	0%	Mon 25/1/21	Thu 25/3/21	NA	NA	Tue 16/2/21	Fri 16/4/21	22 days	0.5 days	642,643																								
645	Prepare DDA for Permanent Building E&M Works (i.e. Amphitheater, Observation Tower, Toilet Block, Light Refreshment Kiosk, Refuse Collection Block, Back of House Building Blocks) nd ICE certification (Final)	30 days	0 days	30 days	0%	Fri 26/3/21	Sat 24/4/21	NA	NA	Sat 17/4/21	Sun 16/5/21	22 days	0 days	644																								
646	Submit & endorse by PM and Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Sun 25/4/21	Fri 23/7/21	NA	NA	Mon 17/5/21	Sat 14/8/21	22 days	0.5 days	642,643,645																								
647	Prepare AIP for Temporary Building Works (i.e. temporary management office and toilet blocks) and ICE certification (Draft)	75 days	0 days	75 days	0%	Mon 3/8/20	Fri 16/10/20	NA	NA	Thu 20/8/20	Mon 2/11/20	17 days	1 day	149FF+7 days																								
648	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Sat 17/10/20	Wed 30/12/20	NA	NA	Tue 3/11/20	Sat 16/1/21	17 days	0 days	647																								
649	Prepare AIP for Temporary Building Works (i.e. temporary management office and toilet blocks) and ICE certification (Final)	30 days	0 days	30 days	0%	Thu 31/12/20	Fri 29/1/21	NA	NA	Sun 17/1/21	Mon 15/2/21	17 days	0 days	633,634,648,640																								
650	Prepare DDA for AIP for Temporary Building Works (i.e. temporary management office and toilet blocks) and ICE (Include E&M Provision Works) and ICE certification (Draft)	150 days	0 days	150 days	0%	Fri 2/10/20	Sun 28/2/21	NA	NA	Mon 19/10/20	Wed 17/3/21	17 days	1 day	633,640,649FF+ days,151FF+15 days																								
651	Submit & endorse by PM and Statutory Authorities/Gov. Dept	75 days	0 days	75 days	0%	Mon 1/3/21	Fri 14/5/21	NA	NA	Thu 18/3/21	Mon 31/5/21	17 days	0.5 days	649,650																								
652	Prepare DDA for AIP for Temporary Building Works (i.e. temporary management office and toilet blocks) and ICE (Final)	30 days	0 days	30 days	0%	Sat 15/5/21	Sun 13/6/21	NA	NA	Tue 1/6/21	Wed 30/6/21	17 days	0 days	651																								
653	Submit & endorse by PM and Statutory Authorities/Gov. Dept	90 days	0 days	90 days	0%	Mon 14/6/21	Sat 11/9/21	NA	NA	Thu 1/7/21	Tue 28/9/21	17 days	0 days	652																								

Title: Rev.11 Prog with Progress as of 22-May-20

Task		Summary		Inactive Milestone		Duration-only		Start-only		External Milestone		Critical Split	
Split		Project Summary		Inactive Summary		Manual Summary Rollup		Finish-only		Deadline		Progress	
Milestone		Inactive Task		Manual Task		Manual Summary		External Tasks		Critical		Manual Progress	

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	Q1	Q2				
740	Sheetpile Driven along Western ELS Cofferdam (assume 105m long)	8 days	8 days	0 days	100%	Tue 11/2/20	Wed 19/2/20	Tue 11/2/20	Wed 19/2/20	Tue 11/2/20	Wed 19/2/20	0 days	0.5 day	737,739																					
741	Excavation with Shoring and Waling Installation with Rock Fill Replacement include Sand Raplacement Test with PWRL for KD1	44 days	44 days	0 days	100%	Thu 20/2/20	Wed 15/4/20	Thu 20/2/20	Wed 15/4/20	Thu 20/2/20	Wed 15/4/20	0 days	1 day																						
742	Remaining Excavation with Shoring and Waling Installation with Rock Fill Replacement include Sand Raplacement Test with PWRL	37 days	0 days	37 days	0%	Tue 6/10/20	Wed 18/11/20	NA	NA	Tue 13/10/20	Wed 25/11/20	6 days	2 days	741,761																					
743	North Approach Ramp (Bays No.2,3,4&5) (Next to BEM) (KD1)	106 days	34.01 days	71.99 days	0%	Wed 1/4/20	Tue 11/8/20	Wed 1/4/20	NA	Wed 1/4/20	Fri 7/8/20	-3 days																							
744	Bay No.3 Base Slab with Blinding (1)+(2)	15 days	15 days	0 days	100%	Wed 1/4/20	Wed 22/4/20	Wed 1/4/20	Wed 22/4/20	Wed 1/4/20	Wed 22/4/20	0 days	0.5 days	741SS+35 days																					
745	Bay No.3: Wall & Column with Soffit (upto +4.6mPD) (include Wall Former)	42 days	22 days	20 days	45%	Wed 22/4/20	Thu 11/6/20	Wed 22/4/20	NA	Wed 22/4/20	Thu 11/6/20	-3 days		744																					
746	May 2020 Inclement Weather	3 days	0 days	3 days	0%	Fri 12/6/20	Mon 15/6/20	NA	NA	Tue 9/6/20	Thu 11/6/20	-3 days		745,74SS																					
747	Bay No. 3: Wall & Column Casted and Formwork & Falsework upto Soffit of Top Slab(6)+(7)	15 days	0 days	15 days	0%	Tue 16/6/20	Sat 4/7/20	NA	NA	Fri 12/6/20	Tue 30/6/20	-3 days	1 day	745,746																					
748	Bay No. 3: Top Slab Construction with Formwork & Falsework Erection(8)	12 days	0 days	12 days	0%	Mon 6/7/20	Sat 18/7/20	NA	NA	Thu 2/7/20	Wed 15/7/20	-3 days	1 day	747																					
749	Bay No.2 Base Slab with Blinding (1)+(2)	11 days	11 days	0 days	100%	Tue 28/4/20	Tue 12/5/20	Tue 28/4/20	Tue 12/5/20	Tue 28/4/20	Tue 12/5/20	0 days	1 day	741FS+2 days																					
750	Bay No.2: Wall & Column with Soffit (upto +4.6mPD) (include Wall Former) (3)+(4)+(5)	23 days	6 days	17 days	25%	Sat 16/5/20	Thu 11/6/20	Sat 16/5/20	NA	Sat 16/5/20	Thu 11/6/20	-1 day	1 day	749																					
751	Bay No. 2: Wall & Column Casted and Formwork & Falsework upto Soffit of Top Slab (6)+(7)	18 days	0 days	18 days	0%	Fri 12/6/20	Sat 4/7/20	NA	NA	Thu 11/6/20	Fri 3/7/20	-1 day	1 day	750																					
752	Bay No. 2: Top Slab Construction with Formwork & Falsework Erection(8)	12 days	0 days	12 days	0%	Wed 8/7/20	Tue 21/7/20	NA	NA	Sat 4/7/20	Fri 17/7/20	-3 days	1 day	751,748FF+2 days																					
753	Bay No.4 Base Slab with Blinding (1)+(2)	15 days	15 days	0 days	100%	Wed 1/4/20	Wed 13/5/20	Wed 1/4/20	Wed 13/5/20	Wed 1/4/20	Wed 13/5/20	0 days	1 day	741SS+35 days																					
754	Bay No.4: Wall & Column with Soffit (upto +4.6mPD) (include Wall Former) (3)+(4)+(5)	22 days	8 days	14 days	36%	Thu 14/5/20	Tue 9/6/20	Thu 14/5/20	NA	Thu 14/5/20	Tue 9/6/20	-3 days	1 day	753,750SS+7 days																					
755	Bay No. 4: Wall & Column Casted and Formwork & Falsework upto Soffit of Top Slab (6)+(7)	20 days	0 days	20 days	0%	Wed 10/6/20	Sat 4/7/20	NA	NA	Sat 6/6/20	Tue 30/6/20	-3 days	1 day	754																					
756	Bay No. 4: Top Slab Construction with Formwork & Falsework Erection (8)	14 days	0 days	14 days	0%	Mon 6/7/20	Tue 21/7/20	NA	NA	Thu 2/7/20	Fri 17/7/20	-3 days	1 day	755,751SS+4 days																					
757	Backfill (9)	12 days	0 days	12 days	0%	Wed 22/7/20	Tue 4/8/20	NA	NA	Sat 18/7/20	Fri 31/7/20	-3 days	0.5 days	756,752,748																					
758	Sheetpile Extraction and Road Reinstatement (10) (KD1)	6 days	0 days	6 days	0%	Wed 5/8/20	Tue 11/8/20	NA	NA	Sat 1/8/20	Fri 7/8/20	-3 days	0.5 days	757																					
759	North Approach Ramp (Bays No.5 & 6) (Next to BEM)	92 days	0 days	92 days	0%	Mon 24/8/20	Mon 23/11/20	NA	NA	Thu 27/8/20	Thu 17/12/20	3 days																							
760	Bay No.5 Base Slab with Blinding (1+2)	8 days	0 days	8 days	0%	Thu 10/9/20	Fri 18/9/20	NA	NA	Mon 14/9/20	Tue 22/9/20	3 days	1 day	749,753SS+4 da																					
761	Bay No.5: Wall & Column with Soffit (upto +4.6mPD) (include Wall Former) (3+4+5)	12 days	0 days	12 days	0%	Sat 19/9/20	Mon 5/10/20	NA	NA	Wed 23/9/20	Thu 8/10/20	3 days	1 day	760																					
762	Bay No. 5: Wall & Column Casted and Formwork & Falsework upto Soffit of Top Slab (6)+(7)	20 days	0 days	20 days	0%	Tue 6/10/20	Thu 29/10/20	NA	NA	Fri 9/10/20	Mon 2/11/20	3 days	1 day	761,755SS+4 days																					
763	Bay No. 5: Top Slab Construction with Formwork & Falsework Erection & Removal (8)	12 days	0 days	12 days	0%	Fri 30/10/20	Thu 12/11/20	NA	NA	Tue 3/11/20	Mon 16/11/20	3 days	1 day	762,227FF																					
764	Bay No.6 Base Slab with Blinding (1)+(2)	15 days	0 days	15 days	0%	Mon 24/8/20	Wed 9/9/20	NA	NA	Thu 27/8/20	Sat 12/9/20	3 days	1 day	741SS+35 days																					
765	Bay No.6: Wall & Column with Soffit (upto +4.6mPD) (include Wall Former) (3)+(4)+(5)	17 days	0 days	17 days	0%	Thu 10/9/20	Tue 29/9/20	NA	NA	Wed 7/10/20	Tue 27/10/20	21 days	1 day	764																					
766	Bay No. 6: Wall & Column Casted and Formwork & Falsework upto Soffit of Top Slab(6)+(7)	27 days	0 days	27 days	0%	Wed 30/9/20	Tue 3/11/20	NA	NA	Wed 28/10/20	Fri 27/11/20	21 days	1 day	765																					
767	Bay No. 6: Top Slab Construction with Formwork & Falsework Erection & Removal (8)	17 days	0 days	17 days	0%	Wed 4/11/20	Mon 23/11/20	NA	NA	Sat 28/11/20	Thu 17/12/20	21 days	1 day	765,766																					
768	North Approach Ramp (Bays 7&8) (Next to BEM)	56 days	0 days	56 days	0%	Tue 26/1/21	Wed 7/4/21	NA	NA	Tue 26/1/21	Sat 17/4/21	0 days																							
769	Bay 7: Blinding	1 day	0 days	1 day	0%	Tue 26/1/21	Tue 26/1/21	NA	NA	Tue 26/1/21	Tue 26/1/21	0 days	0.5 days	816,767																					
770	Bay 7: Base slab	9 days	0 days	9 days	0%	Wed 27/1/21	Fri 5/2/21	NA	NA	Wed 27/1/21	Fri 5/2/21	0 days	1 day	816,769																					
771	Bay 7: Wall	13 days	0 days	13 days	0%	Sat 6/2/21	Wed 24/2/21	NA	NA	Wed 31/3/21	Sat 17/4/21	42 days	1 day	819,770																					
772	Bay 8: Blinding	1 day	0 days	1 day	0%	Wed 27/1/21	Wed 27/1/21	NA	NA	Fri 5/2/21	Fri 5/2/21	8 days	0.5 days	769																					
773	Bay 8: Base slab	9 days	0 days	9 days	0%	Sat 6/2/21	Fri 19/2/21	NA	NA	Sat 6/2/21	Fri 19/2/21	0 days	1 day	816,770,772																					
774	Bay 8: Wall	13 days	0 days	13 days	0%	Sat 20/2/21	Sat 6/3/21	NA	NA	Sat 20/2/21	Sat 6/3/21	0 days	1 day	773,819																					
775	Bays No.7&8: Backfilling	15 days	0 days	15 days	0%	Mon 8/3/21	Wed 24/3/21	NA	NA	Thu 18/3/21	Wed 7/4/21	9 days	1 day	774,767																					
776	Bays No.7&8: Extract Sheetpile	9 days	0 days	9 days	0%	Thu 25/3/21	Wed 7/4/21	NA	NA	Thu 8/4/21	Sat 17/4/21	9 days	0.5 days	775																					
777	North Approach Ramp (Bays No.2,3,4) (Next to KTSP)	149 days	0 days	149 days	0%	Mon 17/8/20	Tue 12/1/21	NA	NA	Tue 25/8/20	Fri 5/2/21	8 days																							
778	Bay No.3 Base Slab with Blinding (1)+(2)	15 days	0 days	15 days	0%	Mon 24/8/20	Wed 9/9/20	NA	NA	Tue 1/9/20	Thu 17/9/20	7 days	1 day																						
779	Bay No.3: Wall & Column with Soffit (upto +4.6mPD) (include Wall Former) (3)+(4)+(5)	17 days	0 days	17 days	0%	Thu 10/9/20	Tue 29/9/20	NA	NA	Wed 7/10/20	Tue 27/10/20	21 days	1 day	778																					
780	Bay No. 3: Wall & Column Casted and Formwork & Falsework upto Soffit of Top Slab(6)+(7)	27 days	0 days	27 days	0%	Wed 30/9/20	Tue 3/11/20	NA	NA	Wed 28/10/20	Fri 27/11/20	21 days	1 day	779																					
781	Bay No. 3: Top Slab Construction with Formwork & Falsework Erection & Removal (8)	17 days	0 days	17 days	0%	Wed 4/11/20	Mon 23/11/20	NA	NA	Sat 28/11/20	Thu 17/12/20	21 days	1 day	779,780																					
782	Bay No.2 Base Slab with Blinding (1)+(2)	15 days	0 days	15 days	0%	Mon 17/8/20	Wed 2/9/20	NA	NA	Tue 25/8/20	Thu 10/9/20	7 days																							

Contract No. ED/2018/01 KTD Project

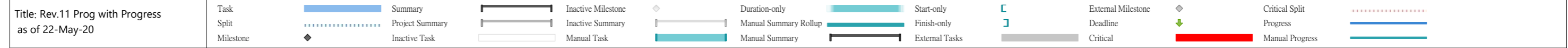
ID	Task Name	Duration	Actual Duration	Remaining Duration	Physical % Complete	Early Start	Early Finish	Actual Start	Actual Finish	Late Start	Late Finish	Total Slack	TRA	Predecessors	2020				2021				2022				2023										
															Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2						
829	Part 3C - CH1229 to CH1279	823 days?	137.51 days	685.49 days?	0%	Thu 16/5/19	Sat 19/2/22	Thu 16/5/19	NA	Mon 11/11/19	Wed 29/5/24	676 da...																									
830	Abutment A01 Piling	0 days	0 days	0 days	0%	Thu 16/5/19	Thu 16/5/19	NA	NA	Wed 29/5/24	Wed 29/5/24	1841 d...																									
831	CH1189: Bored Pile (A01-BP1) by Rig 1 (Contractor Bear DDA Approval Risk)	61 days	40 days	21 days	66%	Tue 31/3/20	Tue 16/6/20	Tue 31/3/20	NA	Tue 31/3/20	Tue 16/6/20	0 days	1 day	839																							
832	CH1189: Bored Pile (A01-BP2) by Rig 1 (Contractor Bear DDA Approval Risk)	29 days	29 days	0 days	100%	Mon 13/4/20	Tue 19/5/20	Mon 13/4/20	Tue 19/5/20	Mon 13/4/20	Tue 19/5/20	0 days	1 day																								
833	Abutment A01: Pile Testing (28d curing & 14 test) - 1 full-core to be carried out	37 days	0 days	37 days	0%	Wed 17/6/20	Fri 31/7/20	NA	NA	Wed 17/6/20	Fri 31/7/20	0 days	5 days	831,832																							
834	Abutment A01: Proof-drilling Works	11 days	0 days	11 days	0%	Sat 1/8/20	Thu 13/8/20	NA	NA	Sat 1/8/20	Thu 13/8/20	0 days	2 day	833																							
835	Mobilization of plant and material	6 days	6 days	0 days	100%	Mon 11/11/19	Sat 16/11/19	Mon 11/11/19	Sat 16/11/19	Mon 11/11/19	Sat 16/11/19	0 days	1 days	14,194,193																							
836	CH1229: Pre-drilling Works	21 days	21 days	0 days	100%	Tue 19/11/19	Thu 12/12/19	Tue 19/11/19	Thu 12/12/19	Tue 19/11/19	Thu 12/12/19	0 days	0.5 days																								
837	Pier P01 Piling, Pilecap & Pier	0 days	0 days	0 days	0%	Thu 16/5/19	Thu 16/5/19	NA	NA	Wed 29/5/24	Wed 29/5/24	1841 d...																									
838	Bored pile (P01-BP2) @ CH1229 by Rig 1 (Contractor Bear DDA Approval Risk)	44 days	44 days	0 days	100%	Fri 17/1/20	Wed 11/3/20	Fri 17/1/20	Wed 11/3/20	Fri 17/1/20	Wed 11/3/20	0 days	0.5 days																								
839	Bored pile (P01-BP1) @ CH1229 by Rig 1 (Contractor Bear DDA Approval Risk)	38 days	38 days	0 days	100%	Mon 24/2/20	Wed 8/4/20	Mon 24/2/20	Wed 8/4/20	Mon 24/2/20	Wed 8/4/20	0 days	0.5 days	838SS+30 days																							
840	Pier P01: Pile Testing (18d curing & 14 test)	45 days	0 days	45 days	0%	Sat 23/5/20	Thu 16/7/20	NA	NA	Mon 6/7/20	Wed 26/8/20	35 days	3 days	839																							
841	Pier P01: Proof-drilling Works	10 days	0 days	10 days	0%	Fri 17/7/20	Tue 28/7/20	NA	NA	Thu 27/8/20	Mon 7/9/20	35 days	1 day	839,840																							
842	Pile Cap P01 @ CH1229	98 days	0 days	98 days	0%	Mon 15/6/20	Sun 11/10/20	NA	NA	Sat 29/8/20	Fri 13/11/20	28 days																									
843	Excavation with Shoring Installation ~2600m3 Prod. Rate: 160m3/day/team	17 days	0 days	17 days	0%	Wed 29/7/20	Mon 17/8/20	NA	NA	Tue 8/9/20	Sat 26/9/20	35 days	1 day	841																							
844	Pilecap - Formwork Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 15/6/20	Mon 15/6/20	NA	NA	Sat 29/8/20	Sat 29/8/20	75 days	1 day																								
845	Pilecap - Formwork Design and Method Statement Comment & Approval	30 days	0 days	30 days	0%	Mon 15/6/20	Tue 14/7/20	NA	NA	Sat 29/8/20	Sun 27/9/20	75 days	2 days	844																							
846	Pilecap structure	24 days	0 days	24 days	0%	Tue 18/8/20	Mon 14/9/20	NA	NA	Mon 28/9/20	Wed 28/10/20	35 days	1 day	845,843																							
847	Backfill	14 days	0 days	14 days	0%	Tue 15/9/20	Wed 30/9/20	NA	NA	Thu 29/10/20	Fri 13/11/20	35 days	2 days	846																							
848	Pier - Formwork Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 7/9/20	Mon 7/9/20	NA	NA	Sat 10/10/20	Sat 10/10/20	33 days	1 day																								
849	Pier - Formwork Design and Method Statement Comment & Approval	35 days	0 days	35 days	0%	Mon 7/9/20	Sun 11/10/20	NA	NA	Sat 10/10/20	Fri 13/11/20	33 days	1 day	848																							
850	Pier P01 @ CH1229	49 days	0 days	49 days	0%	Wed 28/10/20	Wed 23/12/20	NA	NA	Sat 14/11/20	Wed 13/1/21	15 days	2 days	847,211,849																							
851	CH1269: Pre-drilling Works	30 days	30 days	0 days	0%	Wed 20/11/19	Thu 19/12/19	Wed 20/11/19	Thu 19/12/19	Wed 20/11/19	Thu 19/12/19	0 days	0.5 days	835,836																							
852	Abandon the Installed defected Bored pile (P02-BP2) @ CH1269	35 days	35 days	0 days	100%	Tue 11/2/20	Sun 22/3/20	Tue 11/2/20	Sun 22/3/20	Tue 11/2/20	Sun 22/3/20	0 days	0.5 days	851																							
853	Pier P02 Piling, Pilecap & Pier	1 day?	0 days	1 day?	0%	Thu 16/5/19	Thu 16/5/19	NA	NA	Wed 29/5/24	Wed 29/5/24	1840 d...																									
854	Predrilling works for Bored pile (P02-BP2)(Abandoned) @ CH1269	11 days	0 days	11 days	0%	Wed 3/6/20	Mon 15/6/20	NA	NA	Tue 9/6/20	Sat 20/6/20	5 days	0.5 days	852																							
855	Casing Extraction for Abandoned P02-BP2 Bored Pile	20 days	0 days	20 days	0%	Sat 20/6/20	Wed 15/7/20	NA	NA	Mon 22/6/20	Thu 16/7/20	1 day	1 day	854																							
856	Bored pile (P02-BP2)(Remedial) @ CH1269	30 days	0 days	30 days	0%	Thu 16/7/20	Wed 19/8/20	NA	NA	Fri 17/7/20	Thu 20/8/20	1 day	2 days	855,854																							
857	Bored pile (P02-BP1) @ CH1269 (Contractor Bear DDA Approval Risk) (Rig 2)	26 days	26 days	0 days	100%	Fri 21/2/20	Sat 18/4/20	Fri 21/2/20	Sat 18/4/20	Fri 21/2/20	Sat 18/4/20	0 days	0.5 days	851																							
858	Pile Testing (18d curing & 14 test)	32 days	0 days	32 days	0%	Thu 20/8/20	Fri 25/9/20	NA	NA	Wed 2/9/20	Sat 10/10/20	11 days	0.5 days	852,857,856																							
859	Proof-drilling Works	9 days	0 days	9 days	0%	Sat 26/9/20	Thu 8/10/20	NA	NA	Mon 12/10/20	Wed 21/10/20	11 days	1 day	839,840,858																							
860	Pile Cap ELS - Temp. Works Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 29/6/20	Mon 29/6/20	NA	NA	Tue 22/9/20	Tue 22/9/20	85 days	1 day																								
861	Pile Cap ELS - Temp. Works Design and Method Statement Comment & Approval	30 days	0 days	30 days	0%	Mon 29/6/20	Tue 28/7/20	NA	NA	Tue 22/9/20	Wed 21/10/20	85 days	1 day	860																							
862	Pile Cap P02 @ CH1270	120 days	0 days	120 days	0%	Mon 24/8/20	Sat 16/1/21	NA	NA	Thu 22/10/20	Fri 29/1/21	11 days																									
863	Drive sheetpile (~75m). Prod. Rate: 5m/day/side/team	17 days	0 days	17 days	0%	Fri 9/10/20	Thu 29/10/20	NA	NA	Thu 22/10/20	Wed 11/11/20	11 days	2 days	861,858,140,859																							
864	Excavation ~1677m3 & lateral support. Prod. Rate: 100m3/day/team	18 days	0 days	18 days	0%	Fri 30/10/20	Thu 19/11/20	NA	NA	Thu 12/11/20	Wed 2/12/20	11 days	1 days	863																							
865	Pilecap Formwork Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 24/8/20	Mon 24/8/20	NA	NA	Thu 12/11/20	Thu 12/11/20	80 days	1 day																								
866	Pilecap Formwork - Design and Method Statement Comment & Approval	21 days	0 days	21 days	0%	Mon 24/8/20	Sun 13/9/20	NA	NA	Thu 12/11/20	Wed 2/12/20	80 days	1 day	865																							
867	Pilecap structure	36 days	0 days	36 days	0%	Fri 20/11/20	Mon 4/1/21	NA	NA	Thu 3/12/20	Sat 16/1/21	11 days	1 day	866,864,863																							
868	Backfill and extract sheet pile	11 days	0 days	11 days	0%	Tue 5/1/21	Sat 16/1/21	NA	NA	Mon 18/1/21	Fri 29/1/21	11 days	2 day	867																							
869	Pier - Temp. Works Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 7/9/20	Mon 7/9/20	NA	NA	Thu 31/12/20	Thu 31/12/20	115 days	1 day																								
870	Pier - Temp. Works Design and Method Statement Comment & Approval	30 days	0 days	30 days	0%	Mon 7/9/20	Tue 6/10/20	NA	NA	Thu 31/12/20	Fri 29/1/21	115 days	1 day	869																							
871	Pier P02 @ CH1270	49 days	0 days	49 days	0%	Mon 18/1/21	Thu 18/3/21																														

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	Q1	Q2								
874	Bridge Deck - Temp. Works Design and Method Statement Comment & Approval	35 days	0 days	35 days	0%	Mon 2/11/20	Sun 6/12/20	NA	NA	Tue 19/1/21	Mon 22/2/21	78 days	1 day	873																									
875	CH1229-1311: Deck Falsework erection Part 1	32 days	0 days	32 days	0%	Tue 23/2/21	Wed 31/3/21	NA	NA	Tue 23/2/21	Wed 31/3/21	0 days	1 day	874,922																									
876	CH1229-1311: Deck Falsework erection Part 2	28 days	0 days	28 days	0%	Thu 1/4/21	Fri 7/5/21	NA	NA	Thu 1/4/21	Fri 7/5/21	0 days	3 days	875,871																									
877	CH1229-1311: Structure deck	50 days	0 days	50 days	0%	Wed 7/4/21	Sat 5/6/21	NA	NA	Wed 7/4/21	Sat 5/6/21	0 days	2 day	475,483,736,875																									
878	CH1229-1311: Prestressing	18 days	0 days	18 days	0%	Thu 24/6/21	Thu 15/7/21	NA	NA	Thu 24/6/21	Thu 15/7/21	0 days	0.5 day	877FS+14 days																									
879	CH1229-1311: Falsework Under Main Deck Removal	12 days	0 days	12 days	0%	Fri 16/7/21	Thu 29/7/21	NA	NA	Fri 16/7/21	Thu 29/7/21	0 days	0.5 day	878																									
880	CH1229-1311: Utility Trough (0.67m per day per team) x 4 team	70 days	0 days	70 days	0%	Fri 16/7/21	Thu 7/10/21	NA	NA	Thu 22/7/21	Wed 13/10/21	5 days	9 days	219,878																									
881	CH1229-1311: Central Median (6m per day per team) x 2 team	31 days	0 days	31 days	0%	Fri 16/7/21	Fri 20/8/21	NA	NA	Sat 2/10/21	Mon 8/11/21	65 days	3 days	878																									
882	CH1229-1311: Parapet (28m per day per team) x 2 team + 6x2 day concreting	21 days	0 days	21 days	0%	Fri 8/10/21	Tue 2/11/21	NA	NA	Fri 15/10/21	Mon 8/11/21	5 days	3 days	880																									
883	CH1229-1311: Removal of Falsework (KD6)	42 days	0 days	42 days	0%	Wed 3/11/21	Tue 21/12/21	NA	NA	Tue 9/11/21	Wed 29/12/21	5 days	6 days	880,882,881																									
884	CH1229-1311: Road Furniture	15 days	0 days	15 days	0%	Sat 21/8/21	Tue 7/9/21	NA	NA	Sat 27/11/21	Tue 14/12/21	81 days	1 day	881,358																									
885	Part 3D - CH1279 to CH1311	196 days	0 days	196 days	0%	Mon 7/6/21	Sat 29/1/22	NA	NA	Wed 16/6/21	Fri 11/2/22	7 days																											
886	Stage 1: Bridge deck between CH1269-1311	196 days	0 days	196 days	0%	Mon 7/6/21	Sat 29/1/22	NA	NA	Wed 16/6/21	Fri 11/2/22	7 days																											
887	CH1269-1311: Structure deck	50 days	0 days	50 days	0%	Mon 7/6/21	Thu 5/8/21	NA	NA	Wed 16/6/21	Fri 13/8/21	7 days	2 day	475,483,736,877																									
888	Prestressing CH1269 - 1311 Bridge Spans	21 days	0 days	21 days	0%	Mon 23/8/21	Wed 15/9/21	NA	NA	Tue 31/8/21	Fri 24/9/21	7 days	3 day	887FS+14 days																									
889	CH1269-1311: Utility Trough (0.67m per day per team) x 2 team	64 days	0 days	64 days	0%	Thu 16/9/21	Thu 2/12/21	NA	NA	Sat 25/9/21	Fri 10/12/21	7 days	0.5 day	888,219																									
890	CH1269-1311 : Parapet (28m per day per team) x 1 team + 6 day concreting	17 days	0 days	17 days	0%	Fri 3/12/21	Wed 22/12/21	NA	NA	Sat 11/12/21	Mon 3/1/22	7 days	3 days	889																									
891	CH1269-1311 : Central Median (6m per day per team) x 1 team	15 days	0 days	15 days	0%	Thu 23/12/21	Wed 12/1/22	NA	NA	Wed 5/1/22	Fri 21/1/22	8 days	1 day	889,890																									
892	CH1269-1311 : Road Furniture	15 days	0 days	15 days	0%	Thu 13/1/22	Sat 29/1/22	NA	NA	Sat 22/1/22	Fri 11/2/22	8 days	1 day	891,358																									
893	Stage2: Bridge deck between CH1189-1229	823 days?	0 days	823 days?	0%	Thu 16/5/19	Sat 19/2/22	NA	NA	Tue 27/4/21	Wed 29/5/24	579 da...																											
894	CH1189-1229: Deck Falsework erection	1 day?	0 days	1 day?	0%	Thu 16/5/19	Thu 16/5/19	NA	NA	Wed 29/5/24	Wed 29/5/24	1840 d...																											
895	CH1189-1229: Deck Falsework erection	22 days	0 days	22 days	0%	Tue 27/4/21	Mon 24/5/21	NA	NA	Tue 27/4/21	Mon 24/5/21	0 days	1 day	850,822																									
896	CH1189-1229: Structure deck	27 days	0 days	27 days	0%	Tue 25/5/21	Fri 25/6/21	NA	NA	Tue 25/5/21	Fri 25/6/21	0 days	2 day	895,475,483																									
897	CH1189-1229: Prestressing	18 days	0 days	18 days	0%	Wed 14/7/21	Tue 3/8/21	NA	NA	Wed 14/7/21	Tue 3/8/21	0 days	1 day	896FS+14 days																									
898	CH1189-1229: Falsework Under Main Deck Removal	15 days	0 days	15 days	0%	Wed 4/8/21	Fri 20/8/21	NA	NA	Wed 4/8/21	Fri 20/8/21	0 days	3 days	878,897																									
899	CH1189-1229: Utility Trough (0.67m per day per team) x 2 team	63 days	0 days	63 days	0%	Wed 4/8/21	Tue 19/10/21	NA	NA	Wed 13/10/21	Tue 28/12/21	58 days	3 days	219,897																									
900	CH1189-1229 : Central Median (6m per day per team) x 1 team	16 days	0 days	16 days	0%	Sat 21/8/21	Wed 8/9/21	NA	NA	Fri 21/1/22	Fri 11/2/22	125 days	3 day	897,881																									
901	CH1189-1229 : Parapet (28m per day per team) x 1 team + 6 day concreting	20 days	0 days	20 days	0%	Wed 3/11/21	Thu 25/11/21	NA	NA	Mon 17/1/22	Fri 11/2/22	61 days	5 day	899,882																									
902	CH1189-1229 : Road Furniture	15 days	0 days	15 days	0%	Mon 31/1/22	Sat 19/2/22	NA	NA	Sat 12/2/22	Tue 1/3/22	8 days	1 day	900,892,358,901																									
903	Part 3E - CH1311 to CH1372	652 days	94.1 days	557.9 days	0%	Tue 12/11/19	Fri 21/1/22	Tue 12/11/19	NA	Tue 12/11/19	Wed 29/5/24	698 days																											
904	Pre-drilling Works	31 days	31 days	0 days	0%	Tue 12/11/19	Tue 17/12/19	Tue 12/11/19	Tue 17/12/19	Tue 12/11/19	Tue 17/12/19	0 days	0.5 day																										
905	Bored pile (P03-BP1) @ CH1311 (Rig 2) (Contractor Bear DDA Design Risk)	40 days	40 days	0 days	100%	Tue 17/3/20	Fri 8/5/20	Tue 17/3/20	Fri 8/5/20	Tue 17/3/20	Fri 8/5/20	0 days	0.5 day	904																									
906	Bored pile (P03-BP2) @ CH1311 (Contractor Bear DDA Design Risk) (Rig 2)	36 days	25 days	11 days	69%	Wed 22/4/20	Thu 4/6/20	Wed 22/4/20	NA	Wed 22/4/20	Thu 4/6/20	0 days	3 day																										
907	Pile Testing (18 curing & 14 test)	35 days	0 days	35 days	0%	Sat 6/6/20	Sat 18/7/20	NA	NA	Sat 6/6/20	Sat 18/7/20	0 days	3 day	906FS+1 day,90																									
908	Proof-drilling Works	11 days	0 days	11 days	0%	Mon 20/7/20	Fri 31/7/20	NA	NA	Mon 20/7/20	Fri 31/7/20	0 days	2 days	907																									
909	Pile Cap P03 @ CH1311	76 days	0 days	76 days	0%	Tue 7/7/20	Mon 5/10/20	NA	NA	Fri 31/7/20	Wed 29/5/24	21 days																											
910	Pile Cap @ CH1311 by Open Cut	46 days	0 days	46 days	0%	Sat 1/8/20	Wed 23/9/20	NA	NA	Wed 28/10/20	Sat 19/12/20	72 days																											
911	Pilecap Formwork Design and Method Statement Submission	0 days	0 days	0 days	0%	Tue 7/7/20	Tue 7/7/20	NA	NA	Tue 30/4/24	Tue 30/4/24	1393 days	1 day																										
912	Pilecap Formwork Design and Method Statement Comment & Approval	30 days	0 days	30 days	0%	Tue 7/7/20	Wed 5/8/20	NA	NA	Tue 30/4/24	Wed 29/5/24	1393 days	1 day	911																									
913	Excavation with Shoring Installation ~2600m3 Prod. Rate: 160m3/day/team	17 days	0 days	17 days	0%	Sat 1/8/20	Thu 20/8/20	NA	NA	Sat 1/8/20	Thu 20/8/20	0 days	1 day	908																									
914	Pilecap Formwork - design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 20/7/20	Mon 20/7/20	NA	NA	Fri 31/7/20	Fri 31/7/20	11 days	1 day																										
915	Pilecap Formwork - Design and Method Statement Comment & Approval	21 days	0 days	21 days	0%	Mon 20/7/20	Sun 9/8/20	NA	NA	Fri 31/7/20	Thu 20/8/20	11 days	1 day	914																									
916	Pilecap structure	24 days	0 days	24 days	0%	Fri 21/8/20	Thu 17/9/20	NA	NA	Fri 21/8/20	Thu 17/9/20	0 days	1 day	915,908,913																									
917	Backfill	13 days	0 days	13 days	0%	Fri 18/9/20	Mon 5/10/20	NA	NA	Fri 18/9/20	Mon 5/10/20	0 days	1 day	916																									

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
919	Allow access to CKR-KTW contractor for sheet pile wall installation. PS App.1.18 2.7(A)(c)	60 days	0 days	60 days	0%	Thu 22/10/20	Sun 20/12/20	NA	NA	Thu 22/10/20	Sun 20/12/20	0 days	0 days	917,918															
920	Pier - Temp. Works Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 12/10/20	Mon 12/10/20	NA	NA	Mon 16/11/20	Mon 16/11/20	35 days	1 day																
921	Pier - Temp. Works Design and Method Statement Comment & Approval	35 days	0 days	35 days	0%	Mon 12/10/20	Sun 15/11/20	NA	NA	Mon 16/11/20	Sun 20/12/20	35 days	1 day	920															
922	Pier P03 @ CH1311	49 days	0 days	49 days	0%	Mon 21/12/20	Mon 22/2/21	NA	NA	Mon 21/12/20	Mon 22/2/21	0 days	1 day	916,919,850SS+															
923	Pre-drilling Works	15 days	15 days	0 days	100%	Wed 4/12/19	Wed 18/12/19	Wed 4/12/19	Wed 18/12/...	Wed 4/12/19	Wed 18/12/19	0 days	0.5 days																
924	Diversion of existing 150mm dia. Watermain (agreed)	54 days	42 days	12 days	78%	Sat 28/3/20	Fri 5/6/20	Sat 28/3/20	NA	Sat 28/3/20	Sat 14/11/20	134 days	2 days																
925	Bored pile (P04-BP2) @ CH1351 (Rig 2)	52 days	1 day	51 days	0%	Fri 22/5/20	Wed 21/10/20	Fri 22/5/20	NA	Fri 22/5/20	Tue 19/1/21	73 days	3 days	923,856															
926	Bored pile (P04-BP1) @ CH1351 (Rig 2)	53 days	0 days	53 days	0%	Tue 11/8/20	Tue 13/10/20	NA	NA	Mon 16/11/20	Tue 19/1/21	80 days	3 days	202,924,923,925															
927	Pile Testing (14d curing & 14 test)	35 days	0 days	35 days	0%	Thu 22/10/20	Wed 2/12/20	NA	NA	Wed 20/1/21	Thu 4/3/21	73 days	3 days	926,925															
928	Proof-drilling Works	11 days	0 days	11 days	0%	Thu 3/12/20	Tue 15/12/20	NA	NA	Fri 5/3/21	Wed 17/3/21	73 days	2 days	927															
929	Pile Cap P04 @ CH1351 with ELS	47 days	0 days	47 days	0%	Wed 16/12/20	Thu 11/2/21	NA	NA	Thu 1/4/21	Mon 31/5/21	85 days		933SS,928															
930	Pile Cap @ CH1351	97 days	0 days	97 days	0%	Mon 2/11/20	Mon 1/3/21	NA	NA	Tue 16/2/21	Mon 31/5/21	73 days																	
931	Pilecap ELS- Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 2/11/20	Mon 2/11/20	NA	NA	Tue 16/2/21	Tue 16/2/21	106 days	1 day																
932	Pilecap ELS - Design and Method Statement Comment & Appraoval	30 days	0 days	30 days	0%	Mon 2/11/20	Tue 1/12/20	NA	NA	Tue 16/2/21	Wed 17/3/21	106 days	1 day	931															
933	Drive sheetpile (~75m). Prod. Rate: 10m/day/side/team	10 days	0 days	10 days	0%	Wed 16/12/20	Tue 29/12/20	NA	NA	Thu 18/3/21	Mon 29/3/21	73 days	2 days	932,928															
934	Excavation with Shoring Installation ~2600m3 Prod. Rate: 160m3/day/team	19 days	0 days	19 days	0%	Wed 30/12/20	Thu 21/1/21	NA	NA	Tue 30/3/21	Fri 23/4/21	73 days	2 day	933															
935	Pilecap Formwork- Design and Method Statement Submission	0 days	0 days	0 days	0%	Tue 1/12/20	Tue 1/12/20	NA	NA	Thu 25/3/21	Thu 25/3/21	114 days	1 day																
936	Pilecap Formworks - Design and Method Statement Comment & Appraoval	30 days	0 days	30 days	0%	Tue 1/12/20	Wed 30/12/20	NA	NA	Thu 25/3/21	Fri 23/4/21	114 days	1 day	935															
937	Pile Cap structure	19 days	0 days	19 days	0%	Fri 22/1/21	Tue 16/2/21	NA	NA	Sat 24/4/21	Mon 17/5/21	73 days	1 day	846,936,934															
938	Backfill and extract sheet pile	11 days	0 days	11 days	0%	Wed 17/2/21	Mon 1/3/21	NA	NA	Tue 18/5/21	Mon 31/5/21	73 days	2 days	937															
939	Pier - Temporary Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 4/1/21	Mon 4/1/21	NA	NA	Sun 2/5/21	Sun 2/5/21	118 days	1 day																
940	Pier - Temporary Design and Method Statement Comment & Appraoval	30 days	0 days	30 days	0%	Mon 4/1/21	Tue 2/2/21	NA	NA	Sun 2/5/21	Mon 31/5/21	118 days	1 day	939															
941	Pier P04 @ CH1351	49 days	0 days	49 days	0%	Tue 2/3/21	Fri 30/4/21	NA	NA	Tue 1/6/21	Thu 29/7/21	73 days	1 day	938,922,211,940															
942	Stage 3: Bridge deck between CH1311-1351	145 days	0 days	145 days	0%	Fri 30/7/21	Fri 21/1/22	NA	NA	Fri 30/7/21	Sat 29/1/22	0 days	1 day																
943	CH1311-1351: Deck Falsework erection	21 days	0 days	21 days	0%	Fri 30/7/21	Mon 23/8/21	NA	NA	Fri 30/7/21	Mon 23/8/21	0 days	3 days	941,922,879															
944	CH1311-1351: Structure deck	30 days	0 days	30 days	0%	Tue 24/8/21	Tue 28/9/21	NA	NA	Tue 24/8/21	Tue 28/9/21	0 days	5 days	475,483,736,896															
945	CH1311-1351: Prestressing	21 days	0 days	21 days	0%	Mon 18/10/21	Wed 10/11/21	NA	NA	Mon 18/10/21	Wed 10/11/21	0 days	3 days	944FS+14 days,8															
946	CH1311-1351: Utility Trough (0.67m per day per team) x 4 team	30 days	0 days	30 days	0%	Thu 11/11/21	Wed 15/12/21	NA	NA	Fri 26/11/21	Mon 3/1/22	13 days	0.5 day	219,880,945															
947	CH1311-1351: Central Median (6m per day per team) x 2 team	15 days	0 days	15 days	0%	Thu 11/11/21	Sat 27/11/21	NA	NA	Wed 5/1/22	Fri 21/1/22	44 days	3 days	945															
948	CH1311-1351: Parapet (28m per day per team) x 2 team + 6 day concreting	16 days	0 days	16 days	0%	Thu 23/12/21	Thu 13/1/22	NA	NA	Tue 4/1/22	Fri 21/1/22	7 days	1 day	945,888,890,946															
949	CH1311-1351: Road Furniture	7 days	0 days	7 days	0%	Fri 14/1/22	Fri 21/1/22	NA	NA	Sat 22/1/22	Sat 29/1/22	7 days	1 day	947,358,948															
950	Part 1 - CH1372 to CH1386	149 days	0 days	149 days	0%	Mon 23/8/21	Tue 22/2/22	NA	NA	Mon 23/8/21	Tue 1/3/22	0 days																	
951	Bridge deck between CH1351-1386	149 days	0 days	149 days	0%	Mon 23/8/21	Tue 22/2/22	NA	NA	Mon 23/8/21	Tue 1/3/22	0 days																	
952	CH1351-1386: Deck Falsework erection	22 days	0 days	22 days	0%	Mon 23/8/21	Thu 16/9/21	NA	NA	Mon 23/8/21	Thu 16/9/21	0 days	4 days	941,922,898FS+															
953	CH1351-1386: Structure deck	30 days	0 days	30 days	0%	Fri 17/9/21	Mon 25/10/21	NA	NA	Fri 17/9/21	Mon 25/10/21	0 days	5 days	952,736,976															
954	CH1351-1386: Prestressing	14 days	0 days	14 days	0%	Thu 11/11/21	Fri 26/11/21	NA	NA	Thu 11/11/21	Fri 26/11/21	0 days	5 days	953FS+14 days,9															
955	CH1351 - CH1386: Utility Trough (0.67m per day per team) x 4 team	30 days	0 days	30 days	0%	Sat 27/11/21	Tue 4/1/22	NA	NA	Sat 27/11/21	Tue 4/1/22	0 days	3 days	219,954															
956	CH1351 - CH1386: Central Median (6m per day per team) x 1 team	15 days	0 days	15 days	0%	Sat 27/11/21	Tue 14/12/21	NA	NA	Sat 27/11/21	Tue 14/12/21	0 days	3 days	954															
957	CH1351 - CH1386: Parapet (28m per day per team) x 1 team + 6 day concreting	20 days	0 days	20 days	0%	Wed 5/1/22	Thu 27/1/22	NA	NA	Wed 12/1/22	Mon 7/2/22	6 days	4 days	955															
958	CH1351-1386 Falsework removal	19 days	0 days	19 days	0%	Fri 28/1/22	Tue 22/2/22	NA	NA	Tue 8/2/22	Tue 1/3/22	6 days	1 day	955,957															
959	CH1351 - CH1386: Road Furniture (Section 1)	8 days	0 days	8 days	0%	Fri 28/1/22	Wed 9/2/22	NA	NA	Mon 14/2/22	Tue 22/2/22	11 days	2 day	956,358,957															
960	Part 1 - CH1386 to CH1394 South Abutment	352 days	0 days	352 days	0%	Fri 3/7/20	Sat 4/9/21	NA	NA	Sat 25/7/20	Thu 16/9/21	10 days																	
961	Bored Pile (A02-BP2) @ CH1386 by Rig 1	42 days	0 days	42 days	0%	Fri 3/7/20	Thu 20/8/20	NA	NA	Sat 25/7/20	Fri 11/9/20	19 days	3 days	831FS+12 days															
962	Bored Pile (A02-BP1) @ CH1386 by Rig 1	63 days	0 days	63 days	0%	Tue 28/7/20	Sat 10/10/20	NA	NA	Wed 19/8/20	Tue 3/11/20	19 days	3 days	202FF,961FF+44															
963	Pile Testing	35 days	0 days	35 days	0%	Mon 12/10/20	Sat 21/11/20	NA	NA	Wed 4/11/20	Mon 14/12/20	19 days	4 days	962															



Title: Rev.11 Prog with Progress as of 22-May-20

Task Summary
 Split Project Summary
 Milestone Inactive Task

Inactive Milestone
 Inactive Summary
 Manual Task

Duration-only
 Manual Summary Rollup
 Manual Summary

Start-only
 Finish-only
 External Tasks

External Milestone
 Deadline
 Critical

Critical Split
 Progress
 Manual Progress

Contract No. ED/2018/01 KTD Project

Table with columns: 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, and quarterly columns for years 2020, 2021, 2022, and 2023. Row 993 is highlighted in yellow.

Title: Rev.11 Prog with Progress as of 22-May-20

Legend for Gantt chart symbols including Task, Milestone, Summary, Inactive Milestone, Project Summary, Inactive Summary, Manual Summary Rollup, Manual Summary, External Milestone, Deadline, Critical, Critical Split, Progress, and 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	Q1	Q2										
1051	Underpass Formworks Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 14/9/20	Mon 14/9/20	NA	NA	Tue 3/11/20	Tue 3/11/20	50 days	1 day																												
1052	Underpass Formworks Design and Method Statement Comment & Approval	30 days	0 days	30 days	0%	Mon 14/9/20	Tue 13/10/20	NA	NA	Tue 3/11/20	Wed 2/12/20	50 days	1 day	1051																											
1053	Casting base slab (12d/bay/team x 3) (6 bays)	26 days	0 days	26 days	0%	Wed 28/10/20	Thu 26/11/20	NA	NA	Thu 3/12/20	Tue 5/1/21	31 days	2 day	1050,1052,262																											
1054	Waterproofing & Bacfilling before S3 Shoring Removal	12 days	0 days	12 days	0%	Fri 27/11/20	Thu 10/12/20	NA	NA	Wed 6/1/21	Tue 19/1/21	31 days	1 day	1053																											
1055	S3 Shoring ELS Removal + North/South End Re-propping	7 days	0 days	7 days	0%	Fri 11/12/20	Fri 18/12/20	NA	NA	Wed 20/1/21	Wed 27/1/21	31 days	1 day	1054																											
1056	Wall Construction up to soffit of S2 Shoring (12d/bay/team x 3) (6 bays)	24 days	0 days	24 days	0%	Sat 19/12/20	Tue 19/1/21	NA	NA	Thu 28/1/21	Sat 27/2/21	31 days	2 day	1055																											
1057	Waterproofing & Bacfilling before S2 Shoring Removal	12 days	0 days	12 days	0%	Wed 20/1/21	Tue 2/2/21	NA	NA	Mon 1/3/21	Sat 13/3/21	31 days	1 day	1056																											
1058	S2 Shoring ELS Removal + North/South End Re-propping	7 days	0 days	7 days	0%	Wed 3/2/21	Wed 10/2/21	NA	NA	Mon 15/3/21	Mon 22/3/21	31 days	1 day	1057																											
1059	Wall Construction up to soffit of S1 Shoring (12d/bay/team x 3) (6 bays)	24 days	0 days	24 days	0%	Thu 11/2/21	Sat 13/3/21	NA	NA	Tue 23/3/21	Thu 22/4/21	31 days	2 day	1058																											
1060	Waterproofing & Bacfilling before S1 Shoring Removal	12 days	0 days	12 days	0%	Mon 15/3/21	Sat 27/3/21	NA	NA	Fri 23/4/21	Fri 7/5/21	31 days	1 day	1059																											
1061	S1 Shoring ELS Removal + North/South End Re-propping	7 days	0 days	7 days	0%	Mon 29/3/21	Thu 8/4/21	NA	NA	Sat 8/5/21	Sat 15/5/21	31 days	1 day	1060																											
1062	Scaffold erection for roof slab	24 days	0 days	24 days	0%	Fri 9/4/21	Fri 7/5/21	NA	NA	Mon 17/5/21	Tue 15/6/21	31 days	2 day	1061																											
1063	Roof slab construction (18d/bay/team x 3) (6 bays)	42 days	0 days	42 days	0%	Sat 8/5/21	Mon 28/6/21	NA	NA	Wed 16/6/21	Wed 4/8/21	31 days	4 days	1062																											
1064	Waterproofing & Backfilling upto tunnel top	28 days	0 days	28 days	0%	Tue 29/6/21	Sat 31/7/21	NA	NA	Thu 5/8/21	Mon 6/9/21	31 days	2 day	1063																											
1065	Scaffold removal after 28 days from casting	22 days	0 days	22 days	0%	Mon 26/7/21	Thu 19/8/21	NA	NA	Thu 13/1/22	Thu 10/2/22	141 days	1 day	1063FS+22 days																											
1066	Sheetpile extraction (CH1851-CH1950)	22 days	0 days	22 days	0%	Mon 2/8/21	Thu 26/8/21	NA	NA	Tue 7/9/21	Mon 4/10/21	31 days	1 day	1064																											
1067	Emergency walkway & median barrier installation	9 days	0 days	9 days	0%	Fri 24/9/21	Tue 5/10/21	NA	NA	Fri 11/2/22	Mon 21/2/22	112 days	1 day	323,1066,1040,1064																											
1068	Parapet installation	7 days	0 days	7 days	0%	Wed 6/10/21	Wed 13/10/21	NA	NA	Tue 22/2/22	Tue 1/3/22	112 days	1 day	1067																											
1069	CH1950 - CH2020 (70m long) (2 x teams) 4 bays x 17.5m long - Average 3 layers of shoring	209 days	0 days	209 days	0%	Fri 19/3/21	Mon 29/11/21	NA	NA	Sat 6/3/21	Tue 1/3/22	-11 days																													
1070	Drive sheet pile (approx. 8,800m embedded length sheetpile), 380m/team/day	24 days	0 days	24 days	0%	Fri 19/3/21	Mon 19/4/21	NA	NA	Sat 6/3/21	Tue 6/4/21	-11 days	1 day	1027																											
1071	Excavation with Shoring Installation - Prod. Rate: 2 teams x 250m3/d/team. (14,500m3)	30 days	0 days	30 days	0%	Tue 20/4/21	Wed 26/5/21	NA	NA	Wed 7/4/21	Wed 12/5/21	-11 days	1 day	1049,1070																											
1072	Rock Fill Replacement	6 days	0 days	6 days	0%	Thu 27/5/21	Wed 2/6/21	NA	NA	Thu 13/5/21	Thu 20/5/21	-11 days	0.5 days	1071																											
1073	Blinding	1 day	0 days	1 day	0%	Thu 3/6/21	Thu 3/6/21	NA	NA	Fri 21/5/21	Fri 21/5/21	-11 days	0.5 days	1071,1072																											
1074	Base Slab - 4 bays. Prod. Rate: 12d/team/bay include pipe laying. 2 team	26 days	0 days	26 days	0%	Fri 4/6/21	Tue 6/7/21	NA	NA	Sat 22/5/21	Tue 22/6/21	-11 days	2 days	1073																											
1075	Wall - 4 bays. Prod. Rate: 3 level of shoring 12d/bay/level/team. 2 teams	67 days	0 days	67 days	0%	Wed 16/6/21	Thu 2/9/21	NA	NA	Wed 2/6/21	Fri 20/8/21	-11 days	6 days	1074SS+9 days																											
1076	Backfill & extract sheet pile (CH1950 to CH2020)	25 days	0 days	25 days	0%	Fri 3/9/21	Mon 4/10/21	NA	NA	Sat 21/8/21	Sat 18/9/21	-11 days	2 days	1075																											
1077	CH1950 to CH2020: Emergency walkway & median barrier installation	20 days	0 days	20 days	0%	Tue 5/10/21	Thu 28/10/21	NA	NA	Mon 3/1/22	Tue 25/1/22	73 days	2 days	1075,1076																											
1078	CH1950 to CH2020: Pavement work	7 days	0 days	7 days	0%	Fri 29/10/21	Fri 5/11/21	NA	NA	Wed 26/1/22	Sat 5/2/22	73 days	1 day	1077																											
1079	CH1950 to CH2020: Parapet installation	20 days	0 days	20 days	0%	Sat 6/11/21	Mon 29/11/21	NA	NA	Mon 7/2/22	Tue 1/3/22	73 days	2 day	1076,1077,1078																											
1080	South Depressed Road CH2020-2050 (40m long) (2 x teams) 5 bays x 13.5m long - Average 2 layers of shoring	134 days	0 days	134 days	0%	Mon 2/8/21	Tue 11/1/22	NA	NA	Sun 5/9/21	Tue 1/3/22	30 days																													
1081	Open Excavation	17 days	0 days	17 days	0%	Tue 5/10/21	Mon 25/10/21	NA	NA	Mon 20/9/21	Mon 11/10/21	-11 days	3 days	1076																											
1082	Blinding	2 days	0 days	2 days	0%	Tue 26/10/21	Wed 27/10/21	NA	NA	Tue 12/10/21	Wed 13/10/21	-11 days	0 days	1081																											
1083	South Depress Road - Formworks Design and Method Statement Submission	0 days	0 days	0 days	0%	Mon 2/8/21	Mon 2/8/21	NA	NA	Sun 5/9/21	Sun 5/9/21	34 days	1 day																												
1084	South Depress Road - Formworks Design and Method Statement Comment & Approval	40 days	0 days	40 days	0%	Mon 2/8/21	Fri 10/9/21	NA	NA	Sun 5/9/21	Thu 14/10/21	34 days	1 day	1083																											
1085	Base Slab - 3 bays. Prod. Rate: 12d/team/bay include pipe laying. 2 teams	12 days	0 days	12 days	0%	Thu 28/10/21	Wed 10/11/21	NA	NA	Fri 15/10/21	Thu 28/10/21	-11 days	2 day	1082,1084,314																											
1086	Wall - 3 bays. Prod. Rate: 2 level of shoring 12d/bay/level/team. 2 teams	12 days	0 days	12 days	0%	Fri 12/11/21	Thu 25/11/21	NA	NA	Sat 30/10/21	Fri 12/11/21	-11 days	0.5day	1085SS+13 days																											
1087	Wall - 3 bays. Prod. Rate: 2 level of shoring 12d/bay/level/team. 2 teams	12 days	0 days	12 days	0%	Sat 20/11/21	Fri 3/12/21	NA	NA	Mon 8/11/21	Sat 20/11/21	-11 days	0.5day	1086SS+7 days																											
1088	Backfill & extract sheet pile	19 days	0 days	19 days	0%	Fri 26/11/21	Fri 17/12/21	NA	NA	Fri 14/1/22	Tue 8/2/22	39 days	1 day	1086																											
1089	Curing and Formwork Ramoval	19 days	0 days	19 days	0%	Fri 26/11/21	Fri 17/12/21	NA	NA	Thu 30/12/21	Fri 21/1/22	27 days	1 day	1086																											
1090	Emergency walkway & median barrier installation	6 days	0 days	6 days	0%	Sat 18/12/21	Fri 24/12/21	NA	NA	Wed 9/2/22	Tue 15/2/22	39 days	2 days	1086,1088,323																											
1091	Pavement work	6 days	0 days	6 days	0%	Tue 28/12/21	Tue 4/1/22	NA	NA	Wed 16/2/22	Tue 22/2/22	39 days	1 day	1090																											
1092	Parapet installation	6 days	0 days	6 days	0%	Wed 5/1/22	Tue 11/1/22	NA	NA	Wed 23/2/22	Tue 1/3/22	39 days	1 day	1090,1088,1091																											
1093	5.0 CH1386-1950 (564m) : Utility Laying Team 2 (by Others)	332 days	0 days	332 days	0%	Sat 17/4/21	Mon 14/3/22	NA	NA	Thu 19/8/21	Tue 1/3/22	-13 days																													
1094	CLP (132kV)	30 days	0 days	30 days	0%	Fri 14/1/22	Sat 12/2/22	NA	NA	Mon 31/1/22	Tue 1/3/22	17 days	1 day	946,990,1027																											
1095	HKCG	18 days	0 days	18 days	0%	Fri 14/1/22	Mon 31/1/22	NA	NA	Tue 25/1/22	Fri 11/2/22	11 days	1 day	946,990,1027																											

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	Q1	
1228	Hoarding - Part 2A (~379m) - 4 team	12 days	0 days	12 days	0%	Mon 2/11/20	Sat 14/11/20	NA	NA	Sat 5/2/22	Fri 18/2/22	373 days	1 days	9,121,1147,1445																	
1229	Fencing - Part 2B (~132m)	9 days	0 days	9 days	0%	Sat 20/2/21	Tue 2/3/21	NA	NA	Sat 19/2/22	Tue 1/3/22	296 days	0 days	10,121,1227,122																	
1230	Hoarding - Part 2C (~106m)	9 days	0 days	9 days	0%	Sat 19/9/20	Tue 29/9/20	NA	NA	Fri 2/7/21	Mon 12/7/21	229 days	1 days	9,121,1147,1445																	
1231	Hoarding - Part 2E (~37m)	4 days	0 days	4 days	0%	Mon 3/10/22	Fri 7/10/22	NA	NA	Tue 22/11/22	Fri 25/11/22	42 days	0 days	11,121,1225																	
1232	Fencing - Part 3A (~326m)	24 days	0 days	24 days	0%	Fri 14/10/22	Thu 10/11/22	NA	NA	Fri 2/12/22	Fri 30/12/22	42 days	2 days	12,121,1235																	
1233	Fencing - Part 3D (~29m)	2 days	0 days	2 days	0%	Sat 19/9/20	Mon 21/9/20	NA	NA	Sat 12/6/21	Tue 15/6/21	214 days	0 days	14,121																	
1234	Fencing - Part 3E (~23m)	2 days	0 days	2 days	0%	Wed 13/1/21	Thu 14/1/21	NA	NA	Wed 16/6/21	Thu 17/6/21	123 days	0 days	14,121,1236,123																	
1235	Fencing - Part 3F (~62m)	5 days	0 days	5 days	0%	Sat 8/10/22	Thu 13/10/22	NA	NA	Sat 26/11/22	Thu 1/12/22	42 days	0 days	15,121,1231,123																	
1236	Fencing - Part 3G (~69m)	5 days	0 days	5 days	0%	Tue 5/1/21	Sat 9/1/21	NA	NA	Mon 7/6/21	Fri 11/6/21	123 days	0 days	14,121																	
1237	Fencing - Part 3I (~19m)	2 days	0 days	2 days	0%	Mon 11/1/21	Tue 12/1/21	NA	NA	Sat 12/6/21	Tue 15/6/21	123 days	0 days	14,121,1236																	
1238	Fencing - Part 4 (~180m)	14 days	0 days	14 days	0%	Fri 5/3/21	Sat 20/3/21	NA	NA	Tue 24/5/22	Thu 9/6/22	361 days	2 days	121,13,1237																	
1239	Fencing - Part 6A (~19m)	2 days	0 days	2 days	0%	Sat 19/9/20	Mon 21/9/20	NA	NA	Sat 26/9/20	Mon 28/9/20	6 days	0 days	8,121,1241																	
1240	Fencing - Part 6B (~23m)	2 days	0 days	2 days	0%	Tue 22/9/20	Wed 23/9/20	NA	NA	Tue 29/9/20	Wed 30/9/20	6 days	0 days	8,121,1239																	
1241	Hoarding - WA1 (~300m)	41 days	41 days	0 days	70%	Tue 15/10/19	Sat 30/11/19	Tue 15/10/19	Sat 30/11/19	Tue 15/10/19	Sat 30/11/19	0 days	0.5 days	18,121																	
1242	Fencing (15m/d) & Hoarding Erection (10m/d) - Upon Works Completion	100 days	0 days	100 days	0%	Tue 5/7/22	Tue 1/11/22	NA	NA	Fri 5/8/22	Fri 2/12/22	27 days																			
1243	Fencing - ~1437m	100 days	0 days	100 days	0%	Tue 5/7/22	Tue 1/11/22	NA	NA	Fri 5/8/22	Fri 2/12/22	27 days	5 days	1527																	
1244	Hoarding - ~260m	28 days	0 days	28 days	0%	Tue 5/7/22	Fri 5/8/22	NA	NA	Mon 19/9/22	Sat 22/10/22	64 days	2 days	1527																	
1245	Demolition Work - Extg Fire Service Station	89 days	89 days	0 days	0%	Fri 16/8/19	Sat 30/11/19	Fri 16/8/19	Sat 30/11/19	Fri 16/8/19	Sat 30/11/19	0 days																			
1246	Asbestos Survey (PS Cl. 2.04(9))	8 days	8 days	0 days	100%	Fri 16/8/19	Fri 23/8/19	Fri 16/8/19	Fri 23/8/19	Fri 16/8/19	Fri 23/8/19	0 days	0.5 days	1226																	
1247	Demolish of abandoned Fire Service Station	11 days	11 days	0 days	100%	Tue 19/11/19	Sat 30/11/19	Tue 19/11/19	Sat 30/11/19	Tue 19/11/19	Sat 30/11/19	0 days	0.5 days	1246																	
1248	Rising Main	623 days	0 days	623 days	0%	Tue 1/12/20	Tue 3/1/23	NA	NA	Mon 1/2/21	Tue 30/5/23	50 days																			
1249	Rising Main - Method Statement Submission	0 days	0 days	0 days	0%	Tue 1/12/20	Tue 1/12/20	NA	NA	Mon 1/2/21	Mon 1/2/21	62 days	0.5 days																		
1250	Rising Main Method Statement Comment & Appraoval	35 days	0 days	35 days	0%	Tue 1/12/20	Mon 4/1/21	NA	NA	Mon 1/2/21	Sun 7/3/21	62 days	0.5 days	1249																	
1251	Part 1 - CHA660-1097.77 - 2x160mm dia (~438m)	95 days	0 days	95 days	0%	Mon 8/2/21	Mon 7/6/21	NA	NA	Mon 8/3/21	Sat 3/7/21	21 days	14 day	8,1226,427,419,																	
1252	Part 9A - CHA32-71 - 2x160mm dia (~39m) (KD5)	15 days	0 days	15 days	0%	Tue 8/6/21	Fri 25/6/21	NA	NA	Mon 5/7/21	Wed 21/7/21	21 days	7 day	8,1251																	
1253	Part 9B Rising Main	36 days	0 days	36 days	0%	Sat 26/6/21	Sat 7/8/21	NA	NA	Thu 22/7/21	Wed 1/9/21	21 days	10 days	1252																	
1254	Part 3B - CHA418-443 - 2x160mm dia (~25m) (KD7)	10 days	0 days	10 days	0%	Mon 9/8/21	Thu 19/8/21	NA	NA	Thu 2/9/21	Mon 13/9/21	21 days	5 days	13,1252SS,1253																	
1255	Part 9 - CHA0-363 & 71-363 - 2x160mm dia. (~655m) (KD4)	124 days	0 days	124 days	0%	Tue 31/8/21	Fri 28/1/22	NA	NA	Thu 2/9/21	Mon 31/1/22	2 days	3 days	16,1254SS																	
1256	Part 8 - CHA363-418&443-452 - 2x160mm dia (~64m)	20 days	0 days	20 days	0%	Sat 29/1/22	Thu 24/2/22	NA	NA	Thu 9/3/23	Fri 31/3/23	330 days	8 days	1255																	
1257	Part 3A - CH452-660 - 2x160mm dia (~208m)	45 days	0 days	45 days	0%	Fri 11/1/22	Tue 3/1/23	NA	NA	Sat 1/4/23	Tue 30/5/23	117 days	6 days	12,1232,1256																	
1258	Allow Access for EMSD third District Cooling System Contractor for DCS Pipeline Laying at Parts 3A, 3B, 8, 9 and 9A	0 days	0 days	0 days	0%	Tue 3/1/23	Tue 3/1/23	NA	NA	Tue 30/5/23	Tue 30/5/23	147 days		1257																	
1259	Underground Drainage (Stormwater & Sewerage Drainage)	496 days	0 days	496 days	0%	Tue 1/12/20	Wed 3/8/22	NA	NA	Wed 31/3/21	Wed 5/10/22	51 days																			
1260	Procurement of Stormwater Drainage Pipes	90 days	0 days	90 days	0%	Tue 16/2/21	Sun 16/5/21	NA	NA	Wed 31/3/21	Mon 28/6/21	43 days	1 day																		
1261	Stormwater Drainage	299 days	0 days	299 days	0%	Tue 15/6/21	Wed 15/6/22	NA	NA	Tue 29/6/21	Wed 21/9/22	12 days		428,465,1260																	
1262	Stormwater Drainage - ELS Temp. Works Design and Method Statement Submission	0 days	0 days	0 days	0%	Tue 15/6/21	Tue 15/6/21	NA	NA	Tue 29/6/21	Tue 29/6/21	14 days	1 day																		
1263	Stormwater Drainage - ELS Temp. Works Design and Method Statement Comment & Appraoval	35 days	0 days	35 days	0%	Tue 15/6/21	Mon 19/7/21	NA	NA	Tue 29/6/21	Mon 2/8/21	14 days	1 day	1262																	
1264	CH1000 - CH1087 (~92.5m, 2 M/H)	16 days	0 days	16 days	0%	Tue 20/7/21	Fri 6/8/21	NA	NA	Tue 3/8/21	Fri 20/8/21	12 days	1 days	1263																	
1265	CH1087 - CH1189.4 (~210m, 9 M/H)	24 days	0 days	24 days	0%	Sat 7/8/21	Fri 3/9/21	NA	NA	Sat 21/8/21	Fri 17/9/21	12 days	1 days	1264																	
1266	CH1189.4 - CH1394 (~167m, 3 MH) - Bridge D3	24 days	0 days	24 days	0%	Tue 24/8/21	Mon 20/9/21	NA	NA	Tue 9/11/21	Mon 6/12/21	63 days	0.5 days	944SS																	
1267	CH1394 - CH1444.7 (~40m, 3 M/H) - S. Ramp	21 days	0 days	21 days	0%	Tue 7/9/21	Sat 2/10/21	NA	NA	Tue 9/11/21	Thu 2/12/21	51 days	1 days	1266SS,988SS+																	
1268	CH1444.7 - CH1560 (~222m, 10 M/H) - Rd D3	38 days	0 days	38 days	0%	Wed 23/6/21	Fri 6/8/21	NA	NA	Mon 21/2/22	Wed 6/4/22	198 days	3 days	987																	
1269	CH1560 - CH1720 (~239m, 8 M/H) - N.D. Rd	14 days	0 days	14 days	0%	Sat 7/8/21	Mon 23/8/21	NA	NA	Thu 7/4/22	Tue 26/4/22	198 days	1 days	1263,1268,436																	
1270	CH1720 - CH1920 (~450.7m, 13 M/H) Underpass	96 days	0 days	96 days	0%	Tue 24/8/21	Thu 16/12/21	NA	NA	Wed 27/4/22	Thu 18/8/22	198 days	6 days	1269																	
1271	CH1920 - CH2000 (~160m, 6 M/H) S.D. Rd	14 days	0 days	14 days	0%	Fri 17/12/21	Wed 5/1/22	NA	NA	Fri 19/8/22	Sat 3/9/22	198 days	1 days	1270																	

Title: Rev.11 Prog with Progress as of 22-May-20

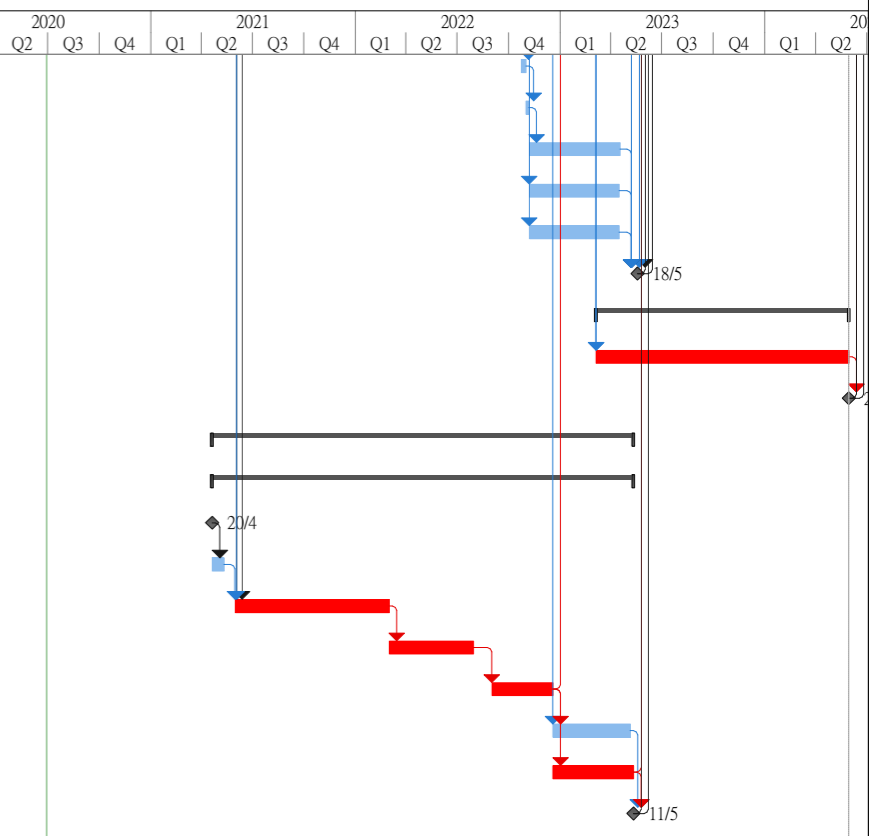


Contract No. ED/2018/01 KTD Project

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	Q1	Q2						
1272	CH2000 - CH2060 (~84m, 2 M/H) - S.D. Rd	14 days	0 days	14 days	0%	Thu 6/1/22	Fri 21/1/22	NA	NA	Mon 5/9/22	Wed 21/9/22	198 days	1 days	1085SS+12 days																							
1273	CH2060 - CH2118.93 (~50.7m, 2 M/H) - Rd D3	14 days	0 days	14 days	0%	Mon 4/10/21	Wed 20/10/21	NA	NA	Fri 3/12/21	Sat 18/12/21	51 days	1 days	1267																							
1274	CH100 - CH147 (~169m, 5 M/H) - L12 Road	38 days	0 days	38 days	0%	Mon 2/5/22	Wed 15/6/22	NA	NA	Sat 2/7/22	Mon 15/8/22	51 days	3 days	1275,1229																							
1275	Open Space & Promenade (~457m, 11 M/H)	76 days	0 days	76 days	0%	Tue 25/1/22	Sat 30/4/22	NA	NA	Tue 29/3/22	Thu 30/6/22	51 days	6 days	1504,458,459,12																							
1276	L12d Stormwater	50 days	0 days	50 days	0%	Thu 21/10/21	Fri 17/12/21	NA	NA	Wed 26/1/22	Mon 28/3/22	80 days		1273,490																							
1277	Sewerage Drainage	496 days	0 days	496 days	0%	Tue 1/12/20	Wed 3/8/22	NA	NA	Sat 29/5/21	Wed 5/10/22	51 days																									
1278	Procurement of Sewerage Pipes	90 days	0 days	90 days	0%	Tue 1/12/20	Sun 28/2/21	NA	NA	Sat 29/5/21	Thu 26/8/21	179 days	0.5 days																								
1279	Sewerage Drainage - Temp. Works Design and Method Statement Submission	0 days	0 days	0 days	0%	Wed 2/6/21	Wed 2/6/21	NA	NA	Sat 28/8/21	Sat 28/8/21	87 days	0.5 days																								
1280	Sewerage Drainage - Temp. Works Design and Method Statement Comment & Appraisal	21 days	0 days	21 days	0%	Wed 2/6/21	Tue 22/6/21	NA	NA	Sat 28/8/21	Fri 17/9/21	87 days	0.5 days	1279																							
1281	CH1000 - CH1087 (~68m, 3 M/H)	19 days	0 days	19 days	0%	Tue 15/6/21	Wed 7/7/21	NA	NA	Fri 27/8/21	Fri 17/9/21	62 days	1 days	428,451,465,466																							
1282	CH1087 - CH1189.4 (~47m, 1 no M/H)	14 days	0 days	14 days	0%	Sat 4/9/21	Mon 20/9/21	NA	NA	Sat 18/9/21	Wed 6/10/21	12 days	1 days	1265,1278,1280,																							
1283	CH100 - CH147 (~156m, 6 M/H) - L12 Road	41 days	0 days	41 days	0%	Thu 16/6/22	Wed 3/8/22	NA	NA	Tue 16/8/22	Wed 5/10/22	51 days	3 days	1274,1280,1275,																							
1284	Underground Watermain	629 days	0 days	629 days	0%	Tue 15/12/20	Fri 27/1/23	NA	NA	Fri 14/5/21	Thu 16/3/23	41 days																									
1285	Fresh Watermain	519 days	0 days	519 days	0%	Tue 15/12/20	Wed 14/9/22	NA	NA	Fri 14/5/21	Thu 16/3/23	119 days																									
1286	Fresh Watermain - Method Statement Submission	0 days	0 days	0 days	0%	Tue 1/6/21	Tue 1/6/21	NA	NA	Sat 7/8/21	Sat 7/8/21	67 days	1 days																								
1287	Fresh Watermain Method Statement Comment & Appraisal	35 days	0 days	35 days	0%	Tue 1/6/21	Mon 5/7/21	NA	NA	Sat 7/8/21	Fri 10/9/21	67 days	1 days	1286																							
1288	Fresh Watermain Procurement	120 days	0 days	120 days	0%	Mon 11/1/21	Mon 10/5/21	NA	NA	Fri 14/5/21	Fri 10/9/21	123 days	1 days																								
1289	CH1000 - CH1087 (~191m) Rd D3	20 days	0 days	20 days	0%	Tue 6/7/21	Wed 28/7/21	NA	NA	Sat 11/9/21	Wed 6/10/21	58 days	1 days	1288,1287																							
1290	CH1087 - CH1189.4 (~212m) - N. Ramp	4 days	0 days	4 days	0%	Tue 21/9/21	Sat 25/9/21	NA	NA	Thu 7/10/21	Mon 11/10/21	12 days	0 days	1282,467,1289																							
1291	CH1189.4 - CH1394 (~409.2m) - Bridge D3	42 days	0 days	42 days	0%	Tue 10/8/21	Tue 28/9/21	NA	NA	Fri 15/10/21	Thu 2/12/21	54 days	2 days	1288,944FF																							
1292	CH1394 - CH1444.7 (~101.4m) - S. Ramp	10 days	0 days	10 days	0%	Tue 6/7/21	Fri 16/7/21	NA	NA	Mon 15/8/22	Thu 25/8/22	332 days	0 days	988SS+10 days,																							
1293	CH1444.7 - CH1560 (~165m) - Rd D3	30 days	0 days	30 days	0%	Mon 12/7/21	Sat 14/8/21	NA	NA	Sat 27/11/21	Tue 4/1/22	116 days	0 days	988SS+15 days																							
1294	CH1720 - CH1920 (~25m) - Underpass	2 days	0 days	2 days	0%	Fri 17/12/21	Sat 18/12/21	NA	NA	Fri 16/9/22	Sat 17/9/22	221 days	0 days	1270,444																							
1295	CH2060 - CH2118.93 (~47m) - Rd D3	2 days	0 days	2 days	0%	Sat 16/10/21	Mon 18/10/21	NA	NA	Wed 15/12/21	Thu 16/12/21	51 days	0 days	1273SS+10 days																							
1296	CH100 - CH147 (~280m) - L12 Road	30 days	0 days	30 days	0%	Tue 17/5/22	Tue 21/6/22	NA	NA	Tue 28/6/22	Tue 2/8/22	35 days	2 days	1297																							
1297	Open Space & Promenade (~1,093m)	110 days	0 days	110 days	0%	Thu 30/12/21	Mon 16/5/22	NA	NA	Wed 12/1/22	Fri 27/5/22	10 days	1 day	1497,458,111																							
1298	Freshwater main across Kai Tak River	50 days	0 days	50 days	0%	Tue 17/5/22	Fri 15/7/22	NA	NA	Tue 15/11/22	Thu 12/1/23	151 days	1 day	1297,514																							
1299	L12d Freshwater	50 days	0 days	50 days	0%	Tue 15/12/20	Wed 17/2/21	NA	NA	Tue 15/11/22	Thu 12/1/23	569 days		498																							
1300	Fresh Watermain T&C	51 days	0 days	51 days	0%	Sat 16/7/22	Wed 14/9/22	NA	NA	Fri 13/1/23	Thu 16/3/23	151 days	1 day	1297,1296,1298,																							
1301	Salt Watermain	591 days	0 days	591 days	0%	Mon 1/2/21	Fri 27/1/23	NA	NA	Sun 20/6/21	Thu 16/3/23	41 days																									
1302	Salt Watermain - Method Statement Submission	0 days	0 days	0 days	0%	Mon 24/5/21	Mon 24/5/21	NA	NA	Mon 13/9/21	Mon 13/9/21	112 days	1 day																								
1303	Salt Watermain Method Statement Comment & Appraisal	35 days	0 days	35 days	0%	Mon 24/5/21	Sun 27/6/21	NA	NA	Mon 13/9/21	Sun 17/10/21	112 days	1 day	1302																							
1304	Salt Watermain Procurement	120 days	0 days	120 days	0%	Mon 1/2/21	Mon 31/5/21	NA	NA	Sun 20/6/21	Sun 17/10/21	139 days	1 day																								
1305	CH1000 - CH1087 (~157m) Rd D3	15 days	0 days	15 days	0%	Mon 28/6/21	Thu 15/7/21	NA	NA	Thu 18/8/22	Sat 3/9/22	341 days	1 days	1304,1303																							
1306	CH1087 - CH1189.4 (~218m) - N. Ramp	4 days	0 days	4 days	0%	Mon 27/9/21	Thu 30/9/21	NA	NA	Tue 12/10/21	Sat 16/10/21	12 days	1 day	1290																							
1307	CH1189.4 - CH1394 (~409.2m) - Bridge D3	40 days	0 days	40 days	0%	Sat 2/10/21	Thu 18/11/21	NA	NA	Mon 18/10/21	Thu 2/12/21	12 days	0.5 days	1291SS,1303,45,																							
1308	CH1394 - CH1444.7 (~101.4m) - S. Ramp	10 days	0 days	10 days	0%	Sat 17/7/21	Wed 28/7/21	NA	NA	Fri 26/8/22	Tue 6/9/22	332 days	1 day	1292																							
1309	CH1444.7 - CH1560 (~165m) - Rd D3	18 days	0 days	18 days	0%	Mon 16/8/21	Sat 4/9/21	NA	NA	Wed 29/6/22	Wed 20/7/22	258 days	1 day	1293																							
1310	CH1560 - CH1720 (~160m) - NDR	50 days	0 days	50 days	0%	Fri 19/11/21	Wed 19/1/22	NA	NA	Thu 21/7/22	Sat 17/9/22	197 days		1307,1309,444																							
1311	CH1720 - CH1920 (~25m) - Underpass	3 days	0 days	3 days	0%	Thu 20/1/22	Sat 22/1/22	NA	NA	Mon 19/9/22	Wed 21/9/22	197 days	1 day	1294,1310																							
1312	CH2060 - CH2118.93 (~47m) - Rd D3	2 days	0 days	2 days	0%	Mon 24/1/22	Tue 25/1/22	NA	NA	Thu 22/9/22	Fri 23/9/22	197 days	0 days	1295,1311																							
1313	CH100 - CH147 (~455m) - L12 Road	47 days	0 days	47 days	0%	Wed 22/6/22	Tue 16/8/22	NA	NA	Wed 3/8/22	Tue 27/9/22	35 days																									

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	Q1	Q2				
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 & Appraoval	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	
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 – Apply permission for Environmental Monitoring

Propose alternative monitoring location: The Lok Sin Tong Modular Social Housing Scheme

Status: Rejected application

Email on: 10 May 2022

Subject **The Lok Sin Tong Benevolent Society Kowloon - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-05-10 15:48

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)

Company: The Lok Sin Tong Benevolent Society Kowloon

By Email ([Redacted])

Dear Madam
5 May 2022

Dear Sir/ Madam, [Redacted]

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular 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. Your premise, Hong Kong Society for Blind Workshop and Hotels, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is June 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of The Lok Sin Tong Modular Social Housing Scheme at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to conduct site visit at 13:30 pm of 25 May 2022 (Wed).

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Email on: 13 October 2022

Subject **The Lok Sin Tong Benevolent Society Kowloon - Reject to Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-10-13 15:52

Company: The Lok Sin Tong Benevolent Society Kowloon

By Email [Redacted]

Dear Sir/ [Redacted]

Referring to the communication between your staff and me regarding the captioned work at 21 September 2022, the Lok Sin Tong Benevolent Society Kowloon was rejected the apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development. Due to electricity supply and security concern in Modular House , Environmental monitoring at Modular House is not allowed open.

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Propose alternative monitoring location: Freder Centre
Status: No reply from building management office unit the reporting month

Email on: 19 July 2022

Subject **Freder Centre - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-07-19 13:33

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)

Company: Freder Centre

By Email [Redacted]
Dear Sir [Redacted]

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular 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. Your premise, Hong Kong Society for Blind Workshop and Hotels, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is August 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of Freder Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to conduct site visit at 15:30pm of 26 July 2022 (Tue).

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Propose alternative monitoring location: New Port Centre
Status: No reply from building management office unit the reporting month

Email on: 19 July 2022

Subject **New Port Centre - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-07-19 13:33

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)

Company: New Port Centre & Synergis management services limited

By Email [Redacted]

Dear Sir,

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular 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. Your premise, New Port Centre, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is August 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of New Port Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to conduct site visit at 13:30pm of 26 July 2022 (Tue).

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Email on: 17 August 2022

Subject **Kum Shing Group and Hong Kong Energy Infrastructure Limited - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From [Redacted]
To [Redacted]
Bcc [Redacted]

Date 2022-08-17 11:54

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)
- plug 01.jpg(~2.6 MB)

Company: Kum Shing Group and Hong Kong Energy Infrastructure Limited

By Email [Redacted]

Dear Sir,

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular 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. Your premise, New Port Centre, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is August 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of New Port Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

We hope to loan the company on the roof top floor of Plug 01 for 24-hour TSP monitor of power supply.

Should you have any enquires regarding the measurement, please do not hesitate to contact [Redacted] at [Redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Propose alternative monitoring location: New Port Centre
Status: No reply from building management office unit the reporting month

Email on: 19 August 2022

Subject **RE: Kum Shing Group and Hong Kong Energy Infrastructure Limited - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From

To

Cc

Date 2022-08-19 08:36

Dear Mr. LEE,

As we do not have ownership to the roof, we'd suggest you to approach the management company of Newport Center for further discussion.

<https://www.synergis.com.hk/html/en/>

best,
Paul Lee

Email on: 15 September 2022

Subject **New Port Centre - Apply permission for Environmental Monitoring for Stage 4 of Kai Tak Development**



From

To
Bcc

Date 2022-09-15 15:35

- Figure 1 Impact dust measurement setup.jpg(~1.2 MB)
- Figure 2 Impact noise measurement setup.jpg(~979 KB)
- Figure 3 expect Impact dust measurement setup.png(~267 KB)
- Figure 4 power supply plug.jpg(~2.6 MB)

Company: New Port Centre & Synergis management services limited

By Email

Dear Sir,

Re: Environmental Monitoring for Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron

We, Ka Shing Management Consultant Limited (KS), is appointed by Civil Engineering and Development Department (CEDD), working as Environmental Team (ET) to conduct the monitoring and audit works as part of the EM&A programme of the Kai Tak Development - Stage 4 Infrastructure at the former runway and south apron (KTD Stage 4 Project) starting from July 2019 to May 2024.

KTD Stage 4 project is located in the south-eastern part of Kowloon Peninsular 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. Your premise, New Port Centre, is one of the proposed sensitive receivers.

We would like to obtain your kind permission for entering the premise to carry out baseline and impact monitoring, baseline dust monitoring (1-hour and 24-hour TSP monitoring) and baseline noise monitoring (30-minute) would need to conduct continuously for 14 days, our propose baseline monitoring date is August 2022.

After baseline monitoring, impact dust monitoring (1-hour and 24-hour TSP monitoring) and impact noise monitoring (30-minute) would take place between 08:00 hrs to 18:00 hrs in normal working days once every six days.

The monitoring location will be located on the roof top floor of New Port Centre at Junction of Sung Wong Toi Road and To Kwa Wan Road facing to Kai Tak Development area. 220V power supply is needed for 24-hour TSP monitor with size 0.5m (L) x 0.5m (W) x 1.4m (H). We will pay for the electricity. Similar setup photo records are shown in Figure 1 and Figure 2 for your kindly reference. The expect of impact dust measurement setup photo records are shown in Figure 3 and the power supply will come from the roof of the socket (Figure 4) for reference. Our technician will stay at the measurement point for 1-hour TSP and 30-minute noise measurement.

Should you have any enquires regarding the measurement, please do not hesitate to contact [redacted] at [redacted]

Thank you for your kind attention and I look forward to receiving your favourable reply soon.

Yours Sincerely,

Lee Wing Hang
Ka Shing Management Consultant Limited

Appendix D – Environmental monitoring schedules

Contract No. EDO 15/2018 Environmental Monitoring at Kai Tak Development Stage 4 Infrastructure at the former runway and south apron
Environmental Monitoring and Weekly Site Inspection Schedule for March 2024

March 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7
3	4	5	6	7 Weekly Site Inspection	8 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	9
10	11	12 Weekly Site Inspection+ SSMC meeting	13	14 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	15	16
17	18	19	20 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	21 Weekly Site Inspection	22	23
24	25 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	26	27	28 Weekly Site Inspection 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7	29	30
31						

NOTE:

- 1) Site inspection schedule and Impact monitoring schedule may be changed due to unforeseen circumstance (e.g. adverse weather).

Air Quality 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

Noise Quality Monitoring Station

M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

M12 - Hong Kong Children's Hospital

Contract No. EDO 15/2018 Environmental Monitoring at Kai Tak Development Stage 4 Infrastructure at the former runway and south apron
Tentative Environmental Monitoring and Weekly Site Inspection Schedule for April 2024

April 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3 Weekly Site Inspection 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	4	5	6
7	8	9 Weekly Site Inspection + SSMC meeting 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	10	11	12	13
14	15 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	16	17	18 Weekly Site Inspection	19	20 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7
21	22	23	24	25 Weekly Site Inspection	26 24-hr TSP: AM3, AM4(A), AM7 1-hr X3 TSP: AM3, AM4(A), AM7 30-min Noise: M11, M12	27
28	29	30				

NOTE:

- 1) Site inspection schedule and Impact monitoring schedule may be changed due to unforeseen circumstance (e.g. adverse weather).
- 2) Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A) and M11), the premises owner rejected ET to conduct impact monitoring starting from 1 Sept 2022. No 24-TSP monitoring will be conducted at AM4(A) while 1-hr TSP at AM4(A) and 30-min noise monitoring at M11 will be conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) and M11 are confirmed.

Air Quality 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

Noise Quality Monitoring Station

M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop
M12 - Hong Kong Children's Hospital

Appendix E – Photographic records

Impact TSP Monitoring



Measurement setup at AM3



Measurement setup at AM4(A)

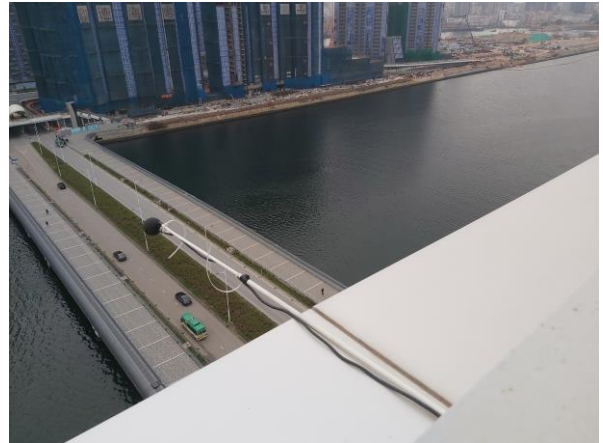


Measurement setup at AM7

Impact Noise Monitoring



Measurement setup at M11



Measurement setup at M12



Weather Station at the rooftop of Hong Kong Children's Hospital

**Appendix F – Calibration certificates, catalogue of air quality
monitoring equipment**

Catalogue of High Volume Sampler (HVS)



TSP MFC

Total Suspended Particulate, Mass Flow Controlled



MFC TSP
Ambient Air Sampler

The TE-5170 is a high volume ambient Total Suspended Particulate (TSP) air sampler featuring a mass flow controller (MFC) for accurate and consistent particulate sampling. The mass flow controller adjust the motor speed as the filter media collects particulate to maintain a constant flow rate throughout the entire sample duration. The system utilizes a stainless steel filter holder for use with standard 8" x 10" filter paper. The anodized aluminum shelter and robust electrical components allow the system to operate a continuous 24 hour sample.

ABOUT US: Tisch Environmental Inc. Tisch Environmental is the benchmark for high volume air sampling, particulate, metals, volatiles, and specialty monitoring equipment. Since the company's inception in 1953 as General Metal Works, our product line has expanded from the first high volume air sampler to include high-tech and custom samplers. Our clients are professionals from every sector of the regulatory and industrial markets.

- ✔ Meets EPA CFR, Appendix B to Part 50
- ✔ Total Suspended Particulate(TSP)
- ✔ Mass Flow Controlled
- ✔ 7-Day Mechanical Timer
- ✔ Elapsed Time Indicator
- ✔ Aluminum Outdoor Shelter
- ✔ Brush Style Motor
- ✔ Dickson Chart Recorder, 24 Hour
- ✔ Stainless Steel Filter Holder
- ✔ 36-60 CFM
- ✔ Made In USA

Copyright © 2014 Tisch International All Rights Reserved
www.tischinternational.com



www.tisch-env.com

Tisch Environmental
145 S. Miami Ave
Cleveland, OH 45002
513-467-9000
sales@tisch-env.com



TSP MFC

MFC TSP Ambient Air Sampler

General System Specifications

Particulate Size:Total Suspended Particulate (TSP)
EPA Designation: CFR 40 Part 50 Appendix B
Flow Controller: Mass Flow Controller
Motor Style:Brush Style Motor Assembly
Pressure Recorder:Dickson Chart Recorder, 24 hour
Timer:7 Day Mechanical
Elapsed Time Indicator:Mechanical, Hours and Tenths
Flow Range:39-60CFM, 1.09M³M-1.68M³M
Housing:Anodized Aluminum
Filter Holder:Stainless Steel, 8" x 10"
4" Recorder Charts: Box of 100
Filter Holder: 8" x 10" Stainless Steel with hold down frame

Applications

US EPA Reference Method Sampling, CFR Appendix J Part 50 Regulatory Compliance
 Institutional Studies
 Construction Sites
 Bridge and Water Tower Painting Sites
 Fence Line Monitoring
 Industrial Monitoring
 Landfill Monitoring
 Public Health Applications

Optional Equipment

TE-3000 Filter Holder Cartridge
 TE-G653 8" x 10" Glass Fiber Filter Media
 TE-33384 Motor Brush Set (110volt)
 TE-33378 Motor Brush Set (220volt)
 TE-116311 Replacement Motor (110volt)
 TE-116312 Replacement Motor (220volt)
 TE-106 Recorder Charts
 TE-160 Recorder Pen Points
 TE-5018 Gasket 8" x 10"

Available Models

TE-5170 TSP MFC, 110 Volt 60 Hertz, 8 Amps
 TE-5170X TSP MFC, 220 Volt 50 Hertz 4 Amps
 TE-5170XZ TSP MFC, 220 Volts 60 Hertz, 4 Amps

Calibration Equipment

TE-5028 -Variable Flow Calibration Kit
 TE-HVC-V Xcalibrator HiVol Calibrator

Physical Specifications

Weight: 75lbs, Shelter
Shipping Dimensions: 46"W x 23"L x 20" H, Shelter
 19"W x 19"L x 20"H, Lid
Assembled Dimensions: 28"W x 28"L x 61"H

Copyright © 2014 Tisch International All Rights Reserved
www.tischinternational.com

www.tisch-env.com



Calibration Certificate of HVS

Air Sampler Calibration Curve Plotting & Calculation (Dickson recorder)

Calibration curve ref. No. : ATSPC-01-2024020901 Date of calibration : 09/02/2024

Location : Sky Tower Sampler : TE-5170X

Calibration Data

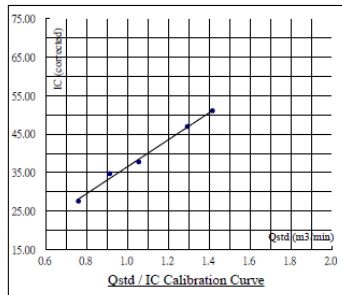
Ambient barometric pressure, Pa = 767.4 (mmHg) Ambient temperature, Ta = 288.55 (deg K)
Qstd Slope, m = 2.01424 Qstd Intercept, b = 0.020850

Calibration Curve

Plate No.	H ₂ O (m)	Qstd (m ³ /min)	I (chart)	IC (corrected)
18	7.90	1.415	50.0	51.06
13	6.60	1.292	46.0	46.97
10	4.40	1.053	37.0	37.78
7	3.30	0.911	34.0	34.72
5	2.30	0.758	27.0	27.57

Subsequent calculation of sampler flow

Method	Calibration equation	Slope, m	Intercept, b	Corr. coeff., r
Dickson recorder	$Q_{std} = 1/m [I (\text{Sqrt} ((P_{av} / 760) (298 / T_{av}))) - b]$	34.998	1.6194	0.9968



Calibration curve requirements : (A). $r > 0.990$; (B). At least 3 Qstd numbers are in the TSP range (1.1 - 1.7 m³ / min).

Remark : $Q_{std} (m^3 / min) = 1/m [\text{Sqrt} (H_2O (Pa / 760) (298 / Ta)) - b]$
 $IC (corrected) = I [\text{Sqrt} ((Pa / 760) (298 / Ta))]$
 $FLOW (corrected) = \text{Sqrt} (FLOW (mano) (Pa / 760) (298 / Ta))$

Calibrated by : (Signature)
Name : (Poon Tsz Wing)

Checked by : (Signature)
Name : (Choy Ching Yee)

Form No. DS-HVS-CAL-44 16 01 2020

Air Sampler Calibration Curve Plotting & Calculation (Dickson recorder)

Calibration curve ref. No. : ATSPC-01-2024020903 Date of calibration : 09/02/2024

Location : Hong Kong Children's Hospital Sampler : TE-5170X

Calibration Data

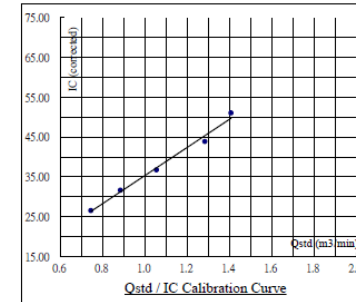
Ambient barometric pressure, Pa = 767.4 (mmHg) Ambient temperature, Ta = 288.55 (deg K)
Qstd Slope, m = 2.01424 Qstd Intercept, b = 0.020850

Calibration Curve

Plate No.	H ₂ O (in)	Qstd (m ³ /min)	I (chart)	IC (corrected)
18	7.80	1.406	50.0	51.06
13	6.50	1.282	43.0	43.91
10	4.40	1.053	36.0	36.76
7	3.10	0.882	31.0	31.66
5	2.20	0.742	26.0	26.55

Subsequent calculation of sampler flow

Method	Calibration equation	Slope, m	Intercept, b	Corr. coeff., r
Dickson recorder	$Q_{std} = 1/m [I (\text{Sqrt} ((P_{av} / 760) (298 / T_{av}))) - b]$	35.247	0.1676	0.9942



Calibration curve requirements : (A). $r > 0.990$; (B). At least 3 Qstd numbers are in the TSP range (1.1 - 1.7 m³ / min).

Remark : $Q_{std} (m^3 / min) = 1/m [\text{Sqrt} (H_2O (Pa / 760) (298 / Ta)) - b]$
 $IC (corrected) = I [\text{Sqrt} ((Pa / 760) (298 / Ta))]$
 $FLOW (corrected) = \text{Sqrt} (FLOW (mano) (Pa / 760) (298 / Ta))$

Calibrated by : (Signature)
Name : (Poon Tsz Wing)

Checked by : (Signature)
Name : (Choy Ching Yee)

Form No. DS-HVS-CAL-44 16 01 2020

Calibration Certificate of HVS

Air Sampler Calibration Curve Plotting & Calculation (Dickson recorder)

Calibration curve ref. No. : ATSPC-01-2023061901 Date of calibration : 19/06/2023

Model no : GS2310 Serial number : 10346

Calibration Data

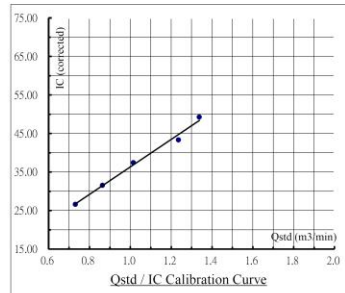
Ambient barometric pressure, Pa = 755.3 (mmHg) Ambient temperature, Ta = 305.25 (deg K)
 Qstd Slope, m = 2.01424 Qstd Intercept, b = 0.020850

Calibration Curve

Plate No.	H ₂ O (in)	Qstd (m ³ /min)	I (chart)	IC (corrected)
18	7.60	1.338	50.0	49.25
13	6.50	1.236	44.0	43.34
10	4.40	1.015	38.0	37.43
7	3.20	0.864	32.0	31.52
5	2.30	0.731	27.0	26.60

Subsequent calculation of sampler flow

Method	Calibration equation	Slope, m	Intercept, b	Corr. coeff., r
Dickson recorder	$Qstd = 1/m [I (1 + \sqrt{ (P_{av} / 760) (298 / T_{av}) }) - b]$	35.675	0.6397	0.9953



Calibration curve requirements : (A). $r > 0.990$; (B). At least 3 Qstd numbers are in the TSP range (1.1 - 1.7 m³ / min).

Remark : $Qstd (m^3 / min) = 1/m [\text{Sqrt} (H_2O (Pa / 760) (298 / Ta)) - b]$.

$IC (\text{corrected}) = 1 [\text{Sqrt} ((Pa / 760) (298 / Ta))]$.

$FLOW (\text{corrected}) = \text{Sqrt} (FLOW (\text{mano}) (Pa / 760) (298 / Ta))$.

Calibrated by :

Checked by :

Name : (Poon Tsz Wing)

Name : (Wong Yin Tong)

Form No: DSHVS-CAL-01 16-01-2020

Orifice Transfer Standard Certification Worksheet TE-5025A



RECALIBRATION DUE DATE:
May 17, 2024

Certificate of Calibration

Calibration Certification Information			
Cal. Date: May 17, 2023	Rootsmer S/N: 438320	Ta: 297 °K	
Operator: Jim Tisch		Pa: 745.0 mm Hg	
Calibration Model #: TE-5025A	Calibrator S/N: 0006		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4270	3.2	2.00
2	3	4	1	1.0000	6.4	4.00
3	5	6	1	0.8940	7.9	5.00
4	7	8	1	0.8490	8.8	5.50
5	9	10	1	0.6990	12.8	8.00

Data Tabulation						
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H (\frac{Pa}{Pstd}) (\frac{Tstd}{Ta})}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (Ta / Pa)}$ (y-axis)	
0.9793	0.6863	1.4025	0.9957	0.6978	0.8929	
0.9751	0.9751	1.9835	0.9914	0.9914	1.2628	
0.9731	1.0885	2.2176	0.9894	1.1067	1.4119	
0.9719	1.1448	2.3258	0.9882	1.1639	1.4808	
0.9666	1.3829	2.8051	0.9828	1.4060	1.7859	
QSTD	m= 2.01424		QA	m= 1.26128		
	b= 0.02085			b= 0.01328		
	r= 0.99999			r= 0.99999		

Calculations	
$Vstd = \Delta Vol ((Pa - \Delta P) / Pstd) (Tstd / Ta)$	$Va = \Delta Vol ((Pa - \Delta P) / Pa)$
$Qstd = Vstd / \Delta Time$	$Qa = Va / \Delta Time$
For subsequent flow rate calculations:	
$Qstd = 1/m \left(\sqrt{\Delta H (\frac{Pa}{Pstd}) (\frac{Tstd}{Ta})} - b \right)$	$Qa = 1/m \left(\sqrt{\Delta H (Ta / Pa)} - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH:	calibrator manometer reading (in H2O)
ΔP:	rootsmer manometer reading (mm Hg)
Ta:	actual absolute temperature (°K)
Pa:	actual barometric pressure (mm Hg)
b:	intercept
m:	slope

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

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

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

Catalogue of Dust Meter (TSI Sidepak AM510)

The SidePak AM510 monitor's easy-to-read display shows your data as both real-time aerosol mass-concentration and 8-hour time-weighted average (TWA). With its convenient data logging and long battery life, the AMS10 is also ideal for extended sampling. The easy-to-use TrakPro Data Analysis Software lets you create effective graphs and reports.

User Friendly

- + Small, lightweight and quiet to maximize worker acceptance
- + Rugged design with secure belt clip
- + Easy-to-understand user interface with only four keys
- + Lockable keypad prevents tampering while sampling
- + User-adjustable sample flow rate
- + Define, label and store multiple calibration constants
- + Easy-to-read LCD display
- + Convenient, threaded tripod socket accommodates area sampling

Advanced Features

- + Smart Battery Management System provides precise run time information, maximizes battery capacity and speeds charging
- + Integrated pump allows use of size-selective aerosol inlet conditioners
- + Built-in impactors let you choose "none," 1.0, 2.5 or 10-micron cut off
- + 10-mm Dorr-Oliver cyclone for respirable sampling
- + Display shows real-time concentrations (mg/m³) and "on-the-fly" TWA as you data log
- + Display statistics: max, min and average readings, elapsed time and 8-hour TWA

Quick and Easy Reports

- + Convenient preprogramming for occupational exposure sampling
- + Data log for long periods and store multiple tests
- + Analyze data, print graphs and create reports with TrakPro Data Analysis Software
- + USB port lets you conveniently connect to your computer

Power to Spare

- + Long-lasting NiMH rechargeable battery packs eliminate "memory" issues
- + Choice of rechargeable NiMH smart battery packs or AA-cell pack

Model AMS10

SidePak Personal Aerosol Monitor

Sensitivity

Sensor Type 90° light scattering, 670 nm laser diode
 Aerosol Concentration Range 0.001 to 20 mg/m³ (calibrated to respirable fraction of ISO 12103-1, A1 test dust)
 Particle Size Range 0.1 to 10 micrometer (µm)
 Minimum Resolution 0.001 mg/m³
 Zero stability ±0.001 mg/m³ over 24 hours using 10-second time-constant
 Temperature Coefficient Approximately +0.0005 mg/m³ per °C (for variations from temperature at which instrument was last zeroed)

Flow Rate

Range User-adjustable, 0.7 to 1.8 liters/min (L/min)

Temperature Range

Operating Range 32 to 120°F (0 to 50°C)
 Storage Range -4 to 140°F (-20 to 60°C)

Operational Humidity

0 to 95% RH, non-condensing

Time Constant (LCD display)

Range User-adjustable, 1 to 60 seconds

Data Logging

Data Points Approx. 31,000
 Logging Interval User-adjustable, 1 second to 1 hour

User-Select Calibration Factors

Factory Setting 1.0 (non-adjustable)
 User-defined Settings 3, with user-defined labels
 Range 0.1 to 10.0, user-adjustable

Physical

External Dimensions 4.2 x 3.7 x 2.8 in. (106 x 92 x 70 mm) with 801723, 801724, 801729 or 801743 battery
 5.1 x 3.7 x 2.8 in. (130 x 92 x 70 mm) with 801708, 801722, 801728, 801735, or 801736 battery
 Weight 16 oz (0.46 kg) with 801723, 801724, 801729 or 801743 battery
 19 oz (0.54 kg) with 801708, 01722, 801728, 801735, or 801736 battery
 Display 2 line x 12 character LCD
 Tripod Socket 1/4"-20 female thread

Power Supply/Charger (P/N 2613210)

Input Voltage Range 100 to 240 VAC, 50 to 60 Hz
 Output Voltage 9 VDC @ 1.0 A

Maintenance

Factory Clean/Calibrate Recommended annually
 User Zero Calibration Before each use
 User Flow Calibration As needed

Communications Interface

Type USB 1.1
 Connector, Instrument USB Mini-B (socket)

Minimum Computer Requirements for TrakPro™ Data Analysis Software

Communications Port Universal Serial Bus (USB) v 1.1 or higher
 Operating System Microsoft Windows® XP, or 7 (32-bit or 64-bit) operating systems

Battery Performance

Battery Options	Charge Time (hrs)*	Intrinsic Safety Rating	Run Time (hrs @ 1.7 L/min)
1600 mAh NiMH Pack, 4.8 V (P/N 801723)	3.0	No	7.1
1650 mAh NiMH Pack, 4.8V (P/N 801724, 801729 or 801743)	3.5	CSA**	7.5
2700 mAh NiMH Pack, 4.8 V (P/N 801722 or 801728)	5.5	No	12.0
2700 mAh NiMH Pack, 4.8 V (P/N 801735)	5.5	No	12.0
6-Cell AA-size Alkaline Pack*** (P/N 801708 or 801736 with six user-supplied AA cells)	N/A	No	22.5

*Of a fully depleted battery
 **All dust plugs and dust gaskets must be installed.
 ***Using Energizer AA-size, E91 alkaline batteries.

Battery Level Indicator

The Smart Battery Management System™ technology utilizes a built-in "gauge" in the SidePak™ battery packs. The gauge monitors battery capacity and calculates run time information by dividing capacity of the battery (mAh) by the instantaneous current consumed by the instrument (mA). This calculation is correct for current operating conditions and can change due to current (mA) consumption or changes in battery capacity.



Calibration Certificate of Dust Meter (TSI Sidepak AM510)

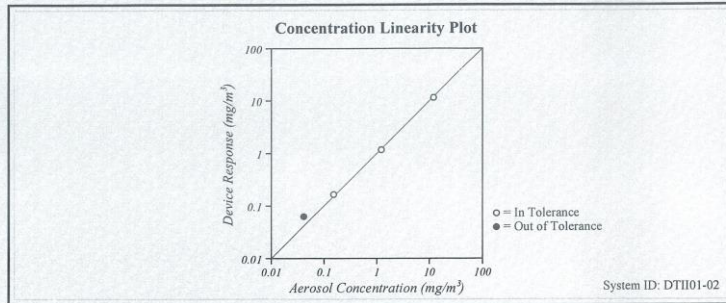


CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

Environment Conditions			Model	AM510
Temperature	74.14 (23.4)	°F (°C)	Serial Number	11208032
Relative Humidity	47.6	%RH		
Barometric Pressure	28.96 (980.7)	inHg (hPa)		

As Left In Tolerance
 As Found Out of Tolerance



CONCENTRATION				Unit: mg/m ³			
#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	1.205	1.108	1.084-1.326	3	0.041	* 0.059	0.029-0.053
2	0.150	0.156	0.128-0.172	4	11.824	10.777	10.642-13.006

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adjusted to respirable mass per standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 4:1

Measurement Variable	System ID	Last Cal.	Cal. Due	Measurement Variable	System ID	Last Cal.	Cal. Due
DC Voltage	E010539	12-05-22	06-30-24	Photometer	E003433	03-21-23	09-30-23
Microbalance	M001324	01-09-23	01-31-25	Pressure	E003511	10-25-22	10-31-23
Flowmeter	E002471	05-22-23	05-31-24	DC Voltage	E003315	01-09-23	01-31-24

Verified

August 8, 2023

Date

Personal Aerosol Monitor Performance check with High Volume Sampler

Performance Check ref. No. AS0220602-1 Report Issue Date 02/06/2023
 Date of performance check 02/06/2023

Objective:

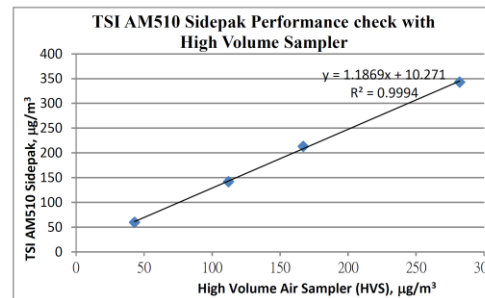
A dust meter and a Total Suspended Particulate High Volume Air Sampler (HVS) were placed together to measure the Total Suspended Particulate (TSP) concentrations simultaneously to check the performance.

Equipment Used:

Equipment	Manufacturer and Model	Serial Number
Personal Aerosol Monitor	TSI AM510 Sidepak	11208032
Total Suspended Particulate High Volume Air Sampler	GS2310	10346

Results:

Equipment	Measurement Result, µg/m ³		
TSI AM510 Sidepak	60	142	213
High Volume Air Sampler (HVS)	43	112	167



Tested by :
 Name : (Poon Tsz Wing)

Checked by :
 Name : (Wong Yin Tong)

Form No. ENV CAL SAMPLER CCI d412/12/2003

Calibration Certificate of Dust Meter (TSI Sidepak AM510)

CERTIFICATE OF CALIBRATION AND TESTING <small>TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com</small>																																			
Environment Conditions Temperature 73.99 (23.3) °F (°C) Relative Humidity 51.8 %RH Barometric Pressure 28.83 (976.3) inHg (hPa)		Model AM510 Serial Number 11411017																																	
<input checked="" type="checkbox"/> As Left <input checked="" type="checkbox"/> In Tolerance <input type="checkbox"/> As Found <input type="checkbox"/> Out of Tolerance																																			
Concentration Linearity Plot 																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">CONCENTRATION</th> <th colspan="4">Unit: mg/m³</th> </tr> <tr> <th>#</th> <th>STANDARD</th> <th>MEASURED</th> <th>ALLOWABLE RANGE</th> <th>#</th> <th>STANDARD</th> <th>MEASURED</th> <th>ALLOWABLE RANGE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1.612</td> <td>1.529</td> <td>1.451-1.773</td> <td>3</td> <td>0.074</td> <td>0.075</td> <td>0.052-0.096</td> </tr> <tr> <td>2</td> <td>0.242</td> <td>0.234</td> <td>0.206-0.278</td> <td>4</td> <td>15.040</td> <td>14.957</td> <td>13.536-16.544</td> </tr> </tbody> </table>				CONCENTRATION				Unit: mg/m ³				#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE	1	1.612	1.529	1.451-1.773	3	0.074	0.075	0.052-0.096	2	0.242	0.234	0.206-0.278	4	15.040	14.957	13.536-16.544
CONCENTRATION				Unit: mg/m ³																															
#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE																												
1	1.612	1.529	1.451-1.773	3	0.074	0.075	0.052-0.096																												
2	0.242	0.234	0.206-0.278	4	15.040	14.957	13.536-16.544																												
<small>TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adjusted to respirable mass per standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 4:1.</small>																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Measurement Variable</th> <th>System ID</th> <th>Last Cal.</th> <th>Cal. Due</th> </tr> </thead> <tbody> <tr> <td>Photometer</td> <td>E003319</td> <td>03-17-23</td> <td>09-30-23</td> </tr> <tr> <td>DC Voltage(Keithley)</td> <td>E002455</td> <td>06-13-23</td> <td>06-30-24</td> </tr> <tr> <td>Pressure</td> <td>E005651</td> <td>07-24-23</td> <td>07-31-24</td> </tr> </tbody> </table>		Measurement Variable	System ID	Last Cal.	Cal. Due	Photometer	E003319	03-17-23	09-30-23	DC Voltage(Keithley)	E002455	06-13-23	06-30-24	Pressure	E005651	07-24-23	07-31-24	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Measurement Variable</th> <th>System ID</th> <th>Last Cal.</th> <th>Cal. Due</th> </tr> </thead> <tbody> <tr> <td>Flowmeter</td> <td>E004570</td> <td>06-05-23</td> <td>06-30-24</td> </tr> <tr> <td>Microbalance</td> <td>M001324</td> <td>02-09-23</td> <td>02-28-25</td> </tr> </tbody> </table>		Measurement Variable	System ID	Last Cal.	Cal. Due	Flowmeter	E004570	06-05-23	06-30-24	Microbalance	M001324	02-09-23	02-28-25				
Measurement Variable	System ID	Last Cal.	Cal. Due																																
Photometer	E003319	03-17-23	09-30-23																																
DC Voltage(Keithley)	E002455	06-13-23	06-30-24																																
Pressure	E005651	07-24-23	07-31-24																																
Measurement Variable	System ID	Last Cal.	Cal. Due																																
Flowmeter	E004570	06-05-23	06-30-24																																
Microbalance	M001324	02-09-23	02-28-25																																
 Calibrated		August 9, 2023 Date																																	

Personal Aerosol Monitor Performance check with High Volume Sampler

Performance Check ref. No. AS0230602-5 Report Issue Date 02/06/2023
 Date of performance check 02/06/2023

Objective:

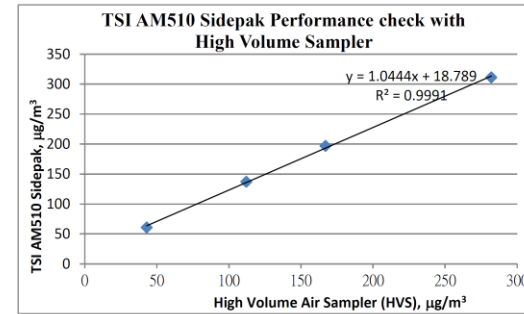
A dust meter and a Total Suspended Particulate High Volume Air Sampler (HVS) were placed together to measure the Total Suspended Particulate (TSP) concentrations simultaneously to check the performance.

Equipment Used:

Equipment	Manufacturer and Model	Serial Number
Personal Aerosol Monitor	TSI AM510 Sidepak	11411017
Total Suspended Particulate High Volume Air Sampler	GS2310	10346

Result:

Equipment	Measurement Result, µg/m ³			
TSI AM510 Sidepak	61	137	197	311
High Volume Air Sampler (HVS)	43	112	167	282



Tested by: Checked by:
 Name: (Poon Tsz Wing) Name: (Wong Yin Tong)

Form No. ENV CAL SAMPLER CCI.d(12/12/2003)

Catalogue of Weather Station

Cabled Vantage Pro2™ & Vantage Pro2 Plus™ Stations



**6152C
6162C**
Vantage Pro2™

The Vantage Pro2™ (# 6152C) and Vantage Pro2™ Plus (# 6162C) cabled weather stations include two components: the Integrated Sensor Suite (ISS) and the console. The ISS contains the sensor interface module (SIM), rain collector, an anemometer, and a passive radiation shield. The Vantage Pro2 console provides the user interface, data display, and calculations. The Vantage Pro2 Plus weather station includes two additional sensors that are optional on the Vantage Pro2 and purchased separately: the UV Sensor and the Solar Radiation Sensor. The console and ISS are powered by an AC-power adapter connected to the console. Batteries can be installed in the console to provide a backup power supply. Use WeatherLink® to let your weather station interface with a computer, log data, and upload weather information to the Internet. The 6152C and 6162C models rely on passive shielding to reduce solar-radiation induced temperature errors in the outside temperature sensor readings.

Integrated Sensor Suite (ISS)

Operating Temperature	-40° to +150°F (-40° to +65°C)
Non-operating Temperature	-40° to +158°F (-40° to +70°C)
Current Draw	5 mA (average) at 4 to 6 VDC for ISS only. 10 mA average for both console and ISS
Connectors, Sensor	Modular RJ-11
Cable Type	4-conductor, 26 AWG
Cable Length, Anemometer	40' (12 m) (included); 240' (73 m) (maximum recommended)

Note: Maximum displayable wind decreases as the length of cable increases. At 140' (42 m) of cable, the maximum wind speed displayed is 135 mph (60 m/s); at 240' (73 m), the maximum wind speed displayed is 100 mph (34 m/s).

Wind Speed Sensor	Solid state magnetic sensor
Wind Direction Sensor	Wind vane with potentiometer
Rain Collector Type	Tipping bucket, 0.01" per tip (0.2 mm with metric rain adapter), 33.2 in ² (214 cm ²) collection area
Temperature Sensor Type	PN Junction Silicon Diode
Relative Humidity Sensor Type	Film capacitor element
Housing Material	UV-resistant ABS, polypropylene
Sensor Inputs	
RF Filtering	RC low-pass filter on each signal line

ISS Dimensions(not including anemometer or bird spikes):

Vantage Pro2 with Standard Rad Shield	14.0" x 9.4" x 14.5" (356 mm x 239 mm x 368 mm)
Vantage Pro2 with Fan-Aspirated Rad Shield	20.8" x 9.4" x 16.0" (528 mm x 239 mm x 406 mm)
Vantage Pro2 Plus with Standard Rad Shield	14.3" x 9.7" x 14.5" (363 mm x 246 mm x 368 mm)
Vantage Pro2 Plus with Fan-Aspirated Rad Shield	21.1" x 9.7" x 16.0" (536 mm x 246 mm x 406 mm)

DAVIS **® Davis Instruments** 3465 Diablo Ave., Hayward, CA 94545-2778 USA
(510) 732-9229 • FAX (510) 670-0589 • sales@davisinstruments.com • www.davisinstruments.com

DS6152C, 6162C Rev. W 12/7/18
1

7
Vantage Pro2™

Ultra Violet (UV) Radiation Index (requires UV sensor)

Resolution and Units	0.1 Index
Range	0 to 16 Index
Accuracy	±5% of full scale (Reference: Yankee UVB-1 at UV index 10 (Extremely High))
Cosine Response	±4% FS (0° to 90° zenith angle)
Update Interval	50 seconds to 1 minute (5 minutes when dark)
Current Graph Data	Instant Reading and Hourly Average; Daily, Monthly High
Historical Graph Data	Hourly Average, Daily, Monthly Highs
Alarm	High Threshold from Instant Calculation

Wind

Wind Chill (Calculated)	
Resolution and Units	1°F or 1°C (user-selectable); °C is converted from °F and rounded to the nearest 1°C
Range	-110° to +135°F (-79° to +57°C)
Accuracy	±2°F (±1°C) (typical)
Update Interval	10 to 12 seconds
Source	United States National Weather Service (NWS)/NOAA
Equation Used	Osczevski (1995) (adopted by US NWS in 2001)
Variables Used	Instant Outside Temperature and 10-min. Avg. Wind Speed
Current Display Data	Instant Calculation
Current Graph Data	Instant Calculation; Hourly, Daily and Monthly Low
Historical Graph Data	Hourly, Daily and Monthly Lows
Alarm	Low Threshold from Instant Calculation
Wind Direction	
Range	1 - 360°
Display Resolution	16 points (22.5°) on compass rose, 1° in numeric display
Accuracy	±3°
Update Interval	2.5 to 3 seconds
Current Graph Data	Instant Reading (user adjustable); 10-min. Dominant; Hourly, Daily, Monthly Dominant
Historical Graph Data	Past 6 10-min. Dominants on compass rose only; Hourly, Daily, Monthly Dominants
Wind Speed	
Resolution and Units	1 mph, 1 km/h, 0.4 m/s, or 1 knot (user-selectable) Measured in mph; other units are converted from mph and rounded to nearest 1 km/hr, 0.1 m/s, or 1 knot.
Range	0 to 200 mph, 0 to 173 knots, 0 to 89 m/s, 0 to 322 km/h
Update Interval	Instant Reading: 2.5 to 3 seconds, 10-minute Average: 1 minute
Accuracy	±2 mph (2 kts, 3.2 km/h, 0.9 m/s) or ±5%, whichever is greater
Maximum Cable Length	540' (165 m) (Note that maximum wind speed reading decreases as length of cable from anemometer to ISS increases.)
Current Display Data	Instant
Current Graph Data	Instant Reading; 10-minute and Hourly Average; Hourly High; Daily, Monthly and Yearly High with Direction of High
Historical Graph Data	10-min. and Hourly Averages; Hourly Highs; Daily, Monthly and Yearly Highs with Direction of Highs
Alarms	High Thresholds from Instant Reading and 10-minute Average

Calibration Certificate of Weather Station



Cal Lab Limited 校正實驗室有限公司
 Room 2103, Technology Plaza, 29-35 Sha Tsui Road,
 Tsuen Wan, N.T, Hong Kong
 Tel: +852 25680106 Email: info@callab.com.hk
 Fax: +852 30116194 Website: www.callab.com.hk

Calibration Certificate No.: CC0122402

Customer Information

Customer: Castco Testing Centre Limited
 Address: 33, On Kui Street, Fanling, N.T.

Equipment Identification

Equipment Description	Manufacturer	Model No.	Serial No.	Assigned equipment No.:
Weather Station	Davis	Vantage PRO 2	BD190307008	AAST-WS-O-1

Certificate Information

Date of Receipt:	6 February 2024	Calibration Condition:	21.5°C, 55%RH, 1012hPa
Date of Calibration:	16 February 2024	Adjustment:	N/A
Due Date of Calibration:	N/A	Appearance:	Good
Calibration Procedure:	JF 1183-2007, JF 1076-2001, SOP-116	Remark:	N/A

Reference Equipment Identification

Equipment Description	Model	Serial No.	Expiration Date
Platinum resistance thermometer	KPPRHT-A-1	KCI I-1095, KCI P-1035	9 November 2024
Humidity sensor	KPPRHT-A-1	KCI I-1095, KCI P-1035	9 November 2024
Hot Wire Anemometer	9535	T95351316004	11 August 2024

- Note1: The estimated expanded uncertainties have been calculated in "Evaluation and expression of uncertainty in measurement" and give an internal estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.
 Note2: The standard (s) and instrument used in the calibration are traceable to national or international recognized standard and are calibrated on a schedule to maintain the accuracy and good condition.
 Note3: The result reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long term stability of the instrument.
 Note4: The result shows in this calibration certificate relate only to the item calibrated, and the result only applies to the calibration item as received.

Approved By:


 Warren Yeung

Company Chop:



Certificate Issue Date: 16 February 2024

CT-REG-04

1. The certificate shall not be reproduced except in full, without written approval of Cal Lab Limited
 2. The certificate is issued subject to the latest Terms and Conditions, available at our web site
- CC0122402
Page 1 of 2

Appendix G – Weather information

General Information

Date	Absolute Daily Min Temperature (°C)	Absolute Daily Max Temperature (°C)	Total Rainfall (mm)
01/03/2024	10.4	16.2	Trace
02/03/2024	9.6	14.1	0.3
03/03/2024	13.9	18.1	0.2
04/03/2024	17.3	22.9	1.4
05/03/2024	22.1	26.8	Trace
06/03/2024	20.1	26.5	0.1
07/03/2024	17.1	20.2	Trace
08/03/2024	15.7	22.4	0.2
09/03/2024	15.1	19.1	2.1
10/03/2024	15.3	16.8	4.6
11/03/2024	16	18.6	11.7
12/03/2024	15.6	24	0
13/03/2024	17.7	21.2	Trace
14/03/2024	18.6	22	0
15/03/2024	19.5	21.3	0
16/03/2024	19.5	22.4	Trace
17/03/2024	20.7	26.8	0
18/03/2024	19.8	23	0.6
19/03/2024	19.5	24.6	0.3
20/03/2024	18.3	24.3	0
21/03/2024	18.4	23.8	Trace
22/03/2024	20.4	25.9	Trace
23/03/2024	22.1	29.1	0
24/03/2024	24.5	31.5	0
25/03/2024	23.8	28.9	0
26/03/2024	23.7	30.3	0
27/03/2024	20.8	25.1	Trace
28/03/2024	22.4	27.9	0
29/03/2024	23	30	Trace
30/03/2024	24.3	30.8	Trace
31/03/2024	26	27.8	0.1

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

NOTE2: race means rainfall less than 0.05 mm

<https://www.hko.gov.hk/en/cis/dailyExtract.htm?y=2024&m=3>

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
01/03/2024	0:00	0.9	135	02/03/2024	0:00	0.4	112.5	03/03/2024	0:00	0.9	112.5	04/03/2024	0:00	0.4	247.5
01/03/2024	1:00	0.4	112.5	02/03/2024	1:00	0.9	135	03/03/2024	1:00	1.3	90	04/03/2024	1:00	0.9	90
01/03/2024	2:00	0.4	292.5	02/03/2024	2:00	0.9	22.5	03/03/2024	2:00	0.9	112.5	04/03/2024	2:00	0.9	90
01/03/2024	3:00	0.9	112.5	02/03/2024	3:00	1.3	180	03/03/2024	3:00	0.9	90	04/03/2024	3:00	1.3	45
01/03/2024	4:00	0.4	225	02/03/2024	4:00	0.9	90	03/03/2024	4:00	0.9	90	04/03/2024	4:00	0.9	67.5
01/03/2024	5:00	0.4	315	02/03/2024	5:00	0.9	67.5	03/03/2024	5:00	0.9	67.5	04/03/2024	5:00	0.4	22.5
01/03/2024	6:00	0.4	112.5	02/03/2024	6:00	0.4	112.5	03/03/2024	6:00	0.4	112.5	04/03/2024	6:00	1.3	292.5
01/03/2024	7:00	0.4	112.5	02/03/2024	7:00	0.9	112.5	03/03/2024	7:00	0.4	135	04/03/2024	7:00	0.9	112.5
01/03/2024	8:00	0.9	45	02/03/2024	8:00	0.4	90	03/03/2024	8:00	0.4	112.5	04/03/2024	8:00	0.9	90
01/03/2024	9:00	0.4	67.5	02/03/2024	9:00	0.9	45	03/03/2024	9:00	0.9	112.5	04/03/2024	9:00	0.9	90
01/03/2024	10:00	0.4	45	02/03/2024	10:00	0.4	225	03/03/2024	10:00	0.9	112.5	04/03/2024	10:00	0.4	112.5
01/03/2024	11:00	0.4	67.5	02/03/2024	11:00	0.4	112.5	03/03/2024	11:00	0.9	90	04/03/2024	11:00	0.4	112.5
01/03/2024	12:00	0.9	112.5	02/03/2024	12:00	0.4	202.5	03/03/2024	12:00	0.9	112.5	04/03/2024	12:00	0.4	112.5
01/03/2024	13:00	0.9	135	02/03/2024	13:00	0.4	225	03/03/2024	13:00	0.4	112.5	04/03/2024	13:00	0.4	112.5
01/03/2024	14:00	0.4	112.5	02/03/2024	14:00	0.9	67.5	03/03/2024	14:00	0.4	112.5	04/03/2024	14:00	0.9	90
01/03/2024	15:00	0.9	45	02/03/2024	15:00	0.9	225	03/03/2024	15:00	0.4	225	04/03/2024	15:00	0.4	90
01/03/2024	16:00	0.9	45	02/03/2024	16:00	0.4	180	03/03/2024	16:00	0.4	202.5	04/03/2024	16:00	0.9	90
01/03/2024	17:00	1.3	45	02/03/2024	17:00	0.9	135	03/03/2024	17:00	0.4	135	04/03/2024	17:00	0.9	112.5
01/03/2024	18:00	0.9	22.5	02/03/2024	18:00	0.9	22.5	03/03/2024	18:00	0.9	112.5	04/03/2024	18:00	1.3	90
01/03/2024	19:00	1.3	22.5	02/03/2024	19:00	1.3	315	03/03/2024	19:00	0.9	180	04/03/2024	19:00	1.3	90
01/03/2024	20:00	1.3	22.5	02/03/2024	20:00	0.9	112.5	03/03/2024	20:00	0.9	247.5	04/03/2024	20:00	0.9	112.5
01/03/2024	21:00	0.9	135	02/03/2024	21:00	0.9	337.5	03/03/2024	21:00	1.3	270	04/03/2024	21:00	0.9	112.5
01/03/2024	22:00	0.4	67.5	02/03/2024	22:00	0.4	135	03/03/2024	22:00	1.3	247.5	04/03/2024	22:00	0.4	112.5
01/03/2024	23:00	0.9	22.5	02/03/2024	23:00	0.9	202.5	03/03/2024	23:00	0.4	135	04/03/2024	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
05/03/2024	0:00	0.4	90	06/03/2024	0:00	0.4	112.5	07/03/2024	0:00	1.3	112.5	08/03/2024	0:00	0.9	112.5
05/03/2024	1:00	0.4	90	06/03/2024	1:00	0.4	90	07/03/2024	1:00	1.3	112.5	08/03/2024	1:00	0.9	112.5
05/03/2024	2:00	0.4	112.5	06/03/2024	2:00	0.4	135	07/03/2024	2:00	1.8	112.5	08/03/2024	2:00	1.3	135
05/03/2024	3:00	0.9	225	06/03/2024	3:00	0.9	90	07/03/2024	3:00	1.3	112.5	08/03/2024	3:00	0.9	90
05/03/2024	4:00	0.9	202.5	06/03/2024	4:00	0.9	157.5	07/03/2024	4:00	1.8	45	08/03/2023	4:00	0.9	112.5
05/03/2024	5:00	0.9	112.5	06/03/2024	5:00	0.4	112.5	07/03/2024	5:00	1.3	337.5	08/03/2023	5:00	0.9	112.5
05/03/2024	6:00	0.9	135	06/03/2024	6:00	0.9	112.5	07/03/2024	6:00	0.9	112.5	08/03/2024	6:00	0.9	112.5
05/03/2024	7:00	0.9	90	06/03/2024	7:00	1.3	112.5	07/03/2024	7:00	1.3	135	08/03/2024	7:00	0.9	90
05/03/2024	8:00	1.3	90	06/03/2024	8:00	0.9	112.5	07/03/2024	8:00	1.8	90	08/03/2024	8:00	1.3	112.5
05/03/2024	9:00	1.8	112.	06/03/2024	9:00	1.3	22.5	07/03/2024	9:00	1.8	135	08/03/2024	9:00	0.9	90
05/03/2024	10:00	0.9	90	06/03/2024	10:00	1.3	45	07/03/2024	10:00	1.3	135	08/03/2024	10:00	0.9	90
05/03/2024	11:00	0.4	112.5	06/03/2024	11:00	0.9	315	07/03/2024	11:00	1.8	67.5	08/03/2024	11:00	0.9	112.5
05/03/2024	12:00	0.9	135	06/03/2024	12:00	0.9	112.5	07/03/2024	12:00	0.4	90	08/03/2024	12:00	0.4	135
05/03/2024	13:00	0.4	135	06/03/2024	13:00	0.9	135	07/03/2024	13:00	1.8	225	08/03/2024	13:00	0.9	90
05/03/2024	14:00	1.3	45	06/03/2024	14:00	1.3	112.5	07/03/2024	14:00	1.3	67.5	08/03/2024	14:00	0.9	157.5
05/03/2024	15:00	0.9	315	06/03/2024	15:00	0.9	112.5	07/03/2024	15:00	0.9	22.5	08/03/2024	15:00	0.4	112.5
05/03/2024	16:00	0.9	112.5	06/03/2024	16:00	1.3	112.5	07/03/2024	16:00	0.4	270	08/03/2024	16:00	0.9	112.5
05/03/2024	17:00	0.9	135	06/03/2024	17:00	0.9	135	07/03/2024	17:00	0.4	270	08/03/2024	17:00	0.9	112.5
05/03/2024	18:00	1.3	112.5	06/03/2024	18:00	0.9	157.5	07/03/2024	18:00	0.9	247.5	08/03/2024	18:00	0.9	112.5
05/03/2024	19:00	0.9	112.5	06/03/2024	19:00	0.9	135	07/03/2024	19:00	0.9	247.5	08/03/2024	19:00	0.4	135
05/03/2024	20:00	1.3	112.5	06/03/2024	20:00	0.9	112.5	07/03/2024	20:00	0.4	270	08/03/2024	20:00	0.9	90
05/03/2024	21:00	0.9	135	06/03/2024	21:00	0.9	112.5	07/03/2024	21:00	0.4	270	08/03/2024	21:00	0.9	135
05/03/2024	22:00	0.9	157.5	06/03/2024	22:00	0.9	112.5	07/03/2024	22:00	0.9	225	08/03/2024	22:00	1.3	90
05/03/2024	23:00	0.9	135	06/03/2024	23:00	0.4	135	07/03/2024	23:00	0.4	225	08/03/2024	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
09/03/2024	0:00	0.9	112.5	10/03/2024	0:00	0.4	135	11/03/2024	0:00	1.3	112.5	12/03/2024	0:00	1.3	90
09/03/2024	1:00	1.3	112.5	10/03/2024	1:00	0.9	45	11/03/2024	1:00	1.3	112.5	12/03/2024	1:00	0.9	90
09/03/2024	2:00	1.3	90	10/03/2024	2:00	0.9	90	11/03/2024	2:00	1.3	90	12/03/2024	2:00	0.9	45
09/03/2024	3:00	1.3	90	10/03/2024	3:00	0.9	225	11/03/2024	3:00	1.8	90	12/03/2024	3:00	1.3	135
09/03/2024	4:00	1.8	112.5	10/03/2024	4:00	1.3	225	11/03/2024	4:00	0.9	135	12/03/2024	4:00	1.3	135
09/03/2024	5:00	1.3	112.5	10/03/2024	5:00	1.3	247.5	11/03/2024	5:00	0.9	112.5	12/02/2024	5:00	1.3	90
09/03/2024	6:00	0.9	45	10/03/2024	6:00	1.8	247.5	11/03/2024	6:00	1.3	112.5	12/03/2024	6:00	1.3	135
09/03/2024	7:00	0.4	112.5	10/03/2024	7:00	1.3	225	11/03/2024	7:00	0.9	90	12/03/2024	7:00	1.3	135
09/03/2024	8:00	0.9	90	10/03/2024	8:00	0.9	247.5	11/03/2024	8:00	1.3	90	12/03/2024	8:00	1.3	90
09/03/2024	9:00	0.9	90	10/03/2024	9:00	0.9	112.5	11/03/2024	9:00	1.3	112.5	12/03/2024	9:00	1.8	45
09/03/2024	10:00	0.4	90	10/03/2024	10:00	1.3	135	11/03/2024	10:00	1.8	112.5	12/03/2024	10:00	1.8	90
09/03/2024	11:00	1.3	112.5	10/03/2024	11:00	0.9	135	11/03/2024	11:00	1.8	112.5	12/03/2024	11:00	1.3	90
09/03/2024	12:00	1.3	112.5	10/03/2024	12:00	0.9	135	11/03/2024	12:00	1.3	112.5	12/03/2024	12:00	0.9	22.5
09/03/2024	13:00	1.3	112.5	10/03/2024	13:00	0.9	135	11/03/2024	13:00	0.9	135	12/03/2024	13:00	1.3	22.5
09/03/2024	14:00	0.4	135	10/03/2024	14:00	0.9	112.5	11/03/2024	14:00	1.3	135	12/03/2024	14:00	1.3	225
09/03/2024	15:00	0.9	135	10/03/2024	15:00	0.9	67.5	11/03/2024	15:00	1.3	112.5	12/03/2024	15:00	0.9	45
09/03/2024	16:00	0.9	247.5	10/03/2024	16:00	1.3	112.5	11/03/2024	16:00	1.3	135	12/03/2024	16:00	1.8	112.5
09/03/2024	17:00	0.9	45	10/03/2024	17:00	1.8	45	11/03/2024	17:00	1.8	112.5	12/03/2024	17:00	1.8	90
09/03/2024	18:00	1.8	45	10/03/2024	18:00	1.8	112.5	11/03/2024	18:00	1.3	45	12/03/2024	18:00	0.4	112.5
09/03/2024	19:00	1.3	45	10/03/2024	19:00	1.3	90	11/03/2024	19:00	1.3	45	12/03/2024	19:00	1.8	112.5
09/03/2024	20:00	0.9	90	10/03/2024	20:00	1.3	22.5	11/03/2024	20:00	1.3	135	12/03/2024	20:00	1.3	135
09/03/2024	21:00	0.4	90	10/03/2024	21:00	0.9	112.5	11/03/2024	21:00	0.9	90	12/03/2024	21:00	1.3	112.5
09/03/2024	22:00	1.3	67.5	10/03/2024	22:00	0.9	112.5	11/03/2024	22:00	0.9	112.5	12/03/2024	22:00	1.3	135
09/03/2024	23:00	1.3	67.5	10/03/2024	23:00	1.8	112.5	11/03/2024	23:00	0.4	112.5	12/03/2024	23:00	1.3	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
13/03/2024	0:00	0.4	112.5	14/03/2024	0:00	0.9	225	15/03/2024	0:00	0.4	90	16/03/2024	0:00	0.4	202.5
13/03/2024	1:00	0.4	135	14/03/2024	1:00	0.9	247.5	15/03/2024	1:00	0.4	90	16/03/2024	1:00	0.4	67.5
13/03/2024	2:00	0.4	112.5	14/03/2024	2:00	0.9	247.5	15/03/2024	2:00	0.4	67.5	16/03/2024	2:00	0.4	90
13/03/2024	3:00	0.4	112.5	14/03/2024	3:00	0.4	225	15/03/2024	3:00	0.9	90	16/03/2024	3:00	0.4	135
13/03/2024	4:00	0.4	67.5	14/03/2024	4:00	0.4	247.5	15/03/2024	4:00	1.3	135	16/03/2024	4:00	0.9	112.5
13/03/2024	5:00	1.8	157.5	14/03/2024	5:00	0.4	292.5	15/03/2024	5:00	0.9	67.5	16/03/2024	5:00	0.9	135
13/03/2024	6:00	1.8	112.5	14/03/2024	6:00	0.9	225	15/03/2024	6:00	1.3	90	16/03/2024	6:00	0.9	112.5
13/03/2024	7:00	2.7	180	14/03/2024	7:00	0.9	247.5	15/03/2024	7:00	0.4	112.5	16/03/2024	7:00	0.9	90
13/03/2024	8:00	1.3	112.5	14/03/2024	8:00	0.4	247.5	15/03/2024	8:00	0.9	112.5	16/03/2024	8:00	0.9	112.5
13/03/2024	9:00	1.3	90	14/03/2024	9:00	0.4	157.5	15/03/2024	9:00	0.4	45	16/03/2024	9:00	0.9	90
13/03/2024	10:00	1.3	135	14/03/2024	10:00	0.9	112.5	15/03/2024	10:00	0.4	112.5	16/03/2024	10:00	0.9	112.5
13/03/2024	11:00	1.3	112.5	14/03/2024	11:00	0.9	157.5	15/03/2024	11:00	0.9	90	16/03/2024	11:00	0.4	112.5
13/03/2024	12:00	1.8	135	14/03/2024	12:00	0.4	157.5	15/03/2024	12:00	0.4	112.5	16/03/2024	12:00	1.3	45
13/03/2024	13:00	1.3	135	14/03/2024	13:00	0.9	247.5	15/03/2024	13:00	0.4	67.5	16/03/2024	13:00	0.4	45
13/03/2024	14:00	1.3	270	14/03/2024	14:00	0.9	112.5	15/03/2024	14:00	1.3	135	16/03/2024	14:00	0.4	135
13/03/2024	15:00	1.3	247.5	14/03/2024	15:00	0.9	67.5	15/03/2024	15:00	1.3	112.5	16/03/2024	15:00	0.9	157.5
13/03/2024	16:00	1.3	270	14/03/2024	16:00	0.4	225	15/03/2024	16:00	0.9	135	16/03/2024	16:00	0.4	135
13/03/2024	17:00	1.3	247.5	14/03/2024	17:00	0.4	292.5	15/03/2024	17:00	0.4	90	16/03/2024	17:00	0.9	247.5
13/03/2024	18:00	1.3	270	14/03/2024	18:00	0.4	225	15/03/2024	18:00	0.9	112.5	16/03/2024	18:00	0.9	202.5
13/03/2024	19:00	0.4	112.5	14/03/2024	19:00	0.4	67.5	15/03/2024	19:00	0.4	90	16/03/2024	19:00	0.9	45
13/03/2024	20:00	0.4	112.5	14/03/2024	20:00	0.4	135	15/03/2024	20:00	0.4	112.5	16/03/2024	20:00	0.4	90
13/03/2024	21:00	0.4	112.5	14/03/2024	21:00	1.3	112.5	15/03/2024	21:00	0.4	112.5	16/03/2024	21:00	0.4	112.5
13/03/2024	22:00	0.9	135	14/03/2024	22:00	0.4	202.5	15/03/2024	22:00	0.4	90	16/03/2024	22:00	0.9	112.5
13/03/2024	23:00	0.4	112.5	14/03/2024	23:00	0.9	67.5	15/03/2024	23:00	0.4	90	16/03/2024	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
17/03/2024	0:00	0.9	112.5	18/03/2024	0:00	0.9	247.5	19/03/2024	0:00	0.4	67.5	20/03/2024	0:00	0.9	45
17/03/2024	1:00	0.4	247.5	18/03/2024	1:00	0.9	112.5	19/03/2024	1:00	0.9	112.5	20/03/2024	1:00	0.4	90
17/03/2024	2:00	0.4	202.5	18/03/2024	2:00	0.4	225	19/03/2024	2:00	1.3	135	20/03/2024	2:00	0.4	112.5
17/03/2024	3:00	0.9	90	18/03/2024	3:00	0.4	22.5	19/03/2024	3:00	0.4	90	20/03/2024	3:00	0.4	112.5
17/03/2024	4:00	0.9	112.5	18/03/2024	4:00	0.9	67.5	19/03/2024	4:00	0.9	90	20/03/2024	4:00	0.4	180
17/03/2024	5:00	0.4	112.5	18/03/2024	5:00	0.9	67.5	19/03/2024	5:00	0.4	337.5	20/03/2024	5:00	0.4	270
17/03/2024	6:00	0.9	135	18/03/2024	6:00	0.9	45	19/03/2024	6:00	0.9	22.5	20/03/2024	6:00	0.4	45
17/03/2024	7:00	0.4	112.5	18/03/2024	7:00	1.3	67.5	19/03/2024	7:00	1.3	112.5	20/03/2024	7:00	0.9	45
17/03/2024	8:00	0.9	112.5	18/03/2024	8:00	0.4	45	19/03/2024	8:00	0.9	112.5	20/03/2024	8:00	0.9	90
17/03/2024	9:00	0.9	112.5	18/03/2024	9:00	0.9	135	19/03/2024	9:00	0.4	225	20/03/2024	9:00	0.9	22.5
17/03/2024	10:00	0.4	112.5	18/03/2024	10:00	0.9	135	19/03/2024	10:00	1.3	67.5	20/03/2024	10:00	0.9	0
17/03/2024	11:00	0.4	292.5	18/03/2024	11:00	0.4	22.5	19/03/2024	11:00	0.9	225	20/03/2024	11:00	0.9	22.5
17/03/2024	12:00	0.9	112.5	18/03/2024	12:00	1.3	45	19/03/2024	12:00	0.9	112.4	20/03/2024	12:00	0.9	22.5
17/03/2024	13:00	0.4	225	18/03/2024	13:00	0.4	112.5	19/03/2024	13:00	1.3	112.5	20/03/2024	13:00	0.4	315
17/03/2024	14:00	0.4	315	18/03/2024	14:00	0.4	157.5	19/03/2024	14:00	0.4	90	20/03/2024	14:00	0.9	112.5
17/03/2024	15:00	0.4	112.5	18/03/2024	15:00	0.4	112.5	19/03/2024	15:00	0.9	45	20/03/2024	15:00	1.8	90
17/03/2024	16:00	0.4	112.5	18/03/2024	16:00	0.4	112.5	19/03/2024	16:00	0.9	112.5	20/03/2024	16:00	1.8	135
17/03/2024	17:00	0.9	45	18/03/2024	17:00	0.4	180	19/03/2024	17:00	0.9	90	20/03/2024	17:00	0.9	67.5
17/03/2024	18:00	0.4	67.5	18/03/2024	18:00	0.4	112.5	19/03/2024	18:00	1.3	112.5	20/03/2024	18:00	0.9	90
17/03/2024	19:00	0.9	67.5	18/03/2024	19:00	0.4	270	19/03/2024	19:00	1.3	112.5	20/03/2024	19:00	0.4	90
17/03/2024	20:00	0.9	90	18/03/2024	20:00	0.9	112.5	19/03/2024	20:00	1.3	90	20/03/2024	20:00	0.4	157.5
17/03/2024	21:00	0.9	67.5	18/03/2024	21:00	0.4	112.5	19/03/2024	21:00	1.3	112.5	20/03/2024	21:00	0.9	112.5
17/03/2024	22:00	0.9	67.5	18/03/2024	22:00	0.9	90	19/03/2024	22:00	1.8	112.5	20/03/2024	22:00	0.4	112.5
17/03/2024	23:00	0.9	112.5	18/03/2024	23:00	0.9	90	19/03/2024	23:00	1.3	112.5	20/03/2024	23:00	0.4	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
21/03/2024	0:00	0.4	112.5	22/03/2024	0:00	1.3	135	23/03/2024	0:00	1.8	112.5	24/03/2024	0:00	0.4	112.5
21/03/2024	1:00	0.4	157.5	22/03/2024	1:00	1.3	90	23/03/2024	1:00	1.3	112.5	24/03/2024	1:00	0.9	135
21/03/2024	2:00	0.4	112.5	22/03/2024	2:00	1.3	45	23/03/2024	2:00	1.8	45	24/03/2024	2:00	0.4	225
21/03/2024	3:00	0.4	112.5	22/03/2024	3:00	0.4	135	23/03/2024	3:00	1.3	337.5	24/03/2024	3:00	0.4	112.5
21/03/2024	4:00	0.4	180	22/03/2024	4:00	0.4	135	23/03/2024	4:00	0.9	112.5	24/03/2024	4:00	0.4	225
21/03/2024	5:00	0.4	112.5	22/03/2024	5:00	0.4	135	23/03/2024	5:00	1.3	112.5	24/03/2024	5:00	0.4	225
21/03/2024	6:00	0.4	270	22/03/2024	6:00	0.4	135	23/03/2024	6:00	1.3	112.5	24/03/2024	6:00	0.4	225
21/03/2024	7:00	0.9	112.5	22/03/2024	7:00	0.4	112.5	23/03/2024	7:00	0.9	67.5	24/03/2024	7:00	0.4	112.5
21/03/2024	8:00	0.4	112.5	22/03/2024	8:00	0.9	135	23/03/2024	8:00	0.9	157.5	24/03/2024	8:00	0.4	135
21/03/2024	9:00	0.9	90	22/03/2024	9:00	0.9	112.5	23/03/2024	9:00	0.9	315	24/03/2024	9:00	0.4	112.5
21/03/2024	10:00	0.9	90	22/03/2024	10:00	0.4	135	23/03/2024	10:00	0.4	90	24/03/2024	10:00	0.4	90
21/03/2024	11:00	0.4	90	22/03/2024	11:00	0.4	112.5	23/03/2024	11:00	0.4	45	24/03/2024	11:00	0.9	90
21/03/2024	12:00	1.3	315	22/03/2024	12:00	0.9	67.5	23/03/2024	12:00	0.9	90	24/03/2024	12:00	1.3	135
21/03/2024	13:00	0.9	22.5	22/03/2024	13:00	0.4	157.5	23/03/2024	13:00	1.3	90	24/03/2024	13:00	0.9	157.5
21/03/2024	14:00	0.9	22.5	22/03/2024	14:00	0.9	202.5	23/03/2024	14:00	1.8	90	24/03/2024	14:00	0.4	157.5
21/03/2024	15:00	0.9	22.5	22/03/2024	15:00	0.4	135	23/03/2024	15:00	1.3	67.5	24/03/2024	15:00	0.4	157.5
21/03/2024	16:00	0.9	22.5	22/03/2024	16:00	0.4	135	23/03/2024	16:00	1.3	90	24/03/2024	16:00	0.9	112.5
21/03/2024	17:00	0.9	112.5	22/03/2024	17:00	0.4	135	23/03/2024	17:00	1.3	45	24/03/2024	17:00	1.3	67.5
21/03/2024	18:00	0.9	45	22/03/2024	18:00	0.4	135	23/03/2024	18:00	0.4	202.5	24/03/2024	18:00	0.4	45
21/03/2024	19:00	0.9	135	22/03/2024	19:00	0.4	112.5	23/03/2024	19:00	0.9	67.5	24/03/2024	19:00	1.3	112.5
21/03/2024	20:00	1.3	180	22/03/2024	20:00	0.9	67.5	23/03/2024	20:00	0.4	90	24/03/2024	20:00	0.9	45
21/03/2024	21:00	1.3	112.5	22/03/2024	21:00	0.9	67.5	23/03/2024	21:00	0.9	90	24/03/2024	21:00	1.3	90
21/03/2024	22:00	0.9	112.5	22/03/2024	22:00	1.8	270	23/03/2024	22:00	0.9	135	24/03/2024	22:00	0.9	45
21/03/2024	23:00	0.9	135	22/03/2024	23:00	0.9	112.5	23/03/2024	23:00	0.4	135	24/03/2024	23:00	0.4	67.5

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
25/03/2024	0:00	0.9	90	26/03/2024	0:00	0.9	135	27/03/2024	0:00	0.9	90	28/03/2024	0:00	0.9	247.5
25/03/2024	1:00	0.9	22.5	26/03/2024	1:00	0.4	45	27/03/2024	1:00	0.9	90	28/03/2024	1:00	0.9	112.5
25/03/2024	2:00	0.9	90	26/03/2024	2:00	0.4	315	27/03/2024	2:00	0.9	90	28/03/2024	2:00	0.4	112.5
25/03/2024	3:00	0.9	45	26/03/2024	3:00	0.4	22.5	27/03/2024	3:00	1.3	67.5	28/03/2024	3:00	0.4	112.5
25/03/2024	4:00	1.3	90	26/03/2024	4:00	0.9	112.5	27/03/2024	4:00	0.9	67.5	28/03/2024	4:00	0.9	135
25/03/2024	5:00	1.3	90	26/03/2024	5:00	0.4	67.5	27/03/2024	5:00	0.9	135	28/03/2024	5:00	0.4	112.5
25/03/2024	6:00	1.3	22.5	26/03/2024	6:00	0.4	67.5	27/03/2024	6:00	0.4	135	28/03/2024	6:00	0.9	90
25/03/2024	7:00	0.4	315	26/03/2024	7:00	0.9	90	27/03/2024	7:00	0.4	135	28/03/2024	7:00	1.3	90
25/03/2024	8:00	0.4	45	26/03/2024	8:00	0.9	90	27/03/2024	8:00	0.4	90	28/03/2024	8:00	1.3	112.5
25/03/2024	9:00	0.9	22.5	26/03/2024	9:00	0.4	90	27/03/2024	9:00	0.9	292.5	28/03/2024	9:00	0.4	90
25/03/2024	10:00	0.9	292.5	26/03/2024	10:00	0.9	90	27/03/2024	10:00	0.9	247.5	28/03/2024	10:00	0.9	135
25/03/2024	11:00	0.4	67.5	26/03/2024	11:00	0.9	22.5	27/03/2024	11:00	0.4	270	28/03/2024	11:00	0.9	180
25/03/2024	12:00	0.4	112.5	26/03/2024	12:00	0.9	90	27/03/2024	12:00	0.4	270	28/03/2024	12:00	1.3	180
25/03/2024	13:00	0.4	112.5	26/03/2024	13:00	0.9	45	27/03/2024	13:00	0.9	67.5	28/03/2024	13:00	0.4	90
25/03/2024	14:00	0.4	90	26/03/2024	14:00	1.3	90	27/03/2024	14:00	0.9	67.5	28/03/2024	14:00	0.4	90
25/03/2024	15:00	1.3	315	26/03/2024	15:00	1.3	90	27/03/2024	15:00	0.9	112.5	28/03/2024	15:00	0.9	112.5
25/03/2024	16:00	1.8	337.5	26/03/2024	16:00	1.3	22.5	27/03/2024	16:00	0.9	90	28/03/2024	16:00	0.9	112.5
25/03/2024	17:00	0.4	135	26/03/2024	17:00	0.9	22.5	27/03/2024	17:00	0.4	90	28/03/2024	17:00	0.9	112.5
25/03/2024	18:00	0.4	337.5	26/03/2024	18:00	0.9	22.5	27/03/2024	18:00	0.9	112.5	28/03/2024	18:00	1.3	157.5
25/03/2024	19:00	0.9	135	26/03/2024	19:00	0.9	22.5	27/03/2024	19:00	1.3	45	28/03/2024	19:00	1.3	67.5
25/03/2024	20:00	0.9	112.5	26/03/2024	20:00	0.4	45	27/03/2024	20:00	0.9	67.5	28/03/2024	20:00	0.9	45
25/03/2024	21:00	0.4	112.5	26/03/2024	21:00	0.9	337.5	27/03/2024	21:00	0.4	135	28/03/2024	21:00	0.9	67.5
25/03/2024	22:00	0.9	112.5	26/03/2024	22:00	0.9	112.5	27/03/2024	22:00	0.4	90	28/03/2024	22:00	0.4	90
25/03/2024	23:00	0.4	112.5	26/03/2024	23:00	1.3	225	27/03/2024	23:00	0.9	90	28/03/2024	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
29/03/2024	0:00	0.4	90	30/03/2023	0:00	0.9	270	31/03/2023	0:00	0.4	90				
29/03/2024	1:00	1.3	135	30/03/2023	1:00	0.9	315	31/03/2023	1:00	0.4	112.5				
29/03/2024	2:00	1.3	90	30/03/2023	2:00	0.9	45	31/03/2023	2:00	0.9	112.5				
29/03/2024	3:00	0.9	112.5	30/03/2023	3:00	0.9	67.5	31/03/2023	3:00	0.4	157.5				
29/03/2024	4:00	0.4	112.5	30/03/2023	4:00	0.9	135	31/03/2023	4:00	0.9	90				
29/03/2024	5:00	0.4	135	30/03/2023	5:00	1.8	337.5	31/03/2023	5:00	0.9	90				
29/03/2024	6:00	0.4	90	30/03/2023	6:00	1.3	45	31/03/2023	6:00	1.3	112.5				
29/03/2024	7:00	0.9	180	30/03/2023	7:00	1.3	22.5	31/03/2023	7:00	0.9	90				
29/03/2024	8:00	0.4	67.5	30/03/2023	8:00	0.9	337.5	31/03/2023	8:00	0.9	112.5				
29/03/2024	9:00	0.4	67.5	30/03/2023	9:00	0.9	315	31/03/2023	9:00	0.4	90				
29/03/2024	10:00	0.4	67.5	30/03/2023	10:00	1.3	45	31/03/2023	10:00	0.4	90				
29/03/2024	11:00	0.4	67.5	30/03/2023	11:00	1.3	315	31/03/2023	11:00	0.9	90				
29/03/2024	12:00	0.4	135	30/03/2023	12:00	1.3	90	31/03/2023	12:00	1.3	45				
29/03/2024	13:00	0.4	157.5	30/03/2023	13:00	0.9	67.5	31/03/2023	13:00	0.9	45				
29/03/2024	14:00	0.9	45	30/03/2023	14:00	0.9	135	31/03/2023	14:00	0.9	270				
29/03/2024	15:00	0.4	90	30/03/2023	15:00	1.3	315	31/03/2023	15:00	0.9	337.5				
29/03/2024	16:00	0.4	90	30/03/2023	16:00	1.3	90	31/03/2023	16:00	0.4	45				
29/03/2024	17:00	0.4	90	30/03/2023	17:00	0.4	157.5	31/03/2023	17:00	0.9	247.5				
29/03/2024	18:00	0.4	225	30/03/2023	18:00	0.9	112.5	31/03/2023	18:00	0.4	315				
29/03/2024	19:00	0.4	270	30/03/2023	19:00	0.4	112.5	31/03/2023	19:00	0.4	157.5				
29/03/2024	20:00	0.4	247.5	30/03/2023	20:00	0.9	90	31/03/2023	20:00	1.3	112.5				
29/03/2024	21:00	0.4	247.5	30/03/2023	21:00	0.4	112.5	31/03/2023	21:00	1.8	112.5				
29/03/2024	22:00	0.9	90	30/03/2023	22:00	0.9	135	31/03/2023	22:00	1.3	112.5				
29/03/2024	23:00	0.4	135	30/03/2023	23:00	1.3	157.5	31/03/2023	23:00	0.9	112.5				

Appendix H – 24-hr TSP monitoring results and graphical presentation

Location: AM3 – Sky Tower

Start Date	Weather	Air Temp. (°C)	Atmospheric Pressure (hPa)	Filter weight (g)		Particulate weight (g)	Elapse Time		Sampling Time (min)	Flow Rate (cfm)		Av. Flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
				Initial	Final		Initial	Final		Initial	Final			
02/03/2024	Cloudy	15.3	1022.2	14.2694	14.3419	0.0725	2024/3/2 9:24	2024/3/3 9:24	1440	50	50	1.41	2034	36
08/03/2024	Cloudy	22.4	1018.8	14.3246	14.4788	0.1542	2024/3/8 13:32	2024/3/9 13:32	1440	50	50	1.39	2005	77
14/03/2024	Sunny	21.2	1017.3	14.4666	14.6083	0.1417	2024/3/14 13:26	2024/3/15 13:26	1440	50	50	1.39	2008	71
20/03/2024	Sunny	22.7	1022.4	18.4657	18.6621	0.1964	2024/3/20 9:32	2024/3/21 9:32	1440	50	50	1.39	2008	98
25/03/2024	Sunny	25.5	1014.5	18.4669	18.5863	0.1194	2024/3/25 9:36	2024/3/26 9:36	1440	50	50	1.38	1990	60
28/03/2024	Sunny	27.9	1013.9	14.4568	14.5567	0.0999	2024/3/28 13:26	2024/3/29 13:26	1440	50	50	1.38	1981	50
													Maximum	98
													Minimum	36
													Average	65
													Action Level	182
													Limit Level	260

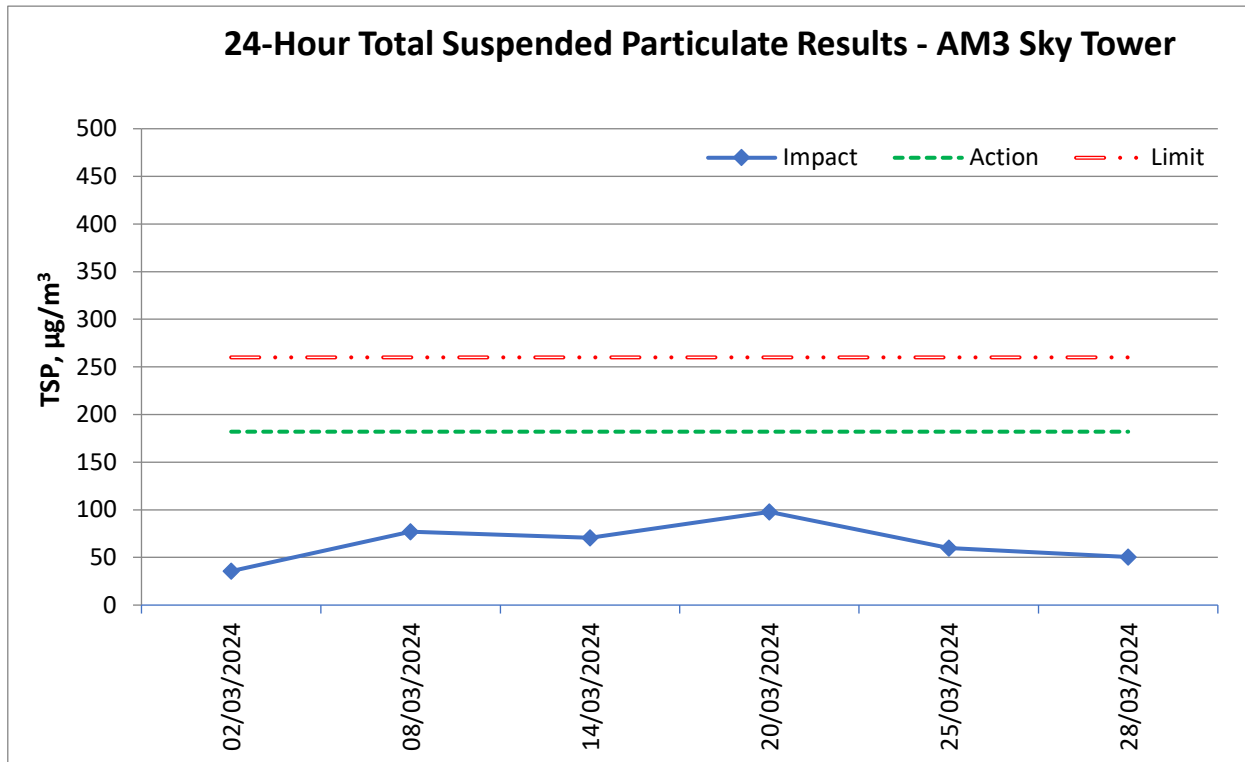
Location: AM4(A) - The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop

Due to the relocation of The Hong Kong Society for the Blind’s Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A) ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

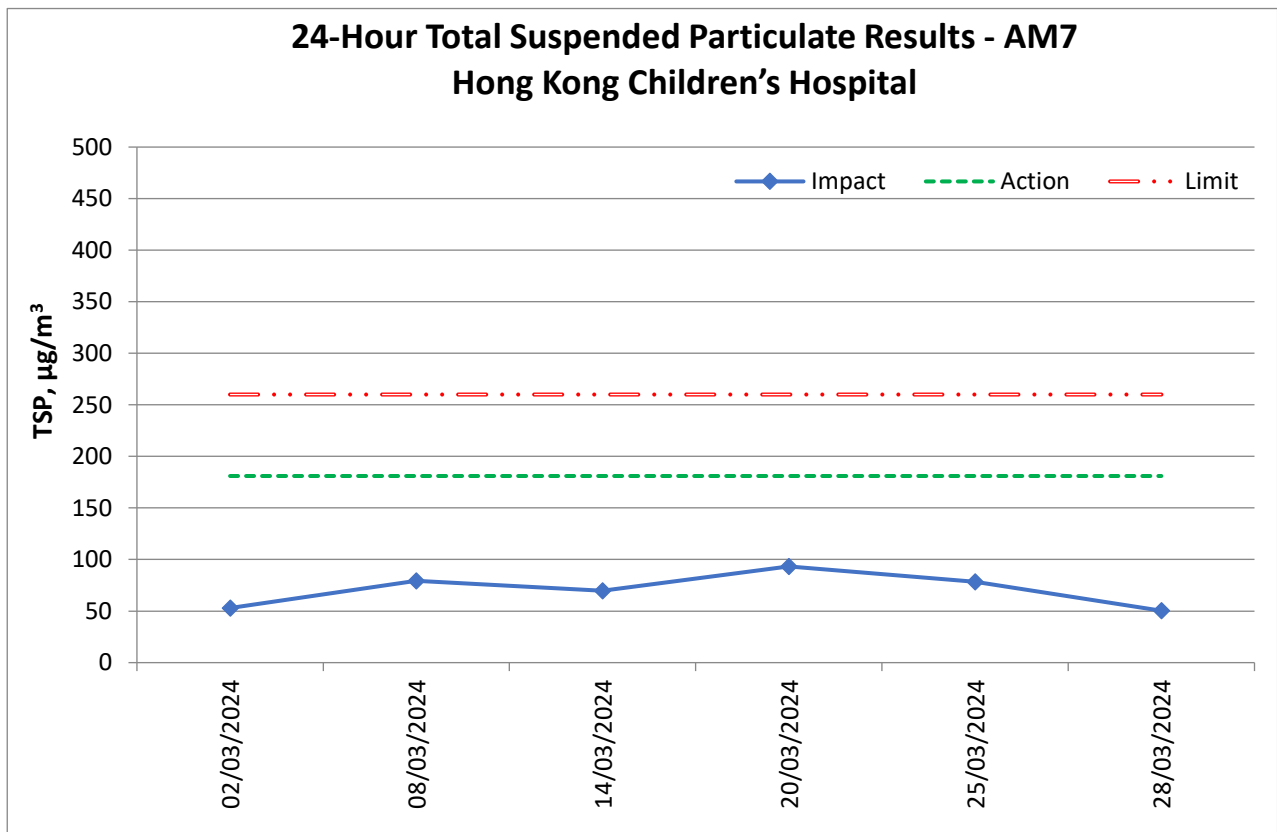
Location: AM7 – Hong Kong Children’s Hospital

Start Date	Weather	Air Temp. (°C)	Atmospheric Pressure (hPa)	Filter weight (g)		Particulate weight (g)	Elapse Time		Sampling Time (min)	Flow Rate (cfm)		Av. Flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
				Initial	Final		Initial	Final		Initial	Final			
02/03/2024	Cloudy	15.3	1022.2	18.1442	18.2541	0.1099	2024/3/2 9:26	2024/3/3 9:26	1440	50	50	1.44	2079	53
08/03/2024	Cloudy	22.4	1018.8	14.5867	14.7493	0.1626	2024/3/8 13:15	2024/3/9 13:15	1440	50	50	1.42	2050	79
14/03/2024	Sunny	21.2	1017.3	14.5055	14.6485	0.1430	2024/3/14 13:31	2024/3/15 13:31	1440	50	50	1.43	2053	70
20/03/2024	Sunny	22.7	1022.4	14.3972	14.5964	0.1992	2024/3/20 9:34	2024/3/21 9:34	1440	52	52	1.48	2135	93
25/03/2024	Sunny	25.5	1014.5	18.4803	18.6463	0.1660	2024/3/25 9:31	2024/3/26 9:31	1440	52	52	1.47	2117	78
28/03/2024	Sunny	27.9	1013.9	14.2374	14.3394	0.1020	2024/3/28 13:36	2024/3/29 13:36	1440	50	50	1.41	2027	50
													Maximum	93
													Minimum	50
													Average	71
													Action Level	181
													Limit Level	260

24-hour average TSP



Note: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. No 24-TSP monitoring was conducted at AM4(A). ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.



Appendix I – 1-hr TSP monitoring results and graphical presentation

Location:
**AM3 -
 Sky Tower**

Date	Measurement Period			1-hr TSP concentration, g/m ³	Weather
02/03/2024	9:00	-	10:00	33	Cloudy
	10:00	-	11:00	34	
	11:00	-	12:00	37	
08/03/2024	13:00	-	14:00	66	Cloudy
	14:00	-	15:00	68	
	15:00	-	16:00	70	
14/03/2024	13:00	-	14:00	69	Sunny
	14:00	-	15:00	72	
	15:00	-	16:00	70	
20/03/2024	9:00	-	10:00	86	Sunny
	10:00	-	11:00	90	
	11:00	-	12:00	90	
25/03/2024	9:00	-	10:00	70	Sunny
	10:00	-	11:00	74	
	11:00	-	12:00	74	
28/03/2024	13:00	-	14:00	47	Sunny
	14:00	-	15:00	48	
	15:00	-	16:00	44	
Maximum				90	
Minimum				33	
Average				63	
Action Level				297	
Limit Level				500	

Location:
**AM4(A) -
The Hong Kong
Society for the
Blind's Factory
cum Sheltered
Workshop**

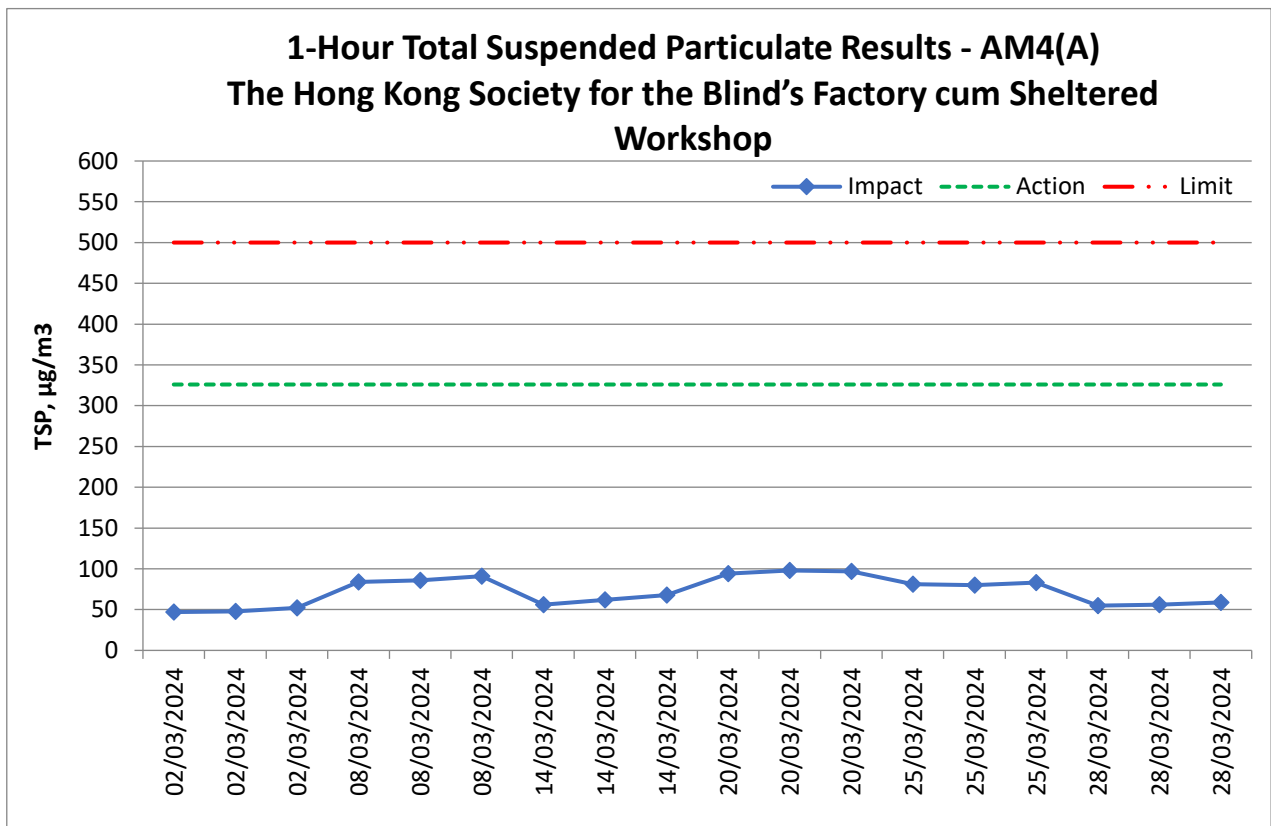
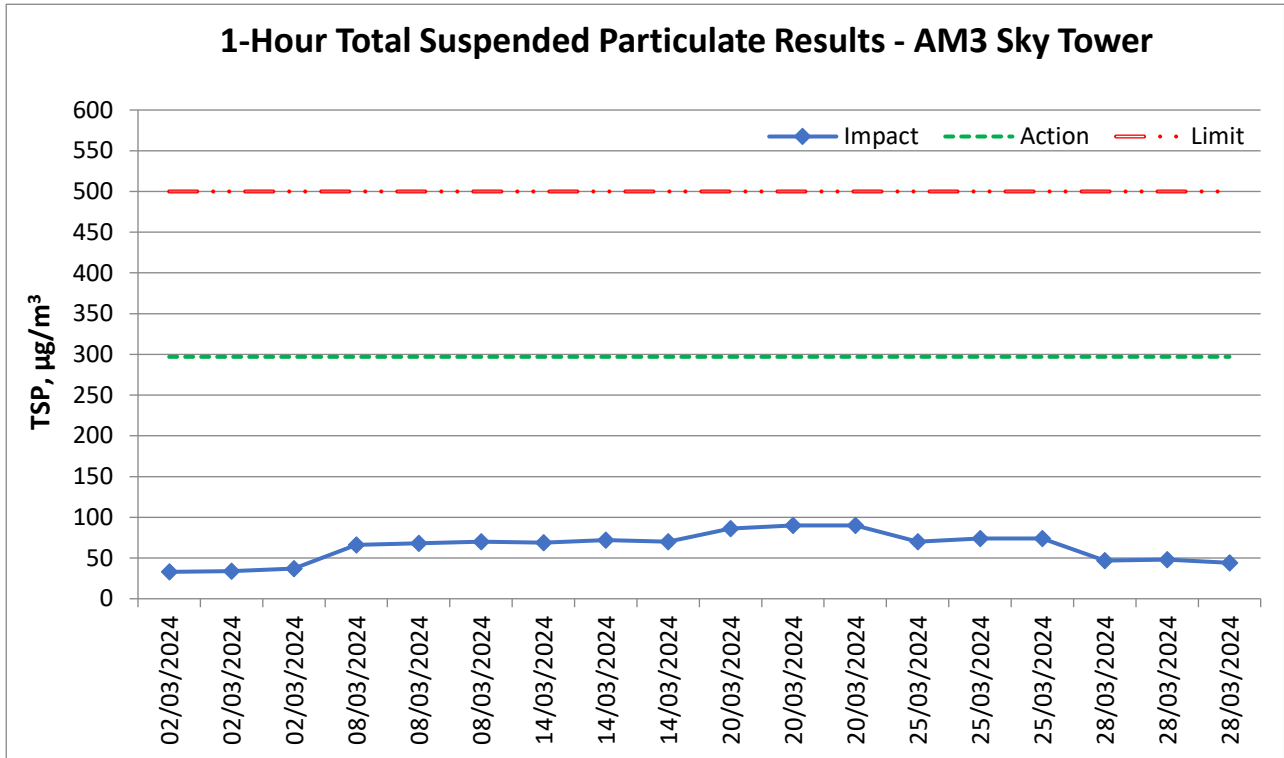
Date	Measurement Period			1-hr TSP concentration, $\mu\text{g}/\text{m}^3$	Weather
02/03/2024	13:00	-	14:00	47	Cloudy
	14:00	-	15:00	48	
	15:00	-	16:00	52	
08/03/2024	9:00	-	10:00	84	Cloudy
	10:00	-	11:00	86	
	11:00	-	12:00	91	
14/03/2024	9:00	-	10:00	56	Sunny
	10:00	-	11:00	62	
	11:00	-	12:00	68	
20/03/2024	13:30	-	14:30	94	Sunny
	14:30	-	15:30	98	
	15:30	-	16:30	97	
25/03/2024	13:00	-	14:00	81	Sunny
	14:00	-	15:00	80	
	15:00	-	16:00	83	
28/03/2024	9:00	-	10:00	55	Sunny
	10:00	-	11:00	56	
	11:00	-	12:00	59	
Maximum				98	
Minimum				47	
Average				72	
Action Level				326	
Limit Level				500	

NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

Location:
**AM7 -
 Hong Kong
 Children's
 Hospital**

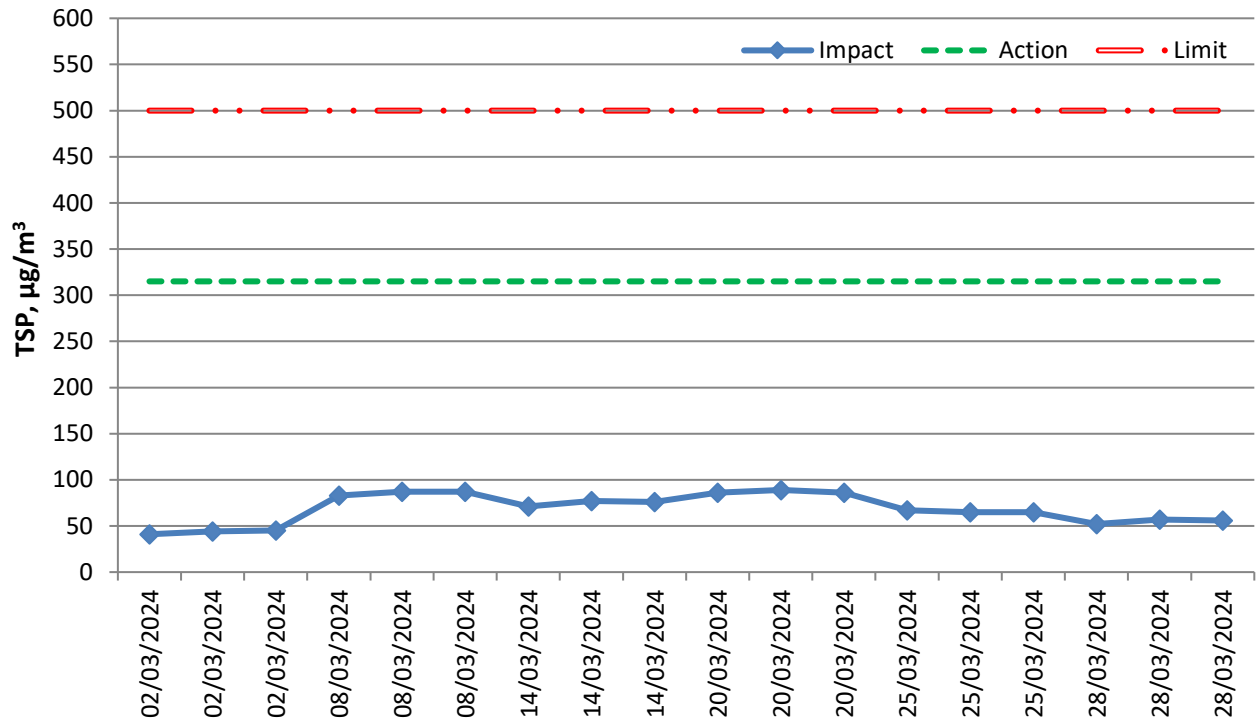
Date	Measurement Period			1-hr TSP concentration, $\mu\text{g}/\text{m}^3$	Weather
02/03/2024	9:00	-	10:00	41	Cloudy
	10:00	-	11:00	44	
	11:00	-	12:00	45	
08/03/2024	13:00	-	14:00	83	Cloudy
	14:00	-	15:00	87	
	15:00	-	16:00	87	
14/03/2024	13:00	-	14:00	71	Sunny
	14:00	-	15:00	77	
	15:00	-	16:00	76	
20/03/2024	9:00	-	10:00	86	Sunny
	10:00	-	11:00	89	
	11:00	-	12:00	86	
25/03/2024	9:00	-	10:00	67	Sunny
	10:00	-	11:00	65	
	11:00	-	12:00	65	
28/03/2024	13:00	-	14:00	52	Sunny
	14:00	-	15:00	57	
	15:00	-	16:00	56	
Maximum				89	
Minimum				41	
Average				69	
Action Level				315	
Limit Level				500	

1-hour average TSP



NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (AM4(A)), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 1-hr TSP monitoring at AM4(A) were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for AM4(A) is confirmed.

1-Hour Total Suspended Particulate Results - AM7 Hong Kong Children's Hospital



Appendix J – Event and Action Plan for air quality

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

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

Appendix K – Calibration certificates, catalogue of noise monitoring equipment

Catalogue of Sound Level Meter

Specifications

	NL-52	NL-42
Applicable standards	IEC 61672-1: 2002 Class 1 ANSI S1.4-1983 Type 1 ANSI S1.4A-1985 Type 1 ANSI S1.43-1997 Type 1 JIS C 1509-1: 2005 Class 1	IEC 61672-1: 2002 Class 2 ANSI S1.4-1983 Type 2 ANSI S1.4A-1985 Type 2 ANSI S1.43-1997 Type 2 JIS C 1509-1: 2005 Class 2
Measurement functions	Simultaneous measurement of the following items, with selected time weighting and frequency weighting WEEE Directives, Chinese RoHS (export model for China only)	
Processing (main ch)	Instantaneous sound pressure level: L_p Equivalent continuous sound pressure level: L_{eq} Sound exposure level: L_E Maximum sound pressure level: L_{max} Minimum sound pressure level: L_{min} Percentage sound levels: L_N (0.1 to 99.9%, 0.1-increment steps, max. 5 values)	
Processing (sub ch)	Instantaneous sound pressure level: L_p	
Additional processing	In addition to main processing items, one of the following can be selected for simultaneous processing: C-weighted equivalent continuous sound level: L_{Ceq} C-weighted peak sound level: L_{Cpeak} Z-weighted peak sound level: L_{Zpeak} 1-time-weighted equivalent continuous sound level: L_{A1eq}^{*2} Maximum 1-time-weighted equivalent continuous sound level: L_{A1max}^{*2} The power average of the maximum level of each 5 second interval: L_{A1a5} The frequency weighting for the additional processing synchronizes with the frequency weighting of the sub-channel, so when the sub-channel has A-weighting, L_{A1a5} can be selected. When C-weighting (Z-weighting) is selected, the additional processing L_{Ceq} and L_{Cpeak} (L_{Zpeak}) are selectable.	
Measuring time	10 s, 1, 5, 10, 15, 30 m, 1, 8, 24 h, and manual (maximum 24 h)	
Microphone	Type UC-59 UC-52 Sensitivity level -27 dB -33 dB	
Measurement range	A-weighting: 25 dB to 138 dB C-weighting: 33 dB to 138 dB Z-weighting: 38 dB to 138 dB C-weighting peak sound level: 55 dB to 141 dB Z-weighting peak sound level: 60 dB to 141 dB	
Inherent noise	A-weighting 17 dB or less C-weighting 25 dB or less Z-weighting 30 dB or less	19 dB or less 27 dB or less 32 dB or less
Frequency range	20 Hz to 20 kHz	20 Hz to 8 kHz
Frequency weighting	A, C, and Z	
Time weighting	F (Fast) and S (Slow)	
Level range	Single range (Linearity range: 113 dB) Bar graph display range max. Max. 110 dB (20 to 130 dB) Switching of bar graph display Set the upper/lower limit in 10 dB increments.	
RMS detection circuit	Digital processing method	
Sampling cycle	20.8 μ s (L_p , L_{eq} , L_E , L_{max} , L_{min} , L_{peak} : sampling frequency: 48 kHz) 100 ms (L_N)	
Calibration	Measurement Law: electrical calibration performed according to IEC and JIS standards, using internally generated signals; acoustic calibration performed with the NC-74.	
Correction functions	Windscreen correction: Compliant with IEC 61672-1 and JIS C 1509-1 standards when the windscreen is installed. Diffuse sound field correction: Correction of frequency characteristics in order to comply with standards (ANSI S1.4) in diffuse sound field.	
Delay time	The meter can be set to start measuring a specified time (OFF, 1, 3, 5 or 10 s) after the start button has been pressed or when a user-set trigger is exceeded.	
Back erase function	When the PAUSE key is pressed to pause measurement, the preceding (user selectable) 0, 1, 3 or 5 s data are excluded from processing.	
Display	Backlit semitransparent color TFT LCD display WQVGA (400 x 240 dots) * LCD with touch panel (Capacitive Touch Panel) Numerical display update frequency: 1 s Bar graph update frequency: 100 ms	
Store	Manual Number of data Internal memory: max. 1000 sets SD Card: depends on the capacity of the SD Card*1	Auto*2 Instantaneous values (L_p mode) and processed values (L_{eq} mode) are stored continuously and automatically at preset intervals. LP sampling cycle 100 ms, 200 ms, 1 s, L_{eq} 1s Leq sampling cycle 10 s, 1, 5, 10, 15, 30 ms, 1, 8, 24 h Measurement Time Max. 1000 h (depends on the capacity of the SD Card)*1

* Windows is a trademark of Microsoft Corporation.
* Specifications subject to change without notice.

Distributed by:

This product is environment-friendly. It does not include toxic chemicals on our policy.
This product is certified as an International Protection rating of IP54 (dust protected and resistant to splashing water).
This leaflet is printed with environmentally friendly vegetable-based ink on recycled paper.

1011-4 212 P.D

Data recall	Allows viewing of stored data
Setup memory	Up to five setup configurations can be saved in internal memory, for later recall Start up via file settings previously stored on SD card possible
Waveform recording*3	
File format	Uncompressed waveform WAVE file
Sampling frequency	Select 48 kHz, 24 kHz or 12 kHz
Data length	Select 24 bit or 16 bit
Outputs	
DC output	Output DC signals using a frequency weighting characteristic selected by processing
Output voltage	2.5 V, 25 mV / dB at bar graph display full scale
AC output	Output AC signals using a frequency weighting characteristic selected by processing or by A, C, Z-weighting.
Output voltage	1 V (rms values) at bar graph display full scale
Comparator output*2	Turns on when the open-collector output exceeds the set value (max. applied voltage 24 V, max. current 60 mA, allowable dissipation 300 mW).
USB*2	Allows USB to be connected to a computer and recognized as a removable disk Allows USB to be controlled via communication commands
RS-232C communication	Allows for RS-232C communication via use of a dedicated cable
Data continuous output*2	
Type of data	Instantaneous value L_p Processed value L_{eq} , L_{max} , L_{min} , L_{peak}
Output interval	100 ms
Print out	Printing of measurement results on dedicated printer DPU-414
Power requirements	Four IEC R6 (size AA) batteries (alkaline or rechargeable batteries) or external power supply
Battery life (23 °C)	Alkaline battery LR6 (AA): 26 h NI-MH secondary battery: 25 h At the maximum: * Depends on the setting
AC adapter	NC-98C (NC-34 for previous models cannot be used)
External power voltage	5 to 7 V (rated voltage: 6 V)
Current consumption	Approximately 90 mA (normal operation, rated voltage)
Ambient conditions	Temperature: -10 to +50 °C Humidity: 10 to 90% RH (non-condensing)
Dustproof / water-resistant performance*4	IP code: IP54 (except for microphone) See precautions regarding waterproofing
Dimensions, weight	Approx. 250 (H) x 76 (W) x 33 mm(D), approx. 400 g (with batteries)
Supplied accessories	Storage case x 1, Windscreen WS-10 x 1, Windscreen fall prevention rubber x 1, Hand strap x 1, LR6 (AA) alkaline batteries x 4, SD card 512 MB x 1 (NX-42EX preinstalled model only)

Options

	Product name	Product number
Extended function program (Inst.on 512 MB SD card)		NX-42EX
Waveform recording program*2 (Inst.on 2 GB SD card)		NX-42WR
Octave, 1/3 octave real-time analysis program*2 (Inst.on 512 MB SD card)		NX-42RT
FFT analysis program*2 (Inst.on 512 MB SD card)		NX-42FT
Data management software for environmental measurement		AS-60
Data management software for environmental measurement (Includes the octave and 1/3 octave data management software)		AS-60RT
Data management software for environmental measurement (Includes the vibration level data management software)		AS-60VM
Waveform analysis software		CAT-WAVE
SD Card 512 MB		SD-512M
SD Card 2 GB		SD-2G
AC adapter (100 V to 240 V)		NC-98C
Battery pack		BP-21
Microphone extension cables		EC-04 (from 2 m)
BNC-Pin output code		CC-24
Comparator output cable		CC-42C
Printer		DPU-414
Printer cable		CC-42P
RS 232C serial I/O cable		CC-42R
USB cable		—
Sound calibrator		NC-74
All-weather windscreen		WS-15
Windscreen mounting adapter		WS-15006
Rain-protection windscreen		WS-16
Sound level meter tripod		ST-80
All-weather windscreen tripod		ST-81

*1 Use Rion fully guaranteed products. *2 NX-42EX required (sold separately). *3 NX-42WR required (sold separately).
*4 Protection against harmful dust and water splashing from any direction.

Precautions regarding waterproofing

Before use, verify that the rubber bottom cover and the battery compartment lid are firmly closed.
To maintain the water and dust proof rating, internal packing replacement is required every two years (at cost).



RION CO., LTD.
http://www.rion.co.jp/english/

3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
Tel: +81-42-359-7888 Fax: +81-42-359-7442

Calibration Certificate of Sound Level Meter

 中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校准证书 CALIBRATION CERTIFICATE

证书编号: 2HB23001488-0004
Certificate No. 



委托单位: Castco Testing Centre Limited
Client
仪器名称: Sound Level Meter
Description
型号规格: NL-52
Model/Type
制造商: RION
Manufacturer
机身号: 01287681
Serial No.
管理号: AAST-SLM-12
Asset No.
接收日期: 2023-07-28 校准日期: 2023-08-07
Rec. Date Cal. Date
签发日期: 2023-08-08 建议校准周期: 12个月(12 months)
App. Date Reference Cal. Period
结论: 所校准项目符合技术要求(The calibrated items meet the technical requirements)
Conclusion

校准: 赵文钰 赵文钰
Calibrated by
签发: 郑木力 郑木力
Approved by

核验: 钟灏 钟灏
Inspected by
印章: Stamp



赛宝计量检测中心
总部地址: 广州市增城区朱村街朱村大道西78号
实验室地址: 广州市增城区朱村街朱村大道西78号
客服电话: 020-87237633 传真: 020-87236189
投诉电话: 020-87236896
邮件: cal@ceprei.com
网址: www.ceprei-cal.com

CEPREI Calibration and Testing Centre
HQ Addr: No.78,Zhuacun Avenue West,Zengcheng District,Guangzhou,China
Add. of the Lab: No.78,Zhuacun Avenue West,Zengcheng District,Guangzhou,China
Service Tel: 020-87237633 Fax: 020-87236189
Complaint Tel: 020-87236896
Email: cal@ceprei.com
Website: www.ceprei-cal.com

第 1 页,共 9 页
Page of

证书编号(Certificate No.): 2HB23001488-0004

说明 DIRECTIONS

1. 本机构质量管理体系符合ISO/IEC 17025:2017标准的要求, 获得中国合格评定国家认可委员会 (CNAS) 认可, 认可证书号为: CNAS L13344。
This laboratory quality management system meets the ISO/IEC 17025:2017 and is accredited by the China National Accreditation Service for Conformity Assessment, No. CNAS L13344.

2. 本机构出具的数据均可溯源到国际单位制 (SI) 单位和社会公用计量标准。
The data issued by this laboratory is traceable to International system of Units (SI) and national primary standards.

3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes):
* JJG 188-2017 声级计检定规程: Sound pressure level: (20~130)dB; Frequency Weighting: (20~130)dB, (10 Hz~20kHz)
* 详细内容请查看CNAS网站中注册编号为L13344的证书附件, 超出范围的内容未被认可, 其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)

4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

名称 (Description)	证书号/有效期/溯源单位 (Certificate No./Due Date/Traceability to)	技术指标 (Specification)	测量范围 (Measuring Range)
实验室标准传声器(2246 093)	GFJGJL1001230304187/2024-04-13/航空304所	$U= (0.05-0.20)dB (k=2)$	10Hz~20kHz
正弦信号发生器(243165 6)	4GC22000542-0057/2023-10-26/赛宝(广州)	$f: \pm 1mHz$; 失真度: Distortion: <-70dB	$f: 0.001Hz \sim 200kHz$; $U: 100\mu V \sim 5Vrms$
前置放大器(3194482)	4GC22000429-0039/2023-08-29/赛宝(广州)	$\pm 0.1dB$	10Hz~50kHz
数字多用表(MY5300648 3)	4GC22000447-0003/2023-09-26/赛宝(广州)	DCV: $\pm 0.0035\%$; ACV: $\pm 0.06\%$; DCI: $\pm 0.05\%$; ACI: $\pm 0.1\%$; R: $\pm 0.01\%$; f: $\pm 0.001\%$	DCV:(0~1000)V; ACV:(0.001~750)V@(3Hz~300kHz); DCI:(0~3)A; ACI:(0~3)A@(3Hz~5kHz); R:(0~100)M Ω ; f: 3Hz~300kHz
功率放大器(2536312)	4GC22000600-0093/2023-11-30/赛宝(广州)	频率响应: $\pm 1dB$, 失真度: <0.2%	20Hz~50kHz
PULSE分析系统(3160-06540)	4GC23000001-0137/2024-01-03/赛宝(广州)	频率: $U_{ref}=0.001\%$, $k=2$; 电压: $U_{ref}=0.10\%$, $k=2$	频率: 0.001Hz~51.2kHz 电压: $(1 \cdot 10^7 \sim 30)V$
声校准器(2272351)	4GC22000600-0073/2023-11-29/赛宝(广州)	1级 First Level	31.5Hz~16kHz

5. 校准地点(The calibration place):
广州市增城区朱村街朱村大道西78号9栋110室

6. 环境条件(Environmental conditions):
温度(Temperature): 25.3°C 相对湿度(Relative Humidity): 65%

7. 本证书中给出的扩展不确定度依据JJF1059.1-2012《测量不确定度的评定与表示》评定, 由合成标准不确定度乘以包含概率约为95%时对应的包含因子k得到。
The extended uncertainty given in this certificate is evaluated according to JJF1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor k which corresponding to the coverage probability about 95%.

8. 证书中"P"、"合格"代表"测量结果在允许范围内", "F"、"不合格"代表"测量结果不在允许范围内", "N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考, 使用人员应结合实际测量的要求合理使用, 如考虑测量结果测量不确定度的影响等。
"P" and "Pass" in this certificate stand for "Low Limit: the measured value \leq High Limit", "F" and "Fail" stand for "the measured value < Low Limit or the measured value > High Limit", "N/A" stands for "Not Applicable or the technical specification has not been confirmed etc". The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.

第 3 页,共 9 页
Page of

Calibration Certificate of Sound Level Meter

9. 建议校准周期是本实验室依据本证书报告的技术依据和仪器设备常规使用条件给出的建议, 供委托方参考。委托方可以根据实际使用情况自行决定样品的校准周期。
 The reference calibration period is based on the reference documents and normal operating conditions of the calibrated instrument. It is only for reference. The client may decide the calibration period of the instrument according to the actual use.



注: 1. 本证书未经本机构书面授权, 不得部分复制。(The certificate shall not be partly reproduced without written approval of the laboratory.)
 2. 本次校准结果仅与被校物有关。(The results are only related to the items calibrated.)
 3. “委托方”、“委托方联络信息”由委托方提供, “制造厂”、“型号规格”、“出厂编号”以及“设备编号”为仪器上标注, 委托方对上面内容如有异议, 须在收到证书后二十个工作日内提出。
 The information Client and Contact Information are provided by client, and the Manufacturer, Model/Type, Serial No. and Equipment No. are marked on the items. Client shall submit any objection within 20 working days after receiving the certificate for the information above.



证书编号(Certificate No.): 2HB23001488-0004

1 外观与工作正常性检查 (Appearance and Function Check)

无影响证书中测量结果准确度的因素和缺陷。

There are no factor and defect that affect the measurement result accuracy of the certificate.

2 指示声级调整 (Indication SPL Calibration)

频率(Frequency)=1000Hz

传声器型号 (Microphone Type)	传声器编号 (Microphone SN.)	放大器型号 (Preamplifier Type)	放大器编号 (Preamplifier SN.)
/	/	/	/

声校准器型号 (Calibrator Type)	标准声压级 (Reference SPL) (dB)	校准前示值 (Before Calibration) (dB)	校准后示值 (After Calibration) (dB)	U (k=2) (dB)
4226	94.0	94.0	94.0	0.2

3 级线性 (Level Linearity)

3.1 参考级量程 (Reference Range)

频率(Frequency): 8000Hz

标准声级 (Standard) (dB)	指示声级 (Indication) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail) (P/F)	U (k=2) (dB)
130.0	129.8	-0.2	±0.8	P	0.3
129.0	128.8	-0.2	±0.8	P	0.3
128.0	127.8	-0.2	±0.8	P	0.3
127.0	126.8	-0.2	±0.8	P	0.3
126.0	125.9	-0.1	±0.8	P	0.3
125.0	124.9	-0.1	±0.8	P	0.3
120.0	119.9	-0.1	±0.8	P	0.3
110.0	110.0	0.0	±0.8	P	0.3
100.0	100.0	0.0	±0.8	P	0.3
90.0	90.0	0.0	±0.8	P	0.3
80.0	79.9	-0.1	±0.8	P	0.3
70.0	69.9	-0.1	±0.8	P	0.3
60.0	60.0	0.0	±0.8	P	0.3
50.0	49.9	-0.1	±0.8	P	0.3
40.0	39.9	-0.1	±0.8	P	0.3
35.0	34.8	-0.2	±0.8	P	0.3
34.0	33.8	-0.2	±0.8	P	0.3
33.0	32.9	-0.1	±0.8	P	0.3
32.0	31.8	-0.2	±0.8	P	0.3
31.0	30.8	-0.2	±0.8	P	0.3
30.0	29.8	-0.2	±0.8	P	0.3

Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0004

3.2 其它级量程 (Other Range)

频率(Frequency): 1000Hz

标准声级 (Standard) (dB)	指示声级 (Indication) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail) (P/F)	U (k=2) (dB)
130.0	129.9	-0.1	±0.8	P	0.3
129.0	128.9	-0.1	±0.8	P	0.3
128.0	127.9	-0.1	±0.8	P	0.3
127.0	126.9	-0.1	±0.8	P	0.3
126.0	125.9	-0.1	±0.8	P	0.3
125.0	124.9	-0.1	±0.8	P	0.3
120.0	120.0	0.0	±0.8	P	0.3
110.0	110.0	0.0	±0.8	P	0.3
100.0	100.0	0.0	±0.8	P	0.3
90.0	90.0	0.0	±0.8	P	0.3
80.0	80.0	0.0	±0.8	P	0.3
70.0	70.0	0.0	±0.8	P	0.3
60.0	60.0	0.0	±0.8	P	0.3
50.0	50.0	0.0	±0.8	P	0.3
40.0	40.0	0.0	±0.8	P	0.3
35.0	34.9	-0.1	±0.8	P	0.3
34.0	33.9	-0.1	±0.8	P	0.3
33.0	32.9	-0.1	±0.8	P	0.3
32.0	31.9	-0.1	±0.8	P	0.3
31.0	30.9	-0.1	±0.8	P	0.3
30.0	29.9	-0.1	±0.8	P	0.3



证书编号(Certificate No.): 2HB23001488-0004

4 A计权特性(A-Weighting Characteristic)

频率 (Frequency) (Hz)	实测值 (Actual) (dB)	理论值 (Theoretical value) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail) (P/F)	U (k=2) (dB)
20	-50.8	-50.5	-0.3	±2.0	P	0.5
25	-45.0	-44.7	-0.3	+2.0 ~ -1.5	P	0.5
31.5	-39.6	-39.4	-0.2	±1.5	P	0.5
40	-34.6	-34.6	0.0	±1.0	P	0.5
50	-30.2	-30.2	0.0	±1.0	P	0.5
63	-26.1	-26.2	0.1	±1.0	P	0.5
80	-22.3	-22.5	0.2	±1.0	P	0.5
100	-19.1	-19.1	0.0	±1.0	P	0.5
125	-16.1	-16.1	0.0	±1.0	P	0.5
160	-13.2	-13.4	0.2	±1.0	P	0.5
200	-10.7	-10.9	0.2	±1.0	P	0.5
250	-8.7	-8.6	-0.1	±1.0	P	0.5
315	-6.8	-6.6	-0.2	±1.0	P	0.4
400	-4.7	-4.8	0.1	±1.0	P	0.4
500	-3.1	-3.2	0.1	±1.0	P	0.4
630	-1.8	-1.9	0.1	±1.0	P	0.4
800	-0.7	-0.8	0.1	±1.0	P	0.4
1000(Ref.)	0.0	0.0	0.0	±0.7	P	0.4
1250	0.6	0.6	0.0	±1.0	P	0.6
1600	1.0	1.0	0.0	±1.0	P	0.6
2000	1.1	1.2	-0.1	±1.0	P	0.6
2500	1.1	1.3	-0.2	±1.0	P	0.6
3150	1.0	1.2	-0.2	±1.0	P	0.6
4000	0.7	1.0	-0.3	±1.0	P	0.6
5000	0.4	0.5	-0.1	±1.5	P	0.6
6300	-0.2	-0.1	-0.1	+1.5 ~ -2.0	P	0.6
8000	-1.0	-1.1	0.1	+1.5 ~ -2.5	P	0.6
10000	-2.3	-2.5	0.2	+2.0 ~ -3.0	P	0.6
12500	-4.2	-4.3	0.1	+2.0 ~ -5.0	P	1.0
16000	-8.5	-6.6	-1.9	+2.5 ~ -16.0	P	1.0
20000	-18.4	-9.3	-9.1	+3.0 ~ -∞	P	1.0

Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0004

5 C计权特性(C-Weighting Characteristic)

频率 (Frequency) (Hz)	实测值 (Actual) (dB)	理论值 (Theoretical value) (dB)	误差 (Error) (dB)	允许误差 (Limit) (dB)	结论 (Pass/Fail) (P/F)	U (dB)
20	-6.3	-6.2	-0.1	±2.0	P	0.5
25	-4.5	-4.4	-0.1	+2.0 ~ -1.5	P	0.5
31.5	-3.0	-3.0	0.0	±1.5	P	0.5
40	-2.0	-2.0	0.0	±1.0	P	0.5
50	-1.2	-1.3	0.1	±1.0	P	0.5
63	-0.7	-0.8	0.1	±1.0	P	0.5
80	-0.4	-0.5	0.1	±1.0	P	0.5
100	-0.2	-0.3	0.1	±1.0	P	0.5
125	-0.1	-0.2	0.1	±1.0	P	0.5
160	0.0	-0.1	0.1	±1.0	P	0.5
200	0.0	0.0	0.0	±1.0	P	0.5
250	0.0	0.0	0.0	±1.0	P	0.5
315	0.0	0.0	0.0	±1.0	P	0.4
400	0.0	0.0	0.0	±1.0	P	0.4
500	0.0	0.0	0.0	±1.0	P	0.4
630	0.0	0.0	0.0	±1.0	P	0.4
800	0.0	0.0	0.0	±1.0	P	0.4
1000(Ref.)	0.0	0.0	0.0	±0.7	P	0.4
1250	-0.1	0.0	-0.1	±1.0	P	0.6
1600	-0.2	-0.1	-0.1	±1.0	P	0.6
2000	-0.3	-0.2	-0.1	±1.0	P	0.6
2500	-0.5	-0.3	-0.2	±1.0	P	0.6
3150	-0.8	-0.5	-0.3	±1.0	P	0.6
4000	-1.1	-0.8	-0.3	±1.0	P	0.6
5000	-1.5	-1.3	-0.2	±1.5	P	0.6
6300	-2.1	-2.0	-0.1	+1.5 ~ -2.0	P	0.6
8000	-2.9	-3.0	0.1	+1.5 ~ -2.5	P	0.6
10000	-4.2	-4.4	0.2	+2.0 ~ -3.0	P	0.6
12500	-6.2	-6.2	0.0	+2.0 ~ -5.0	P	1.0
16000	-10.4	-8.5	-1.9	+2.5 ~ -16.0	P	1.0
20000	-20.4	-11.2	-9.2	+3.0 ~ ∞	P	1.0



证书编号(Certificate No.): 2HB23001488-0004

6 自生噪声 (Autogenous noise)

计权 (Weighting)	实测值 (Actual) (dB)
A	17.7

以下空白/No data hereafter



Calibration Certificate of Sound Level Meter



中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校准证书 CALIBRATION CERTIFICATE

证书编号: 2HB23001488-0003
Certificate No.



委托单位: Castco Testing Centre Limited
Client
仪器名称: Sound Level Meter
Description
型号规格: NL-52
Model/Type
制造商: RION
Manufacturer
机身号: 00976204
Serial No.
管理号: AAST-SLM-11
Asset No.
接收日期: 2023-07-28 校准日期: 2023-08-07
Rec. Date Cal. Date
签发日期: 2023-08-08 建议校准周期: 12个月(12 months)
App. Date Reference Cal. Period
结论: 所校准项目符合技术要求(The calibrated items meet the technical requirements)
Conclusion

校准: 赵文钰
Calibrated by
签发: 郑木力
Approved by

检验: 钟灏
Inspected by
印章: [Stamp]
Stamp



扫一扫查真伪

赛宝计量检测中心
总部地址: 广州市增城区朱村街朱村大道西78号
实验室地址: 广州市增城区朱村街朱村大道西78号
客服电话: 020-87237633 传真: 020-87236189
投诉电话: 020-87236896
邮件: cal@ceprei.com
网址: www.ceprei-cal.com

CEPREI Calibration and Testing Centre
HQ Addr: No.78,Zhuacan Avenue West,Zengcheng District,Guangzhou,China
Add. of the Lab: No.78,Zhuacan Avenue West,Zengcheng District,Guangzhou,China
Service Tel: 020-87237633 Fax: 020-87236189
Complaint Tel: 020-87236896
Email: cal@ceprei.com
Website: www.ceprei-cal.com

证书编号(Certificate No.): 2HB23001488-0003

说明 DIRECTIONS

1. 本机构质量管理体系符合ISO/IEC 17025:2017标准的要求, 获得中国合格评定国家认可委员会(CNAS)认可, 认可证书号为: CNAS L13344。
This laboratory quality management system meets the ISO/IEC 17025:2017 and is accredited by the China National Accreditation Service for Conformity Assessment, No. CNAS L13344.
2. 本机构出具的数据均可溯源到国际单位制(SI)单位和社会公用计量标准。
The data issued by this laboratory is traceable to International system of Units (SI) and national primary standards.
3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes):
* JJG 188-2017 声级计检定规程: Sound pressure level: (20~130)dB; Frequency Weighting: (20~130)dB, (10 Hz~20kHz)
* 详细内容请查看CNAS网站中注册编号为L13344的证书附件, 超出范围的内容未被认可, 其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)

4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

名称 (Description)	证书号/有效期/溯源单位 (Certificate No./Due Date/Traceability)	技术指标 (Specification)	测量范围 (Measuring Range)
实验室标准传声器(2246 093)	GFJGL1001230304187/2024-04-13/航空304所	$U=(0.05-0.20)dB$ ($k=2$)	10Hz~20kHz
正弦信号发生器(243165 6)	4GC22000542-0057/2023-10-26/赛宝(广州)	f: ±1mHz; 失真度 Distortion: <-70dB	f: 0.001Hz~200kHz; U: 100μV~5Vrms
前置放大器(3194482)	4GC22000429-0039/2023-08-29/赛宝(广州)	±0.1dB	10Hz~50kHz
数字多用表(MY5300648 3)	4GC22000447-0003/2023-09-26/赛宝(广州)	DCV: ±0.0035%; ACV: ±0.06%; DCI: ±0.05%; ACI: ±0.1%; R: ±0.01%; f: ±0.001%	DCV:(0~1000)V; ACV: (0.001~750)V@3Hz~300kHz; DCI:(0~3A); ACI:(0~3)A@3Hz~5kHz; R:(0~100)MΩ; f: 3Hz~300kHz
功率放大器(2536312)	4GC22000600-0093/2023-11-30/赛宝(广州)	频率响应: ±1dB, 失真度 f: <0.2%	20Hz~50kHz
PULSE分析系统(3160-1 06540)	4GC23000001-0137/2024-01-03/赛宝(广州)	频率: $U_{rel}=0.001%$, $k=2$; 电压: $U_{rel}=0.10%$, $k=2$	频率: 0.001Hz~51.2kHz; 电压: (1~10) ⁻³ ~30V
声校准器(2272351)	4GC22000600-0073/2023-11-29/赛宝(广州)	1级 First Level	31.5Hz~16kHz

5. 校准地点(The calibration place):
广州市增城区朱村街朱村大道西78号9栋110室
6. 环境条件(Environmental conditions):
温度(Temperature): 25.3°C 相对湿度(Relative Humidity): 65%
7. 本证书中给出的扩展不确定度依据JJF 1059.1-2012《测量不确定度的评定与表示》评定, 由合成标准不确定度乘以包含概率约为95%时对应的包含因子k得到。
The extended uncertainty given in this certificate is evaluated according to JJF 1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor k which corresponding to the coverage probability about 95%.
8. 证书中"P"、"合格"代表"测量结果在允许范围内", "F"、"不合格"代表"测量结果不在允许范围内", "N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考, 使用人员应结合实际测量的要求合理使用, 如考虑测量结果测量不确定度的影响等。
"P" and "Pass" in this certificate stand for "Low Limit<the measured value <High Limit", "F" and "Fail" stand for "the measured value <Low Limit or the measured value >High Limit", "N/A" stands for "Not Applicable or the Technical specification has not been confirmed etc". The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.

Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0003

1 外观与工作正常性检查 (Appearance and Function Check)

无影响证书中测量结果准确度的因素和缺陷。

There are no factor and defect that affect the measurement result accuracy of the certificate.

2 指示声级调整 (Indication SPL Calibration)

频率(Frequency): 1000Hz

传声器型号 (Microphone Type)	传声器编号 (Microphone SN.)	放大器型号 (Preamplifier Type)	放大器编号 (Preamplifier SN.)	声校准器型号 (Calibrator Type)	标准声压级 (Reference SPL)	校准前示值 (Before Calibration)	校准后示值 (After Calibration)	U (k=2)
				(dB)	(dB)	(dB)	(dB)	(dB)
				4226	94.0	93.8	93.8	0.2

3 级线性 (Level Linearity)

3.1 参考级量程 (Reference Range)

频率(Frequency): 8000Hz

标准声级 (Standard)	指示声级 (Indication)	误差 (Error)	允许误差 (Limit)	结论 (Pass/Fail)	U (k=2)
(dB)	(dB)	(dB)	(dB)	(P/F)	(dB)
130.0	129.8	-0.2	±0.8	P	0.3
129.0	128.8	-0.2	±0.8	P	0.3
128.0	127.8	-0.2	±0.8	P	0.3
127.0	126.8	-0.2	±0.8	P	0.3
126.0	125.9	-0.1	±0.8	P	0.3
125.0	124.9	-0.1	±0.8	P	0.3
120.0	119.9	-0.1	±0.8	P	0.3
110.0	110.0	0.0	±0.8	P	0.3
100.0	100.0	0.0	±0.8	P	0.3
90.0	90.0	0.0	±0.8	P	0.3
80.0	79.9	-0.1	±0.8	P	0.3
70.0	69.9	-0.1	±0.8	P	0.3
60.0	60.0	0.0	±0.8	P	0.3
50.0	49.9	-0.1	±0.8	P	0.3
40.0	39.9	-0.1	±0.8	P	0.3
35.0	34.8	-0.2	±0.8	P	0.3
34.0	33.8	-0.2	±0.8	P	0.3
33.0	32.9	-0.1	±0.8	P	0.3
32.0	31.8	-0.2	±0.8	P	0.3
31.0	30.8	-0.2	±0.8	P	0.3
30.0	29.8	-0.2	±0.8	P	0.3

数据页(Data sheet) ID: 071288

第 5 页,共 9 页
Page of



证书编号(Certificate No.): 2HB23001488-0003

3.2 其它级量程 (Other Range)

频率(Frequency): 1000Hz

标准声级 (Standard)	指示声级 (Indication)	误差 (Error)	允许误差 (Limit)	结论 (Pass/Fail)	U (k=2)
(dB)	(dB)	(dB)	(dB)	(P/F)	(dB)
130.0	129.9	-0.1	±0.8	P	0.3
129.0	128.9	-0.1	±0.8	P	0.3
128.0	127.9	-0.1	±0.8	P	0.3
127.0	126.9	-0.1	±0.8	P	0.3
126.0	125.9	-0.1	±0.8	P	0.3
125.0	124.9	-0.1	±0.8	P	0.3
120.0	120.0	0.0	±0.8	P	0.3
110.0	110.0	0.0	±0.8	P	0.3
100.0	100.0	0.0	±0.8	P	0.3
90.0	90.0	0.0	±0.8	P	0.3
80.0	80.0	0.0	±0.8	P	0.3
70.0	70.0	0.0	±0.8	P	0.3
60.0	60.0	0.0	±0.8	P	0.3
50.0	50.0	0.0	±0.8	P	0.3
40.0	40.0	0.0	±0.8	P	0.3
35.0	34.9	-0.1	±0.8	P	0.3
34.0	33.9	-0.1	±0.8	P	0.3
33.0	32.9	-0.1	±0.8	P	0.3
32.0	31.9	-0.1	±0.8	P	0.3
31.0	30.9	-0.1	±0.8	P	0.3
30.0	29.9	-0.1	±0.8	P	0.3

第 6 页,共 9 页
Page of

数据页(Data sheet) ID: 071288

Calibration Certificate of Sound Level Meter



证书编号(Certificate No.): 2HB23001488-0003

4 A计权特性(A-Weighting Characteristic)

频率 (Frequency)	实测值 (Actual)	理论值 (Theoretical value)	误差 (Error)	允许误差 (Limit)	结论 (Pass/Fail)	U (k=2)
(Hz)	(dB)	(dB)	(dB)	(dB)	(P/F)	(dB)
20	-50.5	-50.5	0.0	±2.0	P	0.5
25	-44.9	-44.7	-0.2	+2.0 ~ -1.5	P	0.5
31.5	-39.7	-39.4	-0.3	±1.5	P	0.5
40	-34.5	-34.6	0.1	±1.0	P	0.5
50	-30.3	-30.2	-0.1	±1.0	P	0.5
63	-26.2	-26.2	0.0	±1.0	P	0.5
80	-22.3	-22.5	0.2	±1.0	P	0.5
100	-19.1	-19.1	0.0	±1.0	P	0.5
125	-16.1	-16.1	0.0	±1.0	P	0.5
160	-13.2	-13.4	0.2	±1.0	P	0.5
200	-10.8	-10.9	0.1	±1.0	P	0.5
250	-8.6	-8.6	0.0	±1.0	P	0.5
315	-6.6	-6.6	0.0	±1.0	P	0.4
400	-4.7	-4.8	0.1	±1.0	P	0.4
500	-3.2	-3.2	0.0	±1.0	P	0.4
630	-1.9	-1.9	0.0	±1.0	P	0.4
800	-0.8	-0.8	0.0	±1.0	P	0.4
1000(Ref)	0.0	0.0	0.0	±0.7	P	0.4
1250	0.5	0.6	-0.1	±1.0	P	0.6
1600	0.9	1.0	-0.1	±1.0	P	0.6
2000	1.1	1.2	-0.1	±1.0	P	0.6
2500	1.1	1.3	-0.2	±1.0	P	0.6
3150	0.9	1.2	-0.3	±1.0	P	0.6
4000	0.7	1.0	-0.3	±1.0	P	0.6
5000	0.3	0.5	-0.2	±1.5	P	0.6
6300	-0.2	-0.1	-0.1	+1.5 ~ -2.0	P	0.6
8000	-1.1	-1.1	0.0	+1.5 ~ -2.5	P	0.6
10000	-2.3	-2.5	0.2	+2.0 ~ -3.0	P	0.6
12500	-4.3	-4.3	0.0	+2.0 ~ -5.0	P	1.0
16000	-8.5	-6.6	-1.9	+2.5 ~ -16.0	P	1.0
20000	-18.4	-9.3	-9.1	+3.0 ~ ∞	P	1.0

数据页(Data sheet) ID: 071288

第 7 页,共 9 页
Page of



证书编号(Certificate No.): 2HB23001488-0003

5 C计权特性(C-Weighting Characteristic)

频率 (Frequency)	实测值 (Actual)	理论值 (Theoretical value)	误差 (Error)	允许误差 (Limit)	结论 (Pass/Fail)	U (k=2)
(Hz)	(dB)	(dB)	(dB)	(dB)	(P/F)	(dB)
20	-6.6	-6.2	-0.4	±2.0	P	0.5
25	-4.7	-4.4	-0.3	+2.0 ~ -1.5	P	0.5
31.5	-3.0	-3.0	0.0	±1.5	P	0.5
40	-2.0	-2.0	0.0	±1.0	P	0.5
50	-1.3	-1.3	0.0	±1.0	P	0.5
63	-0.8	-0.8	0.0	±1.0	P	0.5
80	-0.4	-0.5	0.1	±1.0	P	0.5
100	-0.2	-0.3	0.1	±1.0	P	0.5
125	-0.1	-0.2	0.1	±1.0	P	0.5
160	0.0	-0.1	0.1	±1.0	P	0.5
200	0.0	0.0	0.0	±1.0	P	0.5
250	0.0	0.0	0.0	±1.0	P	0.5
315	0.0	0.0	0.0	±1.0	P	0.4
400	0.0	0.0	0.0	±1.0	P	0.4
500	0.0	0.0	0.0	±1.0	P	0.4
630	0.0	0.0	0.0	±1.0	P	0.4
800	0.0	0.0	0.0	±1.0	P	0.4
1000(Ref)	0.0	0.0	0.0	±0.7	P	0.4
1250	-0.1	0.0	-0.1	±1.0	P	0.6
1600	-0.2	-0.1	-0.1	±1.0	P	0.6
2000	-0.3	-0.2	-0.1	±1.0	P	0.6
2500	-0.5	-0.3	-0.2	±1.0	P	0.6
3150	-0.8	-0.5	-0.3	±1.0	P	0.6
4000	-1.1	-0.8	-0.3	±1.0	P	0.6
5000	-1.5	-1.3	-0.2	±1.5	P	0.6
6300	-2.1	-2.0	-0.1	+1.5 ~ -2.0	P	0.6
8000	-3.0	-3.0	0.0	+1.5 ~ -2.5	P	0.6
10000	-4.3	-4.4	0.1	+2.0 ~ -3.0	P	0.6
12500	-6.2	-6.2	0.0	+2.0 ~ -5.0	P	1.0
16000	-10.4	-8.5	-1.9	+2.5 ~ -16.0	P	1.0
20000	-20.3	-11.2	-9.1	+3.0 ~ ∞	P	1.0

第 8 页,共 9 页
Page of

数据页(Data sheet) ID: 071288

Catalogue of Sound Calibrator

For microphone calibration **NC-74**

How to use

Carefully insert the microphone all the way into the coupler of the NC-74. Then simply turn the power on to apply a constant sound pressure level to the diaphragm of the microphone.

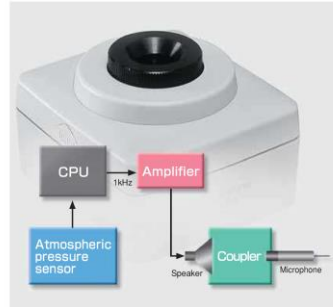


Usage example (NL series)

The performance of the NC-74 is suitable for calibration of high-precision sound level meters. The unit is compact, lightweight, and easy to use. Two IEC LR6 (size AA) alkaline batteries will power the unit for more than 30 hours of continuous use at room temperature.

Atmospheric pressure compensation principle

The NC-74 incorporates a sensor that detects atmospheric pressure. Based on the information provided by the sensor, the CPU controls the signal amplitude. This allows the unit to always provide the correct output for achieving constant sound pressure level, regardless of fluctuations in atmospheric pressure.



Using the 1/2-inch adapter

To allow calibration of sound level meter microphones with 1 inch diameter, the 1/2-inch microphone adapter can be removed. 1/2-inch microphones are calibrated with the adapter in place.



Specifications

Applicable standards	IEC 60942:2003 Class 1 GB 15115-2004 Class 1	
Suitable microphones	1-inch microphones	IEC 61094-1 Type LS1P UC-27 UC-25 UC-34
	1/2-inch microphones	IEC 61094-1 Type LS2AP UC-59 UC-57 UC-58A UC-52 UC-26 UC-30 UC-31 UC-33P
Nominal sound pressure level	94 dB	
Sound pressure level tolerance	±0.3 dB	
Nominal frequency	1 kHz	
Frequency tolerance	±1.0 % or less	
Power requirements	IEC LR6 (size AA) alkaline battery X 2	
Dimensions, mass	Approx. 49 (H) X 80 (W) X 74 (D) mm Approx. 200 g (including batteries)	
Supplied accessories	Case X 1	
	IEC LR6 (size AA) alkaline battery X 2 1/2-inch microphone adapter NC-74-002 X 1	

* Specification subject to change without notice.

RION CO., LTD.

3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
Tel: +81-42-359-7888 Fax: +81-42-359-7442
<http://www.rion.co.jp/english/>

Distributed by:

Printed in Japan 0510-1 0807.P.MP

Calibration Certificate of Sound Calibrator



中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校准证书 CALIBRATION CERTIFICATE

证书编号: 2HB23001488-0001
Certificate No.



委托单位: Castco Testing Centre Limited
Client

仪器名称: Sound Level Calibrator
Description

型号规格: NC-74
Model/Type

制造商: RION
Manufacturer

机身号: 34178129
Serial No.

管理号: AAST-SLC-05
Asset No.

接收日期: 2023-07-28 校准日期: 2023-08-08
Rec. Date Cal. Date

签发日期: 2023-08-10 建议校准周期: 12个月(12 months)
App. Date Reference Cal. Period

结论: 所校准项目符合技术要求(The calibrated items meet the technical requirements)
Conclusion

校准: 赵文钰 赵文钰
Calibrated by

核验: 钟颖 钟颖
Inspected by

签发: 郑木力 郑木力
Approved by

印章: Stamp



扫一扫查真伪

赛宝计量检测中心
总部地址: 广州市增城区朱村街朱村大道西78号
实验室地址: 广州市增城区朱村街朱村大道西78号
客服电话: 020-87237633 传真: 020-87236189
投诉电话: 020-87236896
邮件: cal@ceprei.com
网址: www.ceprei-cal.com

CEPREI Calibration and Testing Centre
HQ Addr: No.78,Zhucun Avenue West,Zengcheng District,Guangzhou,China
Add. of the Lab: No.78,Zhucun Avenue West,Zengcheng District,Guangzhou,China
Service Tel: 020-87237633 Fax: 020-87236189
Complaint Tel: 020-87236896
Email: cal@ceprei.com
Website: www.ceprei-cal.com

第 1 页,共 5 页
Page of

Calibration Certificate of Sound Calibrator

证书编号(Certificate No.): 2HB23001488-0001

说 明 DIRECTIONS

1. 本机构质量管理体系符合ISO/IEC 17025:2017标准的要求，获得中国合格评定国家认可委员会（CNAS）认可，认可证书号为：CNAS L13344。
This laboratory quality management system meets the ISO/IEC 17025:2017 and is accredited by the China National Accreditation Service for Conformity Assessment, No. CNAS L13344.
2. 本机构出具的数据均可溯源到国际单位制（SI）单位和社会公用计量标准。
The data issued by this laboratory is traceable to International system of Units (SI) and national primary standards.
3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes):
* JJG 176-2022 声校准器检定规程: Sound Pressure Level: 94dB、104dB、114dB、124dB(63Hz~8kHz); 94dB、104dB、114dB,(31.5Hz~16kHz); Frequency: 31.5Hz~16kHz; Harmonic Distortion: 0.1%~10%, (20Hz~20kHz)
* 详细内容请查看CNAS网站中注册编号为L13344的证书附件，超出范围的内容未被认可，其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)
4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

名称 (Description)	证书号/有效期/溯源单位 (Certificate No./Due Date/Traceability to)	技术指标 (Specification)	测量范围 (Measuring Range)
实验室标准传声器(2246 093)	GFJGJL1001230304187/2024-04-13/航空304所	$U=(0.05-0.20)dB$ ($k=2$)	10Hz~20kHz
前置放大器(3194482)	4GC22000429-0039/2023-08-29/赛宝(广州)	$\pm 0.1dB$	10Hz~50kHz
数字多用表(MY5300648 3)	4GC22000447-0003/2023-09-26/赛宝(广州)	DCV: $\pm 0.0035\%$; ACV: $\pm DCV(0\sim 1000)V$; ACV 0.06%; DCL: $\pm 0.05\%$; ACI (0.001~750)V@(3Hz~): $\pm 0.1\%$; R: $\pm 0.01\%$; f: 300kHz; DCL(0~3)A; ACl(0~3)A@(3Hz~5kHz); R(0~100)M Ω ; f: 3Hz~300kHz	$\pm 0.001\%$
PULSE分析系统(3050-1 02038)	4GC23000001-0135/2024-01-03/赛宝(广州)	频率: $U_{rel}=0.001\%$, $k=2$; 电压: $U_{rel}=0.04\%$, $k=2$	频率: 0.001Hz~51.2kHz; 电压: $(1\cdot 10^1\sim 30)V$
5. 校准地点(The calibration place):
广州市增城区朱村街朱村大道西78号9栋110室
6. 环境条件(Environmental conditions):
温度(Temperature): 22.6°C 相对湿度(Relative Humidity): 58%
7. 本证书中给出的扩展不确定度依据JJF1059.1-2012《测量不确定度的评定与表示》评定，由合成标准不确定度乘以包含概率约为95%时对应的包含因子 k 得到。
The extended uncertainty given in this certificate is evaluated according to JJF1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor k which corresponding to the coverage probability about 95%.
8. 证书中"P"、"合格"代表"测量结果在允许范围内"，"F"、"不合格"代表"测量结果不在允许范围内"，"N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考，使用人员应结合实际测量的要求合理使用，如考虑测量结果测量不确定度的影响等。
"P" and "Pass" in this certificate stand for "Low Limit≤the measured value ≤High Limit", "F" and "Fail" stand for "the measured value < Low Limit or the measured value > High Limit", "N/A" stands for "Not Applicable or The technical specification has not been confirmed etc". The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.
9. 建议校准周期是本实验室依据本证书报告的技术依据和仪器设备常规使用条件给出的建议，供委托方参考。委托方可以根据实际使用情况自行决定样品的校准周期。



证书编号(Certificate No.): 2HB23001488-0001

1 外观与工作正常性检查 (Appearance and Function Check)

无影响证书中测量结果准确度的因素和缺陷。

There are no factor and defect that affect the measurement result accuracy of the certificate.

2 声压级 (Sound Pressure Level)

规定声压级 (Prescribed SPL)	测量声压级 (Measured SPL)	声压级差的绝对值 (Absolute value of SPL)	接受限 (Limit)	结论 (Pass/Fail)	U (dB)
(dB)	(dB)	(dB)	(dB)		
94	93.95	0.05	≤0.25	P	0.10

3 频率 (Frequency)

规定频率 (Prescribed Fre.)	测量频率 (Measured Fre.)	频率误差的绝对值 (Absolute value of Fre.)	接受限 (Limit)	结论 (Pass/Fail)	U_{rel} (%)
(Hz)	(Hz)	(%)	(%)		(%)
1000	1002.1	0.21	≤0.70	P	0.10

4 总失真+噪声 (Distortion and noise)

规定声压级 (Prescribed SPL)	规定频率 (Measured Fre.)	总失真+噪声 (Distortion and noise)	接受限 (Limit)	结论 (Pass/Fail)	U_{rel} (%)
(dB)	(Hz)	(%)	(%)		(%)
94	1000	0.57	≤2.50	P	5.0

以下空白/No data hereafter

CEPREI

Calibration Certificate of Sound Calibrator



中国赛宝实验室计量检测中心
(工业和信息化部电子第五研究所计量检测中心)
CHINA CEPREI LABORATORY CALIBRATION & TESTING CENTRE

校准证书

CALIBRATION CERTIFICATE

证书编号: 2HB23001715-0001
Certificate No. 




中国认可
国际互认
校准
CNAS L13344

委托单位:	Castco Testing Centre Limited		
Client			
仪器名称:	Sound Level Calibrator		
Description			
型号规格:	NC-74		
Model/Type			
制造商:	RION		
Manufacturer			
机身号:	34678556		
Serial No.			
管理号:	AAST-SLC-06		
Asset No.			
接收日期:	2023-08-23	校准日期:	2023-09-05
Rec. Date		Cal. Date	
签发日期:	2023-09-05	建议校准周期:	12个月(12 months)
App. Date		Reference Cal. Period	
结论:	所校准项目符合技术要求(The calibrated items meet the technical requirements)		
Conclusion			

校准: 赵文钰

Calibrated by

检验: 钟灏

Inspected by

印章: 钟灏

Stamp



扫一扫查真伪

赛宝计量检测中心
总部地址: 广州市增城区朱村街朱村大道西78号
实验室地址: 广州市增城区朱村街朱村大道西78号
客服电话: 020-87237633 传真: 020-87236189
投诉电话: 020-87236896
邮件: cal@ceprei.com
网址: www.ceprei-cal.com

CEPREI Calibration and Testing Centre
HQ Addr: No.78,Zhucun Avenue West,Zengcheng District,Guangzhou,China
Add. of the Lab: No.78,Zhucun Avenue West,Zengcheng District,Guangzhou,China
Service Tel: 020-87237633 Fax: 020-87236189
Complaint Tel: 020-87236896
Email: cal@ceprei.com
Website: www.ceprei-cal.com

第 1 页,共 5 页
Page of

证书编号(Certificate No.): 2HB23001715-0001

说明

DIRECTIONS

1. 本机构质量管理体系符合ISO/IEC 17025:2017标准的要求, 获得中国合格评定国家认可委员会 (CNAS) 认可, 认可证书号为: CNAS L13344.
This laboratory quality management system meets the ISO/IEC 17025:2017 and is accredited by the China National Accreditation Service for Conformity Assessment, No. CNAS L13344.
2. 本机构出具的数据均可溯源到国际单位制 (SI) 单位和社会公用计量标准。
The data issued by this laboratory is traceable to International system of Units (SI) and national primary standards.
3. 本次校准的技术依据及CNAS认可范围(Reference documents and CNAS accredited scopes):
* JJG 176-2022 声校准器检定规程: Sound Pressure Level: 94dB, 104dB, 114dB, 124dB(63Hz~8kHz); 94dB, 104dB, 114dB, 124dB(31.5Hz~16kHz); Frequency: 31.5Hz~16kHz; Harmonic Distortion: 0.1%~10% (20Hz~20kHz)
* 详细内容请查看CNAS网站中注册编号为L13344的证书附件。超出范围的内容未被认可, 其结果/结论所依据的合格评定活动不在认可范围内。(Please see the attachment of certificate No. L13344 at CNAS website for details, beyond which is not accredited, the conformity assessment activities on which the results/conclusions are based are outside the scope of accreditation.)
4. 本次校准所使用的主要测量标准(The main measurement standards used during the calibration):

名称	证书号/有效期/溯源单位	技术指标	测量范围
(Description)	(Certificate No./Due Date/Traceability to)	(Specification)	(Measuring Range)
前置放大器(2239843)	GFJGJL1001230304185/2024-03-22/航空304所	频率响应: $\pm 0.1dB$	(10~50000) Hz
数字多用表(MY45051674)	GFJGJL1004230400378/2024-04-02/航天514所	DCV: $\pm 8 \times 10^{-5}$; DCI: $\pm 2 \times 10^{-3}$; ACV: $\pm 0.02\%$; ACI: $\pm 0.03\%$; R: $\pm 1 \times 10^{-1}$; f: $\pm 0.01\%$	DCV: 10nV~1000V; DCI: 1pA~1A; ACV: (10nV~700V) @ (1Hz~2MHz); ACI: (100pA~1A) @ (10Hz~100kHz); R: 10 Ω ~1G Ω ; f: 1Hz~10MHz
PULSE分析系统(3160-106540)	4GC23000528-0009/2024-08-16/赛宝(广州)	频率: $U_{rel} = 0.001\%$, $k=2$; 电压: $U_{rel} = 0.10\%$, $k=2$	频率: 0.001Hz~51.2kHz; 电压: $(1 \times 10^{-1} \sim 30)V$
实验室标准传声器(2246093)	GFJGJL1001230304187/2024-04-13/航空304所	LS级	10Hz~25kHz
5. 校准地点(The calibration place):
广州市增城区朱村街朱村大道西78号9栋110室
6. 环境条件(Environmental conditions):
温度(Temperature): 21.2°C 相对湿度(Relative Humidity): 60%
7. 本证书中给出的扩展不确定度依据JJF1059.1-2012《测量不确定度的评定与表示》评定, 由合成标准不确定度乘以包含概率约为95%时对应的包含因子k得到。
The extended uncertainty given in this certificate is evaluated according to JJF1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement", and is calculated by multiplying the combined standard uncertainty by the coverage factor k which corresponding to the coverage probability about 95%.
8. 证书中"P"、"合格"代表"测量结果在允许范围内", "F"、"不合格"代表"测量结果不在允许范围内", "N/A"代表"不适用或技术指标暂时无法确认等"。本证书报告的结论仅供参考, 使用人员应结合实际测量的要求合理使用, 如考虑测量结果测量不确定度的影响等。
"P" and "Pass" in this certificate stand for "Low Limit \leq the measured value \leq High Limit", "F" and "Fail" stand for "the measured value < Low Limit or the measured value > High Limit", "N/A" stands for "Not Applicable or The technical specification has not been confirmed etc". The conclusions of this certificate are for reference only. Users should use them reasonably according to the actual measurement requirements, such as considering the impact of measurement uncertainty, etc.
9. 建议校准周期是本实验室依据本证书报告的技术依据和仪器设备常规使用条件给出的建议, 供委托方参考。委托方可以根据实际使用情况自行决定样品的校准周期。

第 3 页,共 5 页
Page of

Calibration Certificate of Sound Calibrator



证书编号(Certificate No.): 2HB23001715-0001

1 外观与工作正常性检查 (Appearance and Function Check)

无影响证书中测量结果准确度的因素和缺陷。

There are no factor and defect that affect the measurement result accuracy of the certificate.

2 声压级 (Sound Pressure Level)

规定声压级 (Prescribed SPL)	测量声压级 (Measured SPL)	声压级差的绝对值 (Absolute value of SPL)	接受限 (Limit)	结论 (Pass/Fail)	U
(dB)	(dB)	(dB)	(dB)	(Pass/Fail)	(k=2)
94	93.86	0.14	≤0.25	P	0.10

3 频率 (Frequency)

规定频率 (Prescribed Fre.)	测量频率 (Measured Fre.)	频率误差的绝对值 (Absolute value of Fre.)	接受限 (Limit)	结论 (Pass/Fail)	U _{rel}
(Hz)	(Hz)	(%)	(%)	(Pass/Fail)	(k=2)
1000	1003.7	0.37	≤0.70	P	0.10

4 总失真+噪声 (Distortion and noise)

规定声压级 (Prescribed SPL)	规定频率 (Measured Fre.)	总失真+噪声 (Distortion and noise)	接受限 (Limit)	结论 (Pass/Fail)	U _{rel}
(dB)	(Hz)	(%)	(%)	(Pass/Fail)	(k=2)
94	1000	0.69	≤2.50	P	5.0

以下空白/No data hereafter

CEPREI

数据页(Data sheet) ID: 013393

第 5 页,共 5 页
Page of

Catalogue of Air Flow Meter (TSI TA440)

SPECIFICATIONS

THERMAL ANEMOMETERS MODELS TA410, TA430 AND TA440

Velocity

Range (TA410)	0 to 20 m/s (0 to 4,000 ft/min)
Range (TA430, TA440)	0 to 30 m/s (0 to 6,000 ft/min)
Accuracy (TA410) ^{1,2}	±5% of reading or ±0.025 m/s (±5 ft/min), whichever is greater
Accuracy (TA430, TA440) ^{1,2}	±3% of reading or ±0.015 m/s (±3 ft/min), whichever is greater
Resolution	0.01 m/s (1 ft/min)

Duct Size (TA430, TA440)

Dimensions	1 to 635 cm in increments of 0.1 cm (1 to 250 inches in increments of 0.1 in.)
------------	--

Volumetric Flow Rate (TA430, TA440)

Range	Actual range is a function of velocity, and duct size
-------	---

Temperature

Range (TA410, TA430)	-18 to 93°C (0 to 200°F)
Range (TA440)	-10 to 60°C (14 to 140°F)
Accuracy ³	±0.3°C (±0.5°F)
Resolution	0.1°C (0.1°F)

Relative Humidity (TA440 only)

Range	5 to 95% RH
Accuracy ⁴	±3% RH
Resolution	0.1% RH

Wet Bulb Temperature (TA440 only)

Range	5 to 60°C (40 to 140°F)
Resolution	0.1°C (0.1°F)

Dew Point (TA440 only)

Range	-15 to 49°C (5 to 120°F)
Resolution	0.1°C (0.1°F)

Instrument Temperature Range

Operating (Electronics)	5 to 45°C (40 to 113°F)
Model TA410, TA430 Operating (Probe)	-18 to 93°C (0 to 200°F)
Model TA440 Operating (Probe)	-10 to 60°C (14 to 140°F)
Storage	-20 to 60°C (-4 to 140°F)

Data Storage Capabilities (TA430, TA440)

Range	12,700+ samples and 100 test IDs
-------	----------------------------------

Logging Interval (TA430, TA440)

1 second to 1 hour

Specifications subject to change without notice.

TSI and the TSI logo are registered trademarks, and Airflow, the Airflow logo and LogDat2 are trademarks of TSI Incorporated.



Airflow Instruments, TSI Instruments Ltd.
Visit our website at www.airflowinstruments.co.uk for more information.

UK Tel: +44 149 4 450200 Germany Tel: +49 241 523030
France Tel: +33 491 11 87 64

P/N 2980548 Rev D (A4) ©2014 TSI Incorporated

Time Constant (TA430, TA440)

User selectable

External Meter Dimensions

8.4 cm x 17.8 cm x 4.4 cm (3.3 in. x 7.0 in. x 1.8 in.)

Meter Weight with Batteries

0.27 kg (0.6 lbs.)

Meter Probe Dimensions

Probe Length	101.6 cm (40 in.)
Probe Diameter of Tip	7.0 mm (0.28 in.)
Probe Diameter of Base	13.0 mm (0.51 in.)

Articulating Probe Dimensions

Articulating Section Length	19.7 cm (7.8 in.)
Diameter of Articulating Knuckle	9.5 mm (0.38 in.)

Power Requirements

Four AA-size batteries or AC adapter

	TA410	TA430 TA430-A	TA440 TA440-A
Velocity range 0 to 20.00 m/s (0 to 4000 ft/min)	+		
Velocity range 0 to 30.00 m/s (0 to 6000 ft/min)		+	+
Temperature	+	+	+
Flow		+	+
Humidity, wet bulb, dew point			+
Probe	Straight	Straight or -A articulated	Straight or -A articulated
Variable time constant		+	+
Manual data logging		+	+
Auto save data logging			+
Statistics		+	+
Review data		+	+
LogDat2 downloading software		+	+
Free Certificate of Calibration	+	+	+

¹ Temperature compensated over an air temperature range of 5 to 65°C (40 to 150°F).

² The accuracy statement begins at 30 ft/min through 4000 ft/min (0.15 m/s through 20 m/s) for the Model TA410, and 30 ft/min through 6,000 ft/min (0.15 m/s through 30 m/s) for Models TA430 and TA440.

³ Accuracy with instrument case at 25°C (77°F), add uncertainty of 0.03°C (0.05°F) for change in instrument temperature.

⁴ Accuracy with probe at 25°C (77°F). Add uncertainty of 0.2% RH/°F (0.1% RH/°F) for change in probe temperature. Includes 1% hysteresis.

Calibration Certificate of Air Flow Meter



Cal Lab Limited 校正實驗室有限公司
 Room 2103, Technology Plaza, 29-35 Sha Tsui Road,
 Tsuen Wan, NT, Hong Kong
 Tel: +852 25680106 Email: info@callab.com.hk
 Fax: +852 30116194 Website: www.callab.com.hk



Calibration Certificate No.: CC0242312

Information provided by customer

Customer: Castco Testing Centre Limited
 Address: 33, On Kui Street, Fanling, N.T.

Equipment identification provided by customer

Equipment Description	Manufacturer	Model No.	Serial No.	Assigned equipment No.
Air Velocity Monitor	TSI	AIRFLOW TA440	TA4401232005	AAS-FLW-02

Certificate Information

Date of Receipt:	15 December 2023	Calibration Condition:	21.3°C, 56%RH, 1014hPa
Date of Calibration:	18 December 2023	Adjustment:	N/A
Due Date of Calibration:	N/A	Appearance:	Good
Calibration Procedure:	SOP-112	Remark:	N/A

Reference Equipment Identification

Equipment Description	Model	Serial No.	Expiration Date
Hot Wire Anemometer	9535	T95351316004	11 August 2024

Result of Calibration

Air Velocity					
Reference Reading (m/s)	Measured Reading (m/s)	Error (m/s)	Uncertainty (%)	Technical Requirement	Technical Reference Doc.
0.99	0.99	0.00	3.6	± 5 %	Mfr's Spec.
2.02	2.03	0.01	3.6	± 5 %	Mfr's Spec.
5.01	4.98	-0.03	3.6	± 5 %	Mfr's Spec.
7.96	8.07	0.11	3.6	± 5 %	Mfr's Spec.

CT-AFR-01

- Note1: The estimated expanded uncertainties have been calculated in "evaluation and expression of uncertainty in measurement" and give an internal estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.
 Note2: The standard (s) and instrument used in the calibration are traceable to national or international recognized standard and are calibrated on a schedule to maintain the accuracy and good condition.
 Note3: The result reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long term stability of the instrument.
 Note4: The result shown in this calibration certificate relate only to the item calibrated, and the result only applies to the calibration item as received.

Calibrated By:

Wing Cheng

Checked and Approved By:

Warren Yeung

Company Chop:



Certificate Issue Date: 19 December 2023

CT-BEG-04

*** End of Certificate ***

- The certificate shall not be reproduced except in full, without written approval of Cal Lab Limited
- The certificate is issued subject to the latest Terms and Conditions, available at our web site

CC0242312
 Page 1 of 1

Appendix L – Noise monitoring results and graphical presentation

M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop

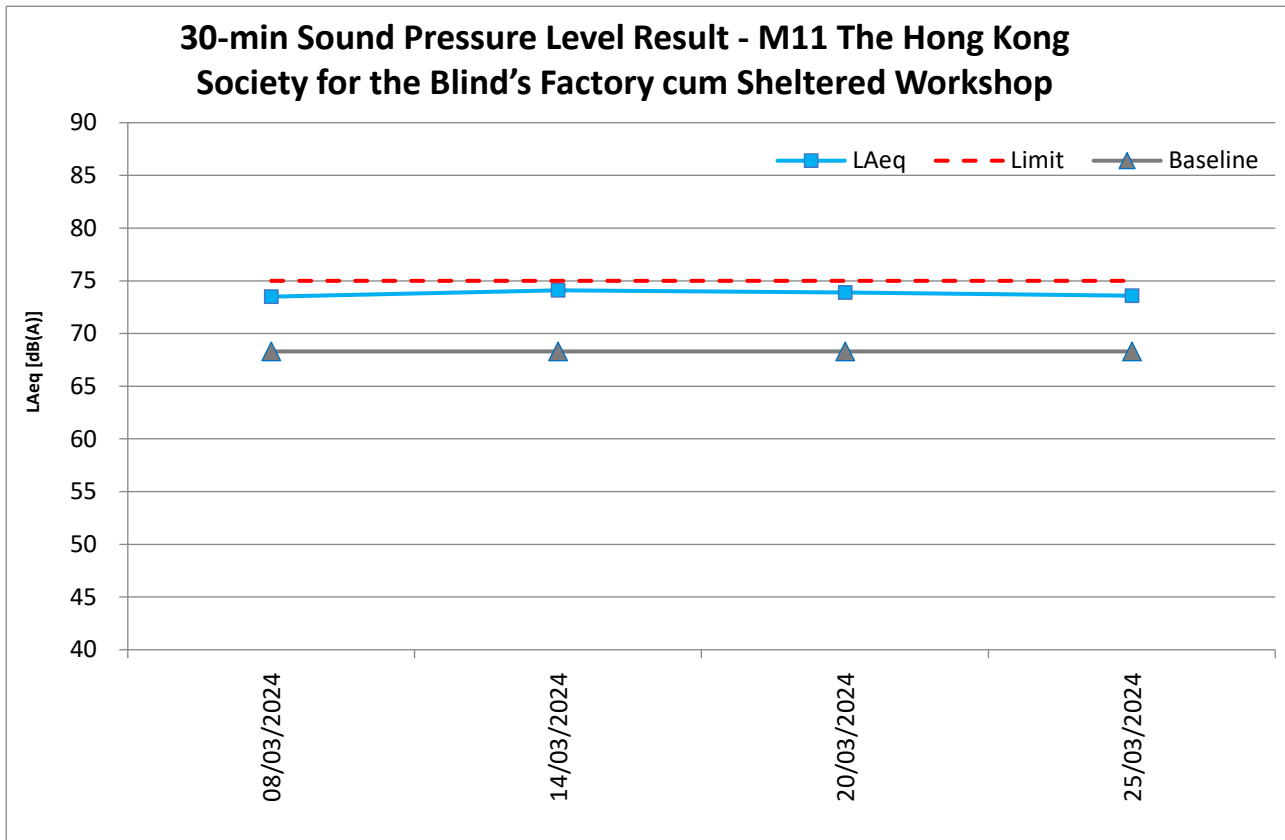
Date	Temp (°C)	Weather	Measured Noise Level at M11, dB(A)						Limit	
			Time		Baseline	L _{Aeq}	L _{A10}	L _{A90}		
08/03/2024	22.4	Cloudy	9:46	-	10:16	68.3	73.5	75.8	64.3	75
14/03/2024	21.2	Sunny	10:59	-	11:29	68.3	74.1	76.6	66.2	75
20/03/2024	22.7	Sunny	13:31	-	14:01	68.3	73.9	77.1	66.2	75
25/03/2024	25.5	Sunny	14:05	-	14:35	68.3	73.6	75.4	71.3	75
Maximum							74.1			
Minimum							73.5			
Average							73.8			

NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 30-min noise monitoring at M11 were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for M11 is confirmed.

M12 - Hong Kong Children's Hospital

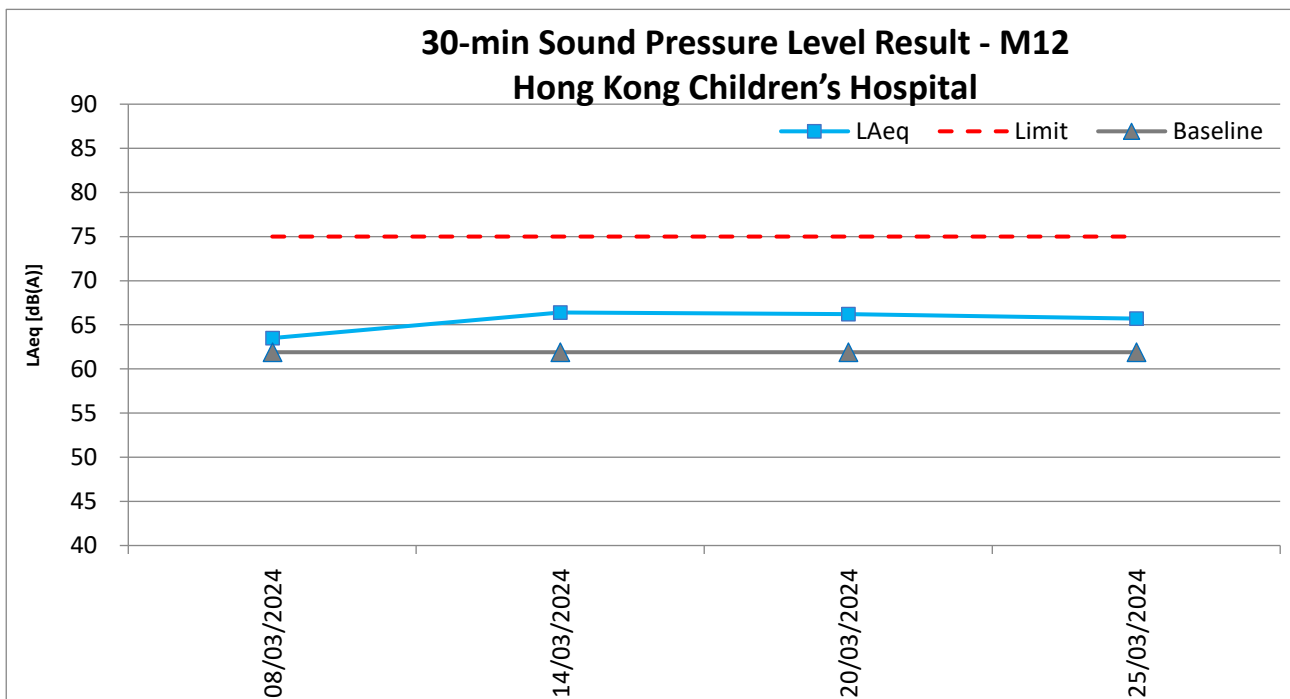
Date	Temp (°C)	Weather	Measured Noise Level at M12, dB(A)						Limit	
			Time		Baseline	L _{Aeq}	L _{A10}	L _{A90}		
08/03/2024	22.4	Cloudy	14:06	-	14:36	61.9	63.5	67.5	59.1	75
14/03/2024	21.2	Sunny	14:31	-	15:01	61.9	66.4	68.7	60.3	75
20/03/2024	22.7	Sunny	11:12	-	11:42	61.9	66.2	69.1	62.1	75
25/03/2024	25.5	Sunny	10:27	-	10:57	61.9	65.7	68.6	62.4	75
Maximum							66.4			
Minimum							63.5			
Average							65.6			

L_{Aeq}, 30-min graphical results of M11 - The Hong Kong Society for the Blind's Factory cum Sheltered Workshop



NOTE: Due to the relocation of The Hong Kong Society for the Blind's Factory cum Sheltered Workshop (M11), the premises owner rejected ET to conduct impact monitoring since 1 Sept 2022. 30-min noise monitoring at M11 were conducted on the ground floor with orienting to the Project site. ET will resume the impact monitoring once the alternative monitoring location for M11 is confirmed.

L_{Aeq}, 30-min graphical results of M12 - Hong Kong Children's Hospital



Appendix M – Event and Action Plan for noise

Event	Action			
	ET	IEC	Supervisor / ER	Contractor
Action Level being exceeded	<ol style="list-style-type: none"> 1. Notify Supervisor / ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, Supervisor / ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> 1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures submitted by the Contractor and advise the ER accordingly; 3. Advise the Supervisor / ER on the proposed remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> 1. Submit noise mitigation proposal to IEC and Supervisor / ER; 2. Implement noise mitigation proposals. <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"> 1. Inform IEC, Supervisor /ER, Contractor and EPD; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contract's working procedure; 6. Discuss remedial measures required with the IEC, Contractor and Supervisor /ER; 7. Assess effectiveness of 	<ol style="list-style-type: none"> 1. Discuss the potential remedial actions with Supervisor /ER, ET and Contractor; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the Supervisor /ER accordingly. <p>(The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and Supervisor /ER within 3 working days of notification; 3. Implement the agreed proposal; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the Supervisor /ER until the exceedance is abated. <p>(The above actions should be</p>

Event	Action			
	ET	IEC	Supervisor / ER	Contractor
	<p>Contractor's remedial actions and keep IEC, EPD, and Supervisor /ER informed of the results;</p> <p>8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified.)</p>		<p>exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified.)</p>	<p>taken within 2 working days after the exceedance is identified.)</p>

Appendix N – Event and Action Plan for Landscape and Visual Impact

Event	Action			
	ET	IEC	Supervisor / ER	Contractor
Design Check	1. Check final design conforms to the requirements of EP and prepare report.	1. Check report. 2. Recommend remedial design if necessary.	1. Undertake remedial design if necessary.	
Non-conformity on one occasion	1. Identify Source. 2. Inform IEC and Supervisor /ER. 3. Discuss remedial actions with IEC, Supervisor /ER and Contractor. 4. Monitor remedial actions until rectification has been completed.	1. Check report. 2. Check Contractor's working method. 3. Discuss with ET and Contractor on possible remedial measures. 4. Advise Supervisor /ER on effectiveness of proposed remedial measures. 5. Check implementation of remedial measures.	1. Notify Contractor. 2. Ensure remedial measures are properly implemented.	1. Amend working methods. 2. Rectify damage and undertake any necessary replacement.
Repeated Non-conformity	1. Identify Source. 2. Inform IEC and Supervisor /ER. 3. Increase monitoring frequency. 4. Discuss remedial actions with IEC, Supervisor /ER and Contractor. 5. Monitor remedial actions until rectification has been completed. 6. If non-conformity stops, cease additional monitoring.	1. Check monitoring report. 2. Check Contractor's working method. 3. Discuss with ET and Contractor on possible remedial measures. 4. Advise Supervisor /ER on effectiveness of proposed remedial measures. 5. Supervise implementation of remedial measures.	1. Notify Contractor. 2. Ensure remedial measures are properly implemented.	1. Amend working methods. 2. Rectify damage and undertake any necessary replacement.

Appendix O – 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 2024

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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	2.311	0.111	--	--	2.311	--	--	--	--	--	0.184
Feb	2.232	0.177	--	--	2.232	--	--	--	--	--	0.168
Mar	2.893	0.032	--	--	2.893	--	--	0.051	--	--	0.259
Apr											
May											
Jun											
Sub-total	7.416	0.32	--	--	7.416	--	--	0.051	--	--	0.611
July											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	7.416	0.32	--	--	7.416	--	--	0.051	--	--	0.611
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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	
207.384	2.103	10.2	140	27.415	25	200	0.8	0.1	--	3.891	

- 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 50,000m³ (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 ton/m³ and 1.5 ton/m³

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

Implementation Schedule for Air Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
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 extend 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 insides the site. On- site unpaved roads should be compacted and kept free of loose 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 hardcore.	^
		- Every main haul road should be sealed 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.	^

Implementation Schedule for Noise Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
S3.3		Use of quiet PME, movable barriers 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	N/A

Implementation Schedule for Water Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
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 and overflow.	^

Implementation Schedule for Water Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
	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 always be prevented in order not to unduly overload the foul	^

Implementation Schedule for Water Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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 ³ capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources	^

Implementation Schedule for Water Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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 ³ should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	^*
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.	^
S3.4		All temporary and permanent drainage pipes and culverts provided	^

Implementation Schedule for Water Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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 conditions of contract, to ensure that site management is optimised</p>	^

Implementation Schedule for Water Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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. Any service shop and maintenance facilities should be located on	^

Implementation Schedule for Water Quality Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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.	^

Implementation Schedule for Waste Management Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
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.	^
S3.5	S6.7	- Training of site personnel in proper waste management and chemical waste handling procedures.	^

Implementation Schedule for Waste Management Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
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:	
S3.5		- Where it is unavoidable to have transient stockpiles of C&D material within the Project work site pending collection for	^

Implementation Schedule for Waste Management Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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.	^
	S6.7	- Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation	^

Implementation Schedule for Waste Management Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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.	^

Implementation Schedule for Landscape and Visual Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
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 lights.	^
		- CM3 - Erection of decorative mesh screens or construction	^

Implementation Schedule for Landscape and Visual Measures			
EIA for KTD Development Ref.	EIA for KTD – Roads D3A & D4A Ref.	Environmental Protection Measures / Mitigation Measures	Status
		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

Remarks:			
^	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.

Mitigation Measures undertaken by the Contractor for site inspections



Date: 12 March 2024
 Mitigation Measures: The vehicles are restricted to maximum speed of 8 km per hour inside the site.

Date: 21 March 2024
 Mitigation Measures: The portable toilets were provided in the construction site.



Date: 28 March 2024
 Mitigation Measures: The silt curtains were deployed around the Harbour step.

Date: 28 March 2024
 Mitigation Measures: Haul road was sprayed with water to maintain the entire road surface wet.

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

Reporting Month: March 2024

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

Cumulative Statistics on Complaints, Notification of Summons and Successful Prosecutions up to reporting month

Contract No.	Record of Complaint	Record of Warning	Notification of Summons and Successful Prosecutions
ED/2018/01	15	0	0

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
C0001	A dust complaint was referred from the Contractor on 21 Oct 2020 regarding a public complaint via 1823 hotline (Case no. 3-6518939602) on 20 Oct 2020.	<ol style="list-style-type: none"> 1. The water spraying system was not operated in proper time. 2. Stockpile was not covered properly. 3. Haul road was not wetted. 4. Materials transported on trucks were not provided with mechanical covers. 	<p><u>Investigation</u></p> <ol style="list-style-type: none"> 1. Based on the information provided by the Contractor on 22 Oct 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. 2. Based on the monitoring results on 16 Oct 2020, the 1-hour and 24-hour TSP results were below the Action Levels and Limit Levels. 3. Regular site inspection was conducted by ET on 22 Oct 2020, no adverse observation against the dust impact was recorded. <p><u>Action taken</u></p> <p>As per the Contractor, the water sprinkler 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> <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"> 1. Increase the frequency and duration for automatic water spraying system. 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. 3. Ensure stockpiling sites should be lined with impermeable sheeting and banded. Stockpiles should be fully covered by impermeable sheeting at all time except during working 	<ul style="list-style-type: none"> - Closed-out on 5 Nov 2020. - No further complaint was received.

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
			process.	
C0002	A dust complaint was referred from the Contractor on 8 Sep 2021 through E-Mail regarding a complaint received by EPD (EPD ref.: K19/RE/00021205-21) on 7 Sep 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> <ol style="list-style-type: none"> 1. Manual water spraying was provided. 2. The exposed surface and stockpile areas were covered by the impermeable tarpaulin sheet. <p><u>Action taken</u> The exposed surface and stockpile area was covered by the impermeable tarpaulin sheet.</p> <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"> 1. Ensure stockpiling sites should be lined with impermeable sheeting and banded. 2. Stockpiles should be fully covered by impermeable sheeting at all time except during working process. 3. Ensure the work fulfill the relevant statutory requirements on control of air pollution. 4. Take necessary measures to minimize the environmental nuisance arising from the construction site. 	<ul style="list-style-type: none"> - Closed-out on 4 Oct 2021. - No further complaint was received.
C0003	A water discharge complaint was referred from the Contractor on 10 Dec 2021 through E-Mail regarding a complaint received by	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 Dec 2021, no adverse observation against the water impact was recorded.</p> <ol style="list-style-type: none"> 1. There was no muddy water discharge to DSD outfall near the roundabout of Shing Fung Road. 	<ul style="list-style-type: none"> - Closed-out on 5 Jan 2022. - No further complaint was

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
	EPD (ref.: K19/RE/00029046-21) on 9 Dec 2021.		<p>2. The sandbag with layers and filter were provided at the manholes.</p> <p><u>Action taken</u></p> <ul style="list-style-type: none"> - Sandbags and filter were used to block the manholes. - Manholes had been adequately covered and replace the filter frequently. <p><u>Recommendations</u></p> <p>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 sandbag and filter to ease the nuisance. The contractor is recommended to implement the following measures to minimize the impact for waste water:</p> <ol style="list-style-type: none"> 1. Enhance the sandbag with several layers instead of one layer only and replace the filter frequently. 2. Modify the wheel washing area such that the muddy water will be directly flow to the pit and then waste water treatment facility. 3. Take necessary measures to minimize the environmental nuisance arising from the construction site. 	received.
C0004	A dust complaint was received by EPD on 16 Dec 2022. Contractor received Notification of Environmental Complaints from EPD	Complaint of mud/ silt being brought out by vehicles from the project site casing mud/silt accumulation on Shing Fung Road.	<p><u>Investigation</u></p> <p>Regular site inspection was conducted by ET on 29 Dec 2022.</p> <ol style="list-style-type: none"> 1. As per the Contractor, mud / slit generated from nearby construction sites might be brought to Shing Fung Road roundabout. 2. No adverse observation against the dust impact was recorded during site inspection. 	<p>- Closed-out on 13 Jan 2023.</p> <p>- No further complaint was received.</p>

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
	(ref.: K19/RE/00029136-22) by E-Mail on 22 Dec 2021.		<p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Watering manually frequently. 2. Haul Road surfaces were wetted by water truck. 3. Wheel washing for the trucks and vehicles before leaving the project site. <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"> 1. Increase the frequency and duration for automatic water spraying system. 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. 3. Regular wash and clean the share haul road and roundabout in Shing Fung Road. 4. Wheel washing for the trucks and vehicles before leaving the project site. The muddy water after the wheel washing should be directed to sedimentation tank and wastewater treatment facility before discharging to gully. 5. Ensure stockpiling sites should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting at all time except during working process. 6. Dusty materials transported on truck shall be covered. 	
C0005	A noise complaint was received by EPD on 21 Dec 2022. Contractor received Notification of Environmental	Complaint of construction noise arising from the project site near Shing Kai Toad and Muk Tai Street continued to 01:30 am on 21 Dec 2022.	<p><u>Investigation</u></p> <p>Regular site inspection was conducted by ET and the Contractor on 29 Dec 2022</p> <ol style="list-style-type: none"> 1. As per the Contractor, the complaint was still under investigation and could not conclude the complaint related to the project site or not. 2. Status of CNPs in the works area near Shing Kai Road and 	- During the SSMEC meeting on 10 Jan 2023, the Contractor explained

Complaint Log for ED/2018/01														
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations		Close-Out Date / Status									
	Complaints from EPD (EPD ref.: K19/RE/00029422-22) on 22 Dec 2022. IEC received the notification on 22 Dec 2022 from EPD and forwarded the notification to CEDD, Contractor, ER and ET on same day.		<p>Muk Tai Street were checked and all of them were valid.</p> <table border="1"> <thead> <tr> <th>Construction Noise Permit</th> <th>Valid Form</th> <th>Valid Till</th> </tr> </thead> <tbody> <tr> <td>GW-RE1297-22</td> <td>10 Dec 2022</td> <td>08 Jun 2023</td> </tr> <tr> <td>GW-RE1299-22</td> <td>17 Dec 2022</td> <td>15 Jun 2023</td> </tr> </tbody> </table> <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Trainings for CNP were provided to the labour on 22 Dec 2022. 2. No construction activities were allowed in the restricted hours for those areas without valid CNP. <p><u>Recommendations</u></p> <p>To minimize the impact for construction noise, mitigation measures are recommended:</p> <ol style="list-style-type: none"> 1. Training to new staff and regular enhance training for staff for CNP and other environmental issues. 2. Regularly check the status of ALL CNP and other environmental permits. 		Construction Noise Permit	Valid Form	Valid Till	GW-RE1297-22	10 Dec 2022	08 Jun 2023	GW-RE1299-22	17 Dec 2022	15 Jun 2023	that the noise complaint case has already passed to head office and waiting for the Legal opinion. No further information could be provided for Incident Report on Complaint Investigation at that moment. - Under investigation in the reporting month.
Construction Noise Permit	Valid Form	Valid Till												
GW-RE1297-22	10 Dec 2022	08 Jun 2023												
GW-RE1299-22	17 Dec 2022	15 Jun 2023												
C0006	A dust complaint was received by EPD on 6 Dec 2022. Contractor (POC)	Complaint of construction dust arising from construction sites along Shing Fung Road.	<p><u>Investigation</u></p> <p>Site inspections were conducted by ET on 26 Jan 2023 and joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 8 Feb 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (roundabout) is the common road for 		- Closed-out on 16 Mar 2023.									

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
	<p>received Notification of Environmental Complaints from EPD (ref.: K19/RE/00027862-22) by E-Mail on 7 Dec 2022.</p> <p>IEC received the notification on 19 Jan 2023 and forwarded the notification to CEDD, ER and ET on same day.</p>		<p>public vehicles. In addition, construction vehicles from several nearby construction sites also use the concerned road, especially a lots of dump trucks.</p> <ol style="list-style-type: none"> 2. Construction vehicles from Contractor (POC) project site are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 3. Worker of sub-contractor from Contractor (POC) wetted the part of the concerned road surface during the site inspection on 8 Feb 2023 to suppress dust emission. 4. No construction works was observed on 26 Jan 2023 and no adverse observation against the dust impact were found during the site inspection on both dates. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 2. Wheel washing for the trucks and vehicles before leaving the project site directly through Shing Fung Road exit. 3. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Main haul road and the area that water sprinklers system was not covered in the construction site should be wetted manually in regular basis. 2. Regular wash the share haul road and roundabout in Shing Fung Road. 3. Wheel washing for the trucks and vehicles before leaving 	

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
			<p>the project site. The muddy water after the wheel washing should be directed to sedimentation tank and wastewater treatment facility before discharging to gully.</p> <p>4. Dusty materials transported on truck shall be covered.</p>	
C0007	<p>A dust complaint was received by EPD on 19 Jan 2023.</p> <p>Contractor (POC) received Notification of Environmental Complaints from EPD (ref.: K19/RE/00001988-23) by E-Mail on 2 Feb 2023.</p> <p>IEC received the notification on 2 Feb 2023 and forwarded the notification to CEDD, ER and ET on the same day.</p>	<p>Complaint of dusty environment at the new road connecting Shing Fung Road and Shing Kai Road caused by vehicles from construction sites nearby.</p>	<p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 8 Feb 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. 2. Construction vehicles from POC are not allowed leaving the site to Shing Fung Road directly with barriers blocked since 21 Jan 2023. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. Worker of sub-contractor from Contractor (POC) wetted the part of the concerned road surface during the site inspection on 8 Feb 2023 to suppress dust emission. 5. No adverse observation against the dust impact were found during the site inspection along the new road. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 2. Wheel washing for the trucks and vehicles before leaving the project site. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. <p><u>Recommendations</u></p>	<p>- Closed-out on 16 Mar 2023.</p>

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
			<p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. 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. 2. Regular wash the share haul road in Shing Fung Road. 3. Wheel washing for the trucks and vehicles before leaving the project site. The muddy water after the wheel washing should be directed to sedimentation tank and wastewater treatment facility before discharging to gully. 4. Dusty materials transported on truck shall be covered. 	
C0008	<p>A dust complaint was received by EPD on 13 Feb 2023.</p> <p>Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00003909-23) by E-Mail on 17 Feb 2023 and forwarded the E-mail to ER, ET and IEC on same day.</p>	<p>Complaint of silt / mud accumulation on the new road connecting Shing Fung Road and Shing Kai Road caused by vehicles from construction sites nearby.</p>	<p><u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 23 Feb 2023 and regular site inspection was conducted by Contractor (POC), ER and ET on 2 Mar 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust nuisance. 2. Construction vehicles from POC are not allowed leaving the site to Shing Fung Road directly with barriers blocked since 21 Jan 2023. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. As per Contractor (POC), EPD conducted site visit on 16 Feb 2023. 5. No adverse observation against the dust / muddy water impact were found during the site inspection on both dates. 	- Closed-out on 29 Mar 2023.

Complaint Log for ED/2018/01														
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status										
			<p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 2. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 3. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 4. Wheel washing for the trucks and vehicles before leaving the project site. 5. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow: <table border="1" data-bbox="1146 852 1904 1029"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>14 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>22 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> 6. During the two site inspections, mitigation measures implemented by the Contractor (POC) were found properly based on existing site condition and resources. <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. 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. 	Date	Road Washing by	8 Mar 2023	Sweeper truck with water spraying truck	9 Mar 2023	Sweeper truck with water spraying truck	14 Mar 2023	Sweeper truck with water spraying truck	22 Mar 2023	Sweeper truck with water spraying truck	
Date	Road Washing by													
8 Mar 2023	Sweeper truck with water spraying truck													
9 Mar 2023	Sweeper truck with water spraying truck													
14 Mar 2023	Sweeper truck with water spraying truck													
22 Mar 2023	Sweeper truck with water spraying truck													

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
			<ol style="list-style-type: none"> 2. Regular wash the share haul road in Shing Fung Road. 3. Dusty materials transported on truck shall be covered. 	
C0009	<p>A dust complaint was received by EPD on 15 Feb 2023.</p> <p>Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00004280-23) by E-Mail on 22 Feb 2023 and forwarded the E-mail to ER, ET and IEC on same day.</p>	<p>Complaint of mud / silt being brought out by vehicles from construction site at Shing Fung Road roundabout (near Lamp Post DF4831) causing mud / silt accumulation along Shing Fung Road.</p>	<p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER, ET and IEC on 23 Feb 2023 and regular site inspection was conducted by Contractor (POC), ER and ET on 2 Mar 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust nuisance. 2. Construction vehicles from POC are not allowed leaving the site to Shing Fung Road directly with barriers blocked since 21 Jan 2023. 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. As per Contractor (POC), EPD conducted site visit on 16 Feb 2023. 5. No adverse observation against the dust impact were found during the site inspection on both dates. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 2. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 3. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 4. Wheel washing for the trucks and vehicles before leaving 	- Closed-out on 29 Mar 2023.

Complaint Log for ED/2018/01														
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status										
			<p>the project site.</p> <p>5. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow:</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>14 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>22 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> <p>6. During the two site inspections, mitigation measures implemented by the Contractor (POC) were found properly based on existing site condition and resources.</p> <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. 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. 2. Regular wash the share haul road in Shing Fung Road. 3. Dusty materials transported on truck shall be covered. 	Date	Road Washing by	8 Mar 2023	Sweeper truck with water spraying truck	9 Mar 2023	Sweeper truck with water spraying truck	14 Mar 2023	Sweeper truck with water spraying truck	22 Mar 2023	Sweeper truck with water spraying truck	
Date	Road Washing by													
8 Mar 2023	Sweeper truck with water spraying truck													
9 Mar 2023	Sweeper truck with water spraying truck													
14 Mar 2023	Sweeper truck with water spraying truck													
22 Mar 2023	Sweeper truck with water spraying truck													
C0010	<p>A dust and muddy water complaint was received by Hotline 1823 on 9 Mar 2023.</p> <p>ER received the transfer from the Hotline 1823 on 9 Mar 2023 and forwarded the E-mail to</p>	<p>Complaint of dusty environment at the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road roundabout.</p> <p>Worker wetted the road surface and might cause mud / silt problem.</p>	<p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER, and ET on 16 Mar 2023 and 23 Mar 2023.</p> <ol style="list-style-type: none"> 1. The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust nuisance. 2. Construction vehicles from POC are not allowed leaving the 	- Closed-out on 6 Apr 2023.										

Complaint Log for ED/2018/01														
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status										
	Contractor (POC), ET and IEC on same day.		<p>site to Shing Fung Road directly with barriers blocked since 21 Jan 2023.</p> <ol style="list-style-type: none"> 3. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 4. The sandbags were provided around the manholes. 5. No adverse observation against the dust / muddy water impact were found during the site inspection on both dates. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. Construction vehicles from Contractor (POC) are not allowed leaving the site to Shing Fung Road directly as the exit was blocked by barriers since 21 Jan 2023. 2. Contractor (POC) has restricted the construction vehicles from nearby construction site (Gammon site) using this site entrance for any construction activities since 4 Feb 2023. 3. Haul Road surfaces were wetted manually and washed the dusty water barrier regularly. 4. Wheel washing for the trucks and vehicles before leaving the project site. 5. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow: <table border="1" data-bbox="1146 1114 1904 1289"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>14 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>22 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> 6. The sandbags were provided around the manholes. 7. During the two site inspections, mitigation measures implemented by the Contractor (POC) were found properly based on existing site condition and resources. 	Date	Road Washing by	8 Mar 2023	Sweeper truck with water spraying truck	9 Mar 2023	Sweeper truck with water spraying truck	14 Mar 2023	Sweeper truck with water spraying truck	22 Mar 2023	Sweeper truck with water spraying truck	
Date	Road Washing by													
8 Mar 2023	Sweeper truck with water spraying truck													
9 Mar 2023	Sweeper truck with water spraying truck													
14 Mar 2023	Sweeper truck with water spraying truck													
22 Mar 2023	Sweeper truck with water spraying truck													

Complaint Log for ED/2018/01										
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status						
			<u>Recommendations</u> There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air and water quality: <ol style="list-style-type: none"> Dusty materials transported on truck shall be covered. Enhance the sandbags with several layers of filters and replace the filter frequently. 							
C0011	A muddy water complaint was received by EPD on 9 Mar 2023. Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00004280-23) by E-Mail on 22 Feb 2023 and forwarded the E-mail to ER, ET and IEC on same day.	Complaint of water being sprayed onto vehicles passing by and mud / silt being washed into roadside gully near Shing Fung Road roundabout.	<u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER and ET on 23 Mar 2023. <ol style="list-style-type: none"> The concerned area (new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 Dec 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust / mud / silt nuisance. The sandbags were provided around the manholes. No adverse observation against the muddy water impact were found during the site inspection on both dates. <u>Action taken</u> <ol style="list-style-type: none"> As per Contractor (POC), no manually road surfaces watering on Shing Fung Road after receiving complaint (16 Mar 2023). As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once a week as follow: <table border="1" data-bbox="1146 1316 1904 1422"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>8 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 Mar 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> 	Date	Road Washing by	8 Mar 2023	Sweeper truck with water spraying truck	9 Mar 2023	Sweeper truck with water spraying truck	- Closed-out on 6 Apr 2023.
Date	Road Washing by									
8 Mar 2023	Sweeper truck with water spraying truck									
9 Mar 2023	Sweeper truck with water spraying truck									

Complaint Log for ED/2018/01					
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations		Close-Out Date / Status
			14 Mar 2023	Sweeper truck with water spraying truck	
			22 Mar 2023	Sweeper truck with water spraying truck	
			3. The sandbags were provided around the manholes.		
			<u>Recommendations</u> There was no direct evidence showing that the muddy water nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air and water quality: 1. Enhance the sandbags with several layers of filters and replace the filter frequently.		
C0012	A dust complaint was received by EPD on 31 May 2023. Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00013488-23) by E-Mail on 6 June 2023 and forwarded the E-mail to ER, ET and IEC on same day.	Complaint of silt / mud accumulation on the new road connecting Shing Fung Road and Shing Kai Road caused by vehicles from construction site nearby.	<u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER and ET on 8 June 2023. 1. As per Mr. Tony Tang from POC, the concerned area was the section of Shing Fung Road at the entrance of Gammon site accommodation. 2. The new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 December 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust / silt nuisance. 3. As per Mr. Tony Tang from POC, recycled water was used in wheel washing machine near the entrance of Gammon site. Those are the possible sources of mud nuisance. 4. No adverse observation against the dust impact were found during the site inspection. <u>Action taken</u> 1. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung Road and		- Closed-out on 19 June 2023.

Complaint Log for ED/2018/01																						
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status																		
			<p>Shing Kai Road) and Shing Fung Road by water truck was conducted twice a week start from 11 May 2023.</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>19 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>23 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>25 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>30 May 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>2 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>6 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>9 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>13 June 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> <p>2. Wheel washing for the vehicles before leaving the construction site.</p> <p><u>Recommendations</u> There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Regular wash the share haul road in Shing Fung Road and Shing Kai Road. 2. Dusty materials transported on truck should be covered. 	Date	Road Washing by	19 May 2023	Sweeper truck with water spraying truck	23 May 2023	Sweeper truck with water spraying truck	25 May 2023	Sweeper truck with water spraying truck	30 May 2023	Sweeper truck with water spraying truck	2 June 2023	Sweeper truck with water spraying truck	6 June 2023	Sweeper truck with water spraying truck	9 June 2023	Sweeper truck with water spraying truck	13 June 2023	Sweeper truck with water spraying truck	
Date	Road Washing by																					
19 May 2023	Sweeper truck with water spraying truck																					
23 May 2023	Sweeper truck with water spraying truck																					
25 May 2023	Sweeper truck with water spraying truck																					
30 May 2023	Sweeper truck with water spraying truck																					
2 June 2023	Sweeper truck with water spraying truck																					
6 June 2023	Sweeper truck with water spraying truck																					
9 June 2023	Sweeper truck with water spraying truck																					
13 June 2023	Sweeper truck with water spraying truck																					
C0013	<p>A water complaint was received by EPD on 19 June 2023.</p> <p>Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00014944-23)</p>	<ul style="list-style-type: none"> - Complaint of muddy water being discharged into Kai Tak Approach Channel on 18 Jun 2023. - Complaint of construction work being conducted on the Sunday of 18 Jun 2023. 	<p><u>Investigation</u> Joint site inspection was conducted by Contractor (POC), ER and ET on 6 Jul 2023.</p> <ol style="list-style-type: none"> 1. As per Mr. Tony Tang from POC, the concerned area was the section of Shing Fung Road at the nearby channel. 2. Heavy raining was recorded on 18 Jun 2023. The recorded rainfall was 35.8mm (sourced from manned weather station of Hong Kong Observatory at https://www.hko.gov.hk/en/cis/dailyExtract.htm?v=2023&m=6). The implication of heavy rainfall storm runoff 	- Closed-out on 2 Aug 2023.																		

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
	by E-Mail on 29 June 2023 and forwarded the E-mail to ER, ET and IEC on 4 July 2023.		<p>might wash across the exposed soil surfaces which was direct muddy water discharge. This is the possible source of water nuisance.</p> <ol style="list-style-type: none"> 3. As per Mr. Tony Tang from POC, no construction work was conducted on 18 Jun 2023. Based on the attendance record, 6 employees including 4 watchman, labourer and driver, were on site on 18 Jun 2023 and they were not involved in the construction work. In the joint site inspection, no construction work was conducted on the nearby channel. 4. No adverse observation against the muddy water impact were found during the site inspection on 14 and 20 June 2023, and 6 July 2023. The sedimentation tank and wastewater treatment plant are operating efficiently during the site inspection. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. The ditch is maintained regularly and excavated deeper by workers. 2. Pumps are placed at the ditch to prevent flooding and overflow. 3. Enhanced training for site workers to prevent flushing during heavy rain by placing pumps in the ditch to prevent flooding and overflow during periods of heavy rain during Tool- Box-Talk training. <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the muddy water nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for water quality:</p> <ol style="list-style-type: none"> 1. Regular cleaning and maintenance drainage systems at the nearby Kai Tak Approach Channel. 	

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
C0014	A polluting discharge complaint was received by EPD on 16 October 2023. Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00024581-23) by E-Mail on 19 October 2023 and forwarded the E-mail to ER, ET and IEC on 21 October 2023.	- Complaint of polluting discharge from the construction site of Stage 4 Infrastructure at the Former Runway and South Apron, Kowloon City (“illegal discharge from kai tak 6577 construction site the main contractor should be hip hing)	<p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER and ET on 26 October 2023.</p> <ol style="list-style-type: none"> 1. The concerned area is near at Former Runway and South Apron, Kowloon City. Those are the possible sources should be illegal discharge from Kai Tak 6577 construction site which the main contractor should be hip hing. The possible source of polluting discharge does not come from the Contractor (POC). 2. No adverse observation against the muddy water impact were found during the site inspection on dates. No surface runoff is observed, and the sedimentation tank and wastewater treatment plant were implemented normally. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. As per Contractor (POC), no wastewater generated at concerned area and ensure fulfil the conditions stipulated in the valid WPCO licence after receiving complaint (16 October 2023). The effluent discharge has been implemented properly. 2. The silt curtain has been installed around the construction activities at the concerned area. (referring to Photo 2) The sedimentation tank and wastewater treatment has been implemented properly. 3. The pump has been installed and collected sewage 	- Closed-out on 15 November 2023.

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
			<p>at the channel which can minimize water quality impacts and prevent overload the foul sewage system. (referring to Photo 3) The channel and ditches have been clear after receiving complaint.</p> <p><u>Recommendations</u> There was no direct evidence showing that the muddy water nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for water quality:</p> <ol style="list-style-type: none"> 1. The silt removal facilities, channels and manholes should be maintained regularly. 2. The silt curtain and equipment should be properly maintained. 	

Complaint Log for ED/2018/01				
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations	Close-Out Date / Status
C0015	A dust complaint was received by EPD on 12 December 2023. Contractor (POC) received the Notification of Environmental Complaints from EPD (ref.: K19/RE/00030287-23) by E-Mail on 19 December 2023 and forwarded the E-mail to ER, ET and IEC on 20 December 2023.	- Complaint of construction dust nuisance on Shing Fung Road.	<p><u>Investigation</u></p> <p>Joint site inspection was conducted by Contractor (POC), ER, and ET on 21 December 2023.</p> <ol style="list-style-type: none"> 1. As per the email clarified by Mr. Tony Tang from POC on 20 December 2023, the concerned area (section of Shing Fung Road) was the junction of Road D3 and gate 2A& 2B. 2. The new road connecting Shing Fung Road & Shing Kai Road) has been open for public vehicles (not only project related vehicles) since 31 December 2022. Vehicles from nearby construction sites also used the concerned road. Those are the possible sources of dust / silt nuisance. The non-project of stockpiles is founded near the concerned road during the site inspection. 3. As per Mr. Tony Tang from POC, recycled water was used in wheel washing machine near the entrance of Gammon site. The washing facilities and regular road watering are implemented. 4. No adverse observation against the dust impact were found during the site inspection. The washing facilities and dust control measures are implemented properly. <p><u>Action taken</u></p> <ol style="list-style-type: none"> 1. As per instruction from CEDD and AECOM, road washing along the new road (connecting Shing Fung 	- 17 January 2024

Complaint Log for ED/2018/01															
Complaint Ref. No.	Date of Complaint	Description of Complaint	Investigation / Actions taken / Recommendations		Close-Out Date / Status										
			<p>Road and Shing Kai Road) and Shing Fung Road by water truck was conducted once per week in December 2023.</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Road Washing by</th> </tr> </thead> <tbody> <tr> <td>07 December 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>16 December 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>21 December 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> <tr> <td>29 December 2023</td> <td>Sweeper truck with water spraying truck</td> </tr> </tbody> </table> <p>2. Wheel washing for the vehicles before leaving the construction site.</p> <p><u>Recommendations</u></p> <p>There was no direct evidence showing that the dust nuisance was caused by the contractor at the complaint area, however Contractor (POC) is recommended to implement the following measures to minimize the impact for air quality:</p> <ol style="list-style-type: none"> 1. Regular wash the share haul road in Shing Fung Road and Shing Kai Road. 2. Dusty materials transported on truck should be covered. 		Date	Road Washing by	07 December 2023	Sweeper truck with water spraying truck	16 December 2023	Sweeper truck with water spraying truck	21 December 2023	Sweeper truck with water spraying truck	29 December 2023	Sweeper truck with water spraying truck	
Date	Road Washing by														
07 December 2023	Sweeper truck with water spraying truck														
16 December 2023	Sweeper truck with water spraying truck														
21 December 2023	Sweeper truck with water spraying truck														
29 December 2023	Sweeper truck with water spraying truck														