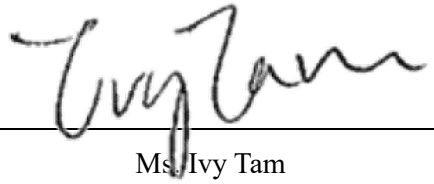
Civil Engineering and Development Department

EP-510/2016 – Police Facilities in Kong Nga Po

Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Monthly Environmental Monitoring and Audit Report for July 2023

(Version 1.0)

Certified By 

Ms. Ivy Tam

(Environmental Team Leader)

REMARKS:

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

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

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Civil Engineering and Development Department
North Development Office
Unit 2320, Level 23, Tower 1, Metroplaza
223 Hing Fong Road,
Kwai Fong, New Territories,
Hong Kong

Attention: Mr. William WONG

11 August 2023

Dear William,

Contract No.: NDO/02/2018
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
Monthly Environmental Monitoring and Audit Report for July 2023

I refer to the email from the Environmental Team concerning the captioned. I have no adverse comment on the Monthly EM&A Report for July 2023 (Version 1.0) and verify the report according to Conditions 1.9 of the Environmental Permit with permit number EP-510/2016.

Yours faithfully,

Tandy Tse
Independent Environmental Checker

cc. CEDD – Joseph Yan
AECOM – Mr. Steven Leung
ET Leader – Ivy Tam

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EXECUTIVE SUMMARY

Introduction

1. This is the 37th monthly Environmental Monitoring and Audit (EM&A) Report under the Work Contract (Environmental Permit No. EP-510/2016: Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) (the Project). This report was prepared by Wellab Limited (Wellab) under "Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po" (hereinafter called the "Service Contract"). This report documents the findings of Environmental Monitoring and Audit (EM&A) work conducted from 1st to 31st July 2023.

2. Part of the construction site was handed over to Architectural Services Department (ArchSD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase. A further environmental permit (FEP) (FEP no.: FEP-01/510/2016) was issued by the Director of Environmental Protection (DEP) on 16 February 2023 to Architectural Services Department as permit holder for the construction of building works.

Summary of Construction Works undertaken during the Reporting Month

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

Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po (Environmental Permit No. EP-510/2016)

- Slope Upgrading Works
- Road & Associated Works
- Bridge & Associated Works

Environmental Monitoring and Audit Progress

4. A summary of the EM&A activities in this reporting month is listed in **Table I** below:

Table I Summary Table for EM&A Activities in the Reporting Month

EM&A Activities	Date
Air Quality Monitoring	3, 6, 7, 12, 13, 18, 19, 24, 25, 28 and 31 July 2023
Noise Monitoring	3, 6, 12, 13, 18, 19, 24, 25 and 31 July 2023
Ecological Monitoring	28 July 2023
Environmental Site Inspection	7, 14, 21 and 25 July 2023

Breaches of Action and Limit Levels

5. Summary of the environmental exceedances of the reporting month is tabulated in **Table II**.

Air Quality

6. All construction air quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

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

Table II Summary Table for Events Recorded in the Reporting Month

Environmental Monitoring	Parameter	No. of Non-Project related Exceedances		No. of Exceedance related to the Construction Works		Action Taken
		Action Level	Limit Level	Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	N/A
Noise	$L_{eq(30min)}$	0	0	0	0	N/A

Ecological Monitoring

8. All ecological monitoring was conducted as scheduled in the reporting month. The ecological monitoring result in the reporting month is shown in **Appendix H**.

Environmental Non-Compliance

9. No environmental non-compliance was recorded in the reporting month

Environmental Complaint

10. No environmental complaint was received in the reporting month.

Notification of Summons and Successful Prosecutions

11. No notification of summons or successful prosecutions was received in the reporting month.

Reporting Changes

12. No reporting change was made in the reporting month.

Future Key Issues

13. The major site activities for the coming three months include**:**

Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

- Slope Upgrading Works
- Road & Associated Works
- Bridge & Associated Works

14. Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality and waste management. For the details, please refer to **Appendix A** regarding the anticipated major impacts from the construction works and corresponding recommended mitigation measures.

1 INTRODUCTION

1.1 Wellab Limited was commissioned by the Civil Engineering Development Department (CEDD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) works for the Work Contract (Environmental Permit No. EP-510/2016: Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) to ensure that the environmental performance of the Works Contracts comply with the requirements specified in the Environmental Permits (EPs), Environmental Impact Assessment (EIA) Report and Environmental Monitoring & Audit (EM&A) Manual of the Police Facilities in Kong Nga Po Project and other relevant statutory requirements.

1.2 The major construction works for the Project commenced on 3rd July 2020 and the main site in Kong Nga Po was handed over to Architectural Services Department (ASD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase.

Purpose of the report

1.3 This is the 37th EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 1st to 31st July 2023.

Structure of the report

1.4 The structure of the report is as follows:

Section 1: **Introduction -** purpose and structure of the report.

Section 2: **Project Information –** summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.

Section 3: **Air Quality Monitoring –** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event /Action Plans.

Section 4: **Noise Monitoring –** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event/Action Plans.

Section 5: **Ecological Monitoring –** summarises the monitoring results of the monthly ecological monitoring undertaken within the reporting month.

Section 6: **Landscape and Visual Monitoring –** summarises the audit results of the site inspection undertaken within the reporting month.

Section 7: **Environmental Site Inspection –** summarises the audit findings of the weekly site inspections undertaken within the reporting month.

Section 8: **Environmental Non-conformance –** summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.

Section 9: **Future Key Issues –** summarises the impact forecast for the next three months and monitoring schedule in the next month.

Section 10: **Conclusions and Recommendations**

2 PROJECT INFORMATION

Background

2.1 The Project consists of site formation works and building works for the co-location of various police facilities in the Project site at Kong Nga Po as well as road improvement works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road. The police facilities include:

- Lo Wu Firing Range (LWFR) to be relocated from Lo Wu;
- Ma Tso Lung Firing Range (MTLFR) to be relocated from Ma Tso Lung;
- Weapons Training Facilities (WTF) and Police Driving and Traffic Training Facilities (PD&TTF) to be relocated from Fan Garden;
- Helipad to be relocated from Lo Wu;
- A Proposed Police Training Facility (PTF); and
- A new internal access road network with underpass within the Project site.

2.2 The improvement works to Kong Nga Po Road between the police facilities and Man Kam To Road includes roadworks, viaduct of less than 100m between abutments, and associated works such as slopeworks and retaining walls.

2.3 In addition to the above, associated supporting infrastructure and utilities including an underground stormwater storage tank, sewage pumping station, petrol / diesel filling station, a multi-storey training complex associated with the PD&TFF, and other ancillary facilities will also be provided.

2.4 The Project is a Designated Project under the Environmental Impact Assessment Ordinance (EIAO). An Environmental Impact Assessment (EIA) Report (Report No.: AEIAR-201/2016) for the Project was approved under EIAO in October 2016 in accordance with the EIA Study Brief (No. ESB-276/2014) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM). The corresponding Environmental Permit was issued (EP no.: EP-510/2016) by the Director of Environmental Protection (DEP) in November 2016.

2.5 The Works Contract (Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) generally consists of site formation & infrastructure works for the co-location of various police facilities at Kong Nga Po as well as upgrading works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road (hereinafter called “the Project”).

2.6 Part of the construction site was handed over to Architectural Services Department (ArchSD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase. A further environmental permit (FEP) (FEP no.: FEP-01/510/2016) was issued by the Director of Environmental Protection (DEP) on 16 February 2023 to Architectural Services Department as permit holder for the construction of building works.

2.7 According to approved Environmental Monitoring and Audit (EM&A) Manual, an air quality and noise monitoring programme is recommended during the construction phases of the Project to monitor the expected dust and noise nuisances. Baseline air quality and noise

monitoring were conducted by ET from 14th March 2020 to 2nd April 2020 to establish the background conditions of the designated sensitive receivers prior to the commencement of the Project's construction works.

2.8 The site layout plan for the Project is shown in **Figure 1**.

Project Organization

2.9 Different parties with different levels of involvement in the Project organization under EP no.: EP-510/2016 include:

- Project Proponent – Civil Engineering and Development Department (CEDD)
- *Supervisor / Supervisor's* Representative – AECOM
- Environmental Team (ET) – Wellab Limited
- Independent Environmental Checker (IEC) – Acuity Sustainability Consulting Limited

2.10 The key personnel contact names and numbers are summarised in **Table 2.1**.

Table 2.1 Key Contacts of the Project

Party	Role	Contact Person	Phone No.	Fax No.
Contract No. ND/2018/01				
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Joseph YAN	3152 3551	3547 1658
Supervisor / Supervisor's Representative (AECOM)	Senior Resident Engineer	Mr. Steven Leung	5287 4331	3922 9797
Environmental Team (Wellab Limited)	Environmental Team Leader	Ms. Ivy Tam	2151 2090	2898 7076
	Qualified Ecologist	Dr. Priscilla Choy	2898 7388	2898 7076
	Registered Landscape Architect	Mr. Ted Lam	2898 7388	2898 7076
Independent Environmental Checker (Acuity Sustainability Consulting Limited)	Independent Environmental Checker	Ms. Melody Cheng	2698 6833	2693 9383
Contractor (Build King Construction Limited)	Site Agent	Mr. Book Kin Man	2272 3128	2528 1751
	Environmental Officer	Mr. Alex Liu	9754 3432	

Summary of Construction Works Undertaken During Reporting Month

2.11 The major site activities undertaken in the reporting month included**:**

Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

- Slope Upgrading Works
- Road & Associated Works
- Bridge & Associated Works

Construction Programme

2.12 A copy of Contractors' construction programmes are provided in **Appendix A**.

Status of Environmental Licences, Notifications and Permits

2.13 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in **Table 2.2**.

Table 2.2 Status of Environmental Licences, Notifications and Permits

Permit / Licence No.	Valid Period		Status
	From	To	
Environmental Permit (EP)			
EP-510/2016	N/A	N/A	Valid
Construction Noise Permit (CNP)			
GW-RN0081-23	28-01-2023	27-07-2023	Expired in the reporting month
GW-RN0792-23	28-07-2023	27-01-2024	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
EPD Ref no.: 451555	N/A	N/A	N/A
Billing Account for Construction Waste Disposal			
Account No. 7036173	24-12-2019	N/A	Valid
Registration of Chemical Waste Producer			
WPN5213-641-B2590-01	18-5-2020	N/A	Valid
Effluent Discharge Licence under Water Pollution Control Ordinance			
WT00035709-2020	11-5-2020	31-5-2025	Valid

Summary of EM&A Requirement

2.14 The EM&A programme requires construction noise monitoring, air quality monitoring, ecological monitoring and environmental site audits. The EM&A requirements are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event / Action Plans;
- Environmental mitigation measures, as recommended in the Project EIA study final report; and
- Environmental requirements in contract documents.

Status of Compliance with Environmental Permits Conditions

2.15 The status of compliance with Environmental Permit (EP) No. EP-510/2016 and required submission related to this Project under the EP is summarized in **Table 2.3**:

Table 2.3 Summary Table for Status of Compliance / Required Submission under EP No. EP-510/2016

EP Conditions	Submission	Submission Date	Approval Status
1.12	Notification of Commencement Date of Construction	3rd June 2020	*
2.7	Proposal on the Reporting Mechanism and Curriculum Vitae of the IEC	6th February 2020	*
2.11	Management Organizations	9th March 2020	*
2.12	Construction Works Schedule and Location Plans	20th March 2020	*
2.13 & 2.14	Detailed Vegetation Survey Report (Version 1.0)	2nd April 2020	Approved
	Detailed Vegetation Survey Report (Version 2.0)	8th May 2020	
	Detailed Vegetation Survey Report (Version 3.0)	9th July 2020	
2.4 & 2.14	Transplantation Proposal (Version 1.0)	2nd April 2020	Approved
	Transplantation Proposal (Version 2.0)	8th May 2020	
	Transplantation Proposal (Version 3.0)	9th July 2020	
2.15	Baseline Survey Report for Golden-Headed Cisticola	9th March 2020	Approved
2.16	Explanatory Statement for Revised Layout Plan of Kong Nga Po Road	10th March 2020	Approved
2.17	Layout Plan for Permeable Pavings	2nd August 2022 (The demarcation and detail design of the permeable paving is subject to the design by ArchSD's Contractor)	N/A
2.18 & 2.19	Landscape and Visual Mitigation Plan	7th April 2020	Approved
	Landscape and Visual Mitigation Plan (Revised Final Rev. 4)	28th September 2020	
2.20	Plan for Perimeter Walls/ Boundary Walls at Project Site and Side Walls of Firing Range	To be submitted at least one month before the commencement of construction of relevant part(s) of the Project (under ArchSD's building works Contract)	N/A
2.23	Helicopter Flight Plan	To be submitted at least one month before the commencement of operation of the Helipad (under ArchSD's building works Contract)	N/A
3.4	Baseline Air Quality and Noise Monitoring Report	20th April 2020	*
3.4	Baseline Monitoring Report for Landscape and Visual Resources	21st April 2020	*

Remarks: * Approval not required in EP-510/2016
N/A – Not applicable at this stage

3 AIR QUALITY MONITORING

Monitoring Requirements

3.1 In accordance with the EM&A Manual, impact 1-hour TSP monitoring was conducted to monitor the air quality for the Works Contracts. **Appendix B** shows the established Action/Limit Levels for the air quality monitoring works.

3.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 day at one air quality monitoring station.

Monitoring Location

3.3 According to Section 2.2.5 of the EM&A Manual, impact air quality monitoring was conducted at the two designated monitoring stations for the Project as shown in **Figure 2**. **Table 3.1** describes the location of the air quality monitoring stations.

Table 3.1 Location for Air Quality Monitoring Stations

Monitoring Station	Location of Measurement
AM1	Village House, Kong Nga Po
AM2	Village House, Kong Nga Po

Monitoring Equipment

3.4 As the setup of HVS for 1-hour TSP monitoring at the designated locations and request for secured supply of electricity for HVS were not allowed by the villager, direct reading dust meters was therefore used to carry out the 1-hour TSP monitoring. Dust meter has been commonly used for measuring 1-hour TSP levels in a number of designated projects of major infrastructure works. The proposed use of direct reading dust meter was submitted to IEC and agreed by the IEC. With the use of direct reading dust meter, it can allow prompt and direct results for the EM&A reporting and the implementation of the event and action plan. The 1-hour sampling was determined on bi-monthly basis by the HVS to check the validity and accuracy of the results measured by direct reading method.

3.5 **Table 3.2** summarises the equipment used in the impact air quality monitoring programme. Copies of calibration certificates are attached in **Appendix C**.

Table 3.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Dust Monitor	AEROCET-831	7

3.6 Meteorological information was extracted from "Hong Kong Observatory - Ta Kwu Ling Weather Station" as the alternative method to obtain representative wind data. For Ta Kwu Ling Weather Station, it is located nearby the Project site and situated at approximately 15m above mean sea level. The station's wind data monitoring equipment is set above the existing ground ten meters in compliance with the general setting up requirement. Furthermore, this station also provides other meteorological information, such as the humidity, rainfall, air pressure and temperature etc. The general meteorological conditions and the meteorological data at Ta Kwu Ling Weather Station are presented in **Appendix G**.

3.7 The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staffs during the monitoring day.

Monitoring Parameters, Frequency and Duration

3.8 **Table 3.3** summarises the monitoring parameters and frequencies of impact dust monitoring during the Works Contracts activities. The air quality monitoring schedule for the reporting month is shown in **Appendix D**.

Table 3.3 Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times/ 6 days

Monitoring Methodology and QA/QC Procedure

1-hour TSP Air Quality Monitoring

Instrumentation

3.9 Direct reading dust meter was deployed for the air quality monitoring as shown in **Table 3.2**.

3.10 The measuring procedures of the dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

(Met One Instrument: Model no/ AEROCET-831)

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Press and hold the Power key momentarily to power on the unit and make sure that the battery level was not flash or in low level.
- Allow the instrument to stand for about 3 second to display the Sample Screen minutes.
- Press the START / STOP key to run the internal vacuum pump for 1 minute and ready to use.
- Use the select dial to select the PM range and press the START / STOP key to start a measurement.
- Finally, push the START/STOP key to stop the measuring after 1 hour sampling.
- Information such as sampling date, time, value and site condition were recorded during the monitoring period.
- All data were recorded in the data logger for further data processing.

Maintenance/Calibration

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

- Check and calibrate the dust meter by high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. Calibration of dust meter should be carried out on a bi-monthly basis throughout all stages of the air quality monitoring.
- The correlation of dust meter and HVS in TSP measurement was obtained by direct comparison of the weight of dust particle trapped in a filter paper using HVS with the

reading of the dust meter. Calibration of the dust meter with HVS should be powered on and off at the same location and the same time.

- The correlation coefficient was checked to establish the correlation relationship between the dust meter and HVS. The correlation factor was determined by comparing the results of HVS and dust meter.
- Checking is made prior to dust monitoring commencing to ensure all equipment is in good working condition with necessary power supply. Zero count test were conducted before and after each monitoring event.

Results and Observations

3.12 The monitoring results for 1-hour TSP monitoring are summarised in **Table 3.4**. Detailed monitoring results and graphical presentations of 1-hour TSP monitoring results are shown in **Appendix E**.

Table 3.4 Summary Table of 1-hour TSP Monitoring Results during the Reporting Month

Monitoring Station	Concentration (µg/m³)		Action Level, µg/m³	Limit Level, µg/m³
	Average	Range		
AM1	40.0	23.4 – 63.8	308	500
AM2	47.0	29.6 – 65.6	311	

3.13 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedances were recorded.

3.14 According to our field observations, the major dust source identified at the designated air quality monitoring stations in the reporting month are shown in **Table 3.5**:

Table 3.5 Observation at Dust Monitoring Stations

Monitoring Station	Major Dust Source
AM1	Road traffic, exposed site area, site vehicle / equipment operation and movement, vehicle / equipment operation and movement at another project nearby
AM2	Road traffic, exposed site area, site vehicle / equipment operation and movement, vehicle / equipment operation and movement at warehouse or another project nearby

Event and Action Plan

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

4 NOISE MONITORING

Monitoring Requirements

4.1 In accordance with EM&A Manual, construction noise monitoring was conducted in terms of the A-weighted equivalent continuous sound pressure level (Leq) to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station shall be on a weekly basis and one set of measurements between 0700 and 1900 hours on normal weekdays shall be conducted. **Appendix B** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Location

4.2 According to Section 3.2.3 of the EM&A Manual, impact noise monitoring was conducted at fourteen designated noise monitoring stations as shown in **Figure 3**. **Table 4.1** describes the locations of the noise monitoring stations.

Table 4.1 Location of Noise Monitoring Stations

Monitoring Station	Location of Measurement
NM1	Village House, Sha Ling
NM2	Village House, Sha Ling
NM3	Village House No. 248, Sha Ling
NM4	Village House, Sha Ling
NM5	*Village House No. 270, Sha Ling
NM6	Village House, Sha Ling
NM7	Village House, Sha Ling
NM8	Village House, Sha Ling
NM9	Village House, Kong Nga Po
NM10	Village House, Kong Nga Po
NM11	Village House, Kong Nga Po
NM12	Village House, Kong Nga Po
NM13	Village House, Kong Nga Po
NM14	Village House, near Man Kam To Road

Note: *The location of NM5 as shown in Figure 3.1 of the EM&A Manual and Figure 4.2 of the EIA Report is Village House No.270, Sha Ling, not Village No. 272, Sha Ling according to https://www.map.gov.hk/gm/map/s/B/1107625418

Monitoring Equipment

4.3 Integrating Sound Level Meters were used for impact noise monitoring. The meters were Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (Leq) and percentile sound pressure level (Lx) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 4.2** summarises the noise monitoring equipment being used. Copies of calibration certificates are attached in **Appendix C**.

Table 4.2 Noise Monitoring Equipment

Equipment	Model	Quantity
Integrating Sound Level Meter	BSWA 308	5
Acoustical Calibrator	B&K 4231 / SVANTEK SV30A	4

Monitoring Parameters, Frequency and Duration

4.4 **Table 4.3** summarises the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix D**.

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

Monitoring Stations	Parameter	Duration	Frequency	Measurement
NM1	$L_{10(30\ min.)}$ dB(A)[2] $L_{90(30\ min.)}$ dB(A)[2] $L_{eq(30\ min.)}$ dB(A)[2] (as six consecutive $L_{eq,\ 5min}$ readings)	0700-1900 hrs on normal weekdays	Once per week	Free field[1]
NM2				Free field[1]
NM3				Facade
NM4				Facade
NM5				Facade
NM6				Free field[1]
NM7				Facade
NM8				Free field[1]
NM9				Free field[1]
NM10				Free field[1]
NM11				Façade
NM12				Façade
NM13				Free field[1]
NM14				Free field[1]

Remarks:
[1]: Correction of +3dB (A) for Free-field Measurement.
[2]: A-weighted equivalent continuous sound pressure level (L_{eq}). It is the constant noise level which, under a given situation and time period, contains the same acoustic energy as the actual time-varying noise level.
L_{10} is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L_{10}.
L_{90} is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

Monitoring Methodology and QA/QC Procedures

4.5 The monitoring procedures are as follows:

- The sound level meter was set on a tripod at a point 1m from the exterior of the noise sensitive facade and at the position of 1.2m above the ground;
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. Free field noise levels was adjusted with a correction of +3 dB(A);
- The battery condition was checked to ensure the correct functioning of the meter;

- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : $L_{eq(30\ min.)}$ dB(A) (as six consecutive $L_{eq,\ 5min}$ readings) during non-restricted hours (i.e. 0700-1900 hrs on normal weekdays)

- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re- calibration or repair of the equipment;
- During the monitoring period, the L_{eq}, L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet;
- Noise measurement was paused temporarily during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible and observation record during measurement period should be provided; and
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. The wind speed should be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Maintenance and Calibration

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

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

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

Results and Observations

4.9 The noise monitoring results are summarised in **Table 4.4**. Detailed monitoring results and graphical presentations of noise monitoring are shown in **Appendix F**. The weather information for the reporting month is summarised in **Appendix G**.

Table 4.4 Summary Table of Noise Monitoring Results during the Reporting Month

Monitoring Station	Average $L_{eq\ (30\ min)}$ dB(A)	Range $L_{eq\ (30\ min)}$ dB(A)	Baseline Level dB(A)	Limit Level dB(A)
NM1[1]	59.0	56.8 – 60.3	54.9	75.0
NM2[1]	61.0	55.2 – 66.2	56.7	
NM3	55.5	53.8 – 56.8	54.5	

Monitoring Station	Average $L_{eq\ (30\ min)}$ dB(A)	Range $L_{eq\ (30\ min)}$ dB(A)	Baseline Level dB(A)	Limit Level dB(A)
NM4	60.5	57.5 – 64.4	58.7	
NM5	62.1	59.7 – 63.9	57.0	
NM6[1]	63.2	56.5 – 66.0	56.0	
NM7	55.1	52.1 – 57.2	49.8	
NM8[1]	61.7	53.7 – 66.3	57.6	
NM9[1]	62.6	58.3 – 66.9	55.9	
NM10[1]	55.3	51.5 – 57.4	52.8	
NM11	54.0	50.1 – 55.8	46.4	
NM12	54.6	51.4 – 56.3	54.7	
NM13[1]	55.2	48.9 – 57.9	61.3	
NM14[1]	55.1	49.2 – 58.3	59.6	

Remarks:
[1]: Correction of +3dB (A) for Free-field Measurement.

4.10 Construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. The summary of exceedance record in reporting month is shown in **Appendix J**.

4.11 According to our field observations, the major noise sources identified at the designated noise monitoring stations in the reporting month are as follows:

Table 4.5 Observation at Noise Monitoring Stations

Monitoring Station	Major Noise Source
NM1	Road traffic, excavation works, loading & unloading, concrete works
NM2	Road traffic, excavation works, loading & unloading, concrete works
NM3	Road traffic, excavation works, loading & unloading
NM4	Road traffic, excavation works, loading & unloading, concrete works, breaking works
NM5	Road traffic, excavation works, loading & unloading, concrete works, breaking works
NM6	Road traffic, excavation works, loading & unloading, concrete works
NM7	Road traffic, excavation works, loading & unloading, concrete works
NM8	Road traffic, excavation works, loading & unloading
NM9	Road traffic, excavation works, loading & unloading, concrete works
NM10	Road traffic, excavation works, loading & unloading, concrete works, breaking works
NM11	Road traffic, excavation works, loading & unloading at another project nearby
NM12	Road traffic, excavation works, loading & unloading at another project nearby
NM13	Road traffic
NM14	Road traffic

Event and Action Plan

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

5 ECOLOGICAL MONITORING

Monitoring of Flora Species of Conservation Interest

5.1 As required under Section 8.3.2 of EM&A Manual, during construction phase, temporary protective fence shall be erected enclosing the flora species of conservation interest identified under the detailed vegetation survey. The temporary protective fence shall be properly maintained and monitored for the effectiveness. Monthly monitoring of individual of flora species of conservation interest identified in the detailed vegetation survey shall be conducted during the construction phase to make sure that the flora species of conservation interest are not affected by the construction activities of the Project.

5.2 The purpose of the monitoring is to monitor the timely implementation of proper environmental management practices and mitigation measures for the retained and transplanted individuals of flora species of conservation interest. Proper erection and maintenance of the temporary protective fence enclosing the individuals was inspected for the effectiveness. The recommended protection measures in the implementation schedule as stated in approved transplantation proposal were monitored and the conditions of the individuals of flora species of conservation interest were recorded as shown in **Table 5.1**.

5.3 According to the approved detailed vegetation survey report and transplantation proposal, 71 individuals of *Brainea insignis*, 41 individuals of *Spiranthes sinensis* and 3 individuals of *Aquilaria sinensis* were identified to be transplanted to the receptor site. 51 individuals of *Keteleeria fortunei*, 26 undersized seedlings of *Keteleeria fortunei* and 7 undersized seedlings of *Aquilaria sinensis* were identified to be retained along Kong Nga Po Road near Police Dog Unit and Force Search Unit Training School.

Post-Transplantation Monitoring and Maintenance Programme

5.4 According to approved transplantation proposal, post-transplantation monitoring should be conducted by the Contractor once per week in the first three months and once per month afterwards during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. Regular monitoring allows early detection of the growth status of transplanted species, sign of construction activity within and nearby the receptor site, and any environmental change of the receptor site.

5.5 Maintenance works were recommended for the first year of establishment to allow health growth of the transplanted species. In view of the condition of transplanted individuals after the 12-month establishment period, maintenance works were recommended to extend during the Post-establishment Period until the end of Construction Phase. Watering was recommended in daily practice during the first three months after the transplantation and during dry season. Watering frequency may be reduced to at least twice a week and adjusted based on the plant condition to keep the soil moist. Other maintenance works like use of mulch and weeding shall be conducted if required.

5.6 Part of the construction site including the approved receptor site for *Brainea insignis* and *Spiranthes sinensis* was handed over to Architectural Services Department (ArchSD) on 23rd December 202. The post-transplantation maintenance and monitoring works for *Brainea insignis* and *Spiranthes sinensis* have been conducted by the Contractor under Contract No. SSK509 since February 2023. In addition, monthly monitoring of for *Brainea insignis* and

Spiranthes has also been handed over to the ET under Contract No. SSK509 (FEP no.: FEP-01/510/2016) starting from April 2023.

Results and Observations

5.7 Monthly monitoring of flora species of conservation interest (*Keteleeria fortunei* and Undersized seedling of *Aquilaria sinensis* only) was conducted by ET on 28th July 2023 during the reporting month. The implementation status of protection measures and the maintenance of temporary protective fence were inspected. The implementation status of protection measures is shown in **Table 5.1** and photographic record and checklists for monthly monitoring are shown in **Appendix H1.** The health conditions of the retained species are generally in fair condition. The Contractor was reminded to closely monitored the retained species and implemented the protection measures to protect the retained species.

Transplanted *Brainea insignis* and *Spiranthes sinensis*

5.8 71 individuals of *Brainea insignis* and 41 individuals of *Spiranthes sinensis* were transplanted to receptor site from 21st to 26th May 2020. Transplantation Report recording the process of transplantation have been submitted to ET, IEC and the *Supervisor* for review and record. Post-transplantation monitoring was conducted once per week in the first three months (June to August 2020) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. The health condition of the transplanted species was monitored by the Contractor. The Contractor provided maintenance works including watering, use of mulch and weeding in the first year of establishment to allow health growth of the transplanted species. Post-transplantation monitoring works on transplanted *Brainea insignis* and *Spiranthes sinensis* has been handed over to the Contractor under Contract No. SSK509 since February 2023.

Transplanted *Aquilaria sinensis*

5.9 3 individuals of *Aquilaria sinensis* were transplanted to receptor site from 3rd to 19th October 2020. Transplantation Report recording the process of transplantation have been submitted to ET, IEC and the *Supervisor* for review and record. Post-transplantation monitoring was conducted once per week in the first three months (October 2020 to January 2021) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. The health conditions of the transplanted species were monitored by the Contractor. The Contractor provided maintenance works including watering, use of mulch and weeding in the first year of establishment to allow health growth of the transplanted species.

5.10 All recommended measures as set out in the deposited Detailed Vegetation Survey Report and the Transplantation Proposal have been fully and properly implemented in accordance with EP-510/2016 Condition 2.14 and presented in **Appendix H2.**

5.11 The three individuals of transplanted *Aquilaria sinensis* A-008, A-0009 and A-0010 were collapsed after Typhoon Signal No. 8 in July 2022. According to the Tree Risk Assessment Report provided by the Contractor's landscape specialist, the collapsed trees have been removed on 16th July 2022.

Retained *Keteleeria fortunei* and *Aquilaria sinensis*

5.12 51 individuals of *Keteleeria fortunei*, 26 undersized seedlings of *Keteleeria fortunei* and 7 undersized seedlings of *Aquilaria sinensis* were identified to be retained along Kong Nga Po Road near Police Dog Unit and Force Search Unit Training School. Individuals of *Keteleeria fortunei* and *Aquilaria sinensis* were preserved based on the revised layout plan of Kong Nga Po Road.

5.13 During monitoring, no construction activity was observed within the area of retained species. Temporary protective fence was properly erected and maintained for the retained species. The photographic records for the retained individuals are shown in **Appendix H1**.

Table 5.1 Implementation Status of Protection Measures for Flora Species of Conservation Interest

Recommended Mitigation Measures	Implementation Status
Keteleeria fortunei	
Identification of Plant Species of Conservation Importance to be Retained / Transplanted To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed. b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	**N/A** **N/A**
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey. b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	^ ^
Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted. b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	^ ^
Post-transplantation Monitoring a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	**N/A**
Maintenance of Transplanted Species a) To keep the soil moist by watering the receptor sites properly and adequately. b) To apply mulches on the soil surface over the plant root system, if required. c) To remove unwanted weeds found in receptor sites.	**N/A** **N/A** **N/A**

Recommended Mitigation Measures	Implementation Status
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas	
a) All works should be confined within the site boundary.	^
b) Access of site staff should be controlled.	^
c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works.	^
d) No fixings should be driven into trees/plants.	^
e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants.	^
f) No excavation, including that for services or changes in ground level will take place within the spread of the crown of the trees / plants.	^
g) No soil, debris or construction materials should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil.	^
h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants.	^
i) No trees/plants should be used for anchoring or winching purposes or for the display of signs.	^
j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.	^
Aquilaria sinensis (Undersized Seedling)	
Identification of Plant Species of Conservation Importance to be Retained / Transplanted To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works	
a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed.	**N/A**
b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	**N/A**
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree	
a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.	^
b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	^
Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree	
a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted.	^
b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	^
Post-transplantation Monitoring	
a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	**N/A**
Maintenance of Transplanted Species	
a) To keep the soil moist by watering the receptor sites properly and adequately.	**N/A**
b) To apply mulches on the soil surface over the plant root system, if required.	**N/A**

Recommended Mitigation Measures	Implementation Status
c) To remove unwanted weeds found in receptor sites.	**N/A**
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas	
a) All works should be confined within the site boundary.	^
b) Access of site staff should be controlled.	^
c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works.	^
d) No fixings should be driven into trees/plants.	^
e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants.	^
f) No excavation, including that for services or changes in ground level will take place within the spread of the crown of the trees / plants.	^
g) No soil, debris or construction materials should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil.	^
h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants.	^
i) No trees/plants should be used for anchoring or winching purposes or for the display of signs.	^
j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.	^

Implementation status:	^	Mitigation measure was fully implemented
	*	Observation/reminder was made during monitoring but improved/rectified by the contractor
	#	Observation/reminder was made during monitoring but not yet improved/rectified by the contractor
	X	Non-compliance of mitigation measure
	•	Non-compliance but rectified by the contractor
	N/A	Not Applicable at this stage as no such site activities were conducted in the reporting period

Mitigation Measure for Golden-headed Cisticola

5.14 According to EP Condition 2.15, a baseline survey-for Golden-headed Cisticola for the Project was conducted and the baseline survey report was submitted. The mitigation measures detailed in the documents are recommended to minimise the noise, light and water quality impact from construction works to avifauna. Good site practice measures shall be implemented throughout the construction period. The recommended mitigation measures are summarised as following:

Noise
- Silencers or mufflers on well-maintained construction equipment should be utilized and properly maintained during the construction program
- Noise enclosure or acoustic shed should be effectively utilized, where practicable
- Machines or equipment known to emit noise or light strongly in one direction should, wherever possible, be orientated the noise away from the adjacent habitat

Light
- Adjusting the outdoor lighting to lower intensity
- Use of directional lighting to avoid light spill into sensitive areas
- Control/timing of lighting periods of some facilities, particularly those close to the ecological sensitive receivers

Water
- Proper drainage system installed to collect and dispose rainwater.
- Installation of sediment/rubbish trapping facilities (e.g. catch pits or sand/silt traps to contain the increase in suspended solids and materials in the storm water drainage system so as to avoid pollutants being washed out during heavy rainstorms)

Good Site Practice Measures
- Placement of stockpiling into designated area should be selected at disturbed area in order to minimize the disturbance to wildlife
- Open fire should be strictly prohibited
- The boundary of project boundary should be clearly demarcated
- General drainage system arrangement should include sediment and oil trapper to collect the site run-off
- Waste bin should be provided to collect the general refuse and construction waste

5.15 Site audits were conducted by ET on weekly basis to monitor the timely implementation of the recommended mitigation measures by the Contractor on the Project site. The observations are summarised in **Table 7.1** and the implementation status is given in **Appendix K**. Toolbox talk training related to ecological protection has been provided by the Contractor to site staff and frontline workers. Presence of avifauna and bird nest were checked prior to site clearance work.

Precautionary Measure for Butterfly Species of Conservation Interest

5.16 According to EP Condition 2.21, with consideration of minimizing impact on butterfly species of conservation interest recorded at the grassland in the Project site, planting of common grass species which are the larval food plants for butterfly species such as Small Three-Ring are included in Landscape and Visual Mitigation Plan.

5.17 The re-establishment of grassland areas in the Project shall be implemented before Commencement of Operation of the Project. Details of the plant species as larval food plants of butterflies including design and implementation arrangement will be further submitted under ArchSD's building works contract.

Precautionary Measures to Minimize Indirect Disturbance on Ecology

5.18 In accordance with Section 9.7.3 of EIA Report, mitigation measures for air, noise, water,

waste and landscape aspects could act as precautionary measures to prevent and minimize any indirect disturbance impact or pollution arisen from the construction activities on the local ecology and offsite habitats. Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Project site and the observations are summarised in Section 7.3.

6 LANDSCAPE AND VISUAL MONITORING

Monitoring Requirements

6.1 The EIA Report has recommended mitigation measures for landscape and visual resources to be undertaken during the construction and operation phases of the Project.

6.2 These measures include the consideration of a number of development options and the provision of mitigation measures to directly offset unavoidable impacts. The measures include strategies for reducing, offsetting and compensating impacts during construction and operation phases according to Section 10.13 in the EIA Report.

6.3 The implementation and maintenance of landscape compensatory planting measures is a key aspect of this and shall be checked to ensure that they are fully realised and that potential conflicts between the proposed landscape measures and any other Project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, implementation of the mitigation measures recommended by the EIA shall be monitored throughout the construction phase site audit programme.

6.4 Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted by ET during weekly site audit. The observation and recommendations made during the audit sessions are summarised in **Table 7.1**. The implementation status is given in **Appendix K**.

7 ENVIRONMENTAL SITE INSPECTION

Site Audits

7.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site.

7.2 Site audits were conducted by ET with the representative of the *Supervisor*'s Representative and the Contractor on 7th, 14th, 21st and 25th July 2023 in the reporting month. Joint site audits with the representative of the *Supervisor*'s Representative, the Contractor and IEC were carried out on 25th July 2023.

7.3 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table 7.1**.

Table 7.1 Observations and Recommendations of Site Audit

Parameters	Date	Observations	Follow Up Action
Air Quality	07/07/2023	NRMM label should be provided for the excavator at Portion B1.	NRMM label has been provided for the excavator by the Contractor as observed during follow-up audit session on 14/07/2023.
	25/07/2023	Mud trail was observed at the site exit of RD-D. The Contractor was reminded to provide mitigation measures to ensure the vehicle's wheel are free from clogged mud before leaving the site.	No further mud trail was observed during follow-up audit session on 04/08/2023.
	25/07/2023	The water barriers should be deployed around the works completely (between Portion B1 & dog unit).	The water barriers have been deployed around the works completely by the Contractor as observed during follow-up audit session on 04/08/2023.
Construction Noise Impact	--	No environmental deficiency was identified during the reporting month.	--
Water Quality	07/07/2023	The water-filled barriers should be deployed along the works area at Feature A completely to avoid the leakage of soil / debris outside the site boundary.	The water-filled barriers have been deployed along the works area completely by the Contractor as observed during follow-up audit session on 14/07/2023.
	07/07/2023	The exposed slopes at Feature A should be covered with tarpaulin sheet.	Exposed slopes have been covered by the Contractor as observed during follow-up audit session on 14/07/2023.
	25/07/2023	Mud trail was observed at the site exit of RD-D. The Contractor was reminded to provide mitigation measures to ensure the vehicle's wheel are free from clogged mud before leaving the site.	No further mud trail was observed during follow-up audit session on 04/08/2023.

Parameters	Date	Observations	Follow Up Action
	25/07/2023	The accumulated mud at the sump pit at Abutment B should be cleared regularly.	The accumulated mud has been cleared by the Contractor as observed during follow-up audit session on 04/08/2023.
	25/07/2023	Sand bag bund should be provided at the drainage channel at F16.	Sand bag bund has been provided at the drainage channel by the Contractor as observed during follow-up audit session on 04/08/2023.
Waste/ Chemical Management	21/07/2023	The chemical should be stored in a proper container with drip tray (F16 & Feature A).	The chemical containers have been removed off site by the Contractor as observed during follow-up audit session on 25/07/2023.
Landscape and Visual	07/07/2023	The construction materials / wastes at near the trees should be removed (Feature A).	The construction materials / wastes at near the trees have been cleared by the Contractor as observed during follow-up audit session on 14/07/2023.
	21/07/2023	The retained trees at Feature A should be properly protected.	The protective fences have been properly erected for retained trees by the Contractor as observed during follow-up audit session on 25/07/2023.
Ecology	--	No environmental deficiency was identified during the reporting month.	--
Permit/Licences	--	No environmental deficiency was identified during the reporting month.	--

Implementation Status of Environmental Mitigation Measures

7.4 According to the EIA Report, Environmental Permit and the EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix K**.

7.5 During site inspections in the reporting month, the Contractor's readiness with the mitigation measures during wet season against muddy surface runoff was found generally satisfactory despite some observations/recommendations as detailed above were raised. The mitigation measures implemented in April 2023 are shown in the summary table in **Appendix K.**

Solid and Liquid Waste Management Status

7.6 In accordance with the EM&A Manual, waste management was audited during weekly site audit to determine if wastes are being managed in accordance with the Waste Management

Plan (WMP) prepared for the Project and the relevant legislative and contractual requirements. Waste management practice including waste handling, storage, transportation and disposal were audited.

7.7 The Contractor have nominated on-site Environmental Officers to oversee the environmental management, pollution control measures, good site practices and training of site personnel in waste management. Proactive measures have been undertaken to make use of construction and demolition (C&D) materials to minimize the waste generated. On-site sorting and screening of excavated materials have been carried out to recover any recyclable portions. Inert C&D materials were used on-site for backfilling works and hard paving of haul road. In addition, inert C&D materials generated from excavation works were reused as fill materials in other local projects. The surplus inert C&D materials were disposed of at the Government's public fill reception facilities (PFRFs) for beneficial use by other projects. In order to monitor the disposal of inert and non-inert C&D materials and to control fly-tipping, every excavated materials before leaving the site are weighted by a weight bridge and Trip Ticket System is strictly followed.

7.8 The Contractors are advised to minimize the wastes generated through the recycling or reusing. All mitigation measures stipulated in the EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and reduction measures are summarised in **Appendix K**.

7.9 Waste generated from this Project includes inert C&D materials and non-inert C&D materials. Non-inert C&D materials are made up of general refuse and waste that cannot be reused or recycled and has to be disposed of at the designated landfill sites. The amount of wastes generated by the construction works of the Project during the reporting month is shown in **Appendix L**.

8 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

8.1 No exceedance of Action and Limit Levels of air quality and construction noise was recorded

8.2 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action / Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix I** be carried out. The summary of exceedance record in reporting month is shown in **Appendix J**.

Summary of Environmental Non-Compliance

8.3 No environmental non-compliance was recorded in the reporting month.

Summary of Environmental Complaint

8.4 In accordance with the EM&A Manual, Section 11.3, complaints should be referred to the ET for action. During the complaint investigation works, the ET and IEC as established according to EP Condition 2.1 and 2.6 can carry out *Ad-hoc* site inspections to identify the source of the complaint, review the effectiveness of the Contractor's remedial measures and the updated situation once received the complaint. In addition, additional monitoring and audit can also be arranged immediately to verify the situation if necessary. ET and IEC will also oversee the circumstances that leading to the complaint do not recur. Moreover, ET and IEC can cooperate efficiently with the Contractor and *Supervisor* on site for completion of the investigation.

8.5 There was no environmental complaint received in the reporting month. The Cumulative Complaint Log since the commencement of the Project is presented in **Appendix M**.

Summary of Environmental Summon and Successful Prosecution

8.6 There was no successful environmental prosecution or notification of summons received since the Project commencement. The Cumulative Log for environmental summon and successful prosecution since the commencement of the Project is presented in **Appendix N**.

9 FUTURE KEY ISSUES

Key Issues in the Coming Three Months

9.1 The tentative construction programmes for the Project are provided in **Appendix A**. The major construction activities undertaken in the coming three months will include:

Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

- Slope Upgrading Works
- Road & Associated Works
- Bridge & Associated Works

9.2 With reference to the site layout plan including the indication of coming three months construction site activities in **Appendix A**, potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality, waste management, landscape and visual and ecology. The foreseeable environmental impacts were taken into consideration of the planned mitigation measures in the coming months.

9.3 The mitigation measures to be implemented for the coming three months were proposed by the Contractor and reviewed by ET, IEC and the *Supervisor* through Email, during site audit and SSMC meeting. The Proactive Environmental Protection Proforma summarizing the major site activities, potential environmental impacts and recommended mitigation measures was reviewed and endorsed by the *Supervisor*, ET and IEC and was shown in **Appendix A**.

9.4 The Contractor is recommended to arrange and maintain the water quality mitigation measures according to the construction site drainage plan during wet season (i.e., March to October). The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a site/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. Efficient silt removal facilities shall deploy to ensure all treated effluent from wastewater treatment plant shall meet the requirements as stated in WPCO licences. The site drainage plan shall also be updated based on the site condition and construction programme.

9.5 Dust can be generated during construction works and exposed site area. To prevent high dust concentrations during the dry weather, the Contractor should pay attention on the air quality mitigation measures as far as practicable to minimise the dust impact to the villages which are located adjacent to the Project works (refer to the layout plan in **Appendix A**). The Contractor was also reminded to follow the Project Implementation Schedule in approved EIA report / EM&A Manual to implement appropriate dust control measure including "Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather and covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handling at the stockpile areas" as well as the relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation so that no adverse dust impact arising from the Project works site.

9.6 In addition, construction noise is also one of the key environmental issues during construction of the Project. Noise mitigation measures such as using quiet plants and noise barriers should be in place, where applicable. In addition, the Contractor was reminded to frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; and provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area.

9.7 Moreover, the tree protection zone for the existing *Keteleeria fortunei* and *Aquilaria sinensis* shall be properly maintained during the Kong Nga Po Road upgrading works in close proximity of the plant species of conservation importance according to the approved "Explanatory Statement for Revised Layout Plan of Kong Nga Po Road (Final)".

9.8 All other mitigation measures recommended in the Project Implementation Schedule in the approved EIA report / EM&A Manual should be properly implemented and maintained as far as practicable.

Monitoring Schedule for the Next Month

9.9 The tentative environmental monitoring schedule for the next month is shown in **Appendix D**.

10 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

10.1 This Monthly EM&A Report presents the EM&A work undertaken in July 2023 in accordance with EM&A Manual.

10.2 No Action/Limit Level exceedance was recorded for air quality and construction noise in the reporting month.

10.3 Environmental site inspections were conducted on 7th, 14th, 21st and 25th July 2023 by ET in the reporting month. No environmental non-compliance was recorded in the reporting month.

10.4 No environmental complaint, notification of summons or successful prosecutions was received in the reporting month.

10.5 The ET would keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Recommendations

10.6 According to the environmental audits performed in the reporting month, the following recommendations were made:

Air Quality Impact

- To maintain the cover for stockpile of dusty materials and exposed slope for dust suppression;
- To enhance the dust suppression measures including watering for the dust generation works, exposed site area and haul road;
- To regular check the valid NRMM labels are properly displayed on the regulated machines and non-road vehicles;
- To maintain the wheel washing facilities provided at every construction site exit where practicable are functioning properly;
- To cover / clear the used cement bags on site;
- To maintain the plant equipment to avoid heavy smoke emission; and
- To ensure the hoarding / water barriers erected around the perimeter of construction sites completely.

Construction Noise

- To keep inspect the noise sources inside the site;
- To keep space out noisy equipment and position the equipment as far away as possible from sensitive receivers; and
- To keep the door of air compressors close.

Water Impact

- To maintain the cover for open stockpile of and exposed slope;
- To keep reviewing and updating temporary drainage system;
- To maintain the earth bunds or sand bag barriers on site to direct stormwater to silt removal facilities;

- To maintain and ensure the silt removal facilities are functioning properly;
- To maintain the wheel washing facilities provided at every construction site exit where practicable are functioning properly;
- To divert the muddy water at the retention pond to the wetsep for treatment before discharging out; and
- To review and update site drainage plan based on the current site condition, and implement water quality mitigation measures as appropriate.

Waste/Chemical Management

- To check for any accumulation of waste materials or rubbish on site;
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the site;
- To maintain the drip tray well to prevent oil and chemical leakage; and
- To avoid improper handling, storage and dispose of oil drums or chemical containers on site.

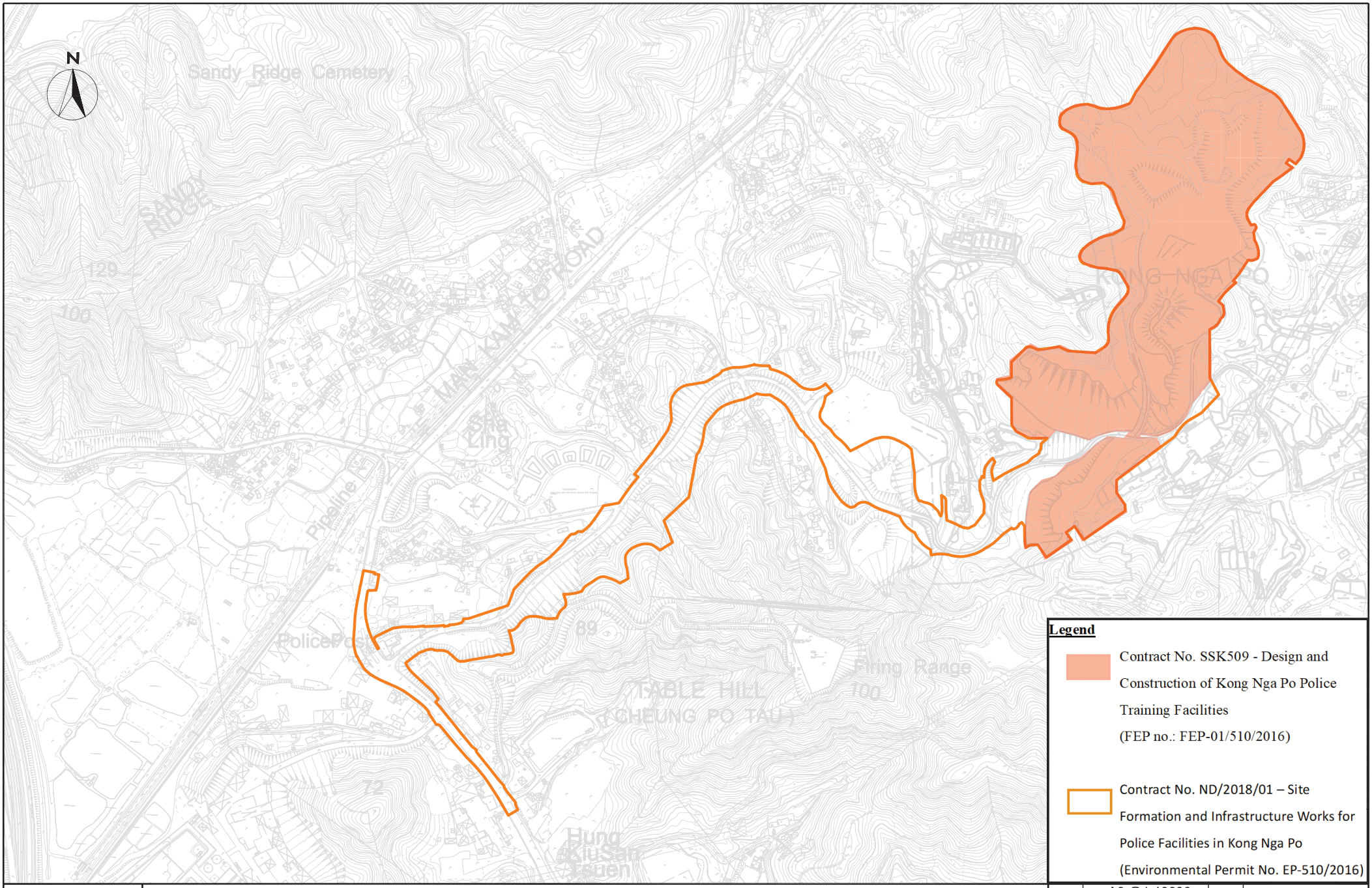
Ecology

- To erect and maintain the protection fence around the retained trees / conservation species;
- To keep the tree protection zone large enough to protect the tress; and
- To remove the soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of retained trees / conservation species.

Landscape and Visual

- To erect and maintain the protection fencing and tree protection zone around the preserved trees;
- To remove the soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of retained trees;
- To keep the tree protection zone large enough to protect the tress.

FIGURE(S)



WELLAB

Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Site Layout Plan

SCALE	A3 @1:40000	DATE	MAR 2023
CHECK	IT	DRAWN	ML
JOB No.	WMA20001	FIGURE No.	1
		REV	–

N

LEGEND

Legend

Contract No. SSK509 - Design and Construction of Kong Nga Po Police Training Facilities (FEP no.: FEP-01/510/2016)

Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po (Environmental Permit No. EP-510/2016)

Air Quality Monitoring Stations

Air Quality Monitoring Stations	
I.D	Description
AM1	Village House, Kong Nga Po
AM2	Village House, Kong Nga Po

WELLAB

Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Air Quality Monitoring Stations

SCALE	A4 @ 1:50000	DATE	MAR 2023
CHECK	IT	DRAWN	ML
JOB No.	WMA20001	FIGURE NO. 2	REV –

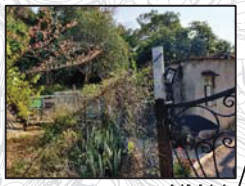
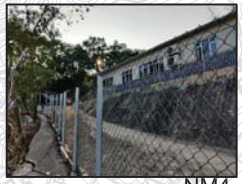
Legend

Contract No. SSK509 - Design and Construction of Kong Nga Po Police Training Facilities (FEP no.: FEP-01/510/2016)

Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po (Environmental Permit No. EP-510/2016)

Noise Quality Monitoring Stations

Noise Monitoring Stations	
I.D	Description
NM1	Village House, Sha Ling
NM2	Village House, Sha Ling
NM3	Village House No. 248, Sha Ling
NM4	Village House, Sha Ling
NM5	Village House No. 270, Sha Ling
NM6	Village House, Sha Ling
NM7	Village House, Sha Ling
NM8	Village House, Sha Ling
NM9	Village House, Kong Nga Po
NM10	Village House, Kong Nga Po
NM11	Village House, Kong Nga Po
NM12	Village House, Kong Nga Po
NM13	Village House, Kong Nga Po
NM14	Village House, near Man Kam To Road










WELLAB

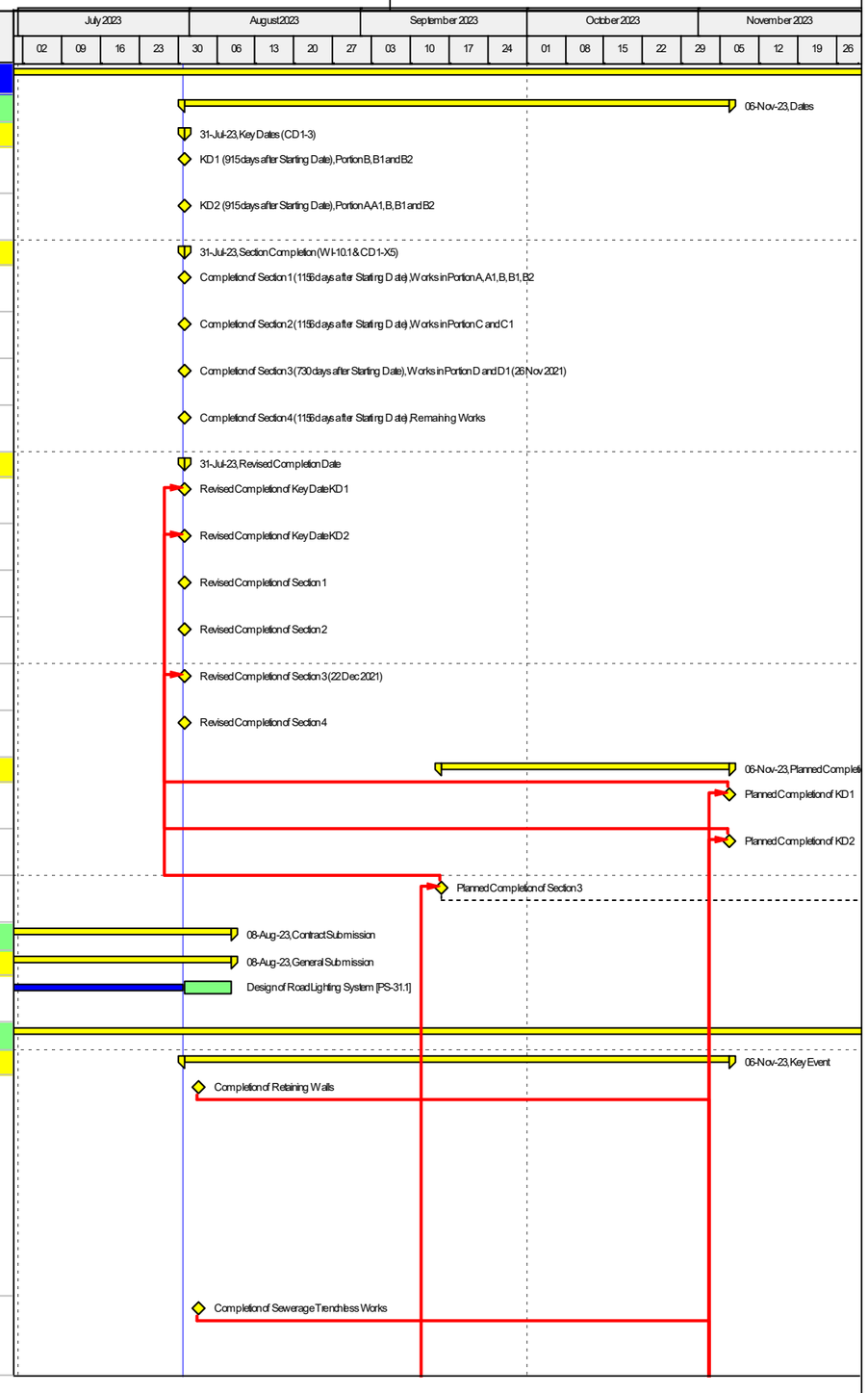
Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Noise Monitoring Stations

SCALE	A4 @ 1:50000	DATE	MAR 2023
CHECK	IT	DRAWN	ML
JOB No.	WMA20001	FIGURE NO. 3	REV –

APPENDIX A
CONSTRUCTION PROGRAMME AND PROACTIVE ENVIRONMENTAL PROTECTION PROFORMA

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
Monthly Update (31 July 2023)		1113	1136	304	95	27-Nov-19A	05-Apr-24	30-Sep-21	05-Apr-25			
Dates		82	0	-201	0	31-Jul-23	06-Nov-23	26-Nov-21	03-Mar-23			
Key Dates (CD1-3)		0	0	-426	0	31-Jul-23	31-Jul-23	30-May-22	30-May-22			
KD1	KD1 (915 days after Starting Date), Portion B, B1 and B2	0	0	-426	0		31-Jul-23*		30-May-22	0%		
KD2	KD2 (915 days after Starting Date), Portion A, A1, B, B1 and B2	0	0	-426	0		31-Jul-23*		30-May-22	0%		
Section Completion (WI-10.1 & CD1-X5)		0	0	-185	0	31-Jul-23	31-Jul-23	26-Nov-21	26-Jan-23			
S1	Completion of Section 1 (1156 days after Starting Date), Works in Portion A, A1, B, B1, B2	0	0	-185	0		31-Jul-23*		26-Jan-23	0%		
S2	Completion of Section 2 (1156 days after Starting Date), Works in Portion C and C1	0	0	-185	0		31-Jul-23*		26-Jan-23	0%		
S3	Completion of Section 3 (730 days after Starting Date), Works in Portion D and D1 (26 Nov 2021)	0	0	-611	0		31-Jul-23*		26-Nov-21	0%		
S4	Completion of Section 4 (1156 days after Starting Date), Remaining Works	0	0	-185	0		31-Jul-23*		26-Jan-23	0%		S5
Revised Completion Date		0	0	-149	0	31-Jul-23	31-Jul-23	22-Dec-21	03-Mar-23			
RC.KD1	Revised Completion of Key Date KD1	0	0	-389	0		31-Jul-23*		06-Jul-22	0%	PC.KD1	
RC.KD2	Revised Completion of Key Date KD2	0	0	-389	0		31-Jul-23*		06-Jul-22	0%	PC.KD2	
RC.S1	Revised Completion of Section 1	0	0	-149	0		31-Jul-23*		03-Mar-23	0%	PC.S1	
RC.S2	Revised Completion of Section 2	0	0	-158	0		31-Jul-23*		22-Feb-23	0%		
RC.S3	Revised Completion of Section 3 (22 Dec 2021)	0	0	-585	0		31-Jul-23*		22-Dec-21	0%	PC.S3, PW.C-1050	
RC.S4	Revised Completion of Section 4	0	0	-149	0		31-Jul-23*		03-Mar-23	0%	PC.S2, PC.S4	RC.S5
Planned Completion		52	0	-488	0	15-Sep-23	06-Nov-23	22-Dec-21	06-Jul-22			
PC.KD1	Planned Completion of KD1	0	0	-488	0		06-Nov-23		06-Jul-22	0%	KD.KE-1200	RC.KD1
PC.KD2	Planned Completion of KD2	0	0	-488	0		06-Nov-23		06-Jul-22	0%	KD.KE-1200	RC.KD2
PC.S3	Planned Completion of Section 3	0	0	-632	0		15-Sep-23		22-Dec-21	0%	S3.KE-1500	RC.S3, S4-1000
Contract Submission		90	912	606	0	30-Jan-21A	08-Aug-23	28-Mar-25	05-Apr-25			
General Submission		90	912	606	0	30-Jan-21A	08-Aug-23	28-Mar-25	05-Apr-25			
GS-1750	Design of Road Lighting System [PS-31.1]	90	912	606	0	30-Jan-21A	08-Aug-23	28-Mar-25	05-Apr-25	90%	S3.GS-1700	
Works in KD1 and KD2 (Portion A, A1, B, B1, & B2)		1058	1015	-260	11	25-Feb-20A	17-Jan-24	24-Mar-22	03-Mar-23			
Key Event		99	0	-488	0	31-Jul-23	06-Nov-23	06-Jul-22	06-Jul-22			
KD.KE-1050	Completion of Retaining Walls	0	0	-392	0		02-Aug-23		06-Jul-22	0%	KD.B.RD-0000, KD.DS-1150, KD.MS-1150, KDPW-1850, KD.SDR.FD-1050, KD.SDR.FT-1400, KD.B.GI-1550, KD.SDR.FD-1000, KD.B.RD.R-1350, KD.GM-1200, KD.B.RD.R-1050.105, KD.B.RD.R-1050.420	KD.KE-1200
KD.KE-1100	Completion of Sewerage Trenchless Works	0	0	-392	0		02-Aug-23		06-Jul-22	0%	KD.B.TR-1200, KD.B.TR-1100, KD.B.RD.R-1600.25, KD.B.TR-1300	KD.KE-1200

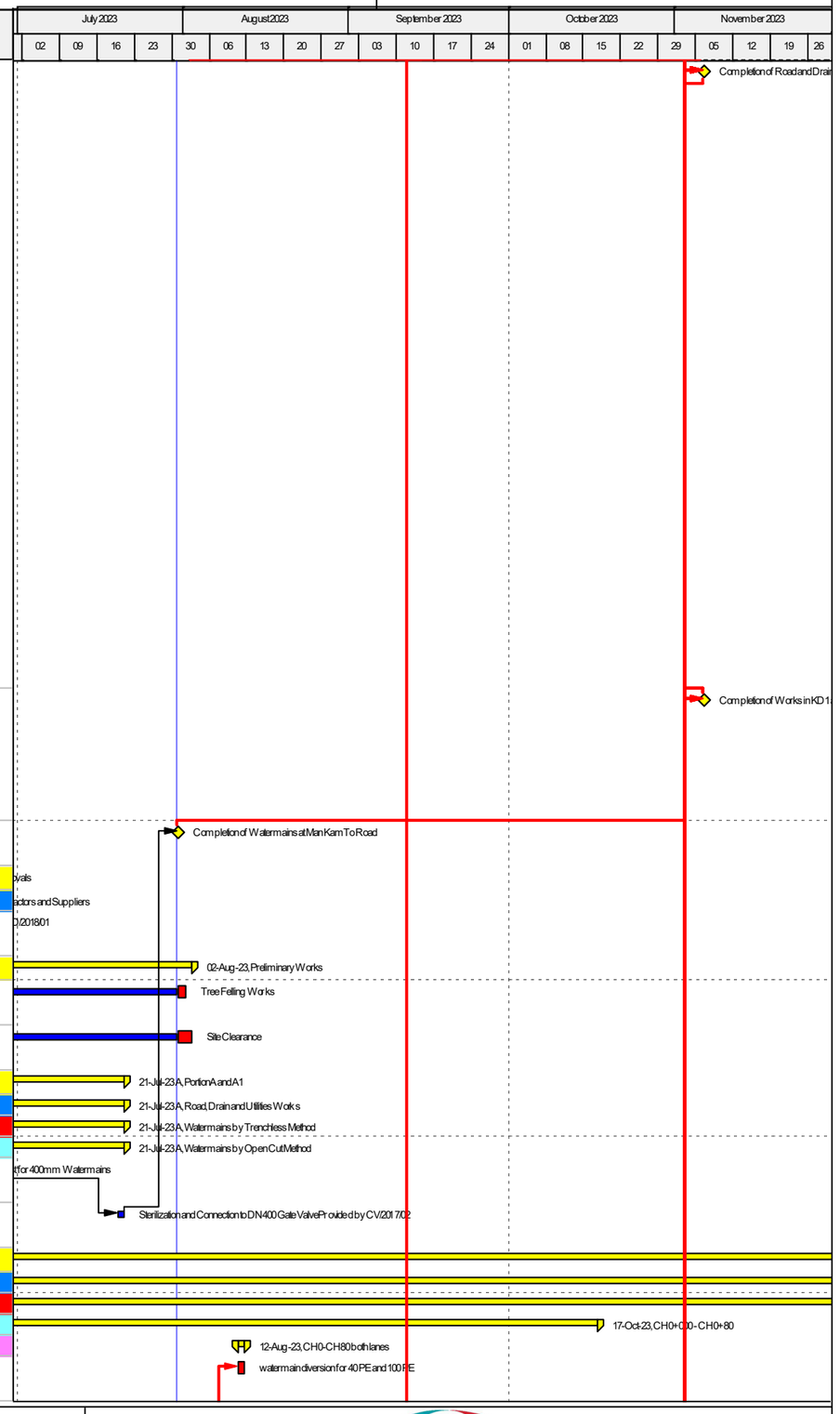


Remaining Level of Effort | Remaining Work | Milestone

Actual Work | Critical Remaining Work | Summary

BuildKing

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
KD.KE-1150	Completion of Road and Drainat Kong Nga Po Road	0	0	-488	0		06-Nov-23		06-Jul-22	0%	KD.B.RD.V-1000,KD.B.RD.V-1150, KD.B.RD.V-1480,KD.B.RD.V-1400, KD.B.RD.R-1850.65, KD.B.RD.R-1800.65, KD.B.RD.R-2000, KD.B.RD.R-2150.75, KD.B.RD.R-1500.75, KD.B.RD.R-1350.20, KD.B.RD.R-2250.35, KD.A.RD-1750.440, KD.B.RD.V-1460,KD.B.RD.V-1470, KD.B.RD.V-1490,KD.B.RD.V-1500, KD.B.RD.R-2100.95, KD.B.RD.R-1350.60, KD.B.RD.R-2200.60, KD.B.RD.R-2540, KD.B.RD.R-1950.60, KD.B.RD.R-1820.05, KD.B.RD.R-1750.35, KD.B.RD.R-1600.70, KD.B.RD.R-2080, KD.B.RD.R-1550.45, KD.B.RD.R-1050.430, KD.B.RD.V-1510,KD.B.RD.V-1100, KD.B.RD.V-1050, KD.B.RD.R-2200.80, KD.B.RD.R-1700.40, KD.B.RD.R-2150.90	KD.KE-1200
KD.KE-1200	Completion of Works in KD1 and KD2	0	0	-488	0		06-Nov-23		06-Jul-22	0%	KD.KE-1450,KD.KE-1100, KD.KE-1050,KD.KE-1350, KD.KE-1400,KD.KE-1150	PC.KD1,PC.KD2
KD.KE-1350	Completion of Watermains at Man Kam To Road	0	0	-389	0		31-Jul-23		06-Jul-22	0%	KD.A.RD-2450,KD.A.RD-2950	KD.KE-1200
Submissions and Approvals		30	957		0	25-Feb-20A	01-Jun-23A	06-Jul-22	06-Jul-22			
Acceptance of Subcontractors and Suppliers		30	957		0	25-Feb-20A	01-Jun-23A	06-Jul-22	06-Jul-22			
KD.AS-1700	Interface between CV/2017/02 and ND/201801	30	957		0	25-Feb-20A	01-Jun-23A	06-Jul-22	06-Jul-22	100%		KD.AS-1600
Preliminary Works		50	917	-366	0	26-Jun-20A	02-Aug-23	06-May-22	10-May-22			
KD.B.RD-1100	Tree Felling Works	7	917	-365	0	26-Jun-20A	01-Aug-23	07-May-22	10-May-22	71.43%	KD.B.RD-1050	KD.B.RD-0000
KD.PW-1150	Site Clearance	50	917	-366	0	26-Jun-20A	02-Aug-23	06-May-22	10-May-22	94%	CS-1650,AS-1100	KD.B.RD-0000
Portion A and A1		36	27		1	17-Jun-23A	21-Jul-23A	06-Jul-22	06-Jul-22			
Road, Drain and Utilities Works		36	27		1	17-Jun-23A	21-Jul-23A	06-Jul-22	06-Jul-22			
Watermains by Trenchless Method		36	27		1	17-Jun-23A	21-Jul-23A	06-Jul-22	06-Jul-22			
Watermains by Open Cut Method		36	27		1	17-Jun-23A	21-Jul-23A	06-Jul-22	06-Jul-22			
KD.A.RD-2850	Hydrostatic Test for 400mm Watermains	14	0		0	17-Jun-23A	17-Jun-23A	06-Jul-22	06-Jul-22	100%	KD.A.RD-3000	KD.A.RD-2900,KD.A.RD-2950
KD.A.RD-2950	Sterilization and Connection to DN400 Gate Valve Provided by CV/2017/02	22	1		1	20-Jul-23A	21-Jul-23A	06-Jul-22	06-Jul-22	100%	KD.A.RD-2900,KD.A.RD-1600, KD.A.RD-1550,KD.A.RD-2850	KD.A.RD-2450,KD.KE-1350
Portion B, B1 and B2)		257	110	-260	10	15-Mar-23A	17-Jan-24	24-Mar-22	03-Mar-23			
Road, Drain and Utilities Works		257	110	-260	10	15-Mar-23A	17-Jan-24	24-Mar-22	03-Mar-23			
Works at Existing Kong Nga Po Road (TTA Required)		257	110	-260	10	15-Mar-23A	17-Jan-24	24-Mar-22	03-Mar-23			
CH0+000 - CH0+80		182	101	-260	1	15-Mar-23A	17-Oct-23	11-May-22	29-Nov-22			
CH0-CH80 both lanes		1	0	-327	0	11-Aug-23	12-Aug-23	06-Jul-22	06-Jul-22			
KD.B.RD.W-1100	watermain diversion for 40PE and 100PE	1	0	-327		11-Aug-23	12-Aug-23	06-Jul-22	06-Jul-22	0%	KD.B.RD.W-1010, KD.B.RD.W-1000, KD.B.RD.W-1020	KD.B.RD.V-1510

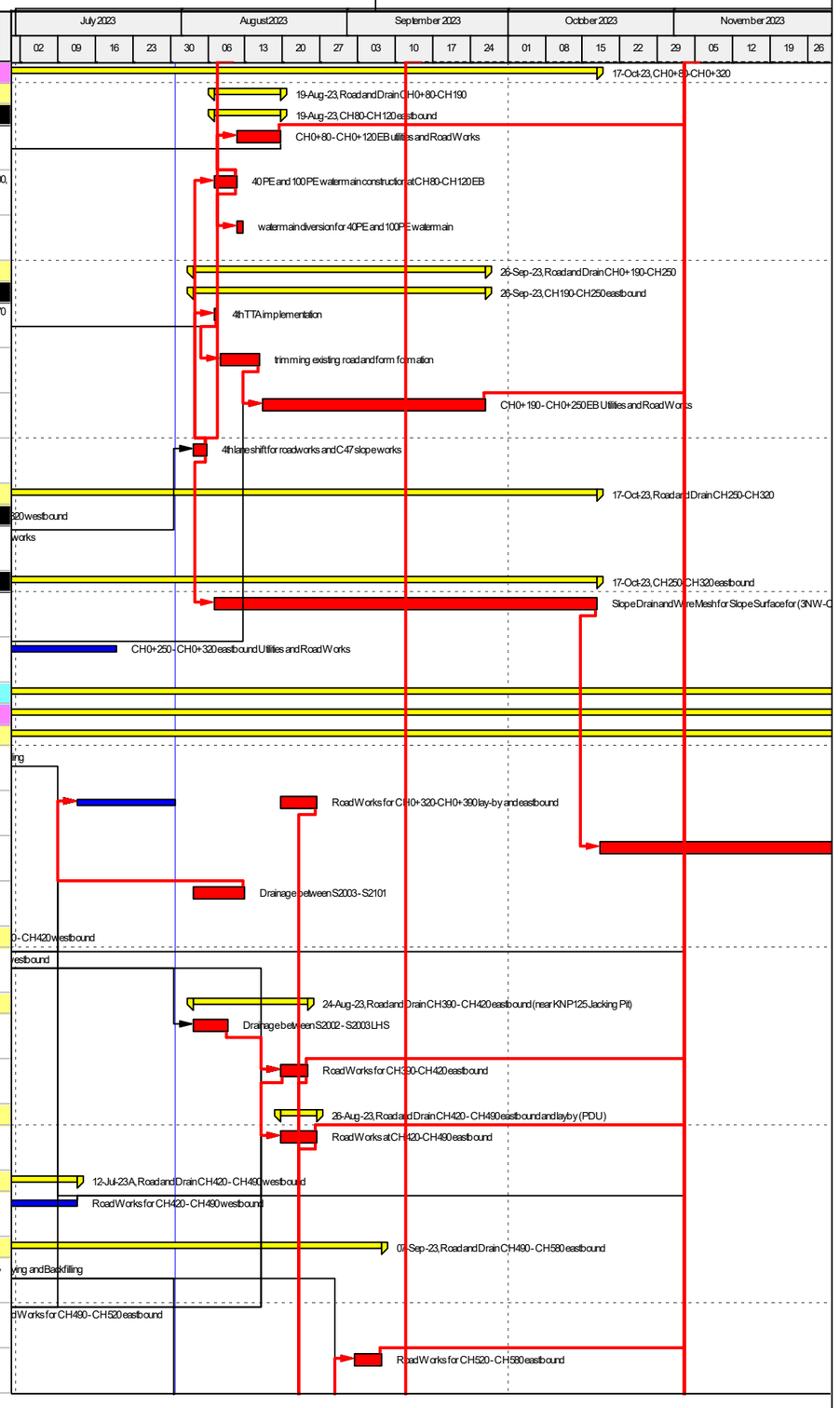


Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

Three Months Rolling Programme (Aug 2023 - Oct 2023)

Build King

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
CH0+80-CH0+320		182	101	-260	1	15-Mar-23 A	17-Oct-23	11-May-22	29-Nov-22			
Road and Drain CH0+80-CH190		11	0	-333	0	07-Aug-23	19-Aug-23	02-Jun-22	06-Jul-22			
CH80-CH120 eastbound		11	0	-333	0	07-Aug-23	19-Aug-23	02-Jun-22	06-Jul-22			
KD.B.RD.V-1500	CH0+80 - CH0+120 EB Utilities and Road Works	7	0	-349	0	11-Aug-23	19-Aug-23	09-Jun-22	16-Jun-22	0%	KD.B.RD.R-2150.80, KD.B.RD.W-1010	KD.KE-1150, KD.B.RD.R-1350.60
KD.B.RD.W-1010	40 PE and 100 PE watermain construction at CH80-CH120 EB	4	0	-349		07-Aug-23	11-Aug-23	02-Jun-22	08-Jun-22	0%	KD.B.RD.R-2150.80	KD.B.RD.V-1500, KD.B.RD.W-1100, KD.B.RD.W-1110
KD.B.RD.W-1110	watermain diversion for 40PE and 100PE watermain	1	0	-327		11-Aug-23	12-Aug-23	06-Jul-22	06-Jul-22	0%	KD.B.RD.W-1020, KD.B.RD.W-1010, KD.B.RD.W-1000	KD.B.RD.R-2100.95, KD.B.RD.V-1510
Road and Drain CH0+190-CH250		47	0	-366	1	03-Aug-23	26-Sep-23	11-May-22	06-Jul-22			
CH190-CH250 eastbound		47	0	-366	1	03-Aug-23	26-Sep-23	11-May-22	06-Jul-22			
KD.B.RD.R-2030	4th TTA implementation	1	0	-366		07-Aug-23	07-Aug-23	14-May-22	14-May-22	0%	KD.B.RD.R-2150.80	KD.B.RD.R-2070, KD.B.RD.R-2170
KD.B.RD.R-2070	trimming existing road and form formation	7	0	-366		08-Aug-23	15-Aug-23	16-May-22	23-May-22	0%	KD.B.RD.R-2030	KD.B.RD.R-2080
KD.B.RD.R-2080	CH0+190 - CH0+250 EB Utilities and Road Works	36	0	-366	1	16-Aug-23	26-Sep-23	24-May-22	06-Jul-22	0%	KD.B.RD.R-2100, KD.B.RD.R-2170, KD.B.RD.R-2070	KD.KE-1150
KD.B.RD.R-2150.80	4th lane shift for road works and C47 slope works	3	0	-366		03-Aug-23	05-Aug-23	11-May-22	13-May-22	0%	KD.B.RD.R-2200, KD.B.RD.R-2150.75, KD.B.RD.R-2150.90	KD.B.RD.V-1500, KD.B.RD.W-1010, KD.B.RD.R-2030, KD.B.RD.R-1400.300
Road and Drain CH250-CH320		182	101	-260	0	15-Mar-23 A	17-Oct-23	11-May-22	29-Nov-22			
CH250-CH320 westbound		18	68		0	15-Mar-23 A	09-Jun-23 A	11-May-22	11-May-22			
KD.B.RD.R-2200	CH250-CH320 WB road works	18	68			15-Mar-23 A	09-Jun-23 A	11-May-22	11-May-22	100%	KD.B.RD.R-2100.25, KD.B.RD.R-2150.15, KD.B.RD.R-2150.65	KD.B.RD.R-2150.80
CH250-CH320 eastbound		104	25	-260	0	19-Jun-23 A	17-Oct-23	24-May-22	29-Nov-22			
KD.B.RD.R-1400.300	Slope Drain and Wire Mesh for Slope Surface for (3NW-C/C47)	60	0	-260		07-Aug-23	17-Oct-23	19-Sep-22	29-Nov-22	0%	KD.B.RD.R-1400.180, KD.B.RD.R-2150.80	KD.B.RD.R-1400.310, S1.KE-1300
KD.B.RD.R-2170	CH0+250 - CH0+320 eastbound Utilities and Road Works	18	25			19-Jun-23 A	20-Jul-23 A	24-May-22	24-May-22	100%	KD.B.RD.R-2030, KD.B.RD.R-2150	KD.B.RD.R-2080
CH0+320 - CH0+580		252	96	-260	6	31-Mar-23 A	17-Jan-24	07-Jun-22	03-Mar-23			
TTA Required		252	96	-260	6	31-Mar-23 A	17-Jan-24	07-Jun-22	03-Mar-23			
Retaining Wall RD-A (CH320-CH390 eastbound and lay-by)		188	47	-260	0	03-Jun-23 A	17-Jan-24	07-Jun-22	03-Mar-23			
KD.B.RD.R-1400.190	Utilities Laying and Backfilling	6	6		0	03-Jun-23 A	09-Jun-23 A	17-Jun-22	17-Jun-22	100%	KD.B.RD.R-1400.185	KD.B.RD.R-1400.195
KD.B.RD.R-1400.195	Road Works for CH0+320-CH0+390 lay-by and eastbound	6	15	-349	0	12-Jul-23 A	26-Aug-23	17-Jun-22	23-Jun-22	0%	KD.B.RD.R-1400.190, KD.B.RD.R-1500.75, KD.B.RD.R-1350.60, KD.B.RD.R-1350.20	KD.B.RD.R-1350.20
KD.B.RD.R-1400.310	Slope Drain and Wire Mesh for Slope Surface for (3NW-C/F79)	75	0	-260		18-Oct-23	17-Jan-24	30-Nov-22	03-Mar-23	0%	KD.B.RD.R-1400.300	S1.KE-1300
KD.B.RD.R-1750.102	Drainage between S2003 - S2101	9	0	-344	0	03-Aug-23	12-Aug-23	07-Jun-22	16-Jun-22	0%	KD.B.RD.R-1400.105, KD.B.RD.R-1750.15	KD.B.RD.R-1400.195
Road and Drain CH320 - CH420 westbound		6	49		1	31-Mar-23 A	02-Jun-23 A	10-Jun-22	10-Jun-22			
KD.B.RD.R-1500.75	Road Works for CH320 - CH420 westbound	6	49		1	31-Mar-23 A	02-Jun-23 A	10-Jun-22	10-Jun-22	100%	KD.B.RD.R-1500.125, KD.B.RD.R-1500.30, KD.B.TR-1300	KD.KE-1150, KD.B.RD.R-1750.35, KD.B.RD.R-1400.195, KD.B.RD.R-1750.101
Road and Drain CH390 - CH420 eastbound (near KNP125 Jacking Pit		19	0	-349	0	03-Aug-23	24-Aug-23	10-Jun-22	22-Jun-22			
KD.B.RD.R-1750.101	Drainage between S2002 - S2003 LHS	6	0	-341	0	03-Aug-23	09-Aug-23	10-Jun-22	16-Jun-22	0%	KD.B.RD.R-1400.105, KD.B.RD.R-1750.15, KD.B.RD.R-1500.75	KD.B.RD.R-1750.35
KD.B.RD.R-1750.35	Road Works for CH390-CH420 eastbound	4	0	-349		19-Aug-23	24-Aug-23	17-Jun-22	22-Jun-22	0%	KD.B.RD.R-1500.75, KD.B.RD.R-1350.60, KD.B.RD.R-1700.30, KD.B.RD.R-1700.101	KD.KE-1150, KD.B.RD.R-1600.70, KD.B.RD.R-1350.20
Road and Drain CH420 - CH490 eastbound and layby (PDU)		6	0	-349	0	19-Aug-23	26-Aug-23	17-Jun-22	23-Jun-22			
KD.B.RD.R-1600.70	Road Works at CH420-CH490 eastbound	6	0	-349		19-Aug-23	26-Aug-23	17-Jun-22	23-Jun-22	0%	KD.B.RD.R-1700.30, KD.B.RD.R-1750.35	KD.KE-1150, KD.B.RD.R-1350.20
Road and Drain CH420 - CH490 westbound		12	12		1	27-Jun-23 A	12-Jul-23 A	17-Jun-22	17-Jun-22			
KD.B.RD.R-1350.60	Road Works for CH420 - CH490 westbound	12	12		1	27-Jun-23 A	12-Jul-23 A	17-Jun-22	17-Jun-22	100%	KD.B.RD.R-1350.50, KD.B.RD.R-1650.15, KD.B.RD.V-1500	KD.KE-1150, KD.B.RD.R-1750.35, KD.B.RD.R-1400.195
Road and Drain CH490 - CH580 eastbound		89	46	-349	3	28-Apr-23 A	07-Sep-23	17-Jun-22	06-Jul-22			
KD.B.RD.R-1350.10	Utilities Laying and Backfilling	15	15		1	03-Jun-23 A	20-Jun-23 A	17-Jun-22	17-Jun-22	100%	KD.B.RD.R-1600.25	S1.B.SL-1060, KD.B.RD.R-1700.40, KD.B.RD.R-1700.30
KD.B.RD.R-1700.30	Road Works for CH490 - CH520 eastbound	4	46		1	28-Apr-23 A	24-Jun-23 A	17-Jun-22	17-Jun-22	100%	KD.B.RD.R-1350.10	KD.B.RD.R-1600.70, KD.B.RD.R-1750.35, KD.B.RD.R-1400.195
KD.B.RD.R-1700.40	Road Works for CH520 - CH580 eastbound	4	0	-349	1	02-Sep-23	07-Sep-23	02-Jul-22	06-Jul-22	0%	KD.B.RD.R-1350.20, KD.B.RD.R-1350.10	KD.KE-1150

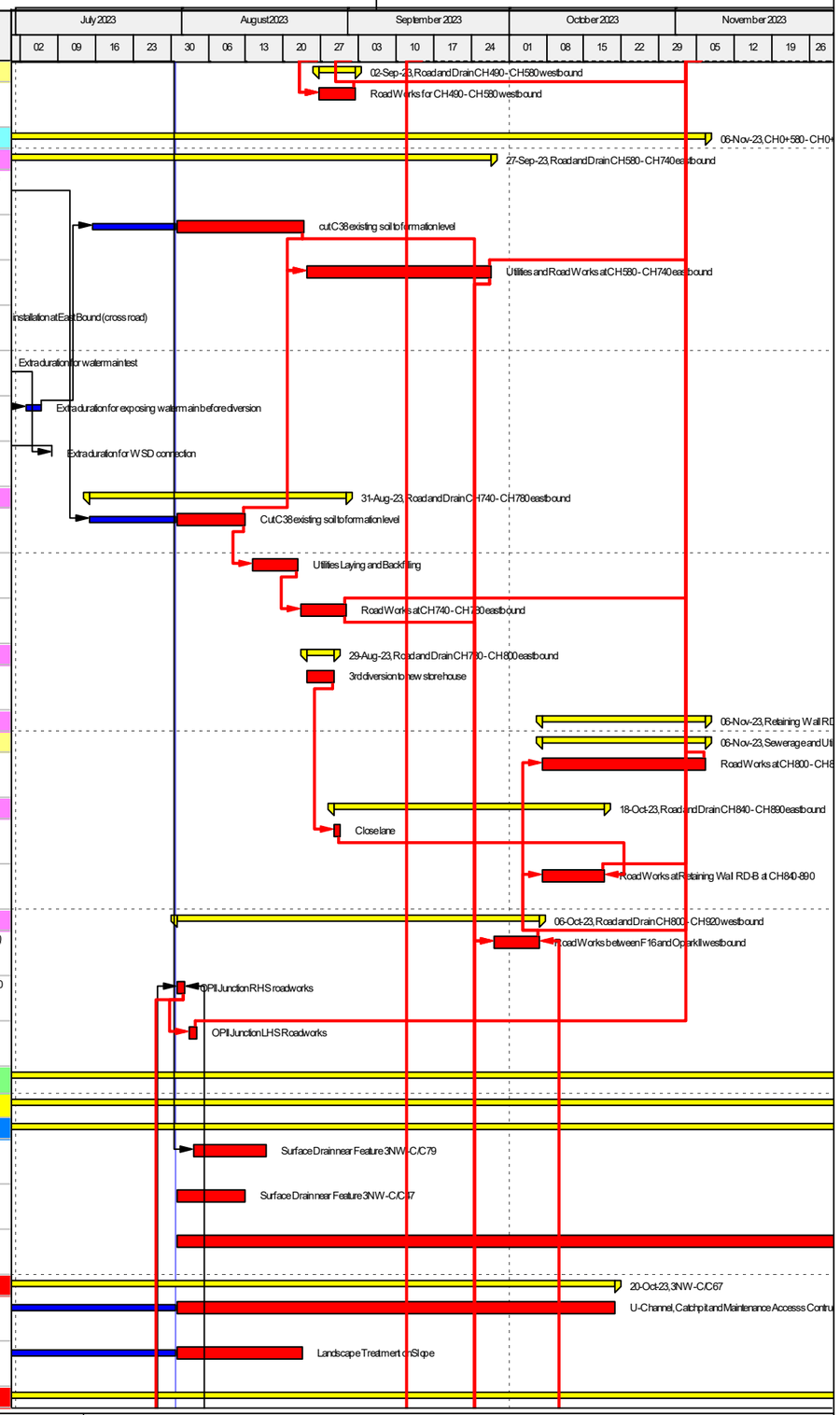


Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

Three Months Rolling Programme (Aug 2023 - Oct 2023)

Build King

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
Road and Drain CH490 - CH580 westbound		6	0	-349	1	26-Aug-23	02-Sep-23	24-Jun-22	30-Jun-22			
KD.B.RD.R-1350.20	Road Works for CH490 - CH580 westbound	6	0	-349	1	26-Aug-23	02-Sep-23	24-Jun-22	30-Jun-22	0%	KD.B.RD.R-1700.20, KD.B.RD.R-1400.195, KD.B.RD.R-1750.35,	KD.KE-1150,KD.BRD.R-1700.40
CH0+580 - CH0+920		132	50	-398	3	31-May-23 A	06-Nov-23	24-Mar-22	05-Jul-22			
Road and Drain CH580 - CH740 eastbound		101	50	-398	0	31-May-23 A	27-Sep-23	24-Mar-22	28-May-22			
KD.B.RD.R-2510	implementation of single lane TTA	3	3			31-May-23 A	02-Jun-23 A	24-Mar-22	24-Mar-22	100%	KD.B.RD.R-1800.65, KD.B.RD.R-1820.05, KD.B.RD.R-1850.65	NCE81.2005,KD.B.RD.R-1950.30
KD.B.RD.R-2520	cut C38 existing soil to formation level	30	13	-398		15-Jul-23 A	23-Aug-23	24-Mar-22	21-Apr-22	30%	NCE81.2060	S1.B.SLC38-1350, KD.B.RD.R-1820.15, KD.B.RD.R-2540
KD.B.RD.R-2540	Utilities and Road Works at CH580 - CH740 eastbound	30	0	-398		24-Aug-23	27-Sep-23	22-Apr-22	28-May-22	0%	KD.B.RD.R-1950.30, KD.B.RD.R-2520	KD.KE-1150,KD.BRD.R-2200.60, S1.B.SLC38-1350
NCE81.2005	Extra duration for 100PE installation at East Bound (cross road)	7	7		0	03-Jun-23 A	10-Jun-23 A	24-Mar-22	24-Mar-22	100%	KD.B.RD.R-2510,NCE81.2000	NCE81.2010
NCE81.2010	Extra duration for watermain test	14	14		0	12-Jun-23 A	28-Jun-23 A	24-Mar-22	24-Mar-22	100%	NCE81.2005	NCE81.2070
NCE81.2060	Extra duration for exposing watermain before diversion	4	3		0	03-Jul-23 A	06-Jul-23 A	24-Mar-22	24-Mar-22	100%	NCE81.2070	KD.B.RD.R-2520
NCE81.2070	Extra duration for WSD connection	9	0		0	08-Jul-23 A	08-Jul-23 A	24-Mar-22	24-Mar-22	100%	NCE81.2010	NCE81.2060
Road and Drain CH740 - CH780 eastbound		75	13	-375	0	15-Jul-23 A	31-Aug-23	04-Apr-22	28-May-22			
KD.B.RD.R-1950.30	Cut C38 existing soil to formation level	12	13	-389		15-Jul-23 A	12-Aug-23	04-Apr-22	21-Apr-22	0%	KD.B.RD.R-2510	KD.B.RD.R-1950.40, KD.B.RD.R-2540
KD.B.RD.R-1950.40	Utilities Laying and Backfilling	8	0	-375		14-Aug-23	22-Aug-23	11-May-22	19-May-22	0%	KD.B.RD.R-1950.30	KD.B.RD.R-1950.60
KD.B.RD.R-1950.60	Road Works at CH740 - CH780 eastbound	8	0	-375		23-Aug-23	31-Aug-23	20-May-22	28-May-22	0%	KD.B.RD.R-1950.40	KD.KE-1150,KD.BRD.R-2200.60, S1.B.SLC38-1350
Road and Drain CH780 - CH800 eastbound		4	0	-342	0	24-Aug-23	29-Aug-23	29-Jun-22	05-Jul-22			
KD.B.RD.R-1820.40	3rd diversion to new store house	4	0	-342		24-Aug-23	29-Aug-23	29-Jun-22	05-Jul-22	0%	KD.B.RD.R-1820.20	KD.B.RD.R-1550.35
Retaining Wall RD-B		25	0	-398	0	07-Oct-23	06-Nov-23	07-Jun-22	06-Jul-22			
Sewerage and Utilities		25	0	-398	0	07-Oct-23	06-Nov-23	07-Jun-22	06-Jul-22			
KD.B.RD.R-1050.430	Road Works at CH800 - CH840 eastbound and layby	25	0	-398	0	07-Oct-23	06-Nov-23	07-Jun-22	06-Jul-22	0%	KD.B.RD.R-1050.90, KD.B.RD.R-2200.60	KD.KE-1150
Road and Drain CH840 - CH890 eastbound		42	0	-383	2	29-Aug-23	18-Oct-23	24-Jun-22	06-Jul-22			
KD.B.RD.R-1550.35	Close lane	1	0	-342	1	29-Aug-23	30-Aug-23	06-Jul-22	06-Jul-22	0%	KD.B.RD.R-1550.30, KD.B.RD.R-1820.40	KD.B.RD.R-1550.45
KD.B.RD.R-1550.45	Road Works at Retaining Wall RD-B at CH840-890	10	0	-383	1	07-Oct-23	18-Oct-23	24-Jun-22	06-Jul-22	0%	KD.B.RD.R-1550.35, KD.B.RD.R-2200.60	KD.KE-1150
Road and Drain CH800 - CH920 westbound		57	0	-373	1	31-Jul-23	06-Oct-23	30-May-22	06-Jul-22			
KD.B.RD.R-2200.60	Road Works between F16 and Oparkll westbound	6	0	-398	1	28-Sep-23	06-Oct-23	30-May-22	06-Jun-22	0%	S1.B.SLF16-1000, KD.B.RD.R-1820.20, KD.B.RD.R-1950.60,	KD.KE-1150,KD.BRD.R-1050.430, KD.B.RD.R-1550.45, KD.B.RD.R-2250.35
KD.B.RD.R-2200.70	OPII Junction RHS roadworks	2	0	-320		31-Jul-23	01-Aug-23	02-Jul-22	04-Jul-22	0%	S2.C.RD.V-1150,S2.C.RD.V-1150	S2.C.SF-1450,KD.B.RD.R-2200.80
KD.B.RD.R-2200.80	OPII Junction LHS Roadworks	2	0	-320		02-Aug-23	03-Aug-23	05-Jul-22	06-Jul-22	0%	KD.B.RD.R-2200.70	KD.KE-1150
Section 1 (Portions A, A1, B, B1 and B2)		437	482	338	39	09-Dec-21 A	21-Feb-24	21-Apr-22	05-Apr-25			
Portion B, B1 and B2		437	482	338	39	09-Dec-21 A	21-Feb-24	21-Apr-22	05-Apr-25			
Site Formation and Slope Works		437	482	338	39	09-Dec-21 A	21-Feb-24	21-Apr-22	05-Apr-25			
S1.B.SL-1060	Surface Drain near Feature 3NW-C/C79	12	0	-134		03-Aug-23	16-Aug-23	18-Feb-23	03-Mar-23	0%	KD.B.RD.R-1350.10	S1.KE-1300
S1.B.SL-1110	Surface Drain near Feature 3NW-C/C47	12	0	-131		31-Jul-23	12-Aug-23	18-Feb-23	03-Mar-23	0%		S1.KE-1300
S1.B.SL-1150	Slope Upgrading Works for Feature 3NW-C/F17	120	0	-270	1	31-Jul-23	20-Dec-23	30-Aug-22	26-Jan-23	0%	KD.B.RD.R-1050.105	S1.KE-1300,S1.B.LD-1450
3NW-C/C67		69	291	-188	0	05-Aug-22 A	20-Oct-23	07-Dec-22	03-Mar-23			
S1.B.SLC67-1750	U-Channel, Catchpit and Maintenance Accesss Contruction	69	291	-188	0	05-Aug-22 A	20-Oct-23	07-Dec-22	03-Mar-23	0%	S1.B.SLC67-1650	S1.KE-1300,S1.B.SLC67-1850
S1.B.SLC67-1850	Landscape Treatmert on Slope	69	286	-140	0	11-Aug-22 A	23-Aug-23	08-Feb-23	03-Mar-23	70%	S1.B.SLC67-1750	S1.KE-1300
3NW-C/C43		374	482	356	28	09-Dec-21 A	27-Jan-24	31-Aug-22	05-Apr-25			

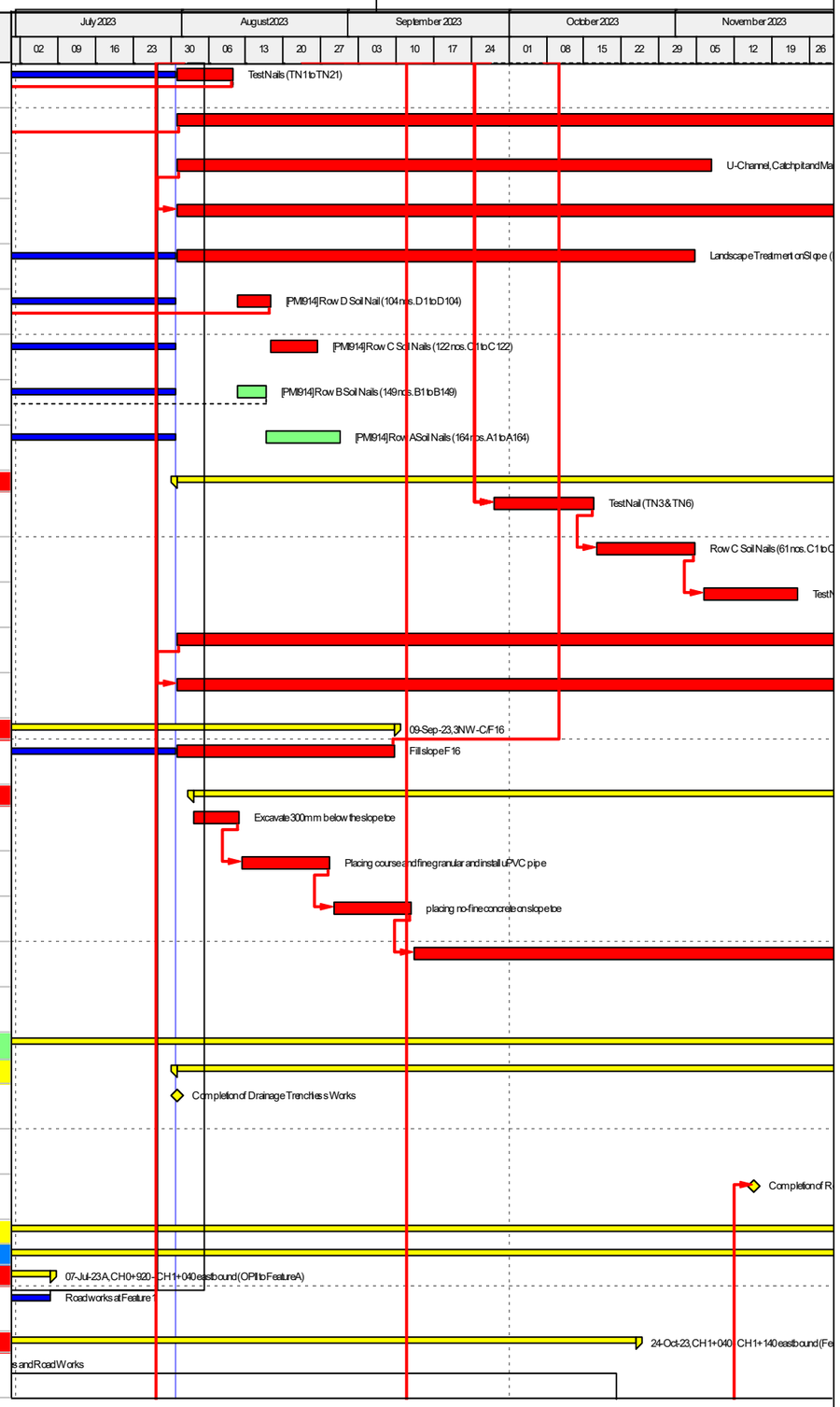


Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | Summary

Three Months Rolling Programme (Aug 2023 - Oct 2023)

Build King

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
S1.B.SLC43-1150	Test Nails (TN1 to TN21)	40	276	-158	1	23-Aug-22 A	10-Aug-23	13-Jan-23	28-Jan-23	75%	S1.B.SLC43-1050	S1.B.SLC43-2000, S1.B.SLC43-2160, S1.B.SLC43-2140
S1.B.SLC43-1400	U-Channel, Catchpit and Maintenance Accesss Contruction (Portion I & II)	150	0	-269	6	31-Jul-23	27-Jan-24	31-Aug-22	03-Mar-23	0%	S1.B.SLC43-1050	S1.KE-1300, S1.B.SLC43-1550
S1.B.SLC43-1450	U-Channel, Catchpit and Maintenance Accesss Contruction (Portion III & IV)	83	0	-254	5	31-Jul-23	07-Nov-23	19-Sep-22	28-Dec-22	0%	S1.B.SLC43-1050	S1.KE-1300, S1.B.SLC43-1500
S1.B.SLC43-1500	Landscape Treatment on Slope (Portion I & II)	135	0	-254	6	31-Jul-23	10-Jan-24	19-Sep-22	03-Mar-23	0%	S1.B.SLC43-1450	S1.KE-1300
S1.B.SLC43-1550	Landscape Treatment on Slope (Portion III & IV)	135	105	-200	6	21-Mar-23 A	04-Nov-23	23-Nov-22	03-Mar-23	40%	S1.B.SLC43-1400	S1.KE-1300
S1.B.SLC43-2140	[PM1914] Row D Soil Nail (104 nos. D1 to D104)	20	207	-158	1	15-Nov-22 A	17-Aug-23	28-Jan-23	04-Feb-23	72.1%	PM1432, S1.B.SLC43-1150	S1.B.SLC43-2150
S1.B.SLC43-2150	[PM1914] Row C Soil Nails (122 nos. C1 to C122)	27	209	-158	1	12-Nov-22 A	26-Aug-23	04-Feb-23	13-Feb-23	71.4%	S1.B.SLC43-2140	S1.B.SLC43-2100
S1.B.SLC43-2160	[PM1914] Row B Soil Nails (149 nos. B1 to B149)	30	482	479	1	09-Dec-21 A	16-Aug-23*	18-Mar-25	24-Mar-25	83.45%	S1.B.SLC43-1150	S1.B.SLC43-2170
S1.B.SLC43-2170	[PM1914] Row A Soil Nails (164 nos. A1 to A164)	33	254	479	1	19-Sep-22 A	30-Aug-23*	24-Mar-25	05-Apr-25	65.03%	S1.B.SLC43-2160	
3NW-C/C38		168	0	-287	9	31-Jul-23	21-Feb-24	10-Aug-22	03-Mar-23			
S1.B.SLC38-1350	Test Nail (TN3 & TN6)	14	0	-309	0	28-Sep-23	16-Oct-23	14-Sep-22	29-Sep-22	0%	S1.B.SLC38-1250, KD.B.RD.R-2520, KD.B.RD.R-2540, KD.B.RD.R-1950.60	S1.B.SLC38-1400
S1.B.SLC38-1400	Row C Soil Nails (61 nos. C1 to C61)	16	0	-309	1	17-Oct-23	04-Nov-23	30-Sep-22	20-Oct-22	0%	S1.B.SLC38-1350	S1.B.SLC38-1600
S1.B.SLC38-1600	Test Nails (TN2 & TN5)	16	0	-309	1	06-Nov-23	23-Nov-23	21-Oct-22	08-Nov-22	0%	S1.B.SLC38-1400	S1.B.SLC38-1650
S1.B.SLC38-1850	U-Channel, Catchpit and Maintenance Accesss Contruction	168	0	-287	4	31-Jul-23	21-Feb-24	10-Aug-22	03-Mar-23	0%	S1.B.SLC38-1800	S1.KE-1300, S1.B.SLC38-1900
S1.B.SLC38-1900	Landscape Treatment on Slope	145	0	-264	3	31-Jul-23	22-Jan-24	06-Sep-22	03-Mar-23	0%	S1.B.SLC38-1850	S1.KE-1300
3NW-C/F16		90	50	-378	1	31-May-23 A	09-Sep-23	21-Apr-22	04-Jun-22			
S1.B.SLF16-1000	Fill slope F16	90	50	-378	1	31-May-23 A	09-Sep-23	21-Apr-22	04-Jun-22	60%	KD.B.RD.R-2200.35, KD.B.RD.R-2200.40	KD.B.RD.R-2200.60
3NW-C/F21		135	0	-315	0	03-Aug-23	13-Jan-24	12-Jul-22	19-Dec-22			
S1.B.SLF21-1000	Excavate 300mm below the slope toe	8	0	-315		03-Aug-23	11-Aug-23	12-Jul-22	20-Jul-22	0%	KD.SD.R.FT-1450, KD.B.GI-1550, KD.D.S-1150, KDMS-1150, KD.SD.R.FD-1000,	S1.B.SLF21-1010
S1.B.SLF21-1010	Placing course and fine granular and install uPVC pipe	14	0	-315		12-Aug-23	28-Aug-23	21-Jul-22	05-Aug-22	0%	S1.B.SLF21-1000	S1.B.SLF21-1020
S1.B.SLF21-1020	placing no-fine concrete on slope toe	13	0	-315		29-Aug-23	12-Sep-23	06-Aug-22	20-Aug-22	0%	S1.B.SLF21-1010	S1.B.SLF21-1030
S1.B.SLF21-1030	sr1 test to level below no-fine concrete slope crest	90	0	-315		13-Sep-23	02-Jan-24	22-Aug-22	07-Dec-22	0%	S1.B.SLF21-1020	S1.B.SLF21-1040
S1.B.SLF21-1040	placing no-fine concrete on slope crest	10	0	-315		03-Jan-24	13-Jan-24	08-Dec-22	19-Dec-22	0%	S1.B.SLF21-1030	S1.B.SLF21-1050
Section 2 (Portions C and C1)		430	319	336	37	31-Aug-22 A	23-Feb-24	05-Nov-21	05-Apr-25			
Key Event		113	0	-232	0	31-Jul-23	12-Dec-23	03-Mar-23	03-Mar-23			
S2.KE-1000	Completion of Drainage Trenchless Works	0	0	-149	0		31-Jul-23		03-Mar-23	0%	S2.C.TD-1250, S2.C.TD-1300	S2.KE-1300
S2.KE-1200	Completion of Slope Upgrading Works	0	0	-284	0		12-Dec-23		03-Mar-23	0%	S2.GM-1550, S2.GM-1300, S2.GM-1100, S2.GM-1000, S2.GM-1200, S2.GM-1500,	S2.KE-1300
S2.KE-1250	Completion of Retaining Walls	0	0	-209	0		15-Nov-23		03-Mar-23	0%	S2.C.RW-1050.10, S2.C.RW-1000	S2.KE-1300
Road, Drain and Utilities Works		430	319	336	12	31-Aug-22 A	23-Feb-24	05-Nov-21	05-Apr-25			
Works at Existing Verge		331	319	366	3	31-Aug-22 A	20-Dec-23	02-Jul-22	05-Apr-25			
CH0+920 - CH1+040 eastbound (OPII to Feature A)		51	68		3	15-Apr-23 A	07-Jul-23 A	02-Jul-22	02-Jul-22			
S2.C.RD.V-1150	Road works at Feature 1	51	68		3	15-Apr-23 A	07-Jul-23 A	02-Jul-22	02-Jul-22	100%	S2.C.SF-1550	KD.B.RD.R-2200.70, KD.B.RD.R-2200.70
CH1+040 - CH1+140 eastbound (Feature A to Feature 4)		215	219	-232	0	31-Dec-22 A	24-Oct-23	17-Oct-22	10-Jan-23			
S2.C.RD.V-1100	Drainage S1801 - S1802 - S1803, Utilities and Road Works	30	119			31-Dec-22 A	31-May-23 A	10-Jan-23	10-Jan-23	100%	S2.C.RD.V-1040, S2.C.RD.V-1124	S2.C.RD.V-1500



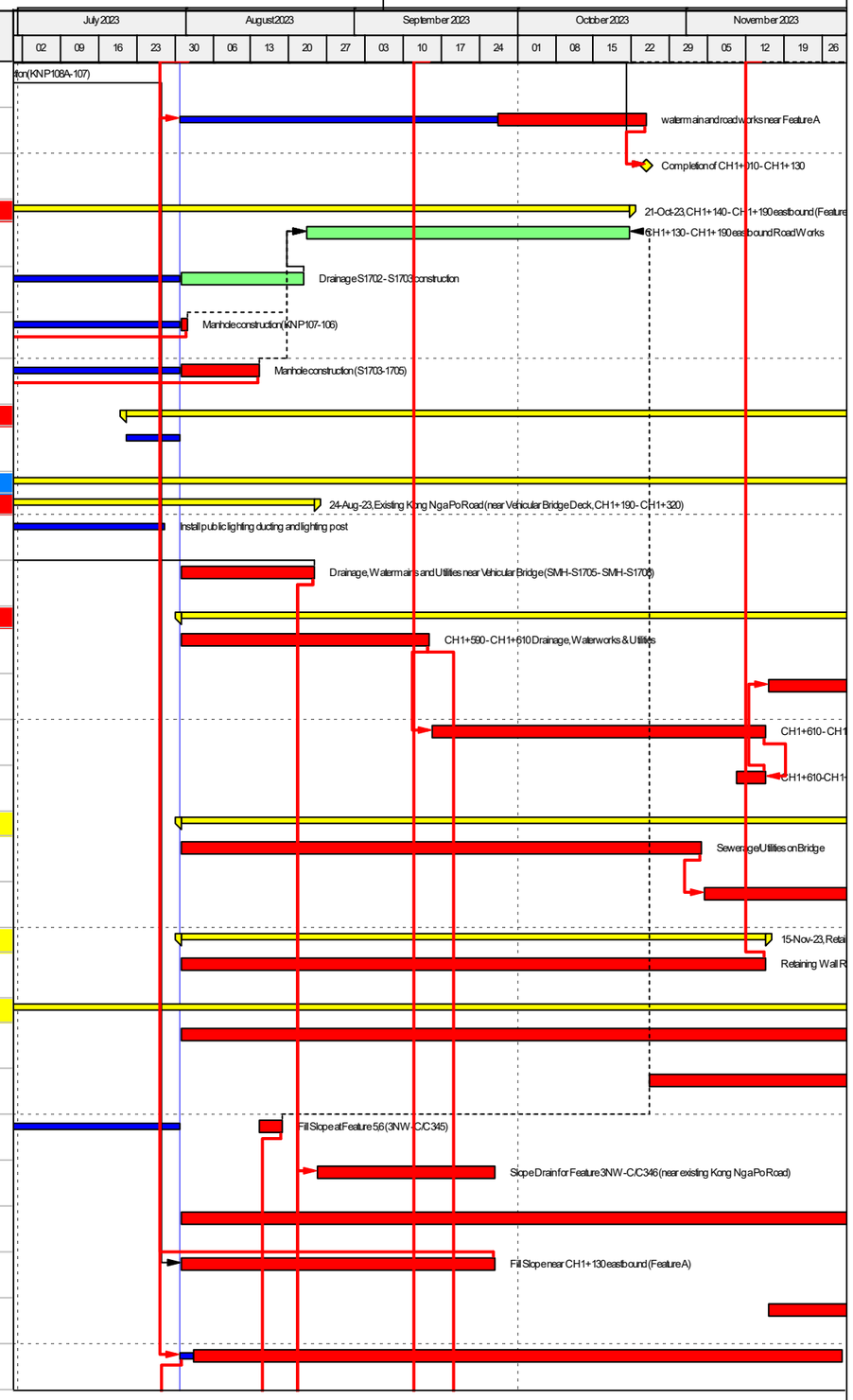
Remaining Level of Effort | Remaining Work | Milestone

Actual Work | Critical Remaining Work | Summary

Three Months Rolling Programme (Aug 2023 - Oct 2023)

Build King

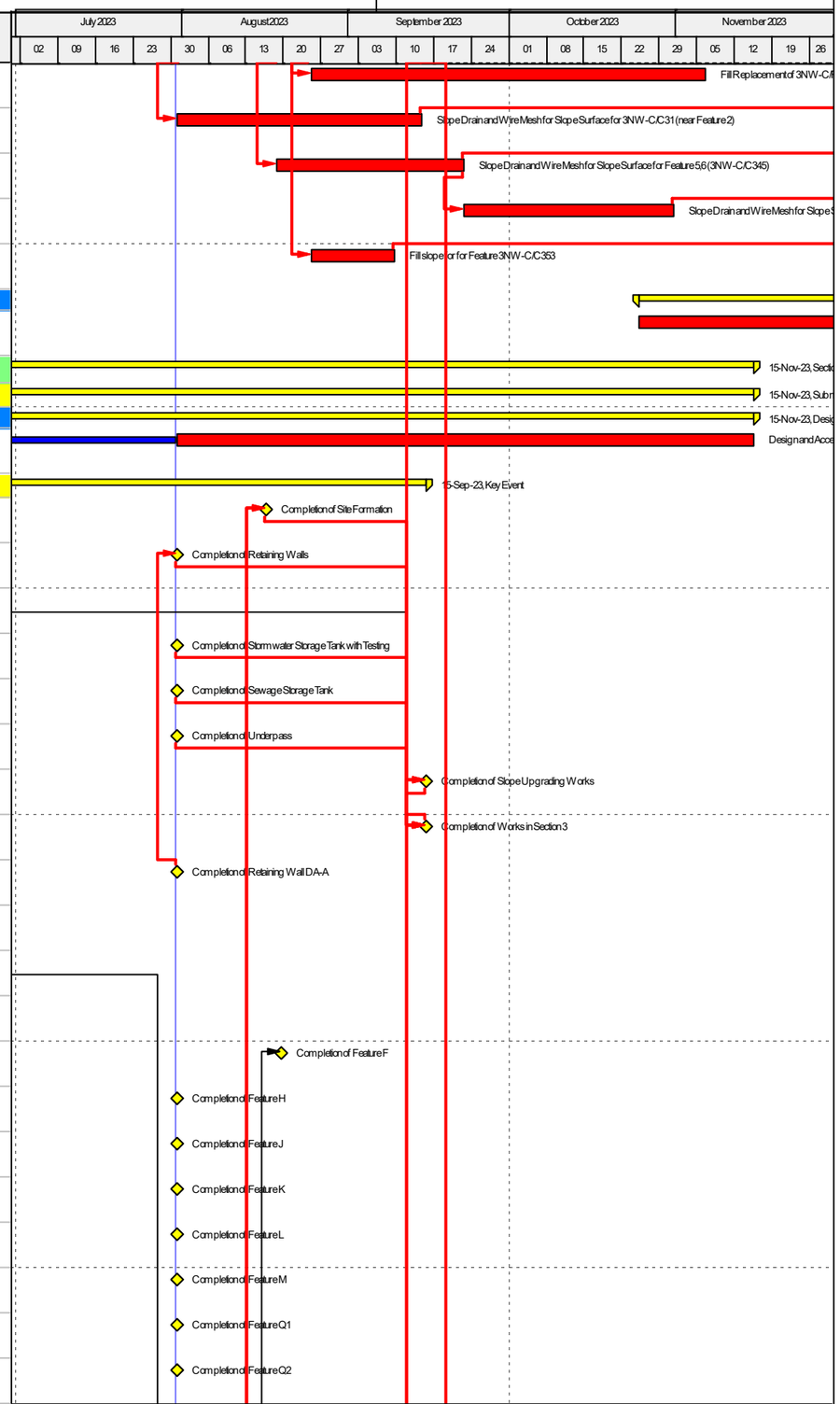
Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
S2C.RD.V-1114	Manhole construction(KNP108A-107)	14	14			31-May-23 A	15-Jun-23 A	17-Oct-22	17-Oct-22	100%	S2C.RD.V-1112	S2C.SF-1250
S2C.RD.V-1134	watermain and road works near Feature A	21	50	-232		31-Jul-23 A	24-Oct-23	14-Dec-22	10-Jan-23	0%	S2C.SF-1250	S2C.RD.V-1500
S2C.RD.V-1500	Completion of CH1+010 - CH1+130	0	0	-232			24-Oct-23		10-Jan-23	0%	S2C.RD.V-1100, S2C.RD.V-1090, S2C.RD.V-1134	S2C.SF-1050
CH1+140 - CH1+190 eastbound (Feature 4 to Feature 6, near Abutment A		330	269	436	0	31-Aug-22 A	21-Oct-23	28-Nov-22	05-Apr-25			
S2C.RD.R-1050	CH1+130 - CH1+190 eastbound Road Works	50	0	436	0	23-Aug-23	21-Oct-23	07-Feb-25	05-Apr-25	0%	S2C.RD.V-1110, S2C.RD.V-1230, S2C.SF-1160, S2C.RD.V-1510	
S2C.RD.V-1110	Drainage S1702 - S1703 construction	20	269	436		31-Aug-22 A	22-Aug-23	15-Jan-25	06-Feb-25	0%	S2C.RD.V-1080	S2C.RD.R-1050
S2C.RD.V-1230	Manhole construction (KNP107-106)	14	114	-185		10-Mar-23 A	01-Aug-23	10-Dec-22	12-Dec-22	90%	S2C.RD.V-1170	S2C.SF-1160, S2C.RD.R-1050
S2C.RD.V-1510	Manhole construction (S1703-1705)	14	55	-196		24-May-23 A	14-Aug-23	28-Nov-22	12-Dec-22	10%	S2C.RD.V-1160, S2C.RD.V-1180	S2C.SF-1160, S2C.RD.R-1050
CH1+320 - CH1+340 (near Platform A)		14	8	-239	0	21-Jul-23 A	20-Dec-23	16-Feb-23	03-Mar-23			
S2C.RD.R-1210	Road works at CH1+320-CH1+340	14	8	-239		21-Jul-23 A	20-Dec-23	16-Feb-23	03-Mar-23	0%	S2C.SF-1300, S2C.SF-1100	S2KE-1100
Works at Existing Kong Nga Po Road (TTA Required)		198	29	336	9	22-Jun-23 A	23-Feb-24	05-Nov-21	05-Apr-25			
Existing Kong Nga Po Road (near Vehicular Bridge Deck, CH1+190 - CH1		50	29	484	3	22-Jun-23 A	24-Aug-23	22-Nov-22	05-Apr-25			
CE480.1000	Install public lighting ducting and lighting post	14	29			22-Jun-23 A	28-Jul-23 A	05-Apr-25	05-Apr-25	100%	S2C.RD.R-1150	
S2C.RD.R-1150	Drainage, Watermains and Utilities near Vehicular Bridge (SMH-S1705 - SMH-S1708)	22	0	-201	3	31-Jul-23	24-Aug-23	22-Nov-22	16-Dec-22	0%	S2C.BG-1450	S2C.LD-1150, S2C.SF-1170, S2C.SF-1640, S2C.SF-1600, CE480.1000
CH1+590-CH1+690 (beyond portion D main site entrance)		170	0	-321	6	31-Jul-23	23-Feb-24	05-Nov-21	25-Jan-23			
S2C.RD.R-1600	CH1+590 - CH1+610 Drainage, Waterworks & Utilities	40	0	-511	3	31-Jul-23*	14-Sep-23	05-Nov-21	21-Dec-21	0%	S3D.SF-3500	S3D.SL-2420, S2C.RD.R-1700
S2C.RD.R-1650	CH1+610 - CH1+690 westbound Drainage & Utilities Waterworks	80	0	-321	3	16-Nov-23	23-Feb-24	18-Oct-22	25-Jan-23	0%	S2C.RD.R-1710	S2C.LD-1000, S2C.RD.R-1660, S2C.SF-1400
S2C.RD.R-1700	CH1+610 - CH1+690 eastbound Utilities Waterworks	50	0	-321	0	15-Sep-23	15-Nov-23	17-Aug-22	17-Oct-22	0%	S2C.RD.R-1600	S2KE-1100, S2C.LD-1000, S2C.RD.R-1710
S2C.RD.R-1710	CH1+610-CH1+690 eastbound road works	5	0	-321		10-Nov-23	15-Nov-23	12-Oct-22	17-Oct-22	0%	S2C.RD.R-1700	S2C.RD.R-1650
Bridge Construction (CH1+190 - CH1+320)		140	0	-259	6	31-Jul-23	16-Jan-24	13-Sep-22	03-Mar-23			
S2C.BG-1500	Sewerage Utilities on Bridge	80	0	-259	2	31-Jul-23	03-Nov-23	13-Sep-22	16-Dec-22	0%	S2C.BG-1450	S2C.BG-1550
S2C.BG-1550	Flexible Road Construction	60	0	-259	4	04-Nov-23	16-Jan-24	17-Dec-22	03-Mar-23	0%	S2C.BG-1500	S2KE-1050
Retaining Wall		90	0	-209	1	31-Jul-23	15-Nov-23	12-Nov-22	03-Mar-23			
S2C.RW-1000	Retaining Wall RD-D	90	0	-209	1	31-Jul-23	15-Nov-23	12-Nov-22	03-Mar-23	0%	S2C.GI-1300, S2SDR.FT-1450, S2SDR.FD-1100, S2GM-1200, S2C.RD.R-1200	S2KE-1250
Site Formation and Slope Upgrading Works		230	78	-289	18	28-Apr-23 A	23-Feb-24	11-Aug-22	03-Mar-23			
S2C.SF-1100	Fill Slope near Feature B	120	0	-240	1	31-Jul-23	20-Dec-23	07-Oct-22	02-Mar-23	0%	S2GM-1000, S2C.BG-1600.10, S2C.SF-0000, S2GM-1500, S2C.RW-1050.10,	S2C.SF-1150, S2KE-1150, S2C.RD.R-1210
S2C.SF-1150	Fill Slope near CH1+310R (Feature B near Bridge Abutment) inc.drain & protect for existing 3NW-C/C353	50	0	-240	2	25-Oct-23	21-Dec-23	31-Dec-22	03-Mar-23	0%	S2C.SF-0000, S2C.SF-1100, S2C.RW-1050.10, S2C.BG-1600.10, S2C.RW-1050.20	S2KE-1150
S2C.SF-1160	Fill Slope at Feature 5,6 (3NW-C/C345)	14	76	-196		28-Apr-23 A	18-Aug-23	12-Dec-22	16-Dec-22	70%	S2C.BG-1450, S2C.RD.V-1230, S2C.RD.V-1510	S2KE-1150, S2C.SF-1620, S2C.RD.R-1050
S2C.SF-1170	Slope Drain for Feature 3NW-C/C346 (near existing Kong Nga Po Road)	28	0	-169		25-Aug-23	26-Sep-23	31-Jan-23	03-Mar-23	0%	S2C.RD.R-1150, S2C.BG-1450	S2KE-1150
S2C.SF-1200	Fill Slope near CH1+350R (near 3NW-C/C351)	150	0	-269	6	31-Jul-23	27-Jan-24	31-Aug-22	03-Mar-23	0%	S2C.SF-0000, S2C.RD.V-1050, S3D.RW-DA-A-1100.85	S2KE-1150
S2C.SF-1250	Fill Slope near CH1+130 eastbound (Feature A)	50	0	-232	1	31-Jul-23	26-Sep-23	17-Oct-22	13-Dec-22	0%	S2C.SF-0000, S2SDR.FT-1000, S2C.RD.V-1114, S2C.RD.V-1124	S2KE-1150, S2C.LD-1100, S2C.RD.V-1134
S2C.SF-1400	Fill Slope near CH1+620 westbound	80	0	-289	3	16-Nov-23	23-Feb-24	24-Nov-22	03-Mar-23	0%	S2C.SF-0000, S2C.RD.R-1650	S2KE-1150
S2C.SF-1450	Fill Slope near CH0+900 - CH1+040 westbound (Feature 2)	100	2	-288	5	31-Jul-23 A	29-Nov-23	11-Aug-22	08-Dec-22	0%	S2C.SF-0000, S2C.RD.R-1350.10, KD.BRD.R-2200.70	S2KE-1150, S2C.LD-1200, S2C.SF-1610, S2C.RD.R-1450



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

Build King

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
S2C.SF-1600	Fill Replacement of 3NW-C/F54 (near Bridge)	60	0	-201	0	25-Aug-23	06-Nov-23	17-Dec-22	03-Mar-23	0%	S2.SDR.FT-1250,S2C.BG-1450, S2C.RD R-1150	S2KE-1150
S2C.SF-1610	Slope Drain and Wire Mesh for Slope Surface for 3NW-C/C31 (near Feature 2)	40	0	-159		31-Jul-23	14-Sep-23	13-Jan-23	03-Mar-23	0%	S2C.SF-1450	S2KE-1200
S2C.SF-1620	Slope Drain and Wire Mesh for Slope Surface for Feature 5,6 (3NW-C/C345)	30	0	-196		18-Aug-23	22-Sep-23	17-Dec-22	27-Jan-23	0%	S2C.SF-1160	S2KE-1200,S2C.SF-1630
S2C.SF-1630	Slope Drain and Wire Mesh for Slope Surface near Existing Kong Nga Po Road (3NW-C/C346)	30	0	-196		22-Sep-23	31-Oct-23	28-Jan-23	03-Mar-23	0%	S2C.SF-1620	S2KE-1200
S2C.SF-1640	Fill slope for for Feature 3NW-C/C353	14	0	-155		25-Aug-23	09-Sep-23	16-Feb-23	03-Mar-23	0%	S2C.RD R-1150, S2C .BG-1450	S2KE-1200
Feature A		42	0	-232	0	25-Oct-23	12-Dec-23	11-Jan-23	03-Mar-23			
S2C.SF-1080	[PM1514] Slope Drain and Wire Mesh for Slope Surface for Feature A (3NW-C/C30)	42	0	-232		25-Oct-23	12-Dec-23	11-Jan-23	03-Mar-23	0%	S2C.SF-1070	S2KE-1200
Section 3 (Portion D, D1)		580	525	416	8	20-Oct-21 A	15-Nov-23	30-Sep-21	05-Apr-25			
Submissions and Approvals		90	525	-540	0	20-Oct-21 A	15-Nov-23	30-Sep-21	18-Jan-22			
Design for Major Construction Works		90	525	-540	0	20-Oct-21 A	15-Nov-23	30-Sep-21	18-Jan-22			
S3.GS-1800	Design and Acceptance of E&M Installation on Sewage Storage Tank [PS-3001]	90	525	-540	0	20-Oct-21 A	15-Nov-23	30-Sep-21	18-Jan-22	0%	S3.GS-1700	S3D.SEW-1300
Key Event		91	0	465	0	31-May-23 A	15-Sep-23	22-Dec-21	05-Apr-25			
S3KE-1150	Completion of Site Formation	0	0	-602	0		16-Aug-23		22-Dec-21	0%	S3D.SF-2100,S3D.SF-1150 0.01, S3D.SF-2000,S3D.SF-1200, S3D.SF-2200,S3D.SF-2300,	S3KE-1500
S3KE-1200	Completion of Retaining Walls	0	0	-585	0		31-Jul-23		22-Dec-21	0%	S3KE-1750,S3KE-1800, S3KE-1850,S3KE-1900, S3KE-1950,S3KE-2000,	S3KE-1500
S3KE-1250	Completion of Road and Drain	0	0		0		31-May-23 A		22-Dec-21	100%	S3D.RD-1600,S3D.RD-1000, S3D.RD-1600,S3D.RD-1300, S3D.RD-1200.20,S3D.RD-1350.20	S3KE-1500
S3KE-1300	Completion of Storm water Storage Tank with Testing	0	0	-585	0		31-Jul-23		22-Dec-21	0%	S3D.SWT-1250.15	S3KE-1500
S3KE-1350	Completion of Sewage Storage Tank	0	0	-585	0		31-Jul-23		22-Dec-21	0%	S3D.SEW-1950,S3D.SEW-1250	S3KE-1500
S3KE-1400	Completion of Underpass	0	0	-585	0		31-Jul-23		22-Dec-21	0%	S3D.UP-1150	S3KE-1500
S3KE-1450	Completion of Slope Upgrading Works	0	0	-632	0		15-Sep-23		22-Dec-21	0%	S3D.SL-1050-18,S3D.SL-2230, S3D.SL-1100,S3D .SL-2100 S3D.SL-2000,S3D.SL-1050-68,	S3KE-1500
S3KE-1500	Completion of Works in Section 3	0	0	-511	0		15-Sep-23		22-Dec-21	0%	PW.C-1100,S3KE-1200, S3KE-1150,S3KE-1400 S3KE-1450,S3KE-1050,	PC.S3
S3KE-1750	Completion of Retaining Wall DA-A	0	0	-470	0		31-Jul-23		22-Dec-21	0%	S3D.RW-DA-A-1100.85, S3D.RW-DA-A-1000.35, S3D.1RW-DA-A-1050.5,	S3KE-1200
S3KE-3080	Completion of Platform H	0	0		0		31-May-23 A		05-Apr-25	100%	S3D.RD-2600	
S3KE-3090	Completion of Platform I	0	0		0		31-May-23 A		05-Apr-25	100%	S3D.RD-2400	S3KE-3250
S3KE-3100	Completion of Platform J	0	0		0		31-May-23 A		05-Apr-25	100%	S3D.RD-2450	
S3KE-3150	Completion of Feature F	0	0	488	0		19-Aug-23		05-Apr-25	0%	S3D.SL-2350,S3D.SF-1100	
S3KE-3170	Completion of Feature H	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.SL-1050-14	
S3KE-3190	Completion of Feature J	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.SL-1150-66	
S3KE-3200	Completion of Feature K	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.SF-2250	
S3KE-3210	Completion of Feature L	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.SF-2300	
S3KE-3220	Completion of Feature M	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.SL-2430	
S3KE-3260	Completion of Feature Q1	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.SF-3250	
S3KE-3265	Completion of Feature Q2	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.SF-3250,S3D.RD-1650.20	

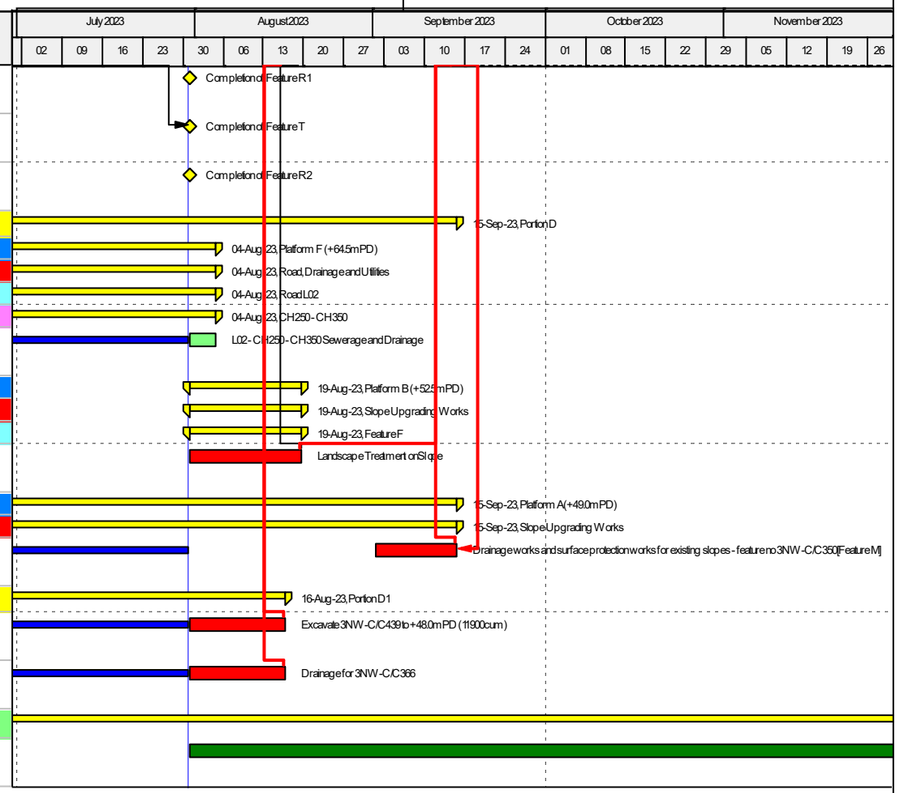


Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

Three Months Rolling Programme (Aug 2023 - Oct 2023)

BuildKing

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	TRA	Start	Finish	Late Start	Late Finish	Activity % Complete	Predecessors	Successors
S3KE-3270	Completion of Feature R1	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.RD-1650.20	
S3KE-3290	Completion of Feature T	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3KE-3090	
S3KE-3310	Completion of Feature R2	0	0	506	0		31-Jul-23		05-Apr-25	0%	S3D.RD-1650.20, S3D.RD-1000, S3D.RD-1150.20	
Portion D		262	418	465	2	01-Mar-22A	15-Sep-23	02-Dec-21	05-Apr-25			
Platform F (+64.5mPD)		14	418	501	0	01-Mar-22A	04-Aug-23	01-Apr-25	05-Apr-25			
Road, Drainage and Utilities		14	418	501	0	01-Mar-22A	04-Aug-23	01-Apr-25	05-Apr-25			
Road L02		14	418	501	0	01-Mar-22A	04-Aug-23	01-Apr-25	05-Apr-25			
CH250 - CH350		14	418	501	0	01-Mar-22A	04-Aug-23	01-Apr-25	05-Apr-25			
S3D.RD-2350	L02 - CH250 - CH350 Sewerage and Drainage	14	418	501	0	01-Mar-22A	04-Aug-23	01-Apr-25	05-Apr-25	64.29%	S3D.RD-2300	S3D.RD-2400
Platform B (+52.5mPD)		18	0	-488	0	31-Jul-23	19-Aug-23	02-Dec-21	22-Dec-21			
Slope Upgrading Works		18	0	-488	0	31-Jul-23	19-Aug-23	02-Dec-21	22-Dec-21			
Feature F		18	0	-488	0	31-Jul-23	19-Aug-23	02-Dec-21	22-Dec-21			
S3D.SL-2350	Landscape Treatment on Slope	18	0	-488		31-Jul-23	19-Aug-23	02-Dec-21	22-Dec-21	0%	S3D.SL-2230	S3KE-1450, S3KE-3150
Platform A (+49.0mPD)		21	68	-511	2	09-May-23A	15-Sep-23	08-Dec-21	22-Dec-21			
Slope Upgrading Works		21	68	-511	2	09-May-23A	15-Sep-23	08-Dec-21	22-Dec-21			
S3D.SL-2420	Drainage works and surface protection works for existing slopes - feature no 3NW-C/C350 [Feature M]	21	68	-511	2	09-May-23A	15-Sep-23	08-Dec-21	22-Dec-21	40%	S3D.SF-3100, S2.C.SF-1305, S2.C.RD.R-1600, S3D.RD-1600	S3KE-1450, S3D.SF-1900, S3D.SL-2430
Portion D1		45	265	-485	6	05-Sep-22A	16-Aug-23	06-Dec-21	22-Dec-21			
S3D.1.SF-1000	Excavate 3NW-C/C 439 to +48.0mPD (11900cum)	25	260	-485	2	12-Sep-22A	16-Aug-23	06-Dec-21	22-Dec-21	40%	AD-P4, S3D.RW-DA-M-1050.20	S3KE-1150, S3D.SL-1100
S3D.1.SF-1050	Drainage for 3NW-C/C366	45	265	-485	4	05-Sep-22A	16-Aug-23	06-Dec-21	22-Dec-21	66.67%	S3.SDR.FT-1200, S3.GM-2000, S3D.RW-DA-M-1000.70, S3D.1.RW-DA-M-1050.5	S3KE-1150
Section 4 (Preservation and Protection of Existing Tr		1248	1342	-399	0	27-Nov-19A	05-Apr-24	30-Sep-21	03-Mar-23			
S4-1000	Preservation and Protection of Existing Trees other than Establishment Works	1248	1342	-399	0	27-Nov-19A	05-Apr-24	30-Sep-21	03-Mar-23	79.97%	SD, PC.S3, PC.S1, PC.S2	



Site activities carried out in reporting month (July 2023)

LEGEND:

KONG NGA PO SITE BOUNDARY

Retaining Wall Construction

Road and Associated Works

Slope Upgrading Works

Bridge and Associated Works

N

30 E

843400 N

843000 N

842600 N

SHEET 1 OF 9

SHEET 2 OF 9

SHEET 3 OF 9

SHEET 4 OF 9

SHEET 5 OF 9

SHEET 6 OF 9

SHEET 7 OF 9

SHEET 8 OF 9

SHEET 9 OF 9

KONG NGA PO

HUNG LUNG HANG

Feature 3NW-C/C38
- Landscape Treatment Works
- U-channel & Catchpit Construciton

Feature 3NW-C/F17
- Backfilling

Road & Drain Construction from CH580 to CH730

Feature 3NW-C/F16
- No fine Concrete

Feature A
Slope Drain & Wire Mesh

Feature 4
- No fine Concrete

Retaining Wall RD-D
- Backfilling

Feature 3NW-C/C37
- Landscape Treatment Works

Road & Drain Construction from CH920 to CH1150

RD-A
- Slope Drain & Wire Mesh

Feature B
- Backfilling

Bridge Construction
- Asphalt Paving

Road & Drain Construction from CH400 to CH580

Feature 3NW-C/C43
- Landscape Treatment Works
- U-Channel & Catchpit Construction
- Soil Nailing

Feature 3NW-C/C8 & C67
- Landscape Treatment Works
- U-Channel & Catchpit Construction

833400 E

833600 E

843600 N

INSET 'A'

ISO A1 594mm x 841mm

Approved: RCYK

Checked: SCWC

Designer: YHH

Project Management Initials:

02-July-2019

Plot File by: WingSan.Chan@aecom.com
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AECOM

PROJECT
項目

SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO - DESIGN AND CONSTRUCTION

CONTRACT TITLE

SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

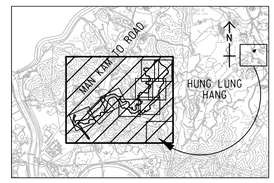
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核
A	JUL. 19	TENDER ADDENDUM NO.1	SCWC
-	JUN. 19	TENDER DRAWING	SCWC

STATUS
階段

SCALE 比例
A1 1 : 2500

DIMENSION UNIT 尺寸單位

KEY PLAN 索引圖 A1 1 : 50000



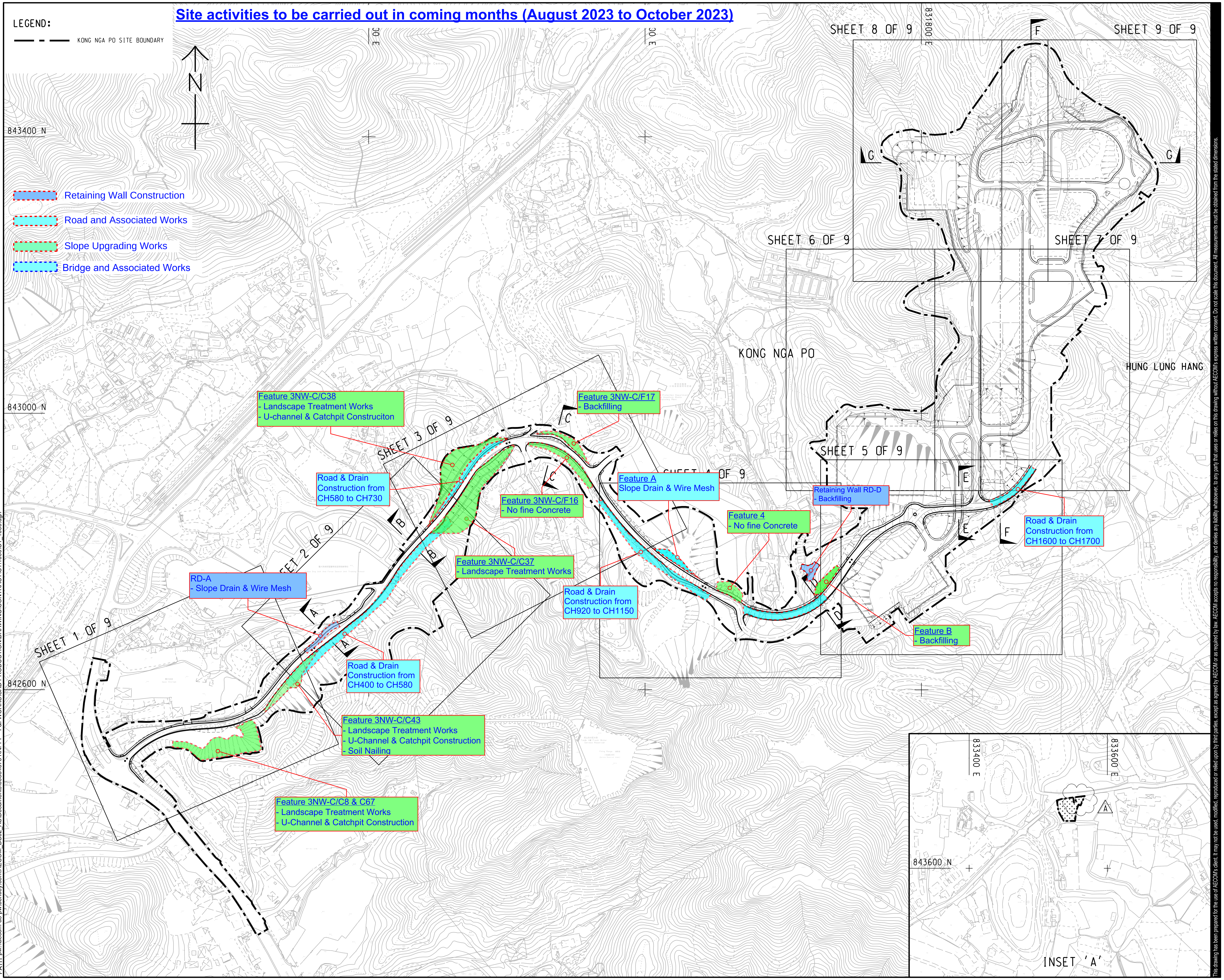
PROJECT NO. 項目編號
60534575

CONTRACT NO. 合約編號
ND/2018/01

SHEET TITLE 圖紙名稱
KEY PLAN AND LOCATION PLAN

SHEET NUMBER 圖紙編號
60534575/C1/1000A

Site activities to be carried out in coming months (August 2023 to October 2023)



LEGEND:
KONG NGA PO SITE BOUNDARY
Retaining Wall Construction
Road and Associated Works
Slope Upgrading Works
Bridge and Associated Works
N
843400 N
843000 N
842600 N
SHEET 1 OF 9
SHEET 3 OF 9
SHEET 5 OF 9
SHEET 6 OF 9
SHEET 7 OF 9
SHEET 8 OF 9
SHEET 9 OF 9
KONG NGA PO
HUNG LUNG HANG
Feature 3NW-C/C38
- Landscape Treatment Works
- U-channel & Catchpit Construciton
Feature 3NW-C/F17
- Backfilling
Road & Drain
Construction from
CH580 to CH730
Feature 3NW-C/F16
- No fine Concrete
Feature A
Slope Drain & Wire Mesh
Feature 4
- No fine Concrete
Retaining Wall RD-D
- Backfilling
Road & Drain
Construction from
CH1600 to CH1700
Feature 3NW-C/C37
- Landscape Treatment Works
RD-A
- Slope Drain & Wire Mesh
Road & Drain
Construction from
CH920 to CH1150
Feature B
- Backfilling
Road & Drain
Construction from
CH400 to CH580
Feature 3NW-C/C43
- Landscape Treatment Works
- U-Channel & Catchpit Construction
- Soil Nailing
Feature 3NW-C/C8 & C67
- Landscape Treatment Works
- U-Channel & Catchpit Construction
833400 E
833600 E
843600 N
INSET 'A'

AECOM

PROJECT

SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO - DESIGN AND CONSTRUCTION

CONTRACT TITLE

SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO

CLIENT

土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.
A	JUL. 19	TENDER ADDENDUM NO.1	SCWC
-	JUN. 19	TENDER DRAWING	SCWC

STATUS

SCALE: A1 1 : 2500

DIMENSION UNIT

KEY PLAN A1 1 : 50000

PROJECT NO. 60534575

CONTRACT NO. ND/2018/01

SHEET TITLE

KEY PLAN AND LOCATION PLAN

SHEET NUMBER 60534575/C1/1000A

ISO A1 594mm x 841mm
Approved: RCYK
Checked: SCWC
Designer: YHH
Project Management Initials:
02-July-2019
Plot File by: WingSan.Chan@aecom.com
PATH pw:\\aecom-as-pw.bentley.com:AECOM_DS02_AS\Documents\60534575 KNPPF - F&I WORKS\CAD PRODUCTION\DRAWING\CONTRACT\C1\1000\C1_1000.dgn

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Slope Upgrading Works	Kong Nga Po Road	Dust impact from soil nail works	• Three side enclosure with top shelter for cement mixing works • Water spraying on soil nailing works • Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting
EIA 5.6.1.2; EM&A Log 4.2			Water	• Deploy desilting/sedimentation devices for wastewater treatment prior to discharge • Establish soil berm with retention pit to control water outflow
EIA 4.4.6; EM&A Log 3.2			Noise	• Regular inspection and maintenance of plant and equipment in good condition • Provide noise barriers for soil nailing works where near the sensitive receiver
EIA 10.11, EM&A Log 9.4			Ecology Concern	• Provide training to frontline workers for the conservative species • Provision of protective fence for the conservative species • Regular inspection for concerned vegetation
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	• Properly fenced off the conservative species • Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Road and Associated Works	Kong Nga Po Main Site Kong Nga Po Road	Air Dust impact from excavation activities and earth moving	• Use of regular water spraying (once every 1.25 hours or 8 times per day) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather • Regular inspection and maintenance of plant and equipment in good condition • Regularly clean up stockpiles and debris to avoid accumulation of materials • Wheel washing facilities shall be provided at each construction site exit of roadworks • Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads
EIA 5.6.1.2; EM&A Log 4.2			Water	• Provide desilting/sedimentation devices for wastewater treatment before discharge • The wheels of all vehicles and plant should be cleaned before leaving the works areas to remove sediment, soil and debris from the tracks. The washwater should be treated to remove any suspended sediment
EIA 4.4.6; EM&A Log 3.2			Noise from roadworks	• Enclose the noisy part of machineries with noise isolating mats during hard surface breaking

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 4.4.6; EM&A Log 3.2	(Cont') Road and Associated Works	(Cont') Kong Nga Po Main Site Kong Nga Po Road	Working in Restricted Hours	• Valid construction noise permit should be obtained and displayed on site • In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out
EIA 7.5.1.4; EM&A Log 6.2			Chemical Waste	• Drip tray and chemical spillage kit shall be provided on site
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	• Properly fenced off the conservative species • Properly implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts

**EIA Ref/EM&A Log Ref/Design Document Ref*

***Details of equipment, vehicles, plants, processes, technologies for the construction method*

	Name	Signature	Date
Prepared by Contractor	Alex Liu		2 Aug 2023
Endorsed by *Supervisor's* Representative	Andy Cheng		2 Aug 2023
Reviewed by Environmental Team Leader	Ivy Tam		4 August 2023
Approved by Independent Environmental Checker	Tandy Tse		4 August 2023

APPENDIX B
ACTION AND LIMIT LEVELS

Appendix B - Action and Limit Levels

Table B-1 Action and Limit Levels for 1-hour TSP

Monitoring station	Action Level (ug/m^3)	Limit Level (ug/m^3)
AM1	308	500
AM2	311	

TableB-2 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)

Noted:
If works are to be carried during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

APPENDIX C
COPIES OF CALIBRATION CERTIFCATES

WELLAB 威力
consulting . testing . research

WELLAB LIMITED
Room 1714, Technology Park
18 On Lai Street, Shatin
New Territories, Hong Kong
Tel: 2898 7388 Fax: 2898 7076
Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38570A
Date of Issue:	2023-07-10
Date Received:	2023-07-08
Date Tested:	2023-07-08
Date Completed:	2023-07-10
Next Due Date:	2023-09-09
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23808
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-02

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.180

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-02	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23808	2203
Calibration Date:	8-Jul-23	8-Jul-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	34	43
2	49	57
3	67	79
4	76	89
5	92	107
Average	**63.5**	**74.9**

By Linear Regression of Y on X

Slope , mw = **1.1047** **Intercept, bw =** **4.7548**

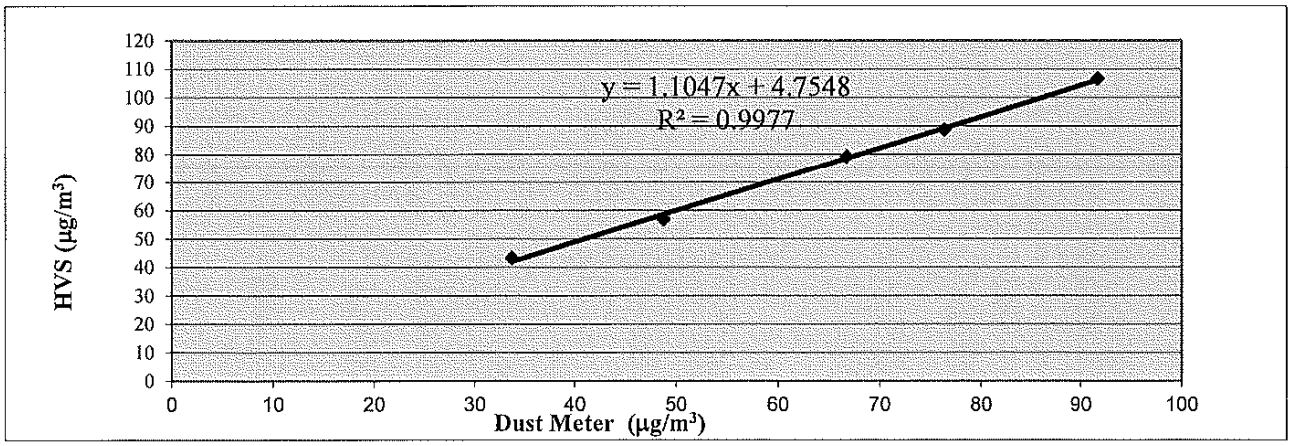
Correlation coefficient* = **0.9989**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	74.9
Particaulate Concentration by Dust Meter (µg/m^3)	63.5
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.180**



QC Reviewer: Lee Mon Hui Signature: _____ Date: 8/7/23

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Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38469
Date of Issue:	2023-06-26
Date Received:	2023-06-23
Date Tested:	2023-06-23
Date Completed:	2023-06-26
Next Due Date:	2023-08-25
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24476
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-05

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.145

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-05	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24476	2203
Calibration Date:	23-Jun-23	23-Jun-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter Mass Concentration ($\mu g/m^3$) **X-axis**	HVS Mass concentration ($\mu g/m^3$) **Y-axis**
1	17	20
2	29	37
3	54	62
4	66	74
5	89	99
Average	**51.2**	**58.6**

By Linear Regression of Y on X

Slope , mw = **1.0773** **Intercept, bw =** **3.4629**

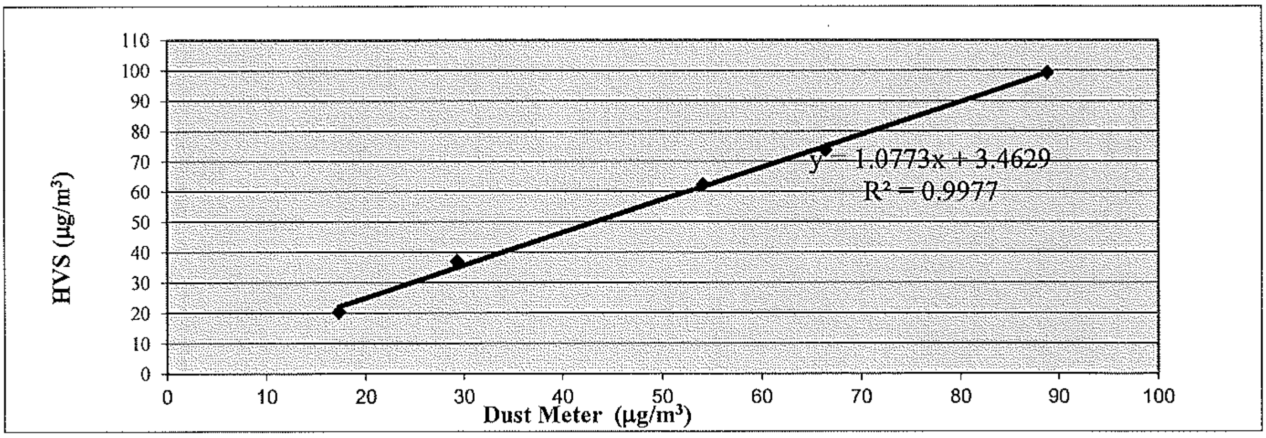
Correlation coefficient* = **0.9988**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler ($\mu g/m^3$)	58.6
Particaulate Concentration by Dust Meter ($\mu g/m^3$)	51.2
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, ($\mu g/m^3$)] **1.145**



QC Reviewer: LEE MAN HIN Signature: Date: 24/6/23

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38469A
Date of Issue:	2023-06-26
Date Received:	2023-06-23
Date Tested:	2023-06-23
Date Completed:	2023-06-26
Next Due Date:	2023-08-25
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24477
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-06

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.129

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-06	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24477	2203
Calibration Date:	23-Jun-23	23-Jun-23
Location:	Wellab Office (Calibration Room)	

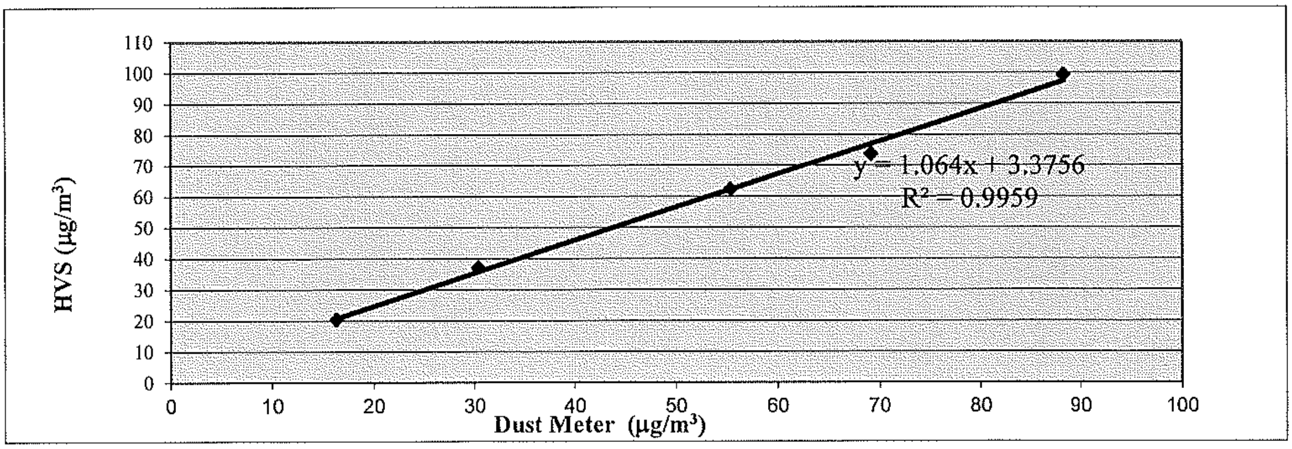
Calibration of 1 hr TSP		
Calibration Point	**Dust Meter** Mass Concentration (μg/m³) **X-axis**	**HVS** Mass concentration (μg/m³) **Y-axis**
1	16	20
2	30	37
3	55	62
4	69	74
5	88	99
Average	**51.9**	**58.6**

By Linear Regression of Y on X
Slope , mw = 1.0640 **Intercept, bw = 3.3756**
Correlation coefficient* = 0.9980

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (μg/m³)	58.6
Particaulate Concentration by Dust Meter (μg/m³)	51.9
Measureing time, (min)	60

Set Correlation Factor , SCF
SCF = [K=High Volume Sampler / Dust Meter, (μg/m³)] **1.129**



QC Reviewer: Lam Mon Hin Signature: [signature] Date: 24/6/23

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Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38174D
Date of Issue:	2023-05-08
Date Received:	2023-05-05
Date Tested:	2023-05-05
Date Completed:	2023-05-08
Next Due Date:	2023-07-07
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24475
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-07

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.144

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	5-May-23	5-May-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter** Mass Concentration ($\mu g/m^3$) **X-axis**	**HVS** Mass concentration ($\mu g/m^3$) **Y-axis**
1	33	41
2	47	53
3	68	76
4	79	90
5	91	103
Average	**63.5**	**72.7**

By Linear Regression of Y on X

Slope , mw = **1.0980** **Intercept, bw =** **2.9181**

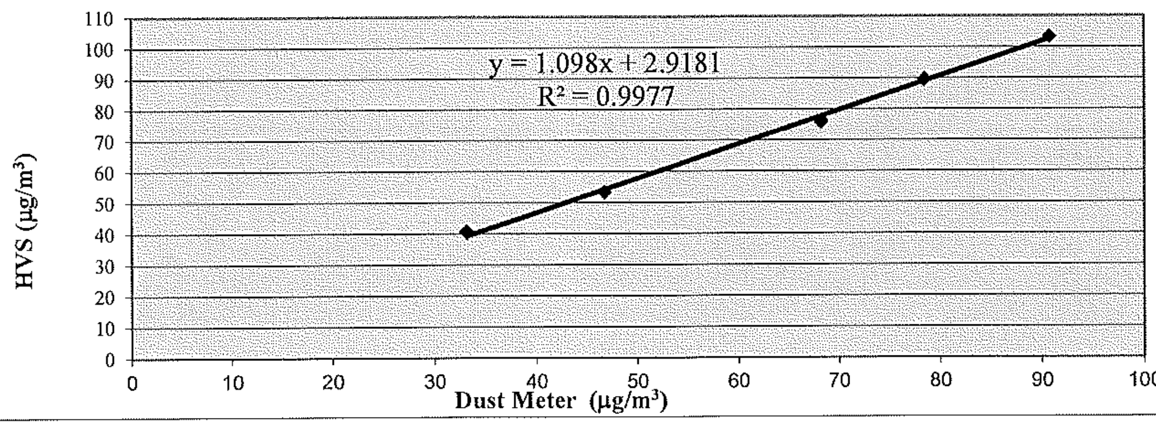
Correlation coefficient* = **0.9988**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler ($\mu g/m^3$)	72.7
Particaulate Concentration by Dust Meter ($\mu g/m^3$)	63.5
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, ($\mu g/m^3$)] **1.144**



QC Reviewer: Lee Man Hou Signature: [signature] Date: 5/5/2023

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Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38570D
Date of Issue:	2023-07-10
Date Received:	2023-07-08
Date Tested:	2023-07-08
Date Completed:	2023-07-10
Next Due Date:	2023-09-09
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24475
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-07

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.106

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	8-Jul-23	8-Jul-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	38	43
2	51	57
3	70	79
4	83	89
5	96	107
Average	**67.7**	**74.9**

By Linear Regression of Y on X

Slope , mw = 1.0676 **Intercept, bw =** 2.6230

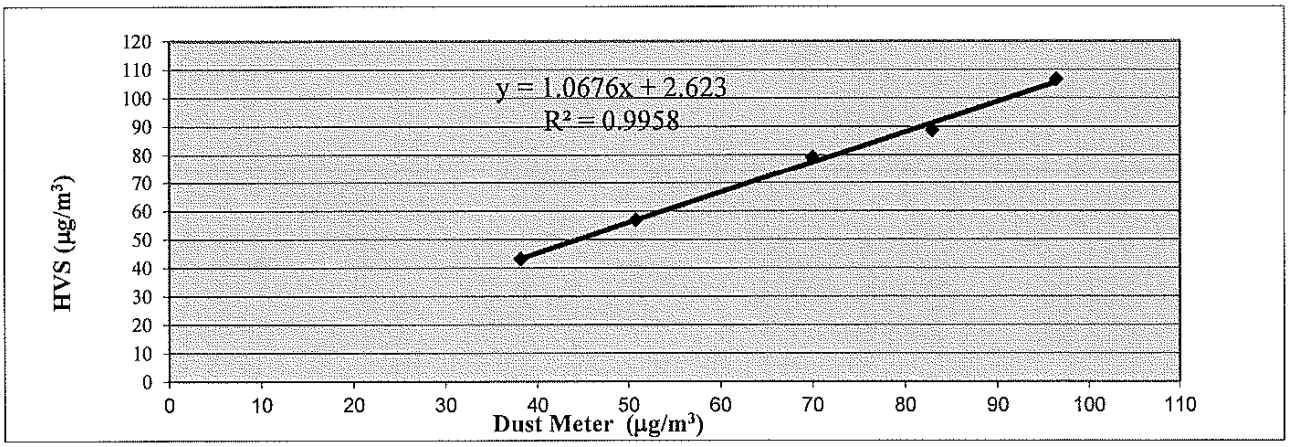
Correlation coefficient* = 0.9979

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	74.9
Particaulate Concentration by Dust Meter (µg/m^3)	67.7
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.106**



QC Reviewer: Lee Mun Hee Signature: hee Date: 8/7/23

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Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38469B
Date of Issue:	2023-06-26
Date Received:	2023-06-23
Date Tested:	2023-06-23
Date Completed:	2023-06-26
Next Due Date:	2023-08-25
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24479
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-08

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.184

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter) Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-08	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24479	2203
Calibration Date:	23-Jun-23	23-Jun-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter** Mass Concentration (µg/m^3) **X-axis**	**HVS** Mass concentration (µg/m^3) **Y-axis**
1	16	20
2	27	37
3	54	62
4	63	74
5	87	99
Average	**49.5**	**58.6**

By Linear Regression of Y on X

Slope , mw = **1.0837** **Intercept, bw =** **4.9752**

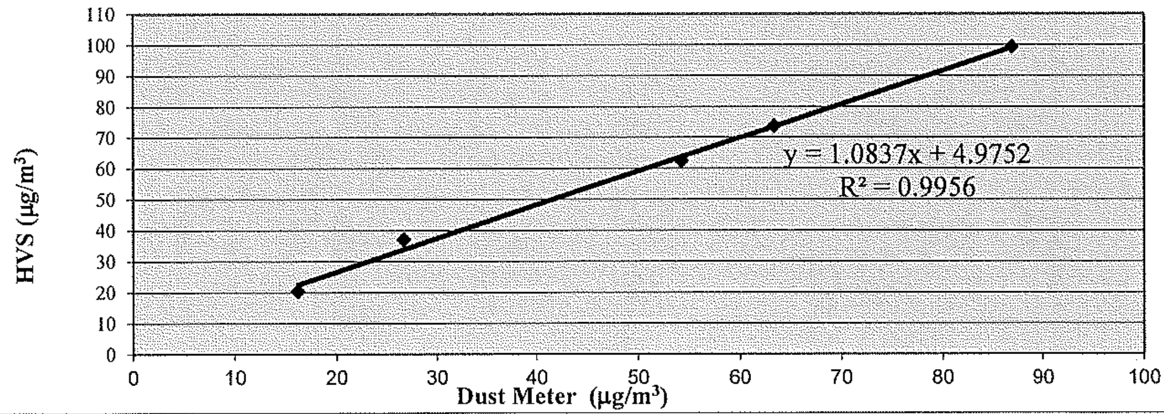
Correlation coefficient* = **0.9978**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	58.6
Particaulate Concentration by Dust Meter (µg/m^3)	49.5
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.184**



QC Reviewer: Lee Mow Hei Signature: hei Date: 24/6/23

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Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38469C
Date of Issue:	2023-06-26
Date Received:	2023-06-23
Date Tested:	2023-06-23
Date Completed:	2023-06-26
Next Due Date:	2023-08-25
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23811
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-09

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.136

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-09	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23811	2203
Calibration Date:	23-Jun-23	23-Jun-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter Mass Concentration (μg/m³) X-axis	HVS Mass concentration (μg/m³) Y-axis
1	15	20
2	31	37
3	54	62
4	66	74
5	92	99
Average	**51.6**	**58.6**

By Linear Regression of Y on X

Slope , mw = 1.0267 **Intercept, bw = 5.6437**

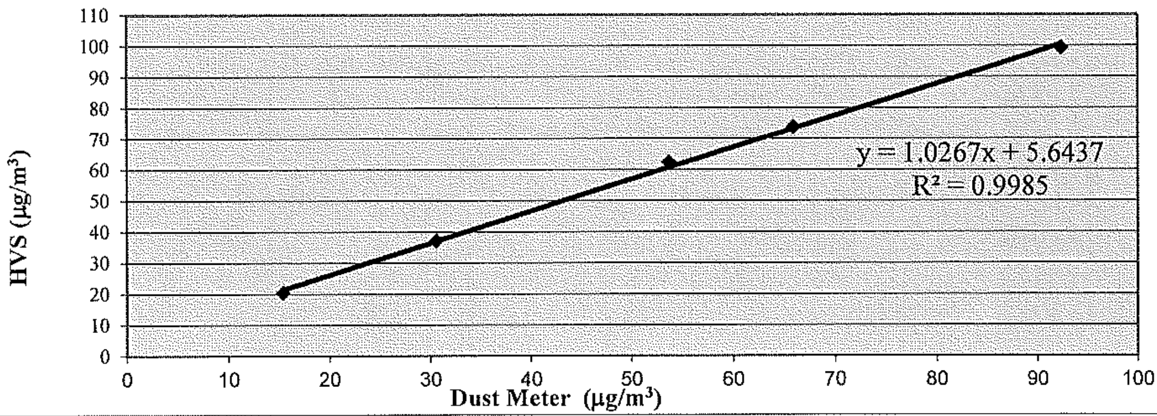
Correlation coefficient* = 0.9993

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (μg/m³)	58.6
Particaulate Concentration by Dust Meter (μg/m³)	51.6
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (μg/m³)] **1.136**



QC Reviewer: LEE MAN YEV Signature: [signature] Date: 24/6/23

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Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	38469D
Date of Issue:	2023-06-26
Date Received:	2023-06-23
Date Tested:	2023-06-23
Date Completed:	2023-06-26
Next Due Date:	2023-08-25
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24478
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-10

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.214

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-10	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24478	2203
Calibration Date:	23-Jun-23	23-Jun-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	15	20
2	27	37
3	50	62
4	63	74
5	87	99
Average	**48.3**	**58.6**

By Linear Regression of Y on X

Slope , mw = **1.0699** **Intercept, bw =** **6.9634**

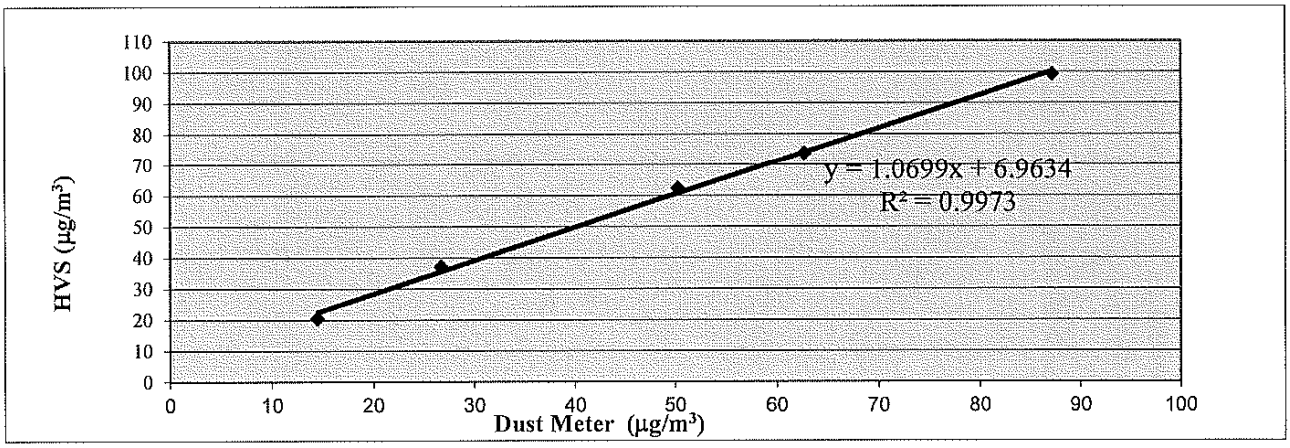
Correlation coefficient* = **0.9986**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	58.6
Particaulate Concentration by Dust Meter (µg/m^3)	48.3
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.214**



QC Reviewer: Lab Man Hz Signature: hc Date: 24/6/23

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High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

File No. Cal./230505

Equipment No.:	WA-12-09	Serial No.	2203
Model No.	TE-5170	Cal. Date:	5-May-23
Operator:	HL		

Ambient Condition			
Temperature, Ta (K)	294.3	Pressure, Pa (mmHg)	761.2

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	16-Jan-24	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	11.9	3.47	61.23	7.5	2.76
2	9.4	3.09	54.50	6.0	2.47
3	8.6	2.95	52.16	5.7	2.40
4	5.7	2.40	42.60	3.6	1.91
5	3.6	1.91	34.01	2.5	1.59

By Linear Regression of Y on X

Slope , mw = **0.0437** **Intercept, bw =** **0.0881**

Correlation coefficient* = **0.9981**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **3.82**

Remarks:

Conducted by:	Lik Man Hzr	Signature:	[signature]	Date:	5/5/2023
Checked by:	Ho Ka chun	Signature:	[signature]	Date:	5/5/23

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High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./230623

Equipment No.: WA-12-09 Serial No. 2203

Model No. TE-5170 Cal. Date: 23-Jun-23

Operator: HL

Ambient Condition			
Temperature, Ta (K)	293.3	Pressure, Pa (mmHg)	757

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	**mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$**			
Next Calibration Date:	16-Jan-24	**Qstd = $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.0	3.48	61.42	7.8	2.81
2	9.4	3.08	54.44	6.2	2.50
3	8.8	2.98	52.70	5.7	2.40
4	5.6	2.38	42.19	3.9	1.99
5	3.7	1.94	34.44	2.7	1.65

By Linear Regression of Y on X

Slope , mw = 0.0425 **Intercept, bw =** 0.1868

Correlation coefficient* = 0.9995

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **4.01**

Remarks:

Conducted by: CE MOW HBZ Signature: Date: 23/6/2023

Checked by: Ho Ka Chu Signature: Date: 23/6/2023

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High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./230708

Equipment No.:	WA-12-09	Serial No.	2203
Model No.	TE-5170	Cal. Date:	8-Jul-23
Operator:	HL		

Ambient Condition			
Temperature, Ta (K)	294	Pressure, Pa (mmHg)	760.3

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	16-Jan-24	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	12.0	3.49	61.48	8.0	2.85
2	9.8	3.15	55.63	6.5	2.57
3	8.3	2.90	51.25	5.7	2.40
4	5.7	2.40	42.60	4.0	2.01
5	3.6	1.91	34.01	2.4	1.56

By Linear Regression of Y on X

Slope , mw = **0.0463** **Intercept, bw :** **0.0111**

Correlation coefficient* = **0.9988**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **3.95**

Remarks:

Conducted by: Che Man Hei Signature: [signature] Date: 8/7/2023

Checked by: Lo Ka Chun Signature: [signature] Date: 8/7/23

TISCH Environmental

RECALIBRATION DUE DATE:
January 16, 2024

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	January 16, 2023	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 749.0	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **0993**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3860	3.2	2.00
2	3	4	1	0.9880	6.4	4.00
3	5	6	1	0.8810	8.0	5.00
4	7	8	1	0.8410	8.8	5.50
5	9	10	1	0.6950	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9981	0.7201	1.4159	0.9957	0.7184	0.8845
0.9938	1.0059	2.0024	0.9915	1.0035	1.2509
0.9917	1.1257	2.2388	0.9893	1.1230	1.3985
0.9906	1.1779	2.3480	0.9883	1.1751	1.4668
0.9853	1.4177	2.8318	0.9829	1.4143	1.7690
QSTD	**m=**	**2.02881**	**QA**	**m=**	**1.27041**
	b=	**-0.04292**		**b=**	**-0.02681**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

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

For subsequent flow rate calculations:

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

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

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

RECALIBRATION

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

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

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

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Website : www.wellab.com.hk

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37893B
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2024-03-05
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580005
Equipment No.	: WN-01-03

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37893C
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2024-03-05
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580006
Equipment No.	: WN-01-04

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37894
Date of Issue:	2023-03-13
Date Received:	2023-03-10
Date Tested:	2023-03-10
Date Completed:	2023-03-13
Next Due Date:	2024-03-12
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580011
Equipment No.	: WN-01-08

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37894A
Date of Issue:	2023-03-13
Date Received:	2023-03-10
Date Tested:	2023-03-10
Date Completed:	2023-03-13
Next Due Date:	2024-03-12
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580013
Equipment No.	: WN-01-09

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

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General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37894B
Date of Issue:	2023-03-13
Date Received:	2023-03-10
Date Tested:	2023-03-10
Date Completed:	2023-03-13
Next Due Date:	2024-03-12
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580017
Equipment No.	: WN-01-10

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
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PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37018
Date of Issue:	2022-08-22
Date Received:	2022-08-19
Date Tested:	2022-08-19
Date Completed:	2022-08-22
Next Due Date:	2023-08-21
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2412367
Equipment No.	: N-02-03

Test Conditions:

Room Temperatre	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1dB
At 114 dB SPL	114.0	114.0 ± 0.1dB

Remark: This report supersedes the one dated 2019-08-20 with certificate number 31951.

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse

PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37163
Date of Issue:	2022-10-02
Date Received:	2022-09-30
Date Tested:	2022-10-02
Date Completed:	2022-10-02
Next Due Date:	2023-10-01
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24803
Equipment No.	: N-09-03

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse
PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	37018A
Date of Issue:	2022-08-22
Date Received:	2022-08-19
Date Tested:	2022-08-19
Date Completed:	2022-08-22
Next Due Date:	2023-08-21
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24791
Equipment No.	: N-09-04

Test conditions:

Room Temperatre	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
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Room 1801, Technology Park,
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Shatin, NT, Hong Kong

Test Report No.:	37163A
Date of Issue:	2022-10-02
Date Received:	2022-09-30
Date Tested:	2022-10-02
Date Completed:	2022-10-02
Next Due Date:	2023-10-01
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24780
Equipment No.	: N-09-05

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

APPENDIX D
ENVIRONMENTAL MONITORING SCHEDULES

Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
Impact Air Quality and Noise Monitoring Schedule (July 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Jul
2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul
	1 hr TSP X3 AM1 **Noise** NM1 to NM7, NM10			**1 hr TSP X3** AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1	
9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul
			1 hr TSP X3 AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1 **Noise** NM1 to NM7, NM10		
16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul
		1 hr TSP X3 AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1 **Noise** NM1 to NM7, NM10			
23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul
	1 hr TSP X3 AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1 **Noise** NM1 to NM7, NM10			**1 hr TSP X3** AM2 Monitoring of Flora Species of Conservation Interest (for *Keteleeria fortunei &* *Aquilaria sinensis*)	
30-Jul	31-Jul					
	1 hr TSP X3 AM1 **Noise** NM1 to NM7, NM10					

Air Quality Monitoring Station(s)
AM1 - Village House, Kong Nga Po
AM2 - Village House, Kong Nga Po

Noise Monitoring Station(s)

NM1 - Village House, Sha Ling	NM8 - Village House, Sha Ling
NM2 - Village House, Sha Ling	NM9 - Village House, Kong Nga Po
NM3 - Village House No. 248, Sha Ling	NM10 - Village House, Kong Nga Po
NM4 - Village House, Sha Ling	NM11 - Village House, Kong Nga Po
NM5 - Village House No. 270, Sha Ling	NM12 - Village House, Kong Nga Po
NM6 - Village House, Sha Ling	NM13 - Village House, Kong Nga Po
NM7 - Village House, Sha Ling	NM14 - Village House, near Man Kam To Road

Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
Tentative Impact Air Quality and Noise Monitoring Schedule (August 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Aug	2-Aug	3-Aug	4-Aug	5-Aug
				1 hr TSP X3 AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1	
6-Aug	7-Aug	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug
			1 hr TSP X3 AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1 **Noise** NM1 to NM7, NM10		
13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug
		1 hr TSP X3 AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1 **Noise** NM1 to NM7, NM10			
20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug
	1 hr TSP X3 AM2 **Noise** NM8 to NM9, NM11 to NM14	**1 hr TSP X3** AM1 **Noise** NM1 to NM7, NM10			**1 hr TSP X3** AM2 Monitoring of Flora Species of Conservation Interest (for *Keteleeria fortunei &* *Aquilaria sinensis*)	
27-Aug	28-Aug	29-Aug	30-Aug	31-Aug		
	1 hr TSP X3 AM1 **Noise** NM1 to NM7, NM10			**1 hr TSP X3** AM2 **Noise** NM8 to NM9, NM11 to NM14		

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Air Quality Monitoring Station(s)
AM1 - Village House, Kong Nga Po
AM2 - Village House, Kong Nga Po

Noise Monitoring Station(s)

NM1 - Village House, Sha Ling	NM8 - Village House, Sha Ling
NM2 - Village House, Sha Ling	NM9 - Village House, Kong Nga Po
NM3 - Village House No. 248, Sha Ling	NM10 - Village House, Kong Nga Po
NM4 - Village House, Sha Ling	NM11 - Village House, Kong Nga Po
NM5 - Village House No. 270, Sha Ling	NM12 - Village House, Kong Nga Po
NM6 - Village House, Sha Ling	NM13 - Village House, Kong Nga Po
NM7 - Village House, Sha Ling	NM14 - Village House, near Man Kam To Road

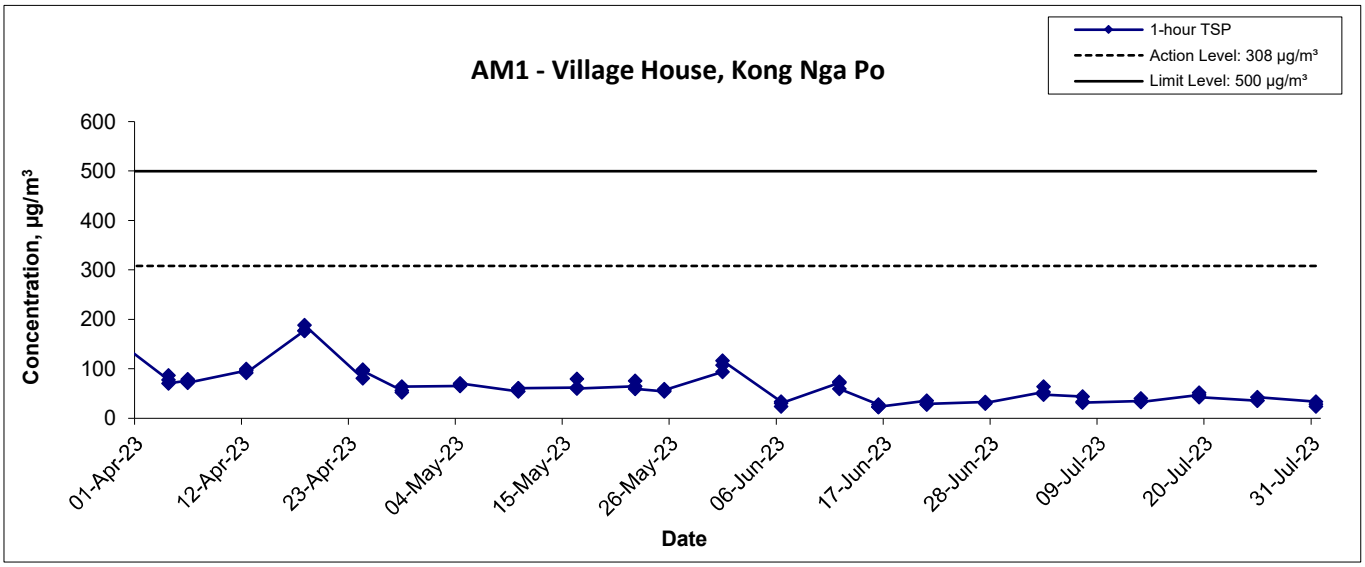
APPENDIX E
AIR QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATION

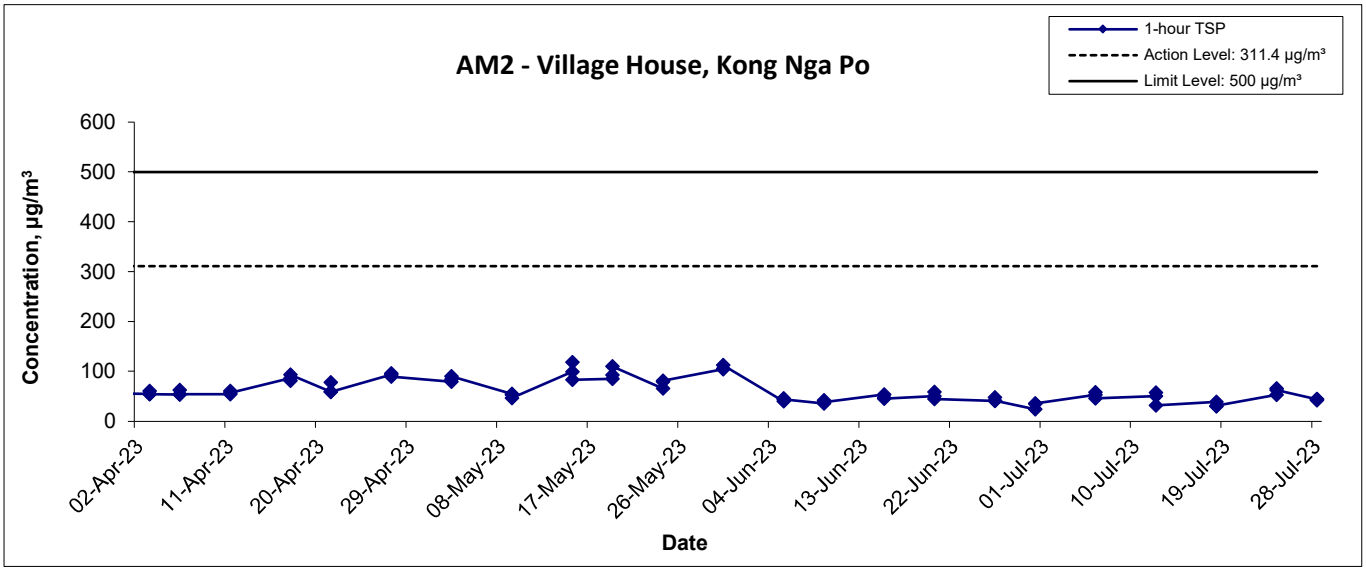
Appendix E - 1-hour TSP Monitoring Results

Location AM1 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration (μg/m^3)
3-Jul-23	13:00	Cloudy	52.9
3-Jul-23	14:00	Cloudy	63.8
3-Jul-23	15:00	Cloudy	47.7
7-Jul-23	13:00	Fine	43.5
7-Jul-23	14:00	Fine	33.5
7-Jul-23	15:00	Fine	31.8
13-Jul-23	14:45	Sunny	34.6
13-Jul-23	15:45	Sunny	39.8
13-Jul-23	16:45	Sunny	32.8
19-Jul-23	13:00	Cloudy	47.0
19-Jul-23	14:00	Cloudy	51.4
19-Jul-23	15:00	Cloudy	42.6
25-Jul-23	13:00	Sunny	35.3
25-Jul-23	14:00	Sunny	35.9
25-Jul-23	15:00	Sunny	42.7
31-Jul-23	14:00	Sunny	33.7
31-Jul-23	15:00	Sunny	28.0
31-Jul-23	16:00	Sunny	23.4
		Minimum	23.4
		Maximum	63.8
		Average	40.0

Location AM2 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration (μg/m³)
6-Jul-23	13:00	Sunny	52.8
6-Jul-23	14:00	Sunny	57.6
6-Jul-23	15:00	Sunny	45.5
12-Jul-23	13:00	Sunny	50.5
12-Jul-23	14:00	Sunny	57.1
12-Jul-23	15:00	Sunny	31.3
18-Jul-23	14:30	Cloudy	38.9
18-Jul-23	15:30	Cloudy	29.6
18-Jul-23	16:30	Cloudy	31.1
24-Jul-23	9:00	Cloudy	53.0
24-Jul-23	10:00	Cloudy	65.6
24-Jul-23	11:00	Cloudy	62.5
28-Jul-23	8:00	Sunny	43.7
28-Jul-23	9:00	Sunny	44.7
28-Jul-23	10:00	Sunny	41.7
		Minimum	29.6
		Maximum	65.6
		Average	47.0

1-hr TSP Concentration Levels





Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
	Date: Jul 23	Appendix: E	

APPENDIX F
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - Noise Monitoring Results

Location NM1 - Village House, Sha Ling

Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Cloudy	0.0	13:00	59.6	61.0	57.5	59.3	54.9
			13:05	57.9	58.5	57.4		
			13:10	58.8	59.9	57.5		
			13:15	59.0	60.6	57.5		
			13:20	61.1	65.1	56.9		
			13:25	58.8	59.6	57.9		
13-Jul-23	Sunny	0.0	13:00	60.4	62.3	58.5	60.3	
			13:05	58.1	59.8	56.5		
			13:10	60.0	62.1	56.2		
			13:15	60.6	61.5	59.0		
			13:20	61.2	63.2	59.4		
			13:25	60.8	63.7	59.0		
19-Jul-23	Cloudy	0.0	13:00	56.8	57.9	55.4	57.3	
			13:05	57.0	58.1	55.9		
			13:10	58.9	59.8	57.3		
			13:15	57.7	58.6	56.3		
			13:20	56.8	58.6	54.4		
			13:25	55.9	57.2	53.9		
25-Jul-23	Sunny	0.0	10:25	58.0	58.5	56.7	60.1	
			10:30	59.8	61.9	57.3		
			10:35	60.9	62.6	57.7		
			10:40	59.3	61.3	56.6		
			10:45	60.4	61.7	57.0		
			10:50	61.5	63.1	58.7		
31-Jul-23	Sunny	0.1	14:52	56.0	57.8	53.7	56.8	
			14:57	54.8	56.3	53.4		
			15:02	54.8	55.9	53.5		
			15:07	57.6	61.6	54.5		
			15:12	57.7	60.3	54.6		
			15:17	58.6	61.8	54.7		

Location NM2 - Village House, Sha Ling

Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Cloudy	0.0	13:05	56.4	59.8	53.6	55.9	56.7
			13:10	55.6	57.0	54.0		
			13:15	55.3	56.2	53.4		
			13:20	56.4	57.9	54.6		
			13:25	56.3	58.3	54.0		
			13:30	55.2	56.3	54.0		
13-Jul-23	Sunny	0.0	13:00	57.2	59.5	53.0	56.7	
			13:05	56.9	59.2	52.2		
			13:10	58.3	61.1	54.0		
			13:15	57.1	59.7	53.9		
			13:20	53.7	55.8	51.2		
			13:25	55.7	57.4	52.0		
19-Jul-23	Cloudy	0.0	13:05	56.7	58.1	53.4	59.9	
			13:10	63.1	66.0	55.6		
			13:15	61.8	65.2	53.7		
			13:20	59.3	60.1	55.3		
			13:25	56.5	57.2	53.0		
			13:30	56.8	57.9	53.2		
25-Jul-23	Sunny	0.0	10:35	63.2	65.0	60.7	66.2	
			10:40	64.4	67.5	59.8		
			10:45	68.4	71.5	60.6		
			10:50	66.4	69.2	58.7		
			10:55	66.4	69.6	60.8		
			11:00	66.3	69.9	60.5		
31-Jul-23	Sunny	0.0	15:00	53.9	56.0	50.7	55.2	
			15:05	54.4	56.1	50.4		
			15:10	55.1	57.6	51.0		
			15:15	56.7	59.7	51.9		
			15:20	55.6	58.3	51.4		
			15:25	54.9	56.9	50.9		

Appendix F - Noise Monitoring Results

Location NM3 - Village House No. 248, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Cloudy	0.0	13:40	57.7	60.6	49.8	56.8	54.5
			13:45	55.1	59.6	50.0		
			13:50	56.4	58.9	49.5		
			13:55	52.9	55.6	49.9		
			14:00	53.0	54.9	48.9		
			14:05	60.4	62.7	49.3		
13-Jul-23	Sunny	0.0	13:40	57.6	59.2	48.3	55.3	
			13:45	54.5	55.2	43.4		
			13:50	54.7	54.8	42.6		
			13:55	55.1	58.4	42.7		
			14:00	52.6	52.9	43.0		
			14:05	55.6	58.2	46.2		
19-Jul-23	Cloudy	0.0	13:45	54.1	54.4	51.1	53.8	
			13:50	52.4	56.5	49.7		
			13:55	57.3	59.1	50.1		
			14:00	50.3	52.2	47.7		
			14:05	51.6	55.0	50.3		
			14:10	53.1	55.1	50.5		
25-Jul-23	Sunny	1.2	14:16	55.8	57.4	48.5	55.9	
			14:21	54.8	57.9	49.0		
			14:26	57.1	59.1	50.5		
			14:31	55.5	58.1	51.8		
			14:36	57.5	60.9	49.0		
			14:41	53.7	56.7	49.2		
31-Jul-23	Sunny	0.0	14:55	52.6	55.8	47.9	55.4	
			15:00	50.9	53.2	48.3		
			15:05	57.7	61.1	48.4		
			15:10	57.4	59.2	49.1		
			15:15	56.7	59.1	49.4		
			15:20	52.0	54.3	47.9		

Location NM4 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Sunny	0.0	14:25	59.4	60.6	55.3	59.7	58.7
			14:30	59.1	60.3	54.9		
			14:35	59.7	60.1	55.1		
			14:40	60.9	63.2	56.4		
			14:45	59.0	60.4	55.5		
			14:50	59.7	61.2	54.9		
13-Jul-23	Sunny	0.3	14:20	56.8	59.4	53.1	57.5	
			14:25	56.0	58.4	52.7		
			14:30	56.4	58.9	53.5		
			14:35	56.5	59.0	54.0		
			14:40	59.2	62.7	53.2		
			14:45	59.0	60.0	53.9		
19-Jul-23	Cloudy	0.0	14:30	65.1	68.7	57.6	64.4	
			14:35	66.4	68.1	58.2		
			14:40	64.0	67.4	52.4		
			14:45	62.9	67.4	52.1		
			14:50	63.3	67.6	52.7		
			14:55	63.4	67.9	51.7		
25-Jul-23	Sunny	0.5	11:25	58.7	62.0	52.5	57.7	
			11:30	57.7	59.4	55.1		
			11:35	57.2	59.8	49.7		
			11:40	56.5	58.4	49.9		
			11:45	58.5	61.6	51.8		
			11:50	57.3	59.4	50.1		
31-Jul-23	Sunny	0.3	13:00	57.6	59.4	55.5	58.7	
			13:05	58.0	59.8	53.5		
			13:10	55.2	56.9	53.0		
			13:15	56.0	58.5	52.3		
			13:20	56.0	57.6	53.5		
			13:25	63.3	64.7	53.3		

Appendix F - Noise Monitoring Results

Location NM5 - Village House No. 270, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Cloudy	0.0	13:45	61.0	63.4	55.6	59.7	57.0
			13:50	58.6	61.5	54.2		
			13:55	59.7	61.8	54.3		
			14:00	59.3	61.6	55.4		
			14:05	59.6	61.9	55.0		
			14:10	59.6	61.3	54.4		
13-Jul-23	Sunny	0.0	13:45	62.6	64.4	58.6	61.5	
			13:50	60.9	62.6	58.4		
			13:55	61.4	63.3	58.5		
			14:00	60.4	61.3	57.8		
			14:05	60.7	62.2	57.2		
			14:10	62.3	63.1	58.7		
19-Jul-23	Cloudy	0.0	13:50	66.2	70.3	57.7	63.9	
			13:55	64.7	69.6	57.4		
			14:00	64.1	68.3	57.1		
			14:05	62.5	64.7	57.4		
			14:10	63.6	68.9	57.6		
			14:15	60.5	63.2	55.8		
25-Jul-23	Sunny	0.2	11:17	61.3	64.2	56.1	63.0	
			11:22	65.1	67.4	56.1		
			11:27	67.1	69.3	57.7		
			11:32	57.1	58.3	53.5		
			11:37	61.0	62.1	54.4		
			11:42	57.6	59.1	53.8		
31-Jul-23	Sunny	0.1	13:58	57.4	58.3	50.4	61.0	
			14:03	67.7	73.0	51.6		
			14:08	54.6	56.2	50.3		
			14:13	55.4	58.2	50.1		
			14:18	54.3	58.2	49.3		
			14:23	51.4	52.5	49.6		

Location NM6 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Sunny	0.0	14:20	58.9	60.6	56.8	58.4	56.0
			14:25	58.5	60.0	55.3		
			14:30	58.0	59.8	54.8		
			14:35	58.7	60.0	54.9		
			14:40	58.6	60.2	56.2		
			14:45	57.7	58.9	54.6		
13-Jul-23	Sunny	0.0	15:30	67.0	70.2	60.7	66.0	
			15:35	67.3	71.1	61.0		
			15:40	68.9	71.7	63.5		
			15:45	64.9	68.2	56.6		
			15:50	62.7	64.6	55.0		
			15:55	59.7	63.5	53.3		
19-Jul-23	Cloudy	0.0	14:30	61.4	66.0	51.2	62.4	
			14:35	61.2	66.2	54.0		
			14:40	64.0	68.3	53.3		
			14:45	61.3	65.9	51.0		
			14:50	62.6	66.4	52.5		
			14:55	63.0	66.8	49.5		
25-Jul-23	Sunny	0.5	15:15	54.1	55.3	52.8	56.5	
			15:20	56.8	58.7	51.9		
			15:25	54.5	56.0	48.8		
			15:30	52.3	54.2	49.5		
			15:35	60.0	63.9	49.6		
			15:40	56.8	58.9	52.2		
31-Jul-23	Sunny	0.2	13:35	57.9	58.9	52.2	65.6	
			13:40	57.8	62.0	51.9		
			13:45	69.3	73.9	56.0		
			13:50	69.6	74.8	52.8		
			13:55	62.6	67.2	51.4		
			14:00	61.0	63.5	51.0		

Appendix F - Noise Monitoring Results

Location NM7 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Cloudy	0.0	15:05	53.2	53.9	52.5	56.2	49.8
			15:10	57.9	58.9	52.1		
			15:15	58.6	63.1	52.4		
			15:20	54.4	56.8	52.0		
			15:25	54.7	57.0	52.1		
			15:30	55.8	57.7	51.6		
13-Jul-23	Sunny	0.0	15:00	53.7	55.0	51.0	57.2	
			15:05	54.1	55.7	51.5		
			15:10	55.5	57.4	51.8		
			15:15	53.7	55.2	51.4		
			15:20	51.3	52.4	50.0		
			15:25	62.8	66.5	52.8		
19-Jul-23	Cloudy	0.0	15:15	54.8	58.3	50.1	55.0	
			15:20	54.3	55.7	52.5		
			15:25	53.5	55.1	52.6		
			15:30	54.3	55.8	52.5		
			15:35	56.9	60.8	51.9		
			15:40	55.4	57.7	52.3		
25-Jul-23	Sunny	0.3	14:18	51.1	52.3	49.8	53.1	
			14:23	54.7	56.1	50.4		
			14:28	54.3	55.7	49.6		
			14:33	51.9	53.8	48.8		
			14:38	53.4	54.1	49.2		
			14:43	51.6	53.5	49.1		
31-Jul-23	Sunny	0.0	14:10	53.3	53.6	45.0	52.1	
			14:15	49.4	52.0	45.8		
			14:20	50.9	53.1	47.5		
			14:25	51.3	54.3	46.3		
			14:30	52.2	55.8	46.7		
			14:35	53.9	55.5	50.8		

Location NM8 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
6-Jul-23	Sunny	0.0	15:40	57.4	59.3	54.8	58.4	57.6
			15:45	54.4	55.5	52.6		
			15:50	55.1	57.2	53.2		
			15:55	60.4	62.6	53.9		
			16:00	61.9	62.6	61.6		
			16:05	55.4	57.3	52.2		
12-Jul-23	Cloudy	0.0	13:45	64.0	68.6	54.9	66.3	
			13:50	69.0	73.8	65.6		
			13:55	65.0	69.5	54.9		
			14:00	68.2	73.8	53.7		
			14:05	64.7	69.7	54.4		
			14:10	64.2	68.1	55.0		
18-Jul-23	Cloudy	0.0	15:25	59.5	62.2	56.5	58.7	
			15:30	58.3	60.6	56.0		
			15:35	57.3	59.1	55.5		
			15:40	58.4	61.1	55.5		
			15:45	59.0	62.1	55.6		
			15:50	59.2	62.0	56.1		
24-Jul-23	Cloudy	0.0	09:20	53.1	55.3	50.5	53.7	
			09:25	53.2	55.9	50.0		
			09:30	53.8	56.6	50.1		
			09:35	52.5	55.0	49.7		
			09:40	53.7	55.7	49.9		
			09:45	55.3	55.8	49.8		

Appendix F - Noise Monitoring Results

Location NM9 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
6-Jul-23	Sunny	0.0	15:00	59.9	62.7	56.7	58.3	55.9
			15:05	57.7	59.3	56.1		
			15:10	57.4	57.9	56.9		
			15:15	58.0	58.7	57.1		
			15:20	58.0	59.1	57.2		
			15:25	58.2	59.3	57.0		
12-Jul-23	Cloudy	0.0	14:30	66.0	66.9	59.1	66.9	
			14:35	70.6	72.0	58.6		
			14:40	66.1	69.7	58.6		
			14:45	64.9	67.2	61.4		
			14:50	65.4	68.9	58.2		
			14:55	65.0	68.6	58.2		
18-Jul-23	Cloudy	0.0	13:50	58.3	59.1	57.5	59.0	
			13:55	58.2	59.2	57.5		
			14:00	60.7	63.8	57.9		
			14:05	58.7	59.0	57.0		
			14:10	59.2	60.7	56.7		
			14:15	58.1	58.8	57.4		
24-Jul-23	Sunny	0.1	11:20	59.7	61.9	56.8	59.4	
			11:25	58.6	59.7	57.2		
			11:30	59.8	61.4	56.9		
			11:35	58.5	60.2	56.2		
			11:40	60.1	62.6	56.4		
			11:45	59.2	60.9	56.3		

Location NM10 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-Jul-23	Cloudy	0.0	15:05	58.2	61.3	53.0	57.4	52.8
			15:10	55.7	58.0	51.2		
			15:15	56.6	58.4	52.2		
			15:20	58.4	62.1	52.1		
			15:25	56.8	60.2	52.4		
			15:30	58.2	61.3	50.4		
13-Jul-23	Sunny	0.0	16:15	60.7	62.7	53.8	56.1	
			16:20	54.8	57.0	52.6		
			16:25	53.2	54.5	52.2		
			16:30	53.3	54.6	52.2		
			16:35	54.3	56.5	52.5		
			16:40	54.4	55.9	53.0		
19-Jul-23	Cloudy	0.0	15:20	53.1	53.8	52.4	54.2	
			15:25	54.8	56.8	52.6		
			15:30	54.1	55.1	52.9		
			15:35	54.5	55.7	53.1		
			15:40	54.5	55.6	53.1		
			15:45	54.1	55.3	52.8		
25-Jul-23	Sunny	0.2	16:00	52.3	53.4	50.5	55.1	
			16:05	52.9	54.1	51.2		
			16:10	53.8	55.2	50.9		
			16:15	58.7	65.3	51.7		
			16:20	55.8	57.9	51.9		
			16:25	53.0	55.2	50.0		
31-Jul-23	Sunny	0.0	14:00	50.5	52.4	48.6	51.5	
			14:05	53.2	55.6	49.3		
			14:10	51.9	53.4	48.9		
			14:15	50.6	52.7	48.5		
			14:20	50.9	52.8	48.6		
			14:25	51.3	53.5	48.5		

Appendix F - Noise Monitoring Results

Location NM11 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
6-Jul-23	Sunny	0.0	14:20	55.9	57.5	53.0	55.8	46.4
			14:25	56.1	57.8	52.6		
			14:30	55.9	57.7	52.5		
			14:35	56.0	57.8	52.9		
			14:40	55.1	57.4	52.4		
			14:45	55.8	57.5	52.8		
12-Jul-23	Cloudy	0.0	15:10	54.4	56.2	52.1	55.6	
			15:15	56.7	57.9	55.3		
			15:20	56.4	57.3	55.5		
			15:25	56.2	56.8	55.5		
			15:30	54.7	55.5	53.8		
			15:35	54.5	55.4	53.6		
18-Jul-23	Cloudy	0.1	13:45	56.6	61.9	48.8	52.0	
			13:50	50.8	52.8	48.5		
			13:55	49.6	51.5	48.2		
			14:00	49.4	50.4	48.3		
			14:05	49.6	50.6	48.7		
			14:10	49.7	50.3	49.0		
24-Jul-23	Sunny	0.0	11:30	48.9	51.0	43.3	50.1	
			11:35	52.8	56.6	46.1		
			11:40	53.9	58.9	42.9		
			11:45	46.4	48.3	43.2		
			11:50	45.2	47.5	42.2		
			11:55	44.1	46.2	40.3		

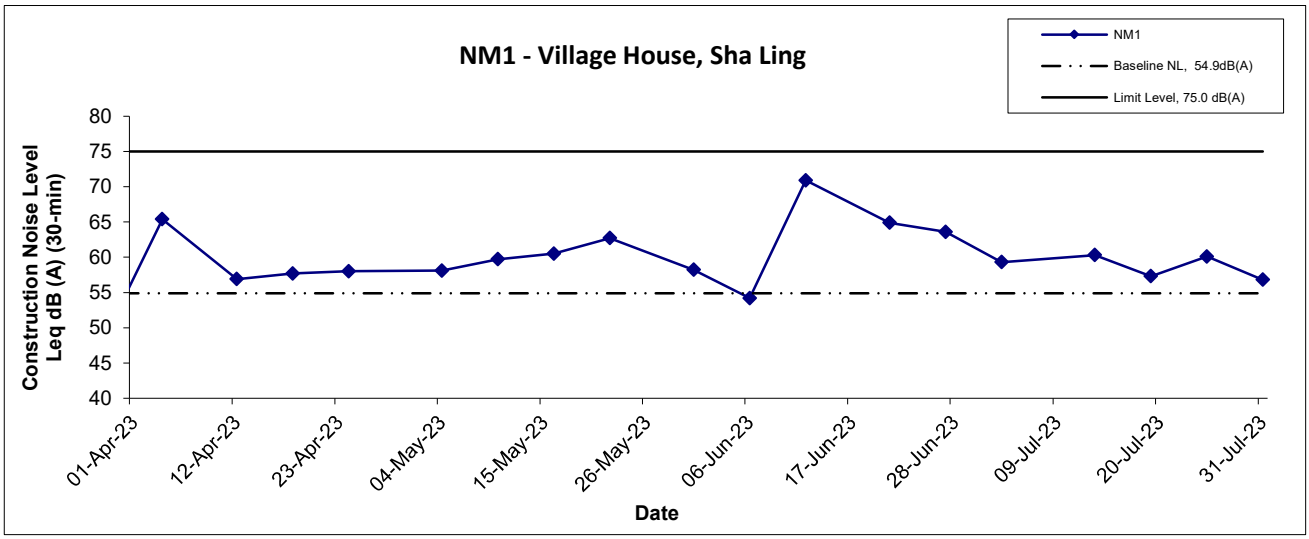
Location NM12 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
6-Jul-23	Sunny	0.0	16:20	55.2	56.8	47.6	56.3	54.7
			16:25	56.8	59.2	49.1		
			16:30	58.6	60.1	48.8		
			16:35	55.2	57.4	47.8		
			16:40	56.2	58.3	48.5		
			16:45	54.7	56.9	48.1		
12-Jul-23	Sunny	0.0	13:00	49.7	52.3	47.0	51.4	
			13:05	51.4	54.8	47.2		
			13:10	54.1	58.4	47.2		
			13:15	49.9	53.5	46.9		
			13:20	52.3	56.4	46.0		
			13:25	48.9	54.1	47.0		
18-Jul-23	Cloudy	0.0	14:40	55.8	56.1	54.7	55.6	
			14:45	56.7	58.5	54.7		
			14:50	56.1	57.3	54.8		
			14:55	54.2	55.6	54.0		
			15:00	55.0	55.4	54.2		
			15:05	55.3	56.5	54.7		
24-Jul-23	Sunny	0.0	09:05	56.9	61.1	43.7	53.4	
			09:10	48.5	49.5	43.4		
			09:15	57.8	61.8	47.7		
			09:20	47.8	48.9	42.9		
			09:25	45.6	47.3	43.5		
			09:30	48.1	51.6	43.7		

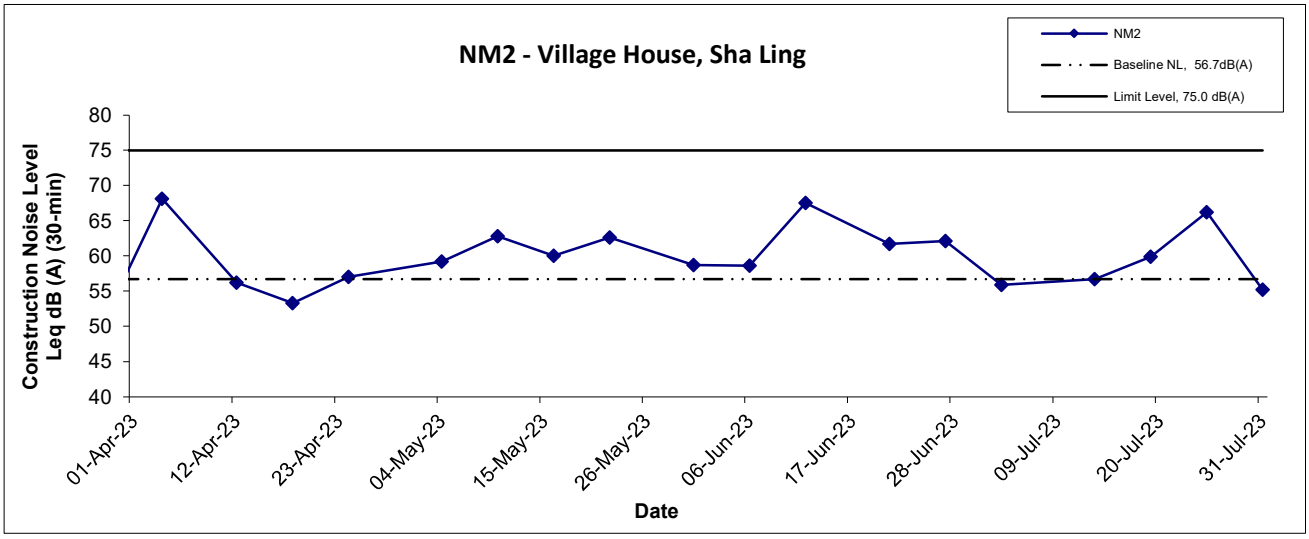
Appendix F - Noise Monitoring Results

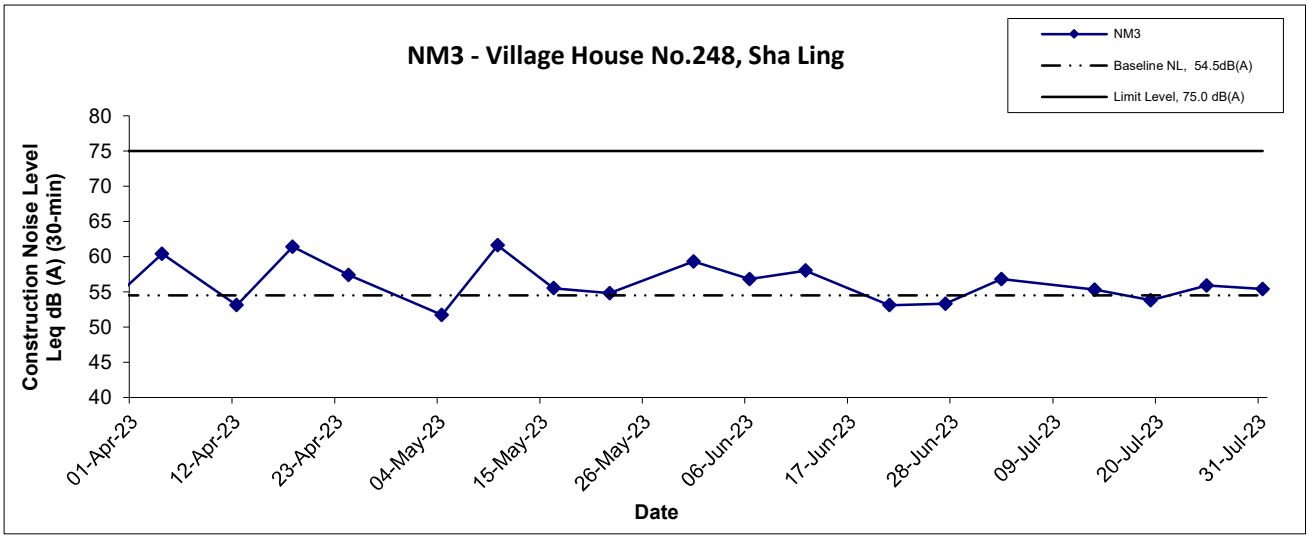
Location NM13 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
6-Jul-23	Sunny	0.0	13:40	58.1	58.8	57.6	57.9	61.3
			13:45	58.5	59.3	57.5		
			13:50	57.9	58.3	57.6		
			13:55	58.2	59.1	57.4		
			14:00	57.8	58.1	57.3		
			14:05	57.0	58.6	55.7		
12-Jul-23	Cloudy	0.0	16:30	49.7	53.9	40.5	48.9	
			16:35	46.2	50.5	40.0		
			16:40	48.6	52.6	41.6		
			16:45	50.1	53.4	41.1		
			16:50	49.3	53.0	42.3		
			16:55	48.5	52.9	41.6		
18-Jul-23	Cloudy	0.0	13:00	55.8	56.1	55.3	57.0	
			13:05	55.6	55.9	55.1		
			13:10	55.6	56.0	55.3		
			13:15	55.7	56.1	55.5		
			13:20	55.9	56.3	55.5		
			13:25	60.5	65.0	55.6		
24-Jul-23	Sunny	0.0	14:30	48.0	49.6	45.8	51.3	
			14:35	48.7	50.1	45.6		
			14:40	50.1	52.4	45.8		
			14:45	50.4	52.5	46.5		
			14:50	53.6	58.8	45.7		
			14:55	53.5	58.9	45.1		

Location NM14 - Village House, near Man Kam To Road								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
6-Jul-23	Sunny	0.0	13:00	50.5	53.2	46.0	49.2	59.6
			13:05	48.3	52.0	43.7		
			13:10	48.0	51.3	42.8		
			13:15	47.2	50.8	44.0		
			13:20	50.5	52.0	43.4		
			13:25	49.6	52.8	45.0		
12-Jul-23	Cloudy	0.0	15:45	59.1	59.9	58.3	58.3	
			15:50	58.5	59.4	57.7		
			15:55	58.4	59.3	57.5		
			16:00	58.1	59.0	57.3		
			16:05	58.1	59.0	57.4		
			16:10	57.3	59.0	50.5		
18-Jul-23	Cloudy	0.2	13:00	53.4	56.7	48.8	51.6	
			13:05	51.6	54.0	48.8		
			13:10	51.5	54.1	49.0		
			13:15	52.0	55.1	49.3		
			13:20	50.0	51.8	48.6		
			13:25	50.2	51.4	48.8		
24-Jul-23	Sunny	0.0	15:20	54.9	56.1	46.4	56.0	
			15:25	55.7	57.3	47.2		
			15:30	54.7	57.0	45.4		
			15:35	56.3	59.2	46.9		
			15:40	57.4	61.1	48.2		
			15:45	56.2	59.5	46.7		

Noise Levels

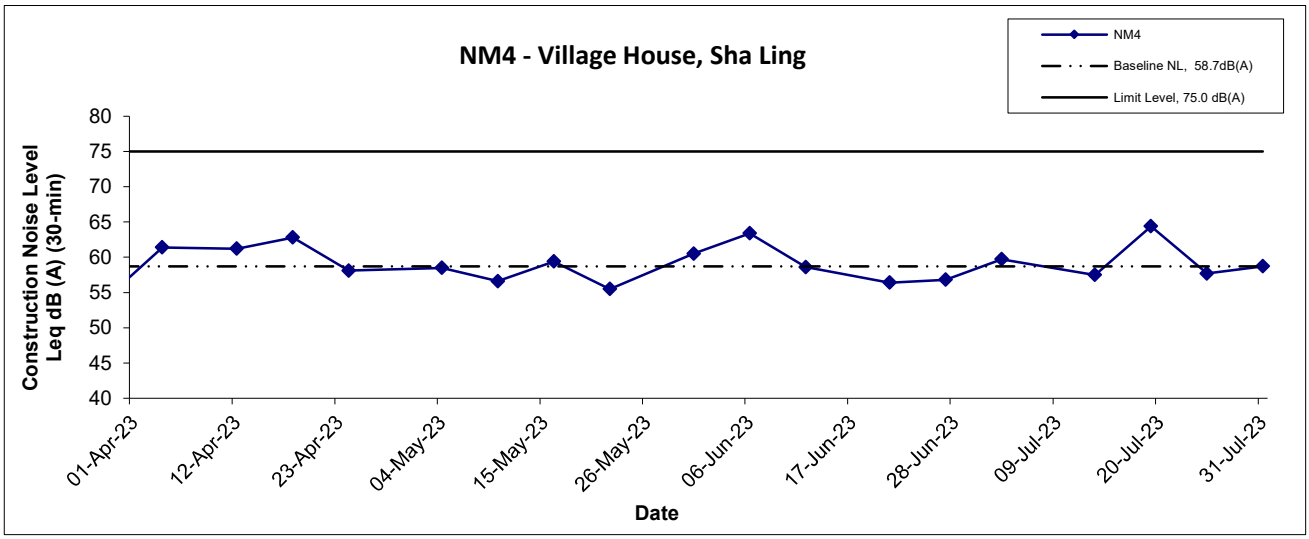


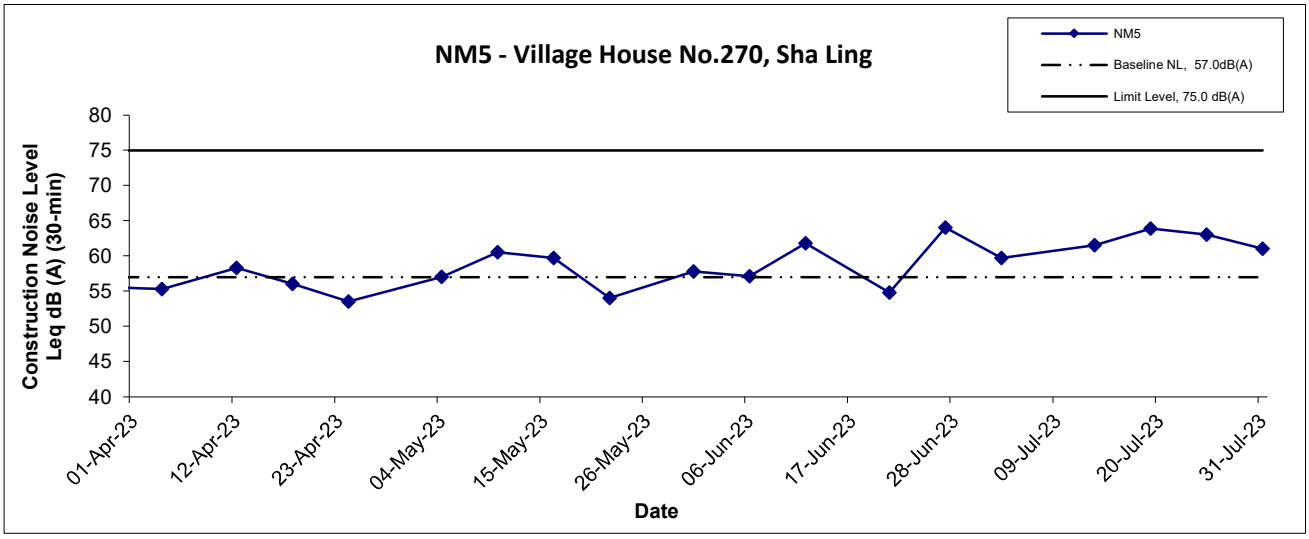


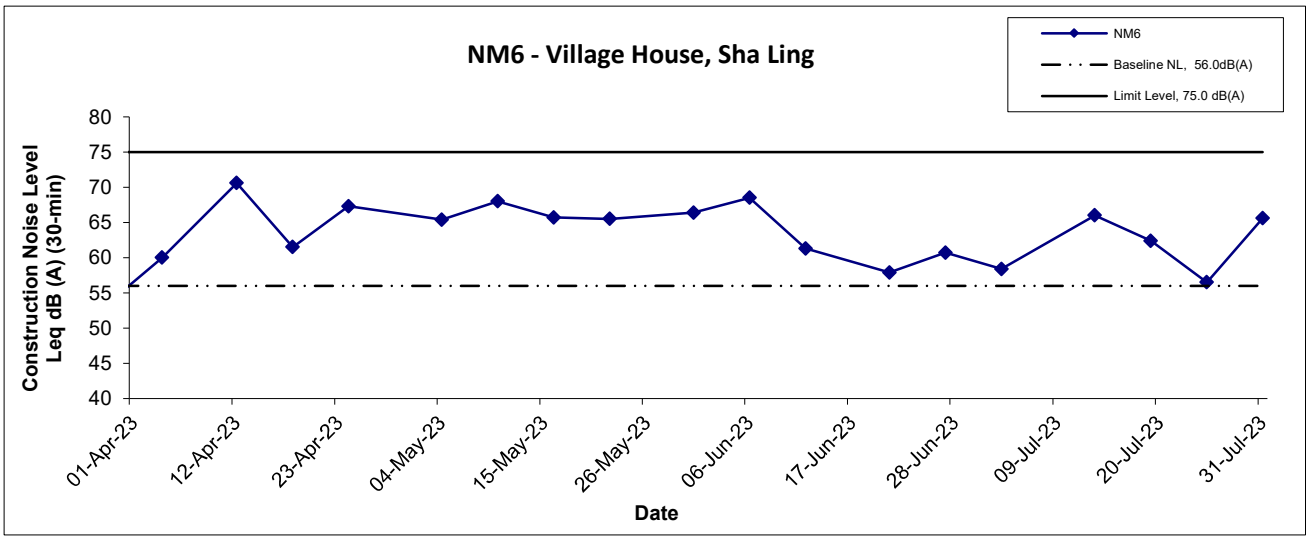


Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Date: Jul 23	Project No.: WMA20001 Appendix: F	WELLAB 匯力 consulting . testing . research

Noise Levels

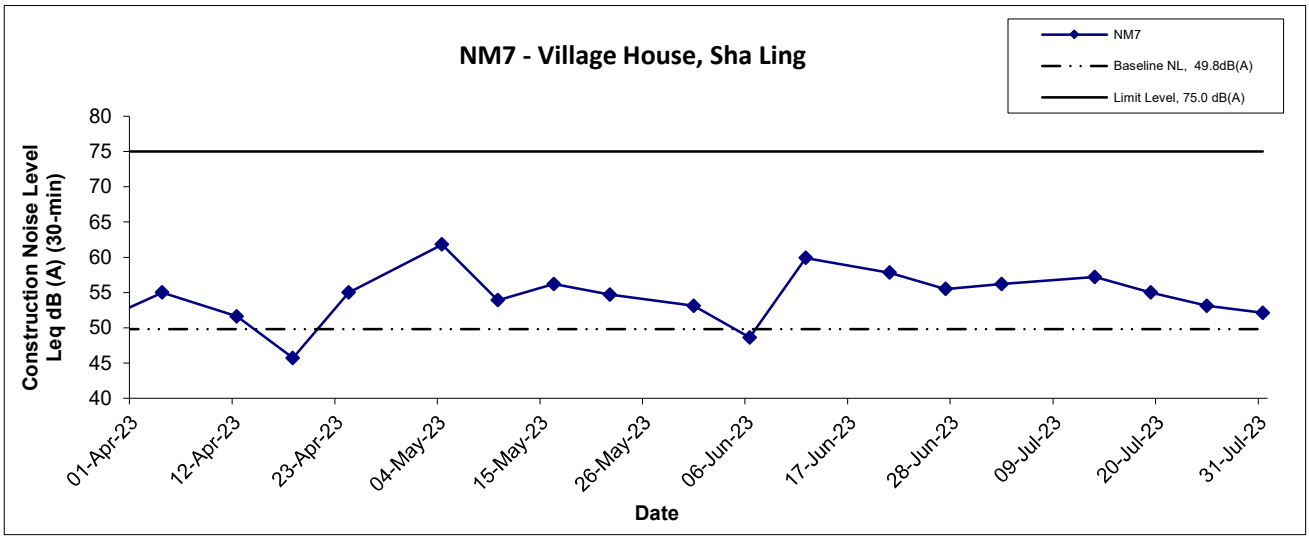


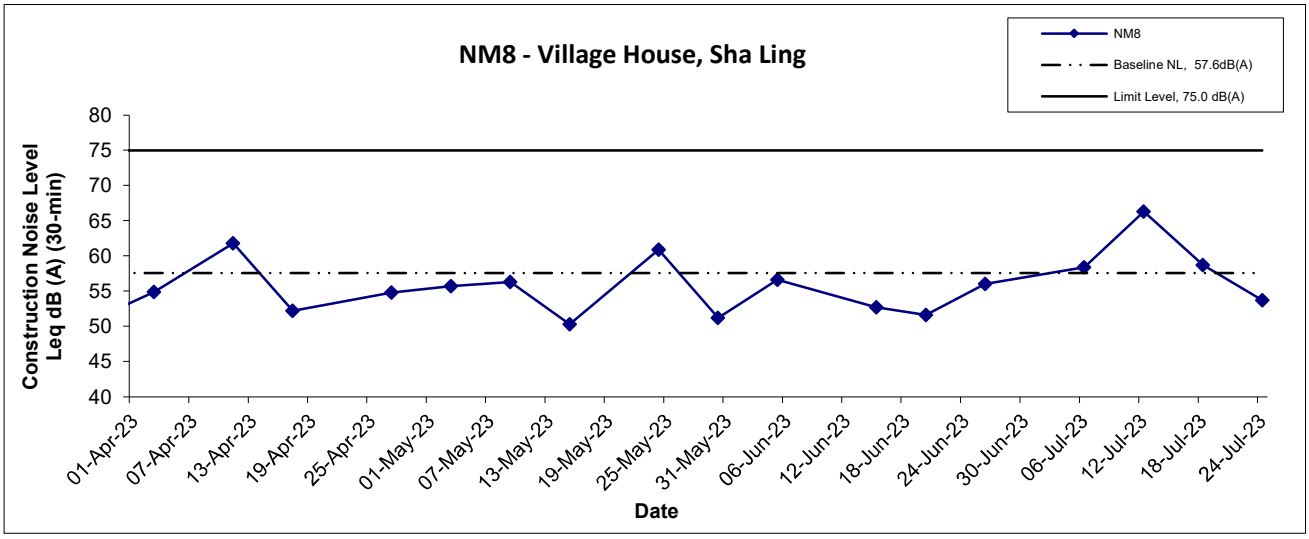


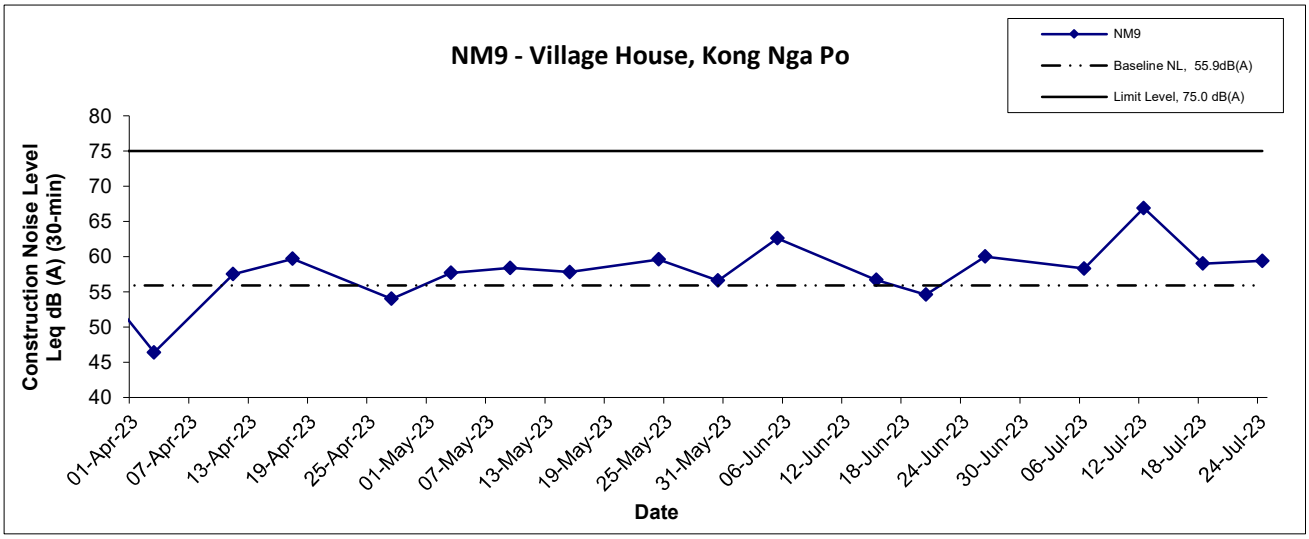


Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Date: Jul 23	Project No.: WMA20001 Appendix: F	WELLAB 匯力 consulting . testing . research

Noise Levels







Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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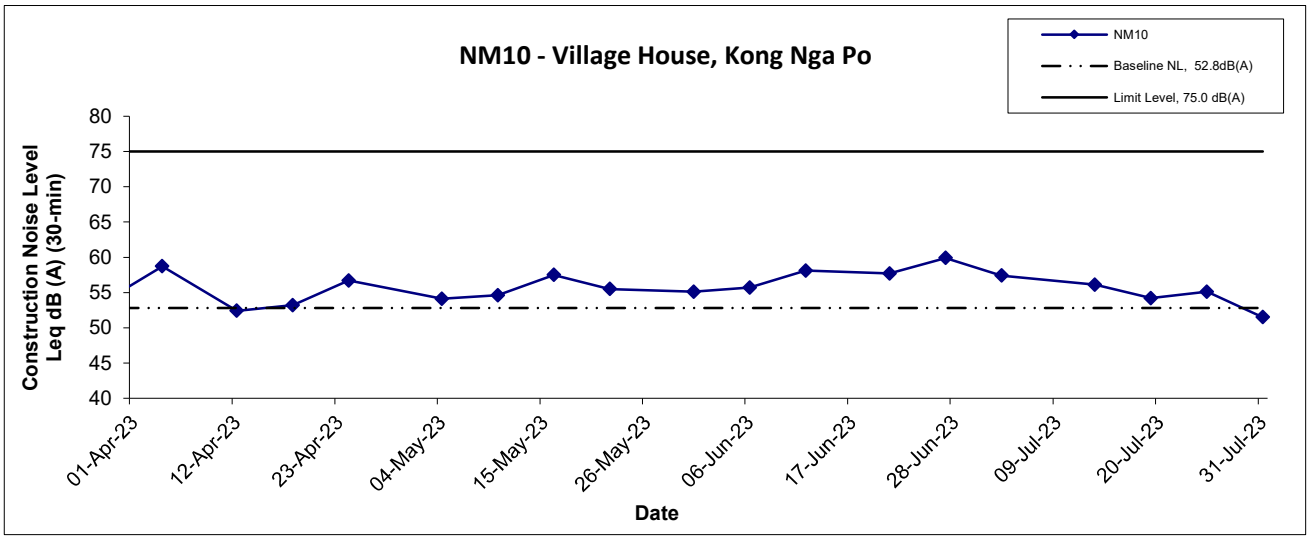
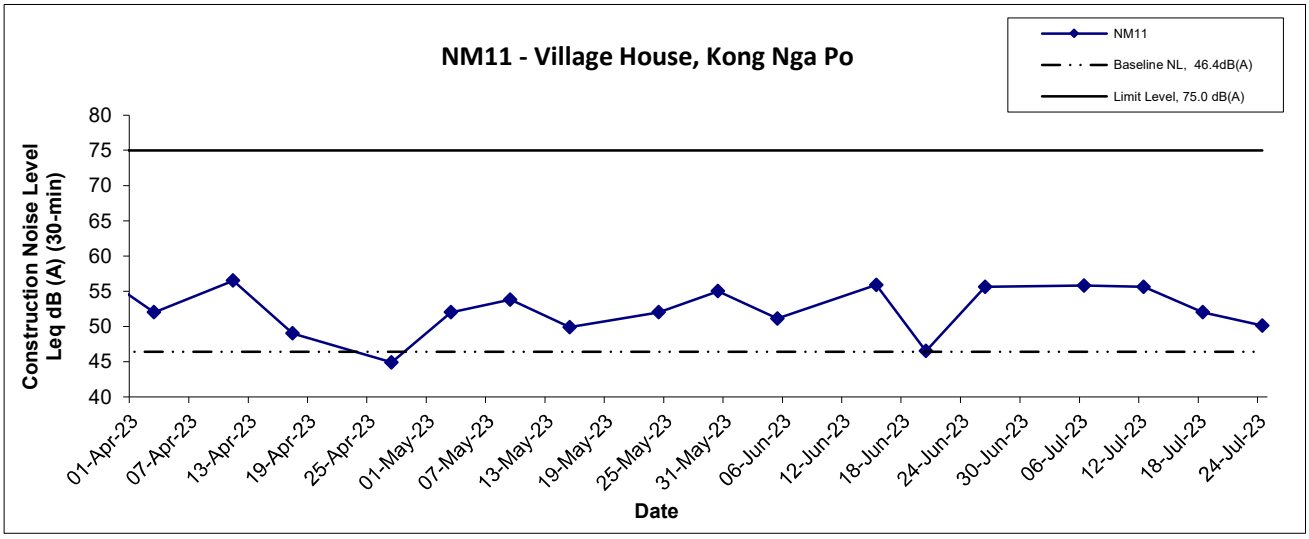
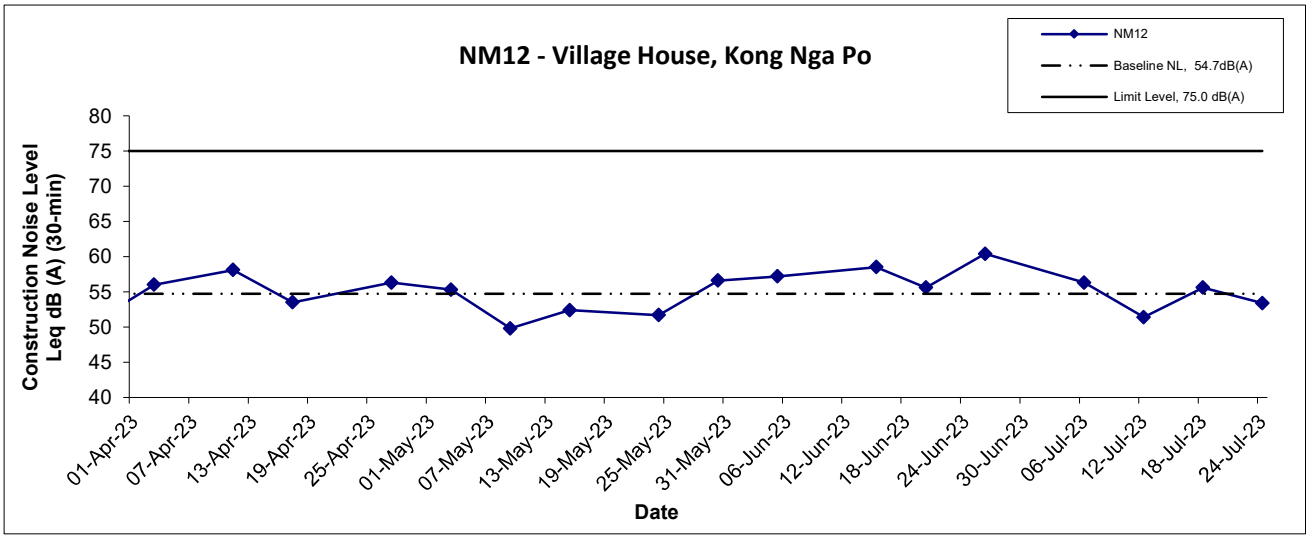
Noise Levels







Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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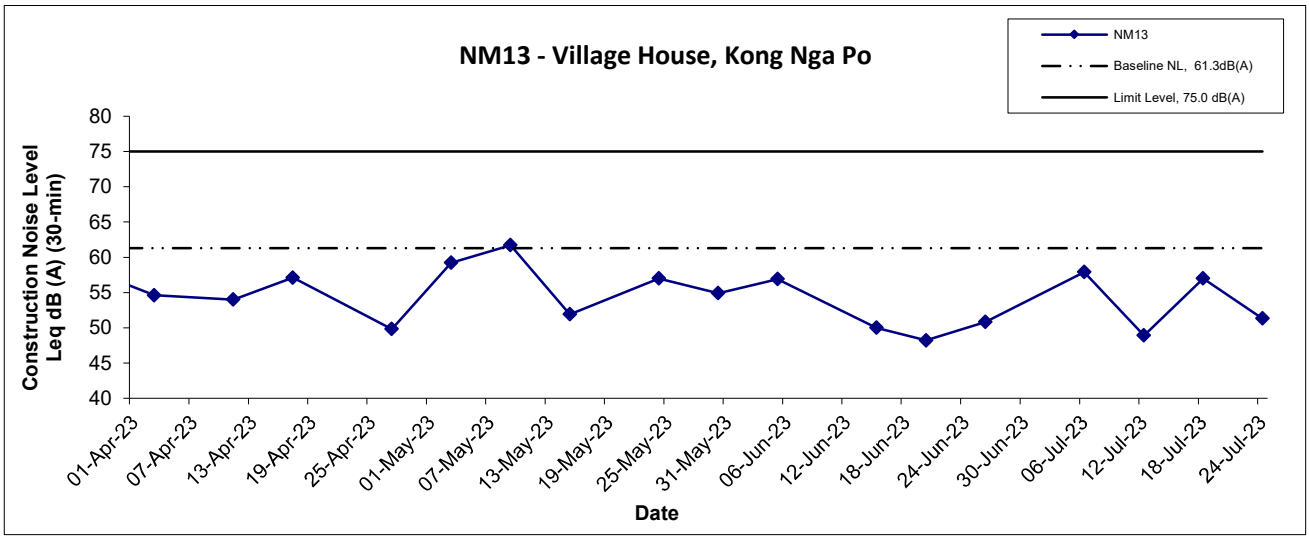
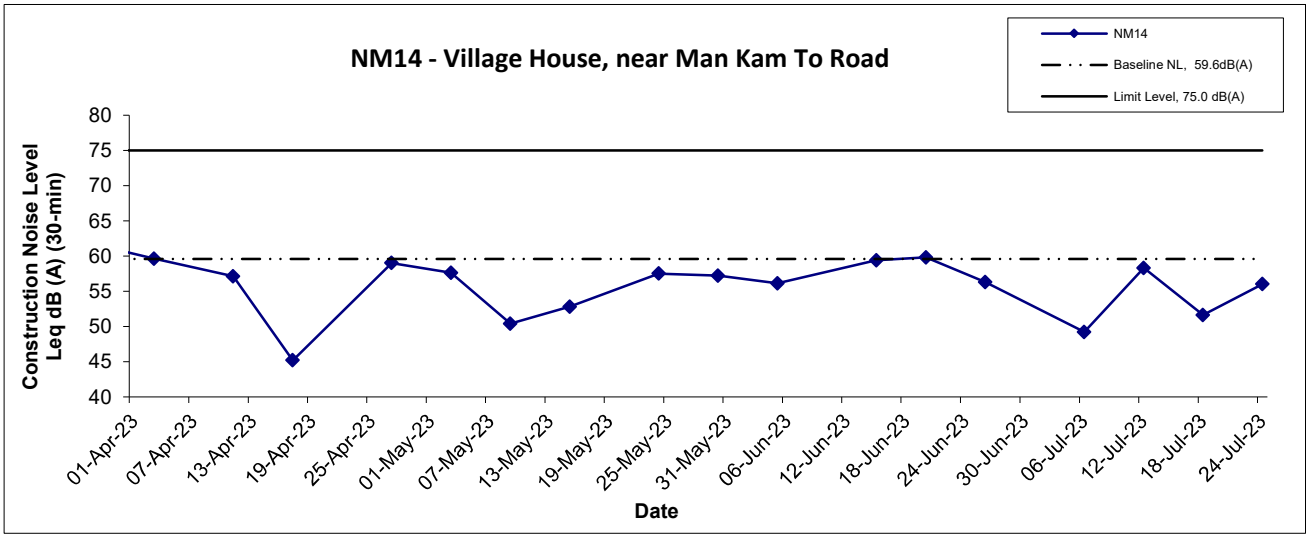
Noise Levels





Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Date: Jul 23	Project No.: WMA20001 Appendix: F	WELLAB 匯力 consulting . testing . research

APPENDIX G
WEATHER CONDITION

Appendix G –
General Weather Conditions during the Monitoring Period (July 2023)

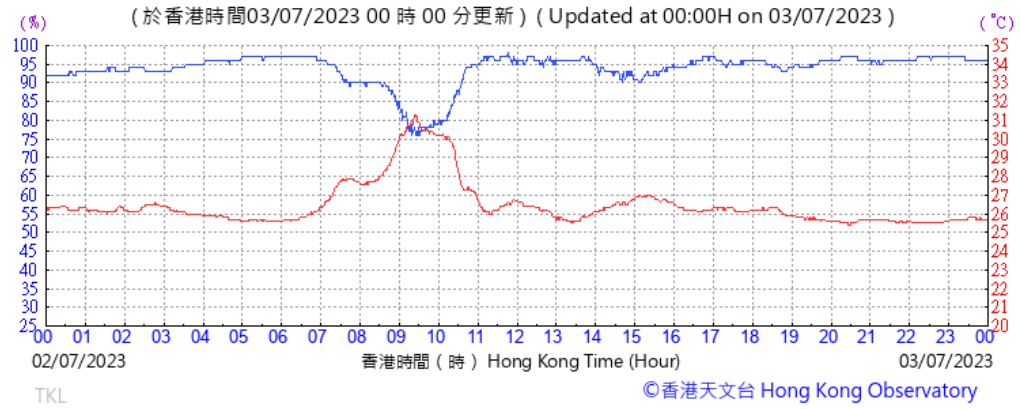
Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 July 2023	28.9	82	4.7
2 July 2023	27.5	89	15.6
3 July 2023	28.9	83	3.6
4 July 2023	29.3	82	10.6
5 July 2023	30.4	77	Trace
6 July 2023	30.3	77	Trace
7 July 2023	30.4	76	0.3
8 July 2023	30.4	76	0.0
9 July 2023	30.5	77	Trace
10 July 2023	30.7	75	0.0
11 July 2023	30.7	76	0.0
12 July 2023	30.7	74	0.0
13 July 2023	30.9	71	0.0
14 July 2023	31.3	71	0.0
15 July 2023	31.1	74	2.5
16 July 2023	29.7	75	4.9
17 July 2023	28.4	85	29.0

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
18 July 2023	29.2	86	10.9
19 July 2023	28.7	88	3.9
20 July 2023	29.6	80	4.8
21 July 2023	29.7	79	Trace
22 July 2023	30.6	76	0.0
23 July 2023	30.6	77	Trace
24 July 2023	30.7	76	0.0
25 July 2023	30.7	73	0.0
26 July 2023	32.0	72	0.0
27 July 2023	32.2	84	6.9
28 July 2023	31.5	87	0.0
29 July 2023	29.8	84	21.0
30 July 2023	29.2	78	10.0
31 July 2023	29.1	81	46.5

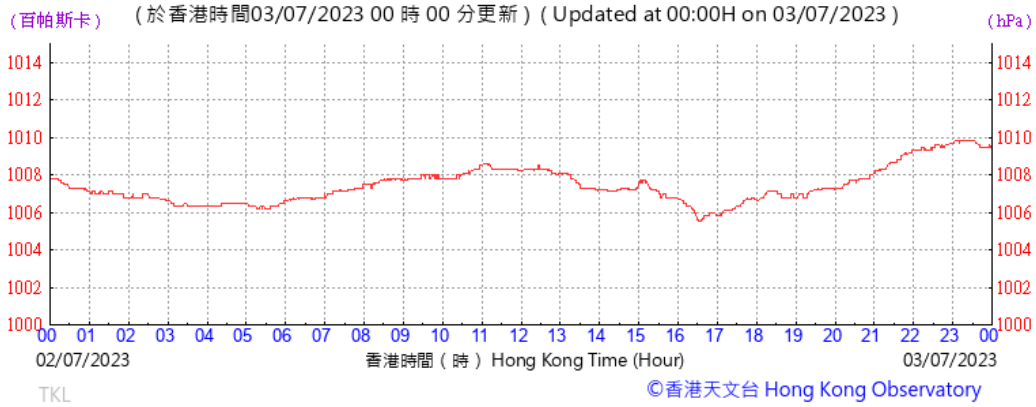
* The above information was extracted from the daily weather summary by Hong Kong Observatory.

3 July 2023

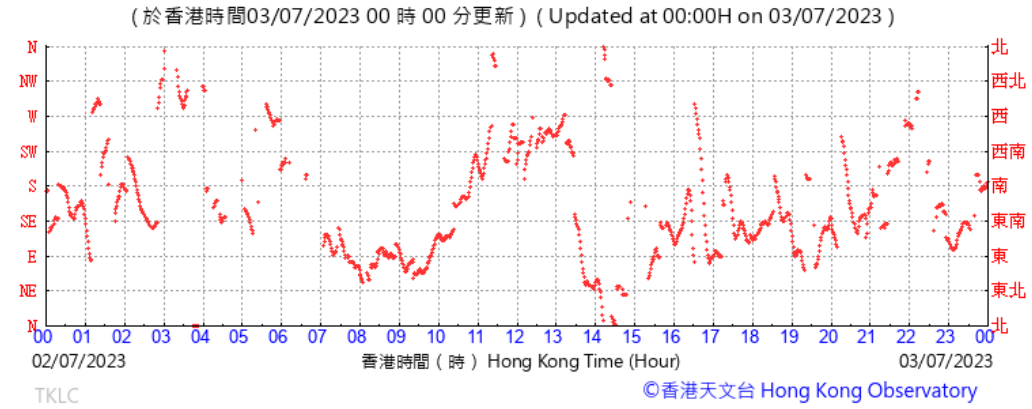
Temperature/Humidity:



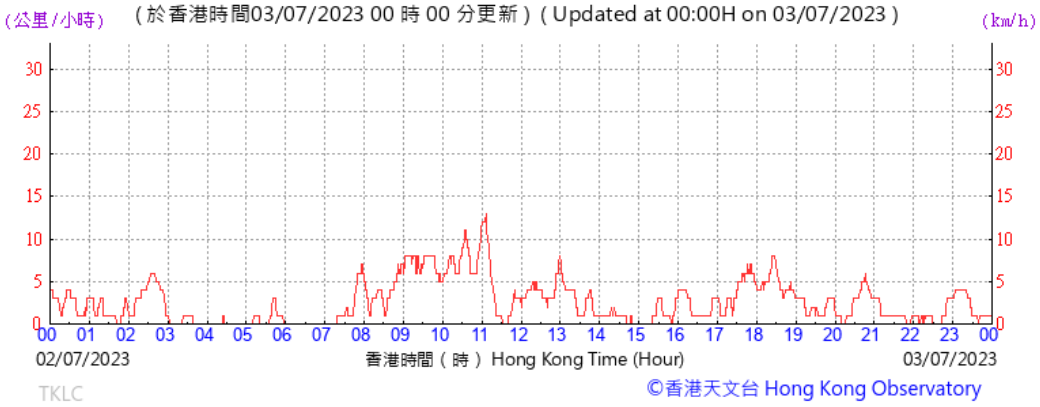
Pressure:



Wind Direction:



Wind Speed:



Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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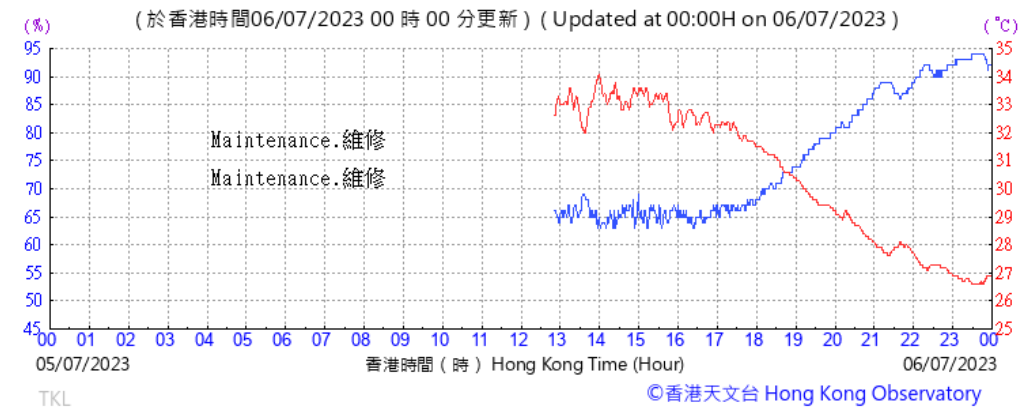
6 July 2023

Temperature/Humidity:



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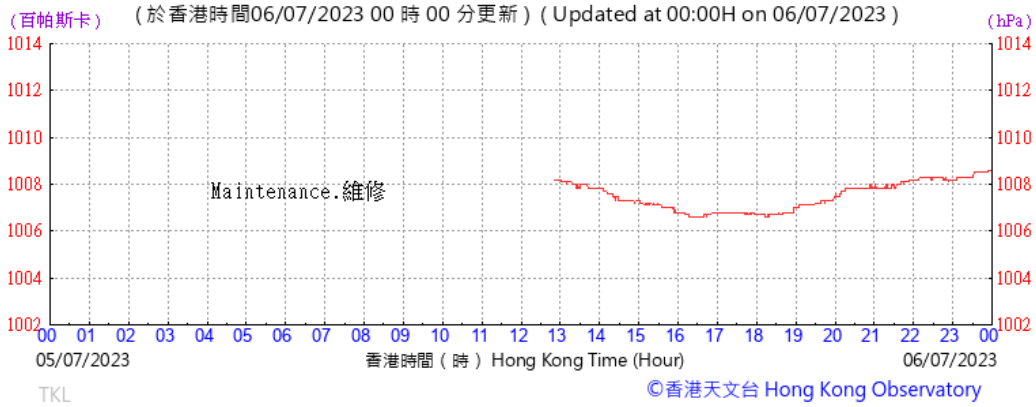

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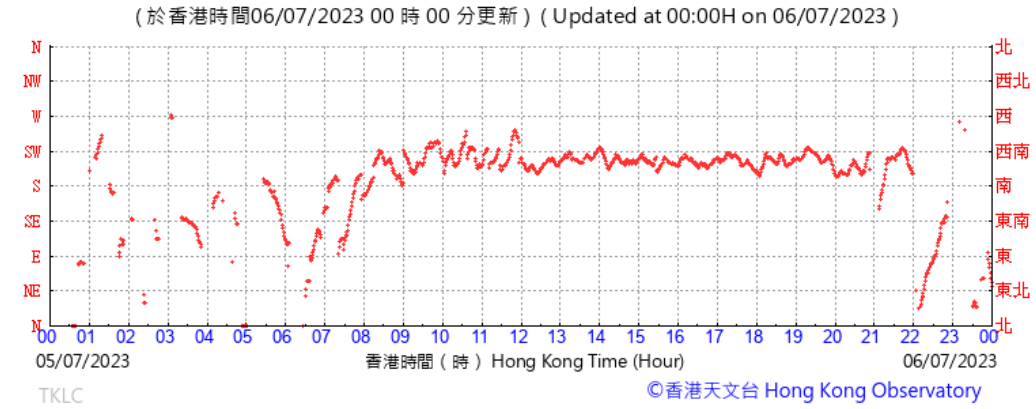
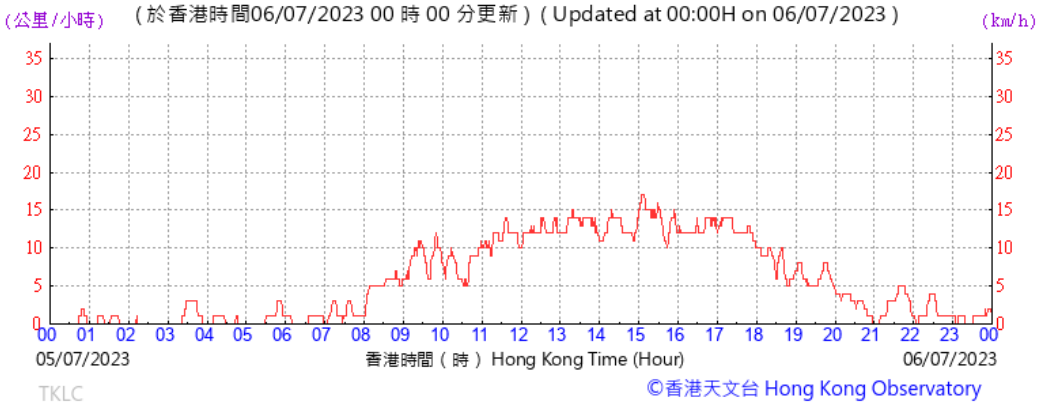


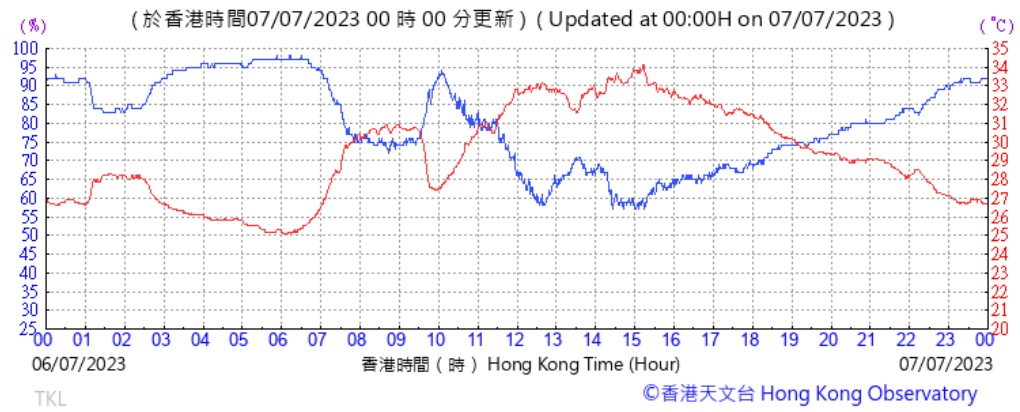
Wind Speed:



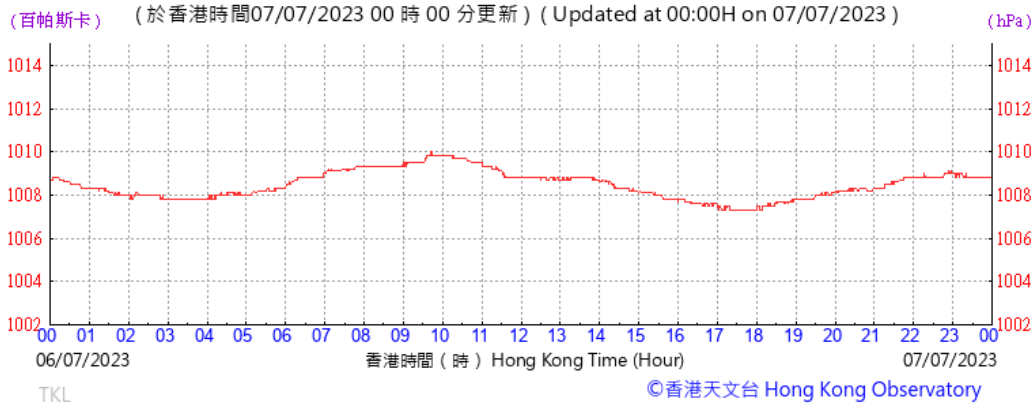
Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
	Date: Jul 23	Appendix: G	

7 July 2023

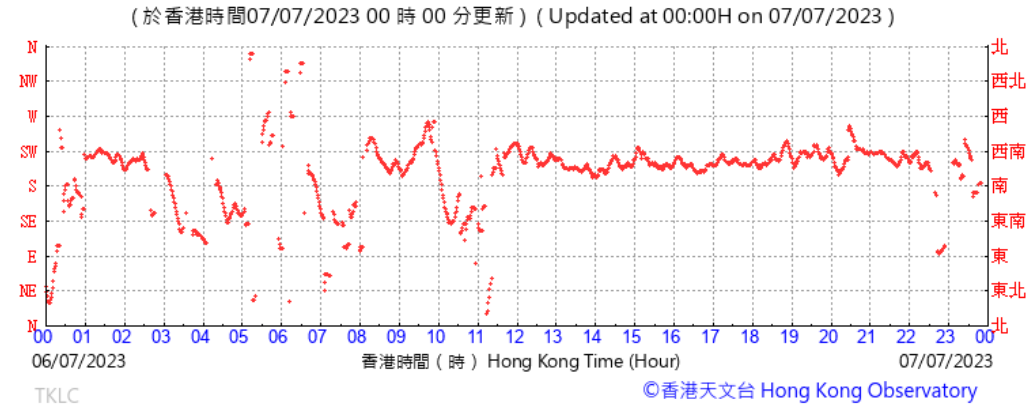
Temperature/Humidity:



Pressure:



Wind Direction:



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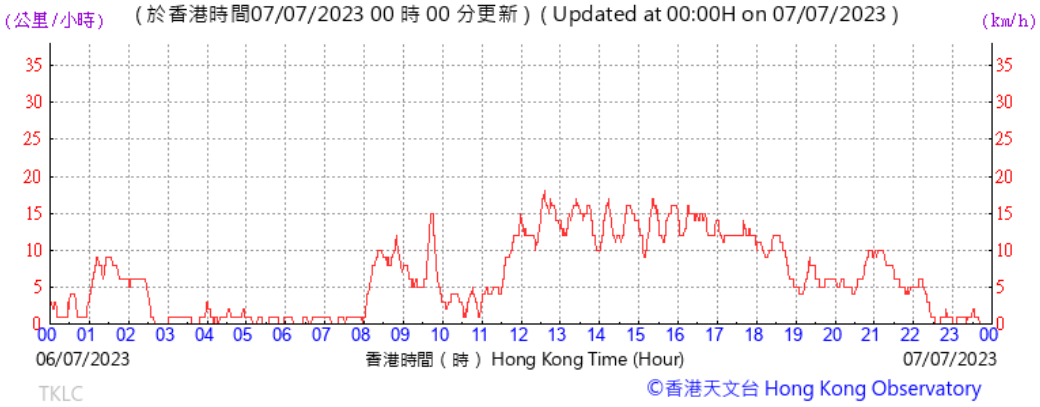
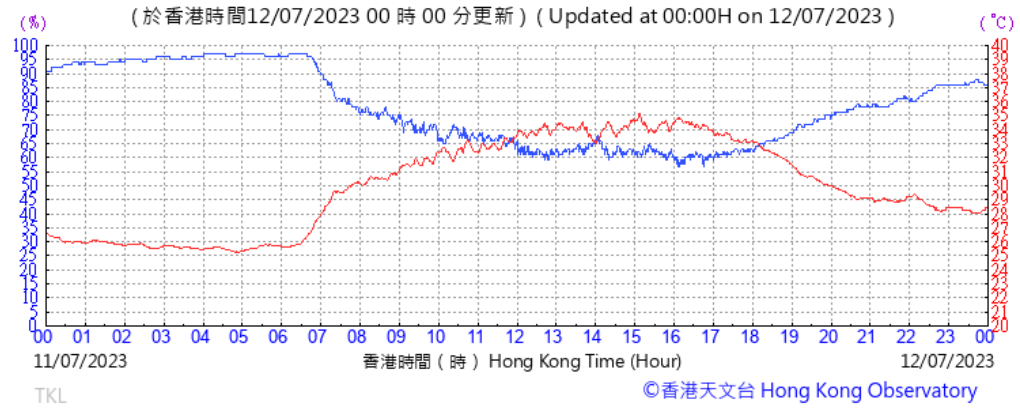


Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
	Date: Jul 23	Appendix: G	

12 July 2023

Temperature/Humidity:



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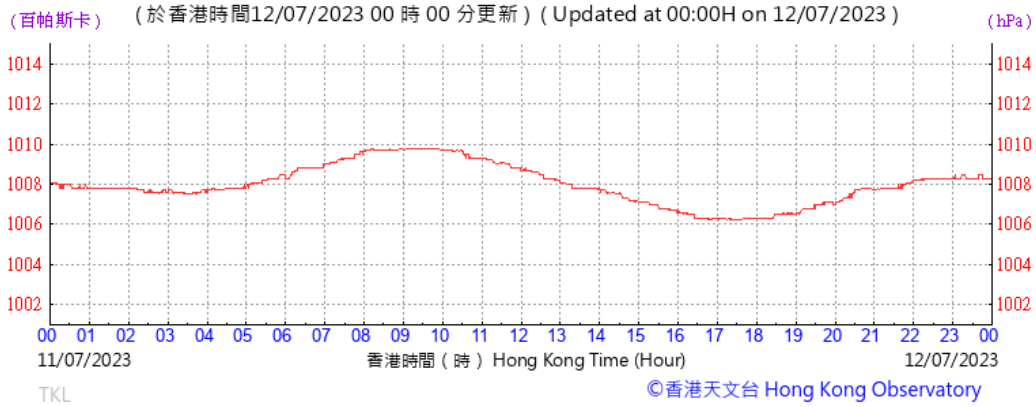
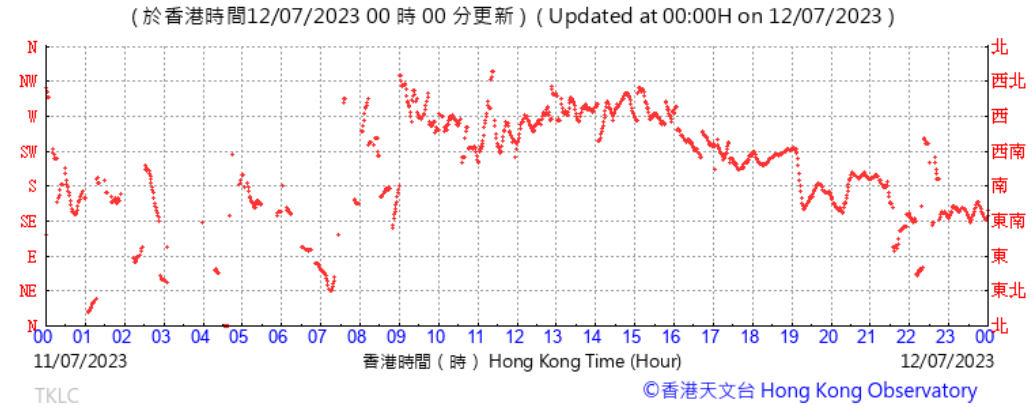
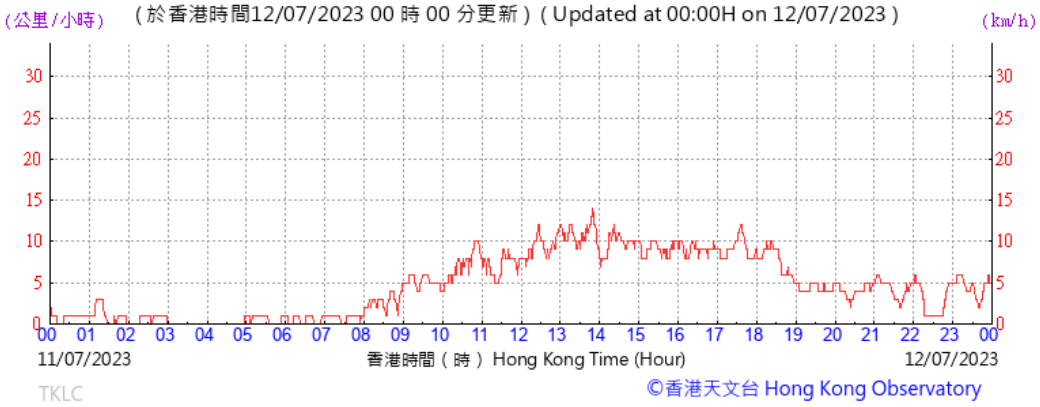


Wind Direction:



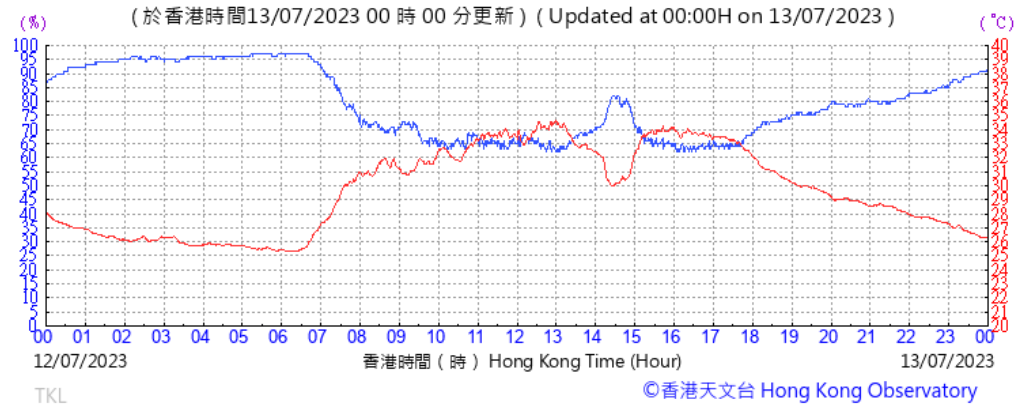
Wind Speed:



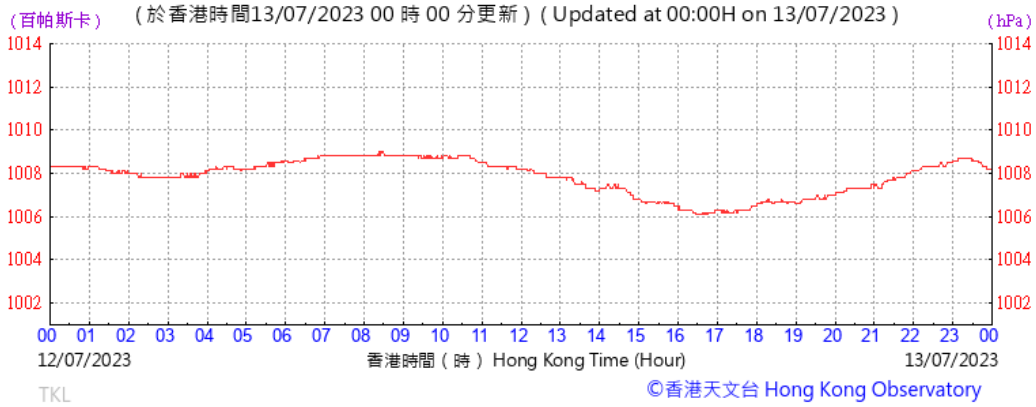
Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
	Date: Jul 23	Appendix: G	

13 July 2023

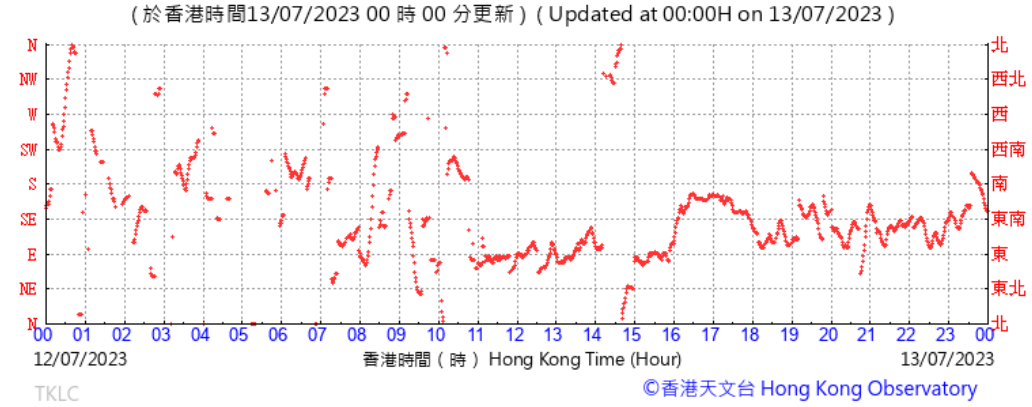
Temperature/Humidity:



Pressure:



Wind Direction:



Wind Speed:

Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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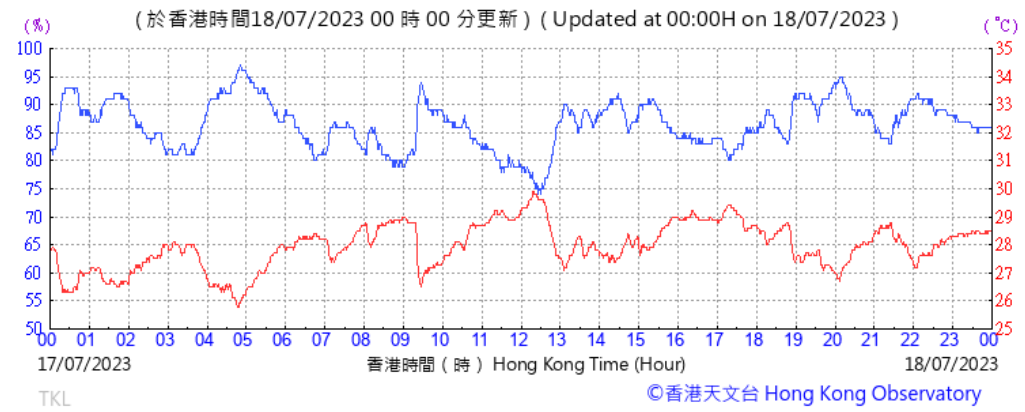
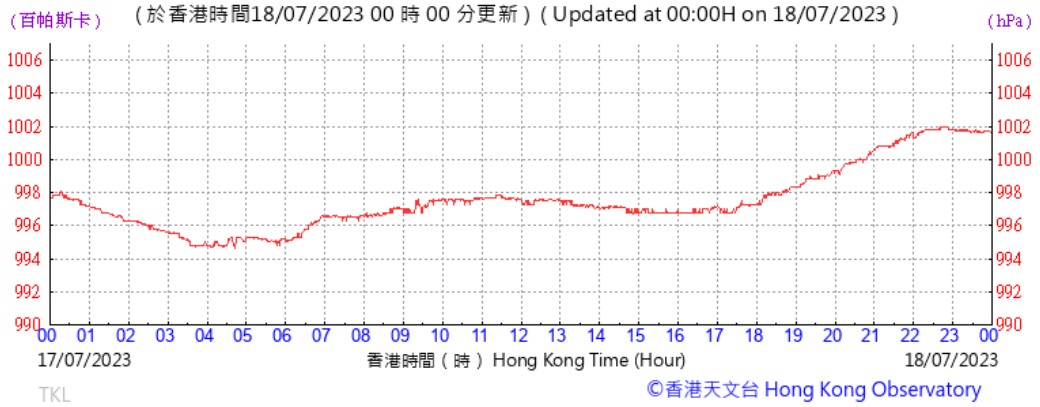
18 July 2023

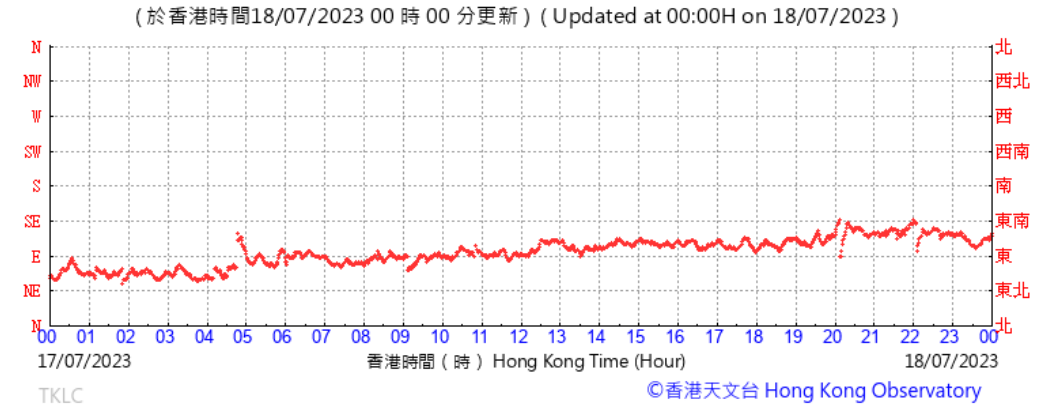
Temperature/Humidity:



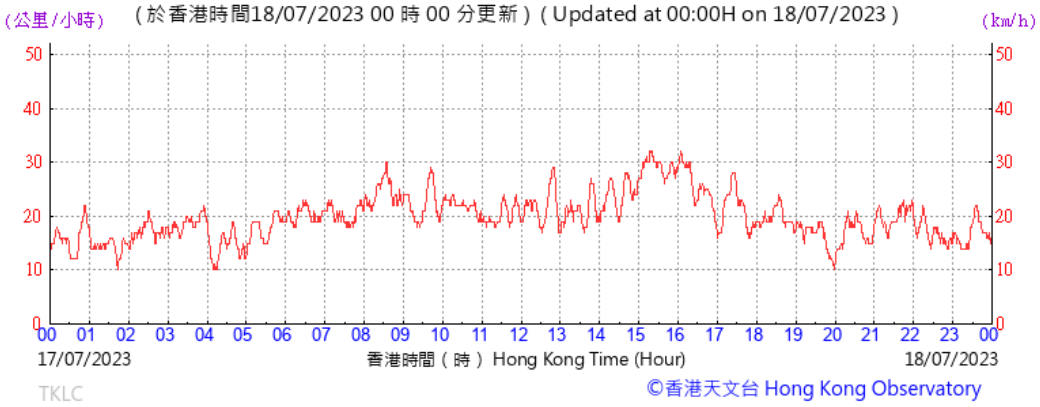
Pressure:



Wind Direction:



Wind Speed:



Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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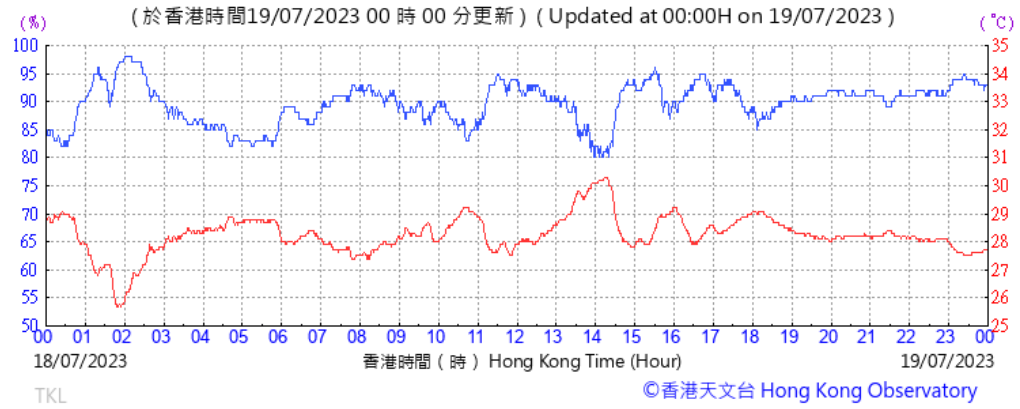
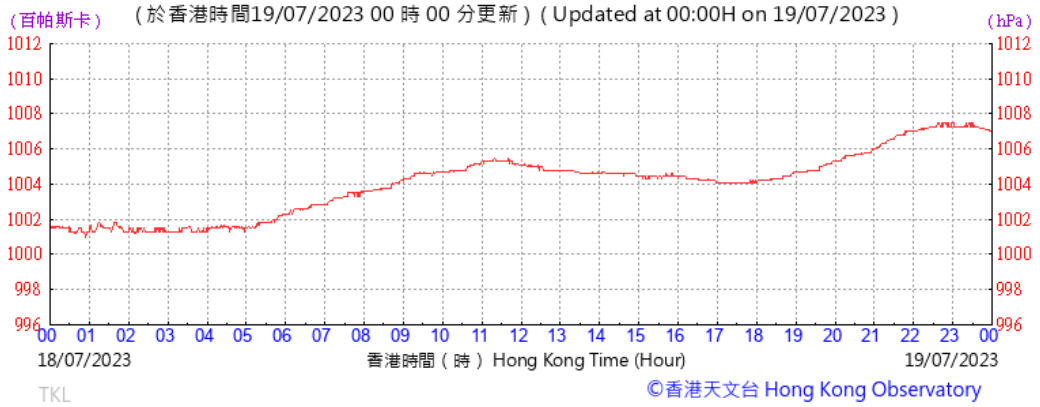
19 July 2023

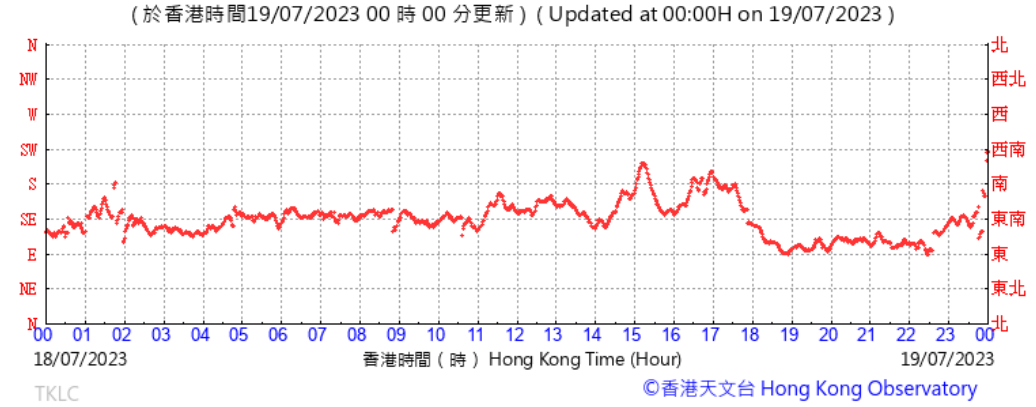
Temperature/Humidity:



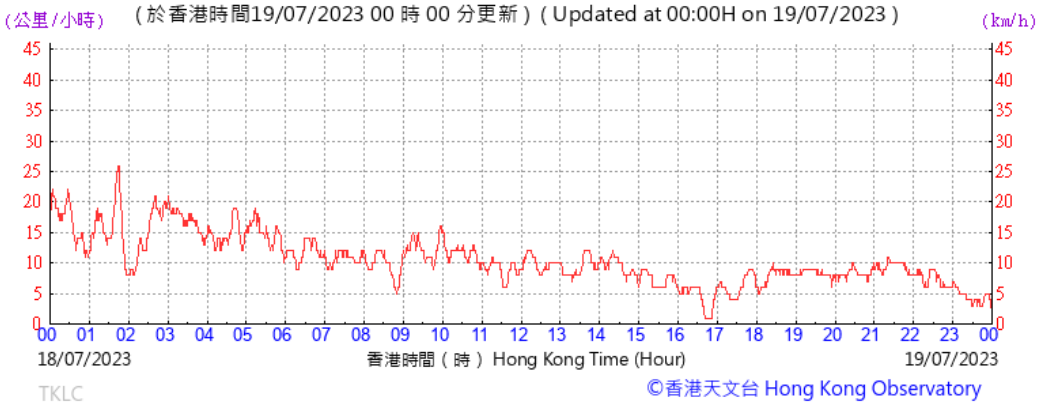
Pressure:



Wind Direction:



Wind Speed:



Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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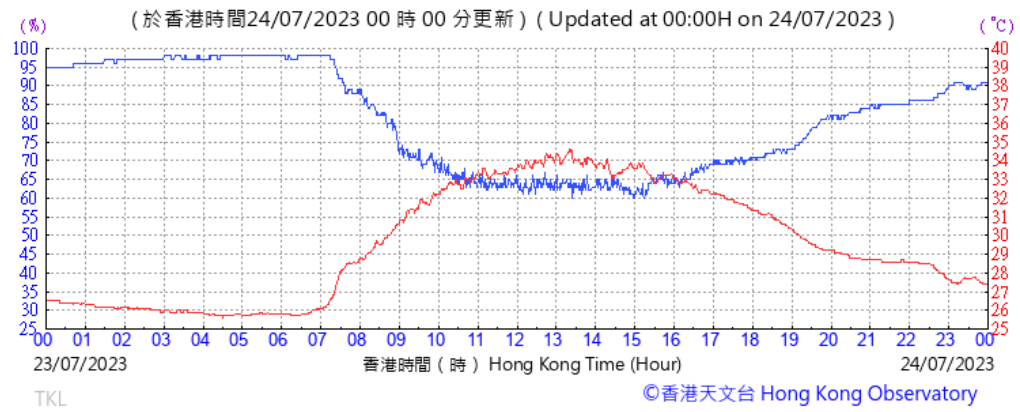
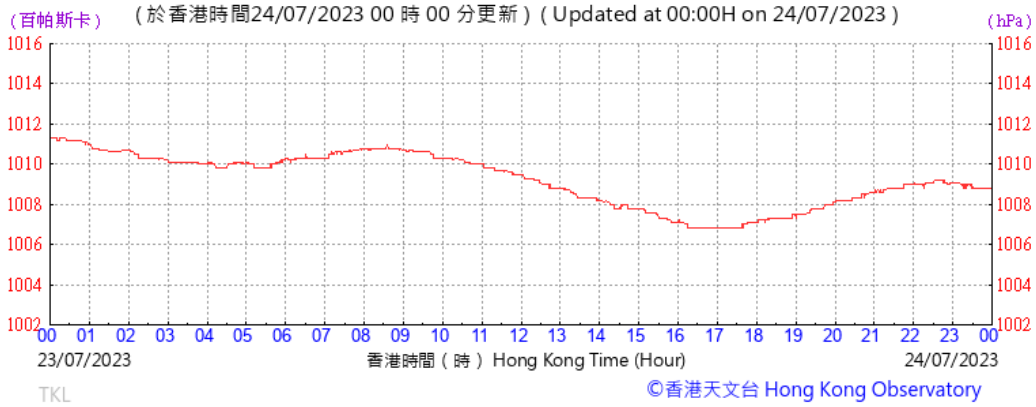
24 July 2023

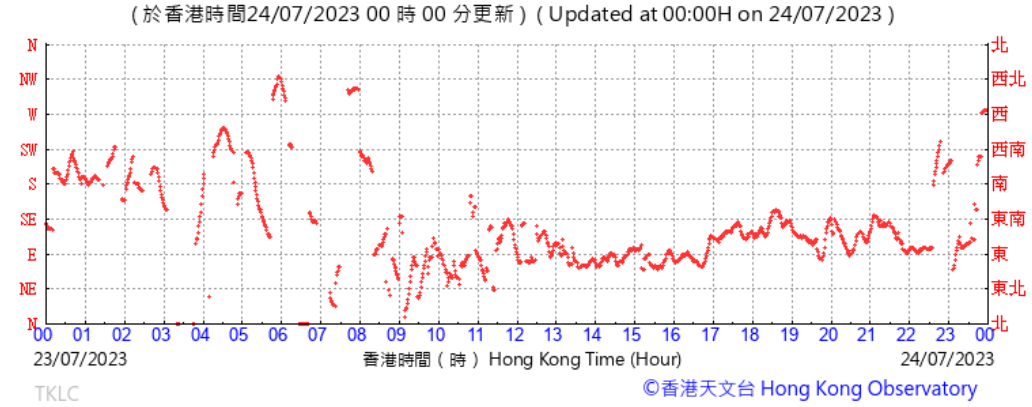
Temperature/Humidity:



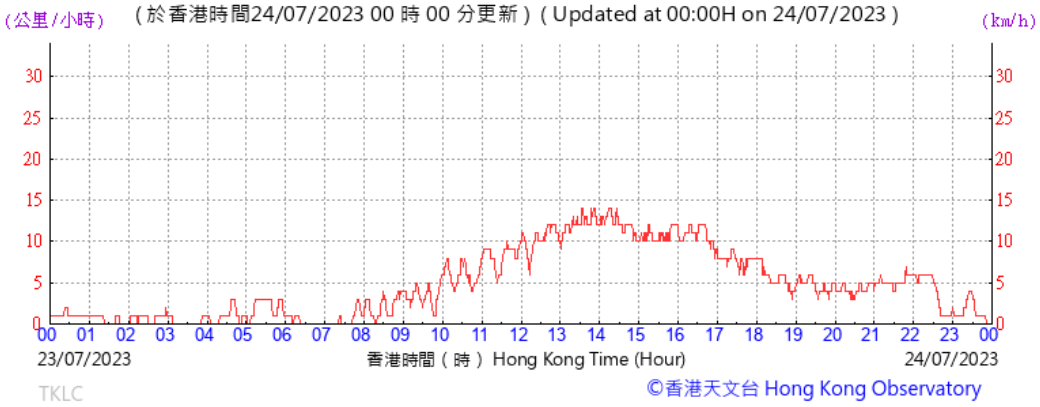
Pressure:



Wind Direction:



Wind Speed:



Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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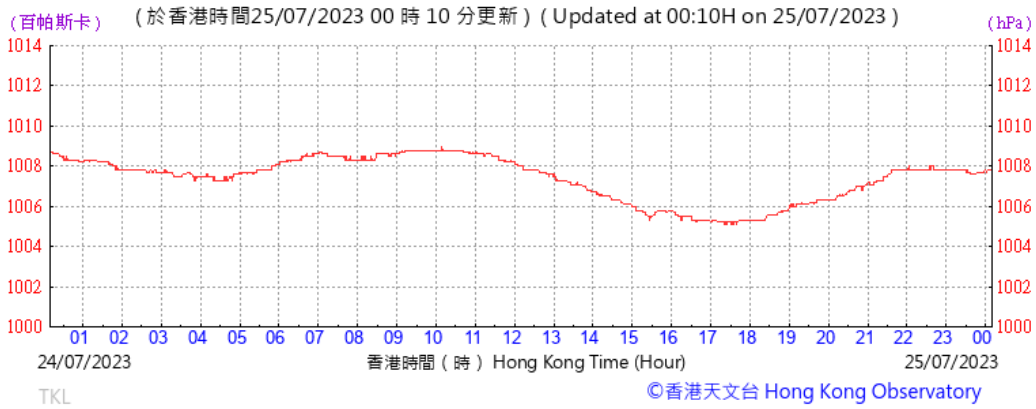
25 July 2023

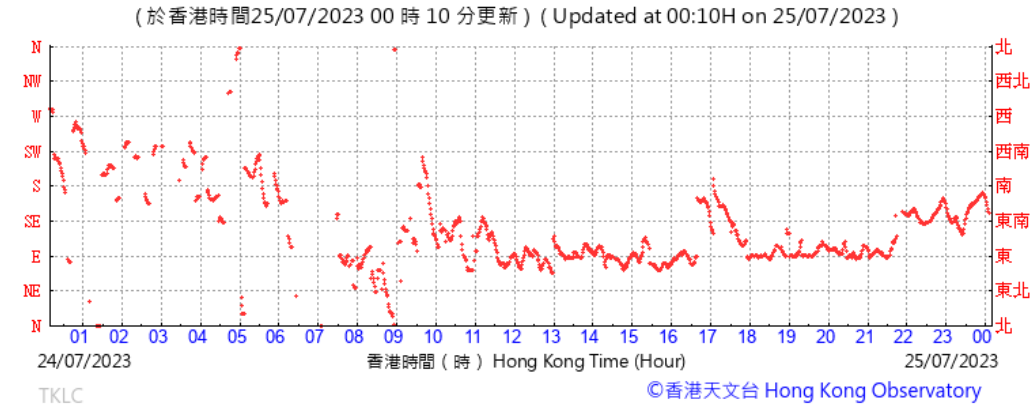
Temperature/Humidity:

Maintenance

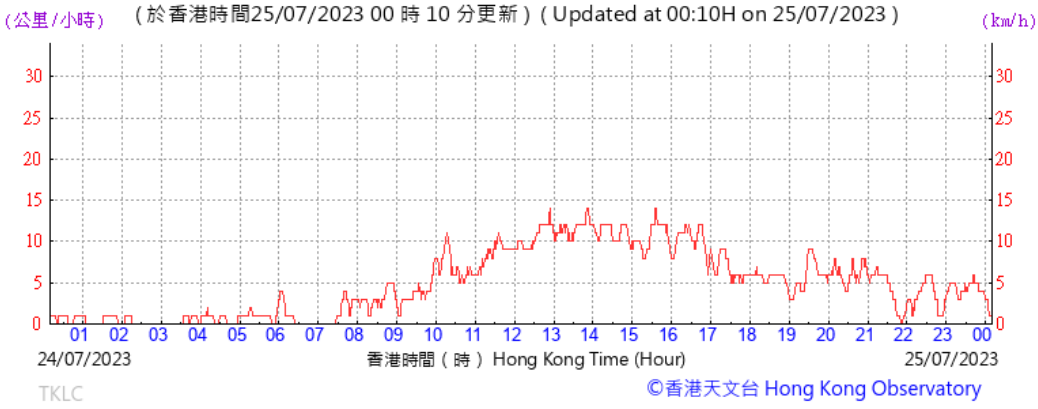
Pressure:



Wind Direction:



Wind Speed:



Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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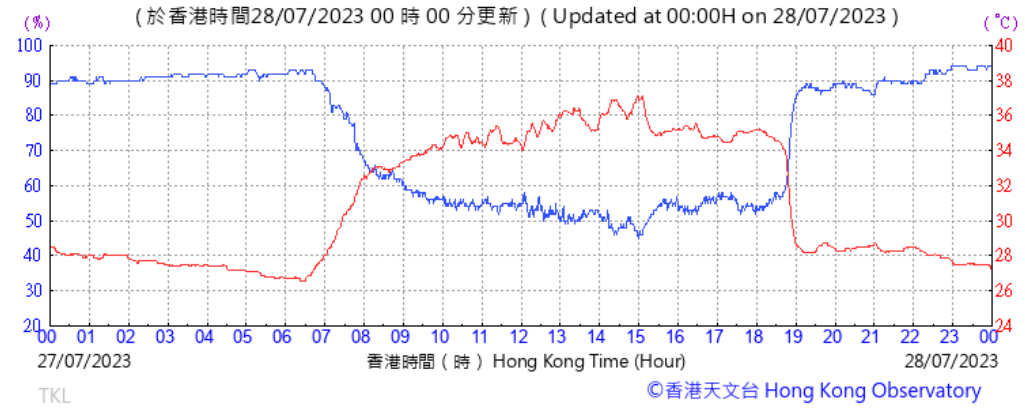
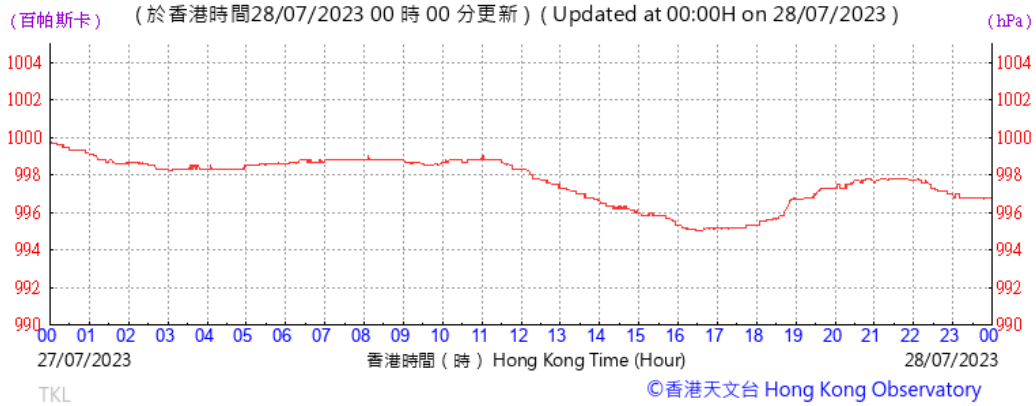
28 July 2023

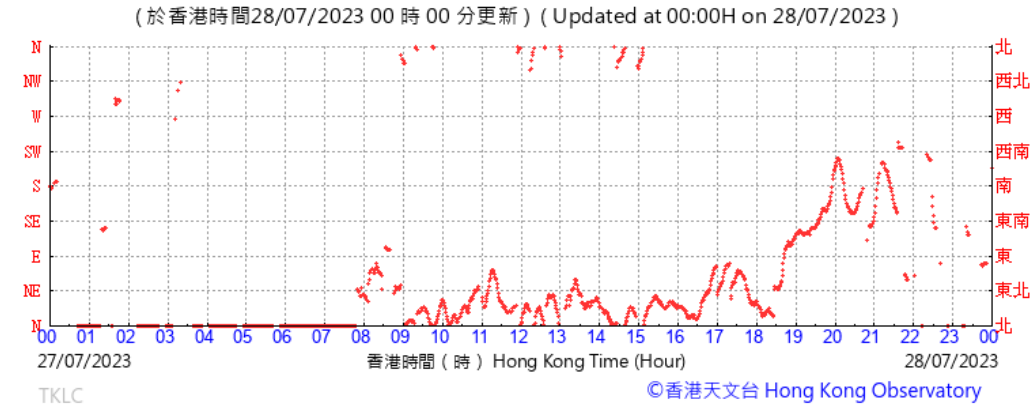
Temperature/Humidity:



Pressure:



Wind Direction:



Wind Speed:

Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
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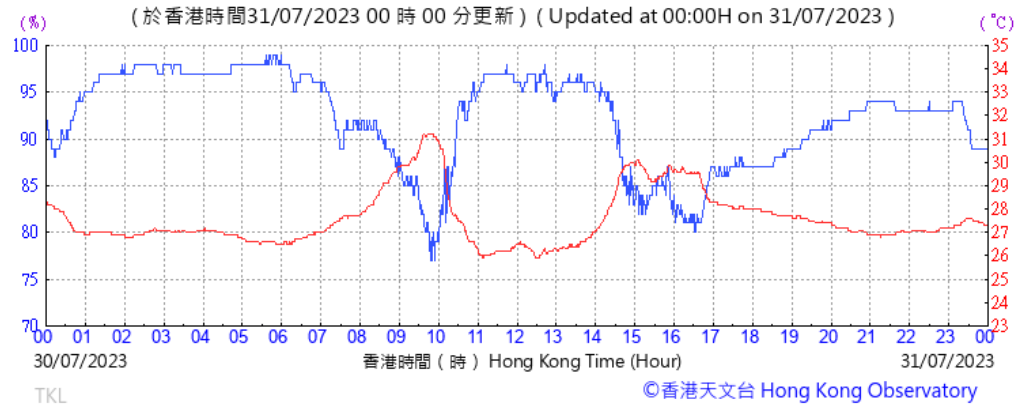
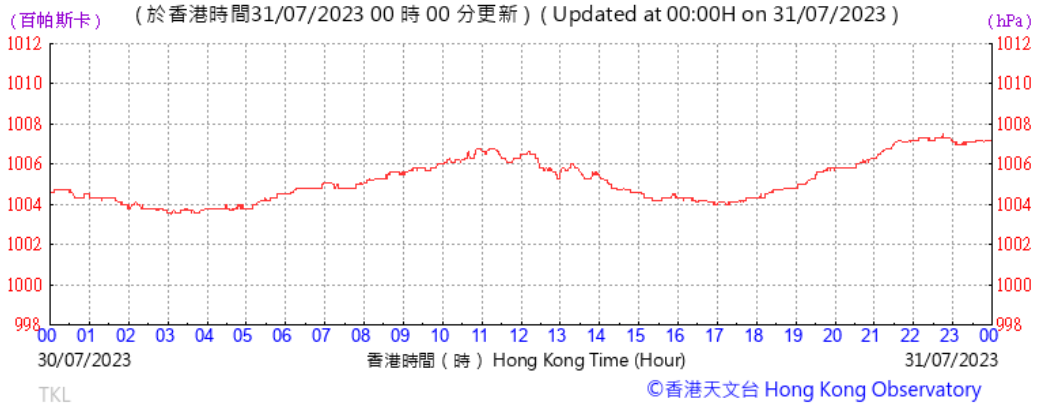
31 July 2023

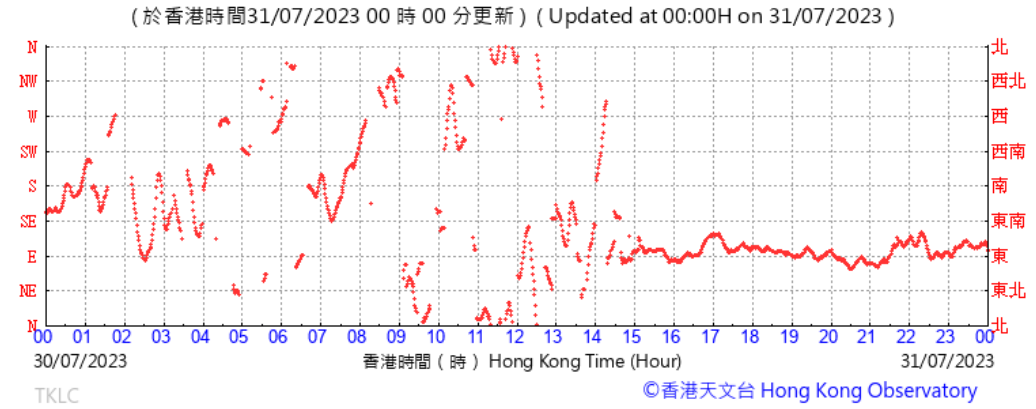
Temperature/Humidity:



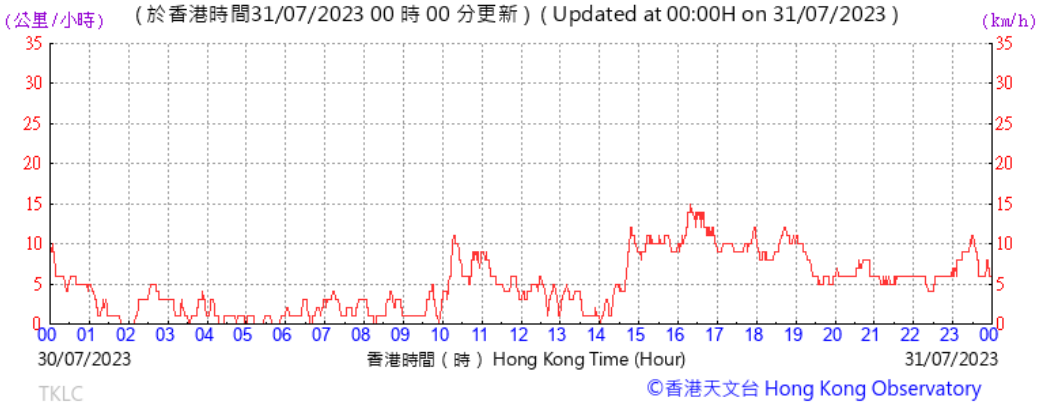
Pressure:



Wind Direction:



Wind Speed:



Title: Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale: N.T.S	Project No.: WMA20001	WELLAB 匯力 consulting . testing . research
	Date: Jul 23	Appendix: G	

APPENDIX H1
ECOLOGICAL MONITORING RESULTS

Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 28th July 2023

1. *Keteleeria fortunei*

Photo 1

Description: Protective fence for *Keteleeria fortunei* are properly erected.

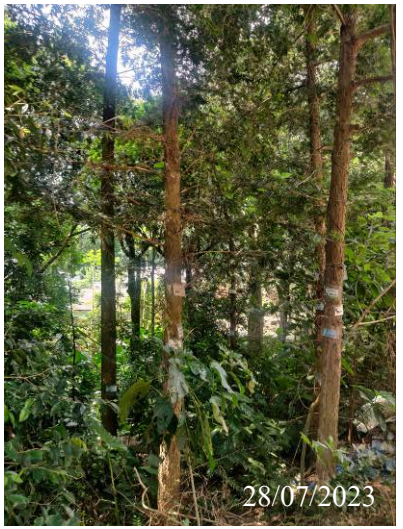
Photo 2

Description: Protective fence for *Keteleeria fortunei* are properly erected.

Photo 3

Description: General view of *Keteleeria fortunei*

Photo 4



Description: General view of *Keteleeria fortunei*

Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 28th July 2023

2. Undersized seedling of *Aquilaria sinensis*

Photo 5  Description: Protective fence for undersized seedling of *Aquilaria sinensis* are properly erected.	Photo 6  Description: General view of undersized seedling of *Aquilaria sinensis*

Monthly Monitoring of Flora Species of Conservation Interest
Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Audit Ref. No. 230728

Contract	Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po	**Env. Team**	Wellab Limited
		***Supervisor's* Rep.**	AECOM
		IEC	Acuity Sustainability Consulting Limited
Inspected By	ET Auditor: Ivy Tam *Supervisor's* Rep.: Mr. Andy Cheng IEC: Mr. Tandy Tse	**Inspection Date**	28 July 2023
		Time Period	9:00 - 9:45

Part A **Weather**

Condition ☑ Sunny ☐ Fine ☐ Overcast ☐ Drizzle ☐ Rain ☐ Storm ☐ Hazy

Temperature 30 °C

Humidity ☐ High (RH>90%) ☑ Moderate (90%>RH>50%) ☐ Low (RH<50%)

Wind ☐ Calm ☑ Light ☐ Breeze ☐ Strong

Part B

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
1.	***Brainea insignis***						
1.1	Are the plants' health conditions satisfactory?	☑	☐	☐	☐	☐	
1.2	Are transplanted plants on site protected carefully?	☑	☐	☐	☐	☐	
1.3	Are the temporary protective fence properly erected and maintained?	☑	☐	☐	☐	☐	
1.4	Are the plant protection zone set 1m from the plants?	☑	☐	☐	☐	☐	
1.5	Are all grassed and planted area kept free from weeds/unwanted plants?	☑	☐	☐	☐	☐	
1.6	Is compaction of the soil avoided for the plants?	☑	☐	☐	☐	☐	
1.7	Are litter/ unwanted material removed within the planting area?	☑	☐	☐	☐	☐	
1.8	Are equipment or stockpile placed outside the protection zone?	☑	☐	☐	☐	☐	
1.9	Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	☑	☐	☐	☐	☐	
1.10	Are fixings driven into plants avoided?	☑	☐	☐	☐	☐	
1.11	Are the plants used for anchoring or winching purposes or for the display of signs avoided?	☑	☐	☐	☐	☐	
1.12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	☑	☐	☐	☐	☐	
1.13	Are all plants kept free from pest, disease or fungal infection?	☑	☐	☐	☐	☐	
1.14	Are there enough area for growth and development of plant roots?	☑	☐	☐	☐	☐	
1.15a	Is exposure of plant roots avoided?	☑	☐	☐	☐	☐	
1.15b	If not, were broken off or rotting of roots avoided?	☑	☐	☐	☐	☐	

Note: Part of the construction site including the approved receptor site for Brainea insignis and Spiranthes sinensis was handed over to Architectural Services Department (ArchSD) on 23rd December 202. The post-transplantation maintenance and monitoring works for Brainea insignis and Spiranthes sinensis were conducted under Contract No. SSK509 (FEP no.: FEP-01/510/2016)) starting from April 2023.

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2.	***Spiranthes sinensis***						
2.1	Are the plants' health conditions satisfactory?	☑	☐	☐	☐	☐	
2.2	Are transplanted plants on site protected carefully?	☑	☐	☐	☐	☐	
2.3	Are the temporary protective fence properly erected and maintained?	☑	☐	☐	☐	☐	
2.4	Are the plant protection zone set 1m from the plants?	☑	☐	☐	☐	☐	
2.5	Are all grassed and planted area kept free from weeds/unwanted plants?	☑	☐	☐	☐	☐	
2.6	Is compaction of the soil avoided for the plants?	☑	☐	☐	☐	☐	
2.7	Are litter/ unwanted material removed within the planting area?	☑	☐	☐	☐	☐	
2.8	Are equipment or stockpile placed outside the protection zone?	☑	☐	☐	☐	☐	
2.9	Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	☑	☐	☐	☐	☐	
2.10	Are fixings driven into plants avoided?	☑	☐	☐	☐	☐	
2.11	Are the plants used for anchoring or winching purposes or for the display of signs avoided?	☑	☐	☐	☐	☐	
2.12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	☑	☐	☐	☐	☐	
2.13	Are all plants kept free from pest, disease or fungal infection?	☑	☐	☐	☐	☐	
2.14	Are there enough area for growth and development of plant roots?	☑	☐	☐	☐	☐	
2.15a	Is exposure of plant roots avoided?	☑	☐	☐	☐	☐	
2.15b	If not, were broken off or rotting of roots avoided?	☑	☐	☐	☐	☐	
3.	***Keteleeria fortunei***						
3.1	Are the trees' health conditions satisfactory?	☐	☑	☐	☐	☐	except F-0072, F-0052 identified dead in the previous month)
3.2	Are existing trees to be retained on site protected carefully?	☐	☑	☐	☐	☐	
3.3	Are the temporary protective fence properly erected and maintained?	☐	☑	☐	☐	☐	
3.4	Are the trees protection zone set 1m from the trees?	☐	☑	☐	☐	☐	
3.5	Are all grassed and planted area kept free from weeds/unwanted plants?	☑	☐	☐	☐	☐	
3.6	Is compaction of the soil avoided for the trees?	☐	☑	☐	☐	☐	
3.7	Are litter/ unwanted material removed within the planting area?	☐	☑	☐	☐	☐	
3.8	Are equipment or stockpile placed outside the protection zone?	☐	☑	☐	☐	☐	
3.9	Are soil, debris or construction materials deposited around and against the trunk of a trees as this causes bark damage avoided?	☐	☑	☐	☐	☐	
3.10	Are fixings driven into trees avoided?	☐	☑	☐	☐	☐	
3.11	Are the trees used for anchoring or winching purposes or for the display of signs avoided?	☐	☑	☐	☐	☐	
3.12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the trees avoided?	☐	☑	☐	☐	☐	
3.13	Are all trees kept free from pest, disease or fungal infection?	☐	☑	☐	☐	☐	except F-0081 (internal decay)
3.14	Are there enough area for growth and development of tree roots?	☐	☑	☐	☐	☐	
3.15a	Is exposure of tree roots avoided?	☑	☐	☐	☐	☐	
3.15b	If not, were broken off or rotting of roots avoided?	☑	☐	☐	☐	☐	
3.16	Are wounds/mechanical injuries avoided on tree trunk?	☐	☑	☐	☐	☐	except F-0002, F-0004, F-0007 with hard pruned by other parties
3.17	Are leaning of trees avoided?	☑	☐	☐	☐	☐	
3.18	Are dead/detached branches avoided?	☐	☑	☐	☐	☐	except F-0002, F-0004, F-0007 with hard pruned by other parties
3.19	Are decay/cavity avoided on tree trunks?	☑	☐	☐	☐	☐	

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
4.	***Aquilaria sinensis***						
4.1	Are the trees' health conditions satisfactory?	☐	☑	☐	☐	☐	
4.2	Are existing trees to be retained on site protected carefully?	☐	☑	☐	☐	☐	
4.3	Are the temporary protective fence properly erected and maintained?	☐	☑	☐	☐	☐	
4.4	Are the trees protection zone set 1m from the trees?	☐	☑	☐	☐	☐	
4.5	Are all grassed and planted area kept free from weeds/unwanted plants?	☑	☐	☐	☐	☐	
4.6	Is compaction of the soil avoided for the trees?	☐	☑	☐	☐	☐	
4.7	Are litter/ unwanted material removed within the planting area?	☐	☑	☐	☐	☐	
4.8	Are equipment or stockpile placed outside the protection zone?	☐	☑	☐	☐	☐	
4.9	Are soil, debris or construction materials deposited around and against the trunk of a trees as this causes bark damage avoided?	☐	☑	☐	☐	☐	
4.10	Are fixings driven into trees avoided?	☐	☑	☐	☐	☐	
4.11	Are the trees used for anchoring or winching purposes or for the display of signs avoided?	☐	☑	☐	☐	☐	
4.12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the trees avoided?	☐	☑	☐	☐	☐	
4.13	Are all trees kept free from pest, disease or fungal infection?	☐	☑	☐	☐	☐	
4.14	Are there enough area for growth and development of tree roots?	☐	☑	☐	☐	☐	
4.15a	Is exposure of tree roots avoided?	☐	☑	☐	☐	☐	
4.15b	If not, were broken off or rotting of roots avoided?	☑	☐	☐	☐	☐	
4.16	Are wounds/mechanical injuries avoided on tree trunk?	☐	☑	☐	☐	☐	
4.17	Are leaning of trees avoided?	☐	☑	☐	☐	☐	
4.18	Are dead/detached branches avoided?	☐	☑	☐	☐	☐	
4.19	Are decay/cavity avoided on tree trunks?	☐	☑	☐	☐	☐	

Part C **Follow-up for the Previous Site Audit on Date:** 23 June 23 **(Ref. No.** 230623 **)**

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
1.	Is the situation in item NIL improved/rectified?	☐	☐	☐	☐	☐	
2.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
3.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
4.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
5.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
6.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
7.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
8.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
9.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	
10.	Is the situation in item _____ improved/rectified?	☐	☐	☐	☐	☐	

Remarks/Observations

(1) Protection fence was observed properly erected and maintained surrounding the trees / plants.

(2) No construction activities was observed at the location of the flora species of conservation interest.

Signatures:

ET Auditor
(Name: Tsz Lam)
(Date: 28/7/23)

Supervisor's Rep.
(Name: Andy Cley)
(Date: 28/7/2023)

Contractor's Representative
(Name: Alex Liu)
(Date: 28/7/23)

IEC Auditor
(Name:)
(Date: Tandy Tse 28/7/2023)

APPENDIX H2
IMPLEMENTATION SCHEDULE OF MITIGATION MEASURES IN DETAILED VEGETATION SURVEY REPORT AND TRANSPLANTATION PROPOSAL FOR AQUILARIA SINENSIS

Detailed Vegetation Survey Report - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Detailed Vegetation Survey Report**	**Implementation Status**	**Remarks**
Identification of Plant Species of Conservation Importance to be Retained / Transplanted To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	To identify the plant species of conservation importance and ensure no plant species of conservation importance / retained tree will be affected.	Refers to para(s) 4.11 of the Detailed Vegetation Survey Report	^	Detailed vegetation survey was conducted from 28th February to 6th March 2020 prior to commencement of site construction works. 2 individuals of *Aquilaria sinensis* were found within the work area of proposed Kong Nga Po Road upgrading works and 1 individual was found within the work area for site formation works. These 3 individuals of *Aquilaria sinensis* identified in works areas were transplanted to receptor site from 3rd to 19th October 2020 according to the approved transplantation proposal prior to commencement of site construction works.
Protection of Plant Species of Conservation Importance prior to Site	To make sure that the flora species of conservation	Refers to para(s) 4.9 and 4.10 of	^	a) The 3 individuals of *Aquilaria sinensis* identified in works areas

Detailed Vegetation Survey Report - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Detailed Vegetation Survey Report**	**Implementation Status**	**Remarks**
Clearance / Transplantation Works a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed. b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	interest are not affected by the site clearance works of the Project	the Detailed Vegetation Survey Report		were transplanted to receptor site from 3rd to 19th October 2020 according to the approved transplantation proposal prior to commencement of site clearance works. b) No site clearance works was commenced before the transplantation works completed.
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree a) To erect a temporary protective fence enclosing the flora species of	To avoid potential impact on flora species of conservation importance / retained tree from construction activities such as materials storage; To make	Refers to para(s) 4.4 and 4.11 of the Detailed Vegetation Survey Report	^	a) A temporary protective fence has been properly erected enclosing the 3 individuals of *Aquilaria sinensis.* b) A protection zone at least 1m from *Aquilaria sinensis* was set up and

Detailed Vegetation Survey Report - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Detailed Vegetation Survey Report**	**Implementation Status**	**Remarks**
conservation interest identified under the detailed vegetation survey. b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	sure that the flora species of conservation interest / retained tree are not affected by the construction activities of the Project			robust, bright-coloured fencing of 1.5m in height was also erected to protect the 3 individuals of *Aquilaria sinensis.*
Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted. b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	To avoid potential impact on flora species of conservation importance / retained tree from construction activities such as materials storage; To make sure that the flora species of conservation interest / retained tree are not affected by the construction activities of the Project	Refers to para(s) 4.4 and 4.11 of the Detailed Vegetation Survey Report	^	a) Post-transplantation monitoring was conducted once per week in the first three months (October 2020 to January 2021) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. In addition, monthly monitoring of 3 individuals of *Aquilaria sinensis* was conducted during the construction phase by ET to

Detailed Vegetation Survey Report - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Detailed Vegetation Survey Report**	**Implementation Status**	**Remarks**
				make sure that the flora species of conservation interest are not affected by the construction activities of the Project. No construction activity was observed within the area of 3 individuals of *Aquilaria sinensis.* b) The temporary protective fence during the monthly monitoring was also inspected. Temporary protective fence was properly erected and maintained for the 3 individuals of *Aquilaria sinensis.*
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas a) All works should be confined within the site boundary.	To avoid potential impact on Flora Species of Conservation Interest / Retained Tree / Vegetated Areas from	Refers to para(s) 4.11 of the Detailed Vegetation Survey Report	^	A 1.5m in height, robust, bright-coloured temporary protective fence and 1m protection zone has been properly set up enclosing the 3 individuals of *Aquilaria sinensis*. No construction activity was

Detailed Vegetation Survey Report - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Detailed Vegetation Survey Report**	**Implementation Status**	**Remarks**
b) Access of site staff should be controlled. c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works. d) No fixings should be driven into trees/plants. e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants. f) No excavation, including that for services or changes in ground level will take place within the spread of the crown of the trees / plants. g) No soil, debris or construction materials	construction activities of the Project			observed within the area of 3 individuals of *Aquilaria sinensis.* The guidelines (a to j) have been followed to protect the 3 individuals of *Aquilaria sinensis.*

Detailed Vegetation Survey Report - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Detailed Vegetation Survey Report**	**Implementation Status**	**Remarks**
should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil. h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants. i) No trees/plants should be used for anchoring or winching purposes or for the display of signs. j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.				

Implementation status: ^ Mitigation measure was fully and properly implemented

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
Identification of Plant Species of Conservation Importance to be Retained / Transplanted To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	To identify the plant species of conservation importance and ensure no plant species of conservation importance / retained tree will be affected.	Refers to para(s) 5.1 of the Transplantation Proposal	^	Detailed vegetation survey was conducted from 28th February to 6th March 2020 prior to commencement of site construction works. 2 individuals of *Aquilaria sinensis* were found within the work area of proposed Kong Nga Po Road upgrading works and 1 individual was found within the work area for site formation works. These 3 individuals of *Aquilaria sinensis* identified in works areas were transplanted to receptor site from 3rd to 19th October 2020 according to the approved transplantation proposal prior to commencement of site construction works.
Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation	To make sure that the flora species of conservation interest are not affected by the	Refers to para(s) 2.11 and 2.12 of the	^	a) The 3 individuals of *Aquilaria sinensis* identified in works areas were transplanted to receptor site from 3rd to

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
Works a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed. b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	site clearance works of the Project	Transplantation Proposal		19th October 2020 according to the approved transplantation proposal prior to commencement of site clearance works. b) No site clearance works was commenced before the transplantation works completed.
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree a) To erect a temporary protective fence	To avoid potential impact on flora species of conservation importance / retained tree from construction activities such as	Refers to para(s) 2.7, 4.41 and 5.1 of the Transplantation Proposal	^	a) A temporary protective fence has been properly erected enclosing the 3 individuals of *Aquilaria sinensis.*

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
enclosing the flora species of conservation interest identified under the detailed vegetation survey. b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	materials storage; To make sure that the flora species of conservation interest / retained tree are not affected by the construction activities of the Project			b) A protection zone at least 1m from *Aquilaria sinensis* was set up and robust, bright-coloured fencing of 1.5m in height was also erected to protect the 3 individuals of *Aquilaria sinensis*.
Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted. b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	To avoid potential impact on flora species of conservation importance / retained tree from construction activities such as materials storage; To make sure that the flora species of conservation interest / retained tree are not affected by the construction activities of the Project	Refers to para(s) 2.7, 4.41 and 5.1 of the Transplantation Proposal	^	a) Post-transplantation monitoring was conducted once per week in the first three months (October 2020 to January 2021) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. In addition, monthly monitoring of 3 individuals of *Aquilaria sinensis* was conducted during the construction phase

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
				by ET to make sure that the flora species of conservation interest are not affected by the construction activities of the Project. No construction activity was observed within the area of 3 individuals of *Aquilaria sinensis.* b) The temporary protective fence during the monthly monitoring was also inspected. Temporary protective fence was properly erected and maintained for the 3 individuals of *Aquilaria sinensis.*
Post-transplantation Monitoring a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	To allow early detection of the growth status of transplanted species, sign of construction activity within and nearby the receptor site, and any environmental change of the	Refers to para(s) 4.38 to 4.40 and 4.42 of the Transplantation Proposal	^	Post-transplantation monitoring was conducted once per week in the first three months (October 2020 to January 2021) and once per month during the 12-month establishment period and the post-establishment period until the end of

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
	receptor site.			construction phase of the Project. No construction activity was observed within the area of 3 individuals of *Aquilaria sinensis.* Due to the poor health condition of transplanted *Aquilaria sinensis*, the monitoring frequency was increased to bi-weekly in the period between Nov 2021 to July 2022 upon recommended by ET and IEC.
Maintenance of Transplanted Species a) To keep the soil moist by watering the receptor sites properly and adequately. b) To apply mulches on the soil surface over the plant root system, if required. c) To remove unwanted weeds found in receptor sites.	To allow health growth of the transplanted species.	Refers to para(s) 4.43 to 4.46 of the Transplantation Proposal	^	Maintenance works were conducted for the first year of establishment to allow health growth of the transplanted species. In view of the condition of transplanted individuals after the 12-month establishment period, maintenance works have been extended during the Post-establishment Period until the end of

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
				Construction Phase. Watering was conducted in daily practice subject to the site condition during the first three months after the transplantation and during dry season. Watering frequency was reduced to at least twice a week and adjusted based on the plant condition to keep the soil moist. Other maintenance works like use of mulch and weeding were also conducted if required.
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas a) All works should be confined within the site boundary. b) Access of site staff should be	To avoid potential impact on Flora Species of Conservation Interest / Retained Tree / Vegetated Areas from construction activities of the Project	Refers to para(s) 5.1 of the Transplantation Proposal	^	A 1.5m in height, robust, bright-coloured temporary protective fence and 1m protection zone has been properly set up enclosing the 3 individuals of *Aquilaria sinensis.* No construction activity was observed within the area of 3 individuals of *Aquilaria sinensis.*

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
controlled. c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works. d) No fixings should be driven into trees/plants. e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants. f) No excavation, including that for services or changes in ground level will take place within the spread of the crown of the trees / plants. g) No soil, debris or construction				The guidelines (a to j) have been followed to protect the 3 individuals of *Aquilaria sinensis.*

Transplantation Proposal - Implementation Schedule (IS) for *Aquilaria sinensis*

The Permit Holder and any person constructing (*or "operating" as the case may be*) the Project shall fully implement all mitigation measures in this Plan/Report. Key measures are included in the Implementation Schedule (IS) below for focusing on key issues and easier checking. However, all measures in this Plan/Report, whether included in the IS or not, shall be fully carried out.

Recommended Mitigation Measures	**Objective of the Measures**	**Reference to paragraph(s) in this Transplantation Proposal**	**Implementation Status**	**Remarks**
materials should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil. h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants. i) No trees/plants should be used for anchoring or winching purposes or for the display of signs. j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.				

Implementation status: ^ Mitigation measure was fully and properly implemented

APPENDIX I
EVENT ACTION PLANS

Appendix I:

Table I-1: Event / Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice: 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC, ER and Contractor; 3. Advise the WKCDA on the effectiveness of the proposed remedial measure; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and	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 ET on the effectiveness of the proposed remedial measures; and 5. Monitor Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; and 3. Amend proposal if appropriate.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	8. If exceedance stops, cease additional monitoring.			
LIMIT LEVEL				
1.Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and the ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; and 5. Monitor the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid furthrt exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	1. Notify IEC, the ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions;	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with IEC, agree with the Contractor on the remedial measures to be implemented;	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals;

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	possible mitigation to be implemented; 6. Arrange meeting with IEC, and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Monitor implementation of remedial measures.	4. Ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedances is abated.	4. Resubmit proposals if problem still not under control; and 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

Table I-2: Event / Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; and 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the monitoring data submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise ER; and 3. Advise the ER on the effectiveness of the proposed remedial measures.	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 measure to be implemented: and 4. Supervise the implementation of remedial measure.	1. Submit noise mitigation proposals to IEC and ER; and 2. Implement noise mitigation proposals.
Limit Level	1. Inform IEC, ER and Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase the monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on	1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions; and 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;	1. Confirm receipt of notification of failure in writing; 2. Notify the 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; and 5. If exceedance continues, consider	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to the IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; and 5. Stop the relevant portion of works as

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
	remedial measure required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.		stopping the Contractor to continue working in that portion of work which causes the exceedance until the exceedance is abated.	determined by the ER until the exceedance is abated.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

Table I-3: Event / Action Plan for Landscape and Visual Mitigation Measures

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Non-conformity on one occasion	Identify source. Inform IEC and ER. Discuss remedial actions with IEC, ER and Contractor. Monitor remedial actions until rectification has been completed.	Check report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures. Advise ER on effectiveness of proposed remedial measures. Check implementation of remedial measures.	Notify Contractor. Ensure remedial measures are properly implemented	Amend working methods to prevent recurrence of nonconformity. Rectify damage and undertake additional action necessary.
Repeated Nonconformity	Identify source. Inform IEC and ER. Increase monitoring frequency. Discuss remedial actions with IEC, ER and Contractor. Monitor remedial actions until rectification has been completed. If non-conformity stops, cease additional monitoring.	Check monitoring report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures. Advise ER on effectiveness of proposed remedial measures. Supervise implementation of remedial measures.	Notify Contractor. Ensure remedial measures are properly implemented.	Amend working methods to prevent recurrence of nonconformity. Rectify damage and undertake additional action necessary.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

APPENDIX J
SUMMARY OF EXCEEDANCE

Appendix J: Exceedance Report

(A) Exceedance Report for Air Quality

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract		Cumulative No. of Exceedance recorded
		Action Level	Limit Level	Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	0

(B) Exceedance Report for Construction Noise

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract		Cumulative No. of Exceedance recorded
		Action Level	Limit Level	Action Level	Limit Level	
Noise	$L_{eq(30\ min.)}$ dB(A)	0	0	0	0	7

APPENDIX K
ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
Air Quality Impact – Construction Phase							
3.91	2.2	**Dust Control Measures** To achieve compliance with the FSP, RSP and TSP criteria during the construction phase, good practices for dust control should be implemented to reduce dust impacts. The dust control measures are detailed as follows: • Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather. • Covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handing at the stockpile areas.	Construction Dust	Contractor	Project construction site / Duration of the construction phase / Prior to commencement of operation	Construction phase	^
		Relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted: **Good Site Management** • Good site management is important to help reduce potential air quality impact down to an acceptable level.					^
							^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		As a general guide, the Contractor should maintain high standards of housekeeping to prevent emissions of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or byproducts should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.					
		Disturbed Parts of the Roads • Main temporary access points should be paved with concrete, bituminous hardcore materials or metal plates and be kept clear of dusty materials; or • Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road wet.					*
		Exposed Earth • Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex,					^

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		vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.					
		Loading, Unloading or Transfer of Dusty Materials • All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.					^
		Debris Handing • Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. • Before debris is dumped into a chute, water should be sprayed onto the debris so that it remains wet when it is dumped.					^ ^
		Transport of Dusty Materials • Vehicles used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.					^
		Wheel Washing • Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the					*

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		construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.					
		Use of Vehicles • The speed of the trucks within the site should be controlled to about 10 km/hour in order to reduce adverse dust impacts and secure the safe movement around the site • Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. • Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.					^ ^ ^
		Site hoarding • Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.					*

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Noise Impact – Construction Phase							
4.4.6	3.2	**Good Site Practice** Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction: • Only well-maintained plant to be operated onsite and plant should be serviced regularly during the construction works; • Machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; • Mobile plant should be sited as far away from NSRs as possible; and • Material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	Maintain good site practice to minimise / avoid construction noise impact	Contractor	Within the Project site / During construction phase / Prior to commencement of operation.	Construction Phase	^ ^ ^ ^ ^
4.4.6	3.2	**Adoption of QPME** • QPME should be adopted as far as applicable.	Minimise/ avoid construction noise	Contractor	Within the	Construction Phase	^

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4.4.6	3.2	**Use of Movable Barriers** • Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs.	impacts to the surrounding NSRs		Project site / During construction phase / Prior to commencement of operation.		^
4.4.6		**Use of Noise Enclosure/ Acoustic Shed** • Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.					N/A
4.4.6		**Use of Noise Insulating Fabric** • Noise insulating fabric can also be adopted for certain PME (e.g. pilling machine etc.).					^
Water Quality Impact – Construction Phase							
5.6.1.1	4.2	**General Construction Activities** The following measures should be implemented: • Construction waste, debris and refuse generated on-site should be stored or contained appropriately to prevent them entering nearby watercourses or blocking stormwater drains. • Regular off-site removal of these materials should be maintained to minimise the volume of waste present on the construction site at any one time. • Stockpiles of construction materials such as cement and	Maintain good site practices to avoid pollution of water courses	Contractor	Within the Project site / During construction phase	Construction Phase	^ ^ ^

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		excavated material should be covered when not in use to reduce the potential for water pollution.					
5.6.1.2	4.2	**Construction Site Runoff** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended: • Temporary site drainage facilities are to be designed and implemented by the Contractor prior to commencement of construction to convey surface runoff to storm drains applying adequately designed silt/ sand removal traps and sediment basins. • Perimeter cut-off drains shall be installed in advance of any earthworks and site formation work to convey site runoff from the works areas to the silt removal facilities. • Runoff into the excavation areas during rainstorm events shall be minimised as far as practicable. Any wastewater pumped out of the excavation areas shall be treated to remove suspended solids prior to discharge. • Maintenance and inspection of the drainage system and sediment removal facilities should be carried out regularly to remove any sediment and blockages, especially when	Minimise / control construction site runoff to avoid pollution of water courses	Contractor	Within the Project site / During construction phase	Construction Phase	^ * ^ *

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		rainstorms are forecast. • Final surface levels should be compacted and final surface protections installed to prevent erosion caused by rainstorms. • Open stockpiles of material should be covered on site with waterproof layers such as tarpaulin to reduce the potential for sediment laden runoff entering the drainage system. • The wheels of all vehicles and plant should be cleaned before leaving the works areas to remove sediment, soil and debris from the tracks. The washwater should be treated to remove any suspended sediment. • Surface water from concrete batching areas and the rest of the site should be separated as far as possible. Wastewater from any concrete batching plant (if required) shall be treated to the required standards including pH adjustment and settlement of suspended sediments before discharging to stormwater drains • Manholes (including those constructed as part of the Project) should be adequately covered and temporarily sealed at all times to prevent silt, construction materials or debris from entering the drainage system, and to prevent					^ * * ^ ^

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		storm runoff from entering foul sewers. The discharge of surface runoff into foul sewers should be prevented so as not to overload the sewerage system. Discharges should be collected by the temporary drainage system installed by the Contractor and treated on-site to remove sediment prior to discharge to the off-site drainage areas. The Contractor is required to obtain a discharge licence from EPD under the WPCO for all discharges from site with all discharges meeting the water quality requirements of the Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS).					^
5.6.1.3	4.2	**Accidental Spillage of Chemicals** In accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C), the following measures should be implemented: • The labelling and storage of chemicals should be in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and maintained at all times by the Contractor. • Oils and fuels should only be stored in designated areas which have appropriate pollution prevention control	Prevent accidental discharge of chemicals into the surrounding environment	Contractor	Within the Project site / During construction phase	Construction phase	^ ^

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		facilities such as oil and grease traps. • The maintenance of vehicles should only be undertaken in areas of the site served by appropriate pollution prevention control facilities. • To prevent the spillage of fuels and solvents to nearby stormwater drains, all fuel tanks and storage areas should be locked and sited on sealed areas of the site, within bunded areas with a capacity equal to 110% of the storage capacity of the largest container. The bund should be kept free of surface water at all times and after each rainfall event.					^ ^
5.6.1.4	4.2	**Sewage from Construction Workforce** Portable toilets should be available throughout the construction phase and regularly maintained, collected and disposed by a licensed waste collector to a public sewage treatment works for suitable treatment.	Prevent discharge of sewage into the surrounding environment	Contractor	Within the Project site / During construction phase	construction phase	^
5.6.1.5	4.2	**Construction Works in Close Proximity to Inland Watercourses** Mitigation measures such as such as temporary diversions of existing drainage culverts/ watercourses before construction commences and during construction should be implemented, in addition to those listed in ProPECC Note PN1/94 *Construction*	Minimise/ control construction site discharges to avoid pollution of nearby watercourses	Contractor	Within the Project site / During construction phase	construction phase	

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		Site Drainage and ETWB TC (Works) No. 5/2005 Protection of Natural Streams/rivers from Adverse Impacts Arising from Construction Works. Measures include the following: • Stockpiling of construction materials and spoil, should be properly covered and located away from any natural stream/river. • Construction works close to the inland waters should be carried out in dry season as far as practicable where the flow in the surface channel or stream is low. • Removal of existing vegetation alongside the riverbanks should be avoided or minimised. When disturbance to vegetation is unavoidable, all disturbed areas should be hydroseeded or planted with suitable vegetation to blend in with the natural environment upon completion of works.					N/A N/A N/A
Waste Management Implications – Construction Phase							
7.5.1.1	6.2	**Good Site Practice** Recommendations for good site practices during the construction activities include: • 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	Implement good site practices to minimize waste generation	Contractor	Project construction site / Throughout construction stage / Until completion of all construction	Construction phase	^

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		appropriate facility, of all wastes generated at the site • Training of site personnel in proper waste management and chemical handling procedures • Provision of sufficient waste disposal points and regular collection of waste • Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers • Stockpiles of C&D materials should be kept covered by impervious sheets to avoid windblown dust • All dusty materials including C&D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the stockpile areas • Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads • Well planned delivery programme for off-site disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated			activities		* ^ ^ ^ ^ ^ ^
7.5.1.2	6.2	**Waste Reduction Measures**	Implement good	Contractor	Project	Construction phase	

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		Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: • Sort non-inert C&D materials to recover any recyclable portions • Segregation and storage of different types of waste in different containers or skips or stockpiles to enhance reuse or recycling of materials and their proper disposal • Encourage collection of recyclable waste such as waste paper and aluminum cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force • Proper site practices to minimize the potential for damage or contamination of inert C&D materials • Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste	management and control to minimize waste generation		construction site / Throughout construction stage / Until completion of all construction activities		^ ^ ^ ^ ^
7.5.1.3	6.2	**Inert and Non-inert C&D Materials** In order to minimise impacts resulting from collection and transportation of inert C&D materials for off-site disposal, the	Minimise impacts resulting from collection and transportation of inert C&D	Contractor	Project construction site / Throughout	Construction phase	^

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		inert C&D materials should be reused on-site as fill material as far as practicable. In addition, inert C&D materials generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation. The surplus inert C&D materials will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong. The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site. In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the DEVB Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the ETWB Technical Circular (Works) No. 19/2005 Environmental	materials		construction stage / Until completion of all construction activities		^ ^ ^

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		Management on Construction Site					
7.5.1.4	6.2	**Chemical Waste** If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the"Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidising, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended	Implement good practices to avoid chemical waste impact.	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	^

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7.5.1.5	6.2	**General Refuse** General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'windblown' light material.	Implement good practices to avoid odour nuisance or pest/vermin problem and waste impact.	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	^
Land Contamination – Construction Phase							
8.6.1	7.2	In any case where contaminated soil is identified after the commencement of works, a Contamination Assessment Plan (CAP) is required to be prepared for EPD's endorsement prior to the site investigation. The Contamination Assessment Report (CAR) and/ or Remediation Action Plan (RAP) should be prepared for EPD's approval after the site investigation. If land contamination is confirmed, remediation works should be carried out according to the approved RAP. A Remediation Report (RR) should also be prepared for EPD's endorsement to demonstrate that the clean-up of the contaminated land is completed. No construction work or development of the site should be carried out before the approval of the RR.	Assessment is required for EPD approval in any case where contaminated soil is identified	Contractor	Project construction site / Before construction stage	Design phase	N/A
8.6.1	7.2	The following mitigation measures are proposed for	Minimise impacts resulting	Contractor	Project	Construction phase	

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		contaminated material excavation and transportation of contaminated materials (if any), in order to minimise the potentially adverse effects health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials: • To minimise the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; • Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; • Stockpiling of contaminated excavated materials on site should be avoided as far as possible; • The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; • Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and / or release of contaminated wastewater; • Truck bodies and tailgates should be sealed to stop any	from excavation and transportation in the of contaminated materials		construction site / Throughout construction stage / Until completion of all construction activities		N/A N/A N/A N/A N/A N/A

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		discharge; • Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; • Speed control for trucks carrying contaminated materials should be exercised; • Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C) and obtain all necessary permits where required; and • Maintain records of waste generation, disposal quantities and disposal arrangements.					N/A N/A N/A N/A
Ecological Impact							
9.7.1	8.3	**Temporary Protective Fence for Flora Species of Conservation Interest** During construction phase, erection and maintenance of a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey is recommended. Monthly monitoring of any other flora species of conservation	To avoid potential impact on flora species of conservation interest from construction activities such as materials storage; To make sure that the flora species of conservation	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	^

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		interest identified in the detailed vegetation survey should be conducted during the construction phase.	interest are not affected by the construction activities of the project.				
Golden-headed Cisticola (Recommended Mitigation Measures from Baseline Survey Report of Golden-headed Cisticola)							
-	-	The following mitigation measures are proposed for minimizing noise impacts induced by construction works: • Silencers or mufflers on well-maintained construction equipment should be utilized and properly maintained during the construction program • Noise enclosure or acoustic shed should be effectively utilized, where practicable • Machines or equipment known to emit noise or light strongly in one direction should, wherever possible, be orientated the noise away from the adjacent habitat	Construction noise	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	N/A ^ ^
-	-	The following mitigation measures are proposed for minimizing light impacts: • Adjusting the outdoor lighting to lower intensity • Use of directional lighting to avoid light spill into sensitive areas • Control/timing of lighting periods of some facilities, particularly those close to the ecological sensitive receivers	To minimize the light disturbance to avifauna	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^ ^ ^

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-	-	**Drainage system** • Proper drainage system should be installed to collect and dispose rainwater • Installation of sediment/rubbish trapping facilities (e.g. catch pits or sand/silt traps to contain the increase in suspended solids and materials in the storm water drainage system so as to avoid pollutants being washed out during heavy rainstorms)	Prevent discharge of pollutant into the surrounding environment	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^ ^
-	-	**Good Site Practice Measures** • Placement of stockpiling into designated area should be selected at disturbed area in order to minimize the disturbance to wildlife • Open fire should be strictly prohibited • The boundary of project boundary should be clearly demarcated • General drainage system arrangement should include sediment and oil trapper to collect the site run-off • Waste bin should be provided to collect the general refuse and construction waste	To avoid potential impact on Golden-headed Cisticola	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^ ^ ^ ^ ^

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Landscape and Visual Impacts – Construction Phase							
Table 10.11	Table 9.1	CM01: Trees / woodland within the Project Site which are unaffected by the works shall be protected and preserved during the detailed design stage and construction phase. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at detailed design stage for further retention of individual trees. The preservation of existing tree shall provide instant greening and screening effect for proposed works. Tree protection works will be undertaken in accordance with DEVB TC(W) 7/2015 on "Tree Preservation" and tree risk assessment in accordance with "Guidelines for Tree Risk Assessment and Management Arrangement" by DEVB.	Preserve and protect existing trees	Contractor	Project area / During design stage / construction phase / Establishment Period	Design and construction phase	*
Table 10.11	Table 9.1	CM02: If removal of trees unavoidable due to construction impacts, trees will be transplanted where technically feasible in accordance with "Guidelines on Tree Transplanting" by DEVB and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit where applicable.	Preserve and protect existing trees	Contractor	Project area / During design stage / construction phase / Establishment Period	Design and construction phase	^
Table 10.11	Table	CM03: Construction area control, where possible, to ensure that	Minimise landscape and	Contractor	Project area /	Construction phase	^

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	9.1	the landscape and visual impacts arising from the construction activities are minimised. This includes the reduction of the extent and location of working areas to avoid sensitive LRs, siting of offices or temporary structures so that they are not visually prominent, and consideration of detailed schedules to shorten the construction period. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and areas of earthworks to alleviate the potential impacts and minimise soil erosion.	visual impacts.		During design stage / construction phase.		
Table 10.11	Table 9.1	CM04: Replanting of existing / disturbed vegetation shall be undertaken as soon as technically feasible during the construction phase. The priority shall be areas at the periphery of the site to ensure that proposed planting fulfils its role in mitigating the predicted impacts including screening views of the proposals as early as possible during the operation phase.	Maximise the mitigation effect of the planting to minimise landscape and visual impacts.	Contractor	Project area / During design stage / construction phase / Establishment Period	Construction phase	N/A
Table 10.11	Table 9.1	CM05: Decorative screen hoarding will be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs) to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.	Minimise landscape and visual impacts.	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase.	Construction phase	^

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Landscape and Visual Impacts (Recommended Mitigation Measures from Landscape and Visual Mitigation Plan)							
-	-	**Tree protection and preservation** a. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at the detailed design stage for further retention of individual trees. b. During construction period, retained trees will be protected from impact from construction activity as per General Specification for Civil Engineering Works (2006 Edition), Section 26 – Preservation and Protection of Trees and Guidelines on Tree Preservation during Development.	To avoid potential impact on retained tree from construction activities such as materials storage; To make sure that the retained tree are not affected by the construction activities of the Project	CEDD's and ArchSD's Contractors	CEDD: Along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police Facilities Site	Design and construction phase of CEDD's and ArchSD's Contracts	*
-	-	**Tree transplantation** a. If removal of trees unavoidable due to construction impacts, trees will be transplanted where technically feasible in accordance with "Guidelines on Tree Transplanting" by DEVB and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit where applicable.	To preserve the trees with conservation interest which are unavoidably affected by the construction activities.	CEDD's Contractors	The location of three *Aquilaria sinensis* at Site Portion B and D, and the receptor site for the transplanted trees opposite Portion B1 of the site.	Construction Stage of CEDD's contracts	^
-	-	**Work area and temporary works area**	To minimize the landscape	CEDD's and	CEDD: Along	Construction	^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		a. Reduction of the extent and location of working areas to avoid sensitive LRs b. Siting of offices or temporary structures so that they are not visually prominent c. Consideration of detailed schedules to shorten the construction period d. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and areas of earthworks to alleviate the potential impacts and minimise soil erosion.	and visual impacts by construction area control	ArchSD's Contractors	KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police Facilities Site	Stage of CEDD's and ArchSD's Contracts	^ ^ ^
-	-	**Advance implementation of mitigation planting** a. Replanting of existing / disturbed vegetation shall be undertaken as soon astechnically feasible during the construction phase.	To mitigate the predicted impacts including screening views of the proposals as early as possible during the operation phase.	CEDD's and ArchSD's Contractors	Whole project site area, priority given to periphery of the site	Construction Stage of CEDD's and ArchSD's Contracts	N/A
-	-	**Decorative screen hoarding** a. Decorative screen hoarding will be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs) b. It is proposed that the screening be compatible with the	To screen undesirable views of the works site.	CEDD's and ArchSD's Contractors	Along areas of the construction works site boundary where the works site borders publically	Construction Phase CEDD's and ArchSD's Contracts	^ ^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		surrounding environment and where possible, non-reflective, recessive colours be used.			accessible routes and/or is close to visually sensitive receivers (VSRs)		
-	-	**Detail design considerations** a. Detailed design of development components should reduce landscape footprint and visibility of structures.	To reduce the area allowed for any development to a practical minimum	CEDD's Detailed Designers / Consultants ArchSD's Detailed Designers / Consultants	CEDD: Along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police Facilities Site	Design Stage of CEDD's and ArchSD's Contracts	N/A
-	-	**Aesthetically pleasing design and responsive design of buildings and structures** a. The form, textures, finishes and colours of the proposed development components should be compatible with the existing surroundings. Light earthy tone colours such as shades of green, grey, brown and off-white may be utilised where technically feasible to reduce the visibility of the development components, including all roadwork, buildings and noise barriers etc	a. To reduce the visibility of the development components b. To further improve visual amenity c. To reduce the mass of development d. To minimise the 'wall	ArchSD's Detailed Designers / Consultants	Within KNP Police Facilities Site	Design Stage ArchSD's Contract	N/A

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		b. Adopting natural building materials such as stone and timber should be for architectural features, where technically feasible. c. Using responsive design for the disposition of the main elements of the proposed scheme including the locations of buildings and utility structures. d. Grouping of utilities and infrastructure components into proposed buildings as far as technically feasible to reduce the mass of development e. The disposition and height profile of the developments and above ground utilities structures to respond to the existing context particularly the existing landform and preserved trees, f. Creation of setbacks, articulating the development frontage and maintenance of view corridors when technically feasible	effects' and create a subtle transition at the edges of the site e. To enhance the sense of visual integration with the existing context, avoid abrupt transitions between the existing and proposed built environment and reduce the apparent visual mass of the proposed developments.				
-	-	**Design of engineering structure** a. The design of the proposed Engineering Structures such as the proposed road layout and any ancillary structures including the sewage pumping station and the Ma Tso Lung Firing Range should pay particular attention to the appearance and construction methods. b. The detailed design landscape consultants shall work in unison with the engineers on the aesthetic aspects of the structures and	To give the engineering structures a more natural appearance that allows them to blend into the local rural landscape.	CEDD's Detailed Designers / Consultants	Whole project site area	Design Stage of CEDD's Contracts	^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		their relationship with the landscape. c. The design of engineering structures shall avoid any unnecessary visual clutter achieved through the co-ordination of the various engineering disciplines involved to arrive at integrated design solutions.					
-	-	**Design of retaining walls and slopes** a. The proposed treatment of Retaining Wall and Slopes will be undertaken in accordance with GEO Publication No. 1/2011 "Technical Guidelines on Landscape Treatment and Bioengineering for Man-made Slopes and Retaining Walls". b. These engineering structures will be aesthetically enhanced through the use of soft landscape works including tree and shrub planting.	To give man-made slopes a more natural appearance blending into the local rural landscape.	CEDD's Detailed Designers / Consultants	Retaining walls and slopes within the whole site area	Design Stage of CEDD's Contracts	^
-	-	**Compensatory planting proposal** a. All compensatory planting of trees is to be carried out in accordance with DEVB TCW No. 7/2015. A total woodland compensation area of 5.54 ha is proposed. b. The planting proposals will utilise largely native species in accordance with GLTM/DEVB's - Guiding Principles on Use of Native Plant Species in Public Works Projects, c. Some compensatory shrub and ground cover planting will also	To compensate for the existing dead trees to be removed and create a more structurally diverse woodland.	CEDD's and ArchSD's Contractors	CEDD: Along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police	Construction Stage of CEDD's and ArchSD's Contract	N/A

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		be provided within the woodland area to create a more structurally diverse woodland. d. Woodland areas will utilise a combination of large sized tree stock (including heavy standard sized trees) and whip sized trees to create a more naturalistic e. The smaller, younger plant stock will adapt to their new growing conditions more quickly than larger sized stock and establish a naturalistic effect more rapidly. f. Roadside and amenity planting will utilise largely heavy standard sized trees.			Facilities Site		
-	-	**Landscape buffer tree planting** a. Tree planting using larger sized tree stock shall be provided to screen the proposed structures and associated facilities. b. The planting will utilise native species wherever possible.	To improve compatibility with the surrounding environment and create a pleasant pedestrian environment.	CEDD's and ArchSD's Contractors	CEDD: along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD : within KNP Police Facilities Site	Construction Stage of CEDD's and ArchSD's Contract	N/A
-	-	**Roadside and amenity planting (within KNP Police Facilitate Site)**	To enhance the landscape and visual quality of the existing and proposed	ArchSD's Contractor	KNP Police Facilities Site	Construction Stage of ArchSD's	N/A

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		a. Roadside and amenity planting using predominantly native species	transport routes and car parks.			Contract	
-	-	**Grassland (ecological mitigation)** a. Creation of new grassland areas approximately 1.02 ha in size. Inclusion of common grass species *Ischaemum barbatum* and *Tetradium glabrifolium* (the larval food plants for butterfly species).	To provide larval food plants for the butterfly species.	ArchSD's Contractor	ArchSD : within KNP Police Facilities Site	Construction Stage of ArchSD's Contract	N/A
-	-	**Green roof (within KNP Police Facilitate Site)** a. Green roofs predominantly using native species shall be introduced where technically feasible on proposed buildings to reduce exposure of untreated concrete surfaces b. Location and extent of green roof subject to detailed design.	To enhance the sustainability of the design and mitigate visual impact to VSRs at high levels	ArchSD's Contractor	Within KNP Police Facilitate Site	Construction stage of ArchSD's Contract	N/A
-	-	**Vertical greening** a. Vertical planting shall be introduced using predominantly native species. b. Planting to utilise climbing and trailing plants. Location and extent of vertical greening subject to detailed design.	To soften the hard, vertical surfaces of the proposed development components including the walls of the proposed buildings and retaining walls.	CEDD's and ArchSD's Contractors	CEDD: along KNP Road where applicable and slopes within KNP Police Facilitate Site ArchSD : within KNP Police Facilitate Site	Construction Stage of CEDD's and ArchSD's Contracts	N/A
-	-	**Green paving (within KNP Police Facilitate Site)**	To reduce the area of	ArchSD's Contractor	Within KNP	Construction stage	N/A

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		a. Green paving approach such as grass-crete or grass-grid to maximise the area of planting and reduce the area of hard paving b. Location and extent of green paving subject to detailed design of the ArchSD's contract. This includes the use of permeable paving where grass-crete / grass grid is not practicable.	hard paving		Police Facilitate Site	of ArchSD's Contracts	
-	-	**Light control (operation)** a. Street and night time lighting glare will be controlled	To minimize glare impact to adjacent VSRs during the operation stage.	HKPF and HyD	HKPF: Within KNP Police Facilitate Site HyD: Along Kong Nga Po Road	Operation Stage	N/A

Implementation status:

^ Mitigation measure was fully implemented

* Observation/reminder was made during site audit but improved/rectified by the contractor

\# Observation/reminder was made during site audit but not yet improved/rectified by the contractor

X Non-compliance of mitigation measure

• Non-compliance but rectified by the contractor

N/A Not Applicable at this stage as no such site activities were conducted in the reporting period

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 5.6.1.2; EM&A Log 4.2	Reinforced Concrete Structure Construction (Bridge Deck)	Kong Nga Po Road	Waste water pollution control	• Soil berm and retention pit will be provided for the control of water outflow • Desilting/sedimentation devices will be provided for wastewater treatment prior to discharge • Designated location for residual concrete washout	 By main contractor at KNP road
EIA 4.4.6; EM&A Log 3.2			Noise	• Well-planning of concreting works to prevent working in restricted hours • Deploy Quality Powered Mechanical Equipment (QPME) if possible	

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 4.4.6; EM&A Log 3.2	(Cont') Reinforced Concrete Structure Construction (Bridge Deck)	(Cont') Kong Nga Po Road	Working in Restricted Hours	• Valid construction noise permit should be obtained and displayed on site • In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out	 By main contractor at KNP road
EIA 7.5.1.4; EM&A Log 6.2			Chemicals for concreting works	• Chemical for concreting works should be stored in designated area with proper labelling and packing • Designated location for residual concrete washout	 By sub-contractor at KNP Road

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 3.91; EM&A Log 2.2	Slope Upgrading Works	Kong Nga Po Main Site Kong Nga Po Road	Dust impact from soil nail works	• Three side enclosure with top shelter for cement mixing works • Water spraying on soil nailing works • Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting	 By sub-contractor at KNP Road
EIA 5.6.1.2; EM&A Log 4.2			Water	• Deploy desilting/sedimentation devices for wastewater treatment prior to discharge • Establish soil berm with retention pit to control water outflow	 By main contractor at KNP Road

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 4.4.6; EM&A Log 3.2	(Cont') Slope Upgrading Works	(Cont') Kong Nga Po Main Site Kong Nga Po Road	Noise	• Regular inspection and maintenance of plant and equipment in good condition • Provide noise barriers for soil nailing works where near the sensitive receiver	 By sub-contractor at KNP Road
EIA 10.11, EM&A Log 9.4			Ecology Concern	• Provide training to frontline workers for the conservative species • Provision of protective fence for the conservative species • Regular inspection for concerned vegetation	 By main contractor at KNP Main Site

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA Table 10.11 EM&A Table 9.1	(Cont') Slope Upgrading Works	(Cont') Kong Nga Po Main Site Kong Nga Po Road	Landscape and visual impact	• Properly fenced off the conservative species • Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement	 By main contractor at KNP Road
EIA 3.91; EM&A Log 2.2	Road and Associated Works	Kong Nga Po Main Site Kong Nga Po Road	Air Dust impact from excavation activities and earth moving	• Use of regular water spraying (once every 1.25 hours or 8 times per day) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather • Regular inspection and maintenance of plant and equipment in good condition • Regularly clean up stockpiles and debris to avoid accumulation of materials	 By main contractor at KNP Road

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 5.6.1.2; EM&A Log 4.2	(Con't) Road and Associated Works	(Con't) Kong Nga Po Main Site Kong Nga Po Road	Water	• Provide desilting/sedimentation devices for wastewater treatment before discharge	 By main contractor at KNP Road
EIA 4.4.6; EM&A Log 3.2			Noise from roadworks	• Enclose the noisy part of machineries with noise isolating mats during hard surface breaking / for operating plants	 By sub-contractor at KNP Road

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 7.5.1.4; EM&A Log 6.2	(Con't) Road and Associated Works	(Con't) Kong Nga Po Main Site Kong Nga Po Road	Chemical Waste	• Drip tray and chemical spillage kit shall be provided on site	 By main contractor at KNP Road
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	• Properly fenced off the conservative species • Properly implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts	 By main contractor at KNP Road

APPENDIX L
WASTE GENERATION IN THE REPORTING MONTH

Name of Department: ~~ArchSD~~ / CEDD / ~~DSD~~ / ~~EMSD~~ / ~~HyD~~ / ~~WSD~~ Contracto No.: ND/2018/01

Environmental Permit No.: EP-510/2016

Monthly Summary Waste Flow Table for 2020

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	0.00304	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00304
Feb	0.00699	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00699
Mar	0.01294	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01294
Apr	0.02173	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02173
May	0.02534	0.00000	0.00000	0.00000	0.01329	0.00000	0.00000	0.00000	0.00000	0.00000	0.01205
Jun	0.10368	0.00000	0.00000	0.00000	0.00687	0.00000	0.00000	0.00000	0.00000	0.00000	0.09681
Sub-Total	0.17372	0.00000	0.00000	0.00000	0.02016	0.00000	0.00000	0.00000	0.00000	0.00000	0.15355
Jul	33.65416	0.00000	0.00000	33.07233	0.07872	0.00000	0.00000	0.00000	0.00000	0.00000	0.50311
Aug	26.60619	0.00000	0.00000	25.47880	0.48478	0.00000	0.00000	0.00000	0.00000	0.00000	0.64260
Sep	50.56237	0.00000	0.00000	48.88600	0.45676	0.00000	0.00000	0.00000	0.00000	0.00000	1.21961
Oct	41.97128	0.00000	0.00000	41.63335	0.02784	0.00000	0.00000	0.00000	0.00000	0.00000	0.31009
Nov	62.67238	0.00000	0.00000	61.98935	0.09226	0.00000	0.00000	0.00000	0.00000	0.00000	0.59077
Dec	61.43492	0.00000	0.00000	52.40582	8.76826	0.00000	0.00000	0.00000	0.00000	0.00000	0.26083
Total	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056

Name of Department: ~~ArchSD~~ / CEDD / ~~DSD~~ / ~~EMSD~~ / ~~HyD~~ / ~~WSD~~ Contracto No.: ND/2018/01

Environmental Permit No.: EP-510/2016

Monthly Summary Waste Flow Table for 2021

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Cumulative in 2020	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056
Jan	44.91877	0.00000	0.00000	20.33601	24.31886	0.00000	0.00000	0.00000	0.00000	0.00000	0.26389
Feb	13.08831	N/A	N/A	9.64034	3.40955	N/A	N/A	N/A	N/A	N/A	0.03841
Mar	35.52359	N/A	N/A	19.92956	15.50902	N/A	N/A	N/A	N/A	N/A	0.08501
Apr	42.22569	N/A	11.95500	7.21197	22.96688	N/A	N/A	N/A	N/A	N/A	0.09183
May	9.09491	N/A	4.13844	4.47821	0.43554	N/A	N/A	N/A	N/A	N/A	0.04272
Jun	40.50170	N/A	22.95720	16.78316	0.68899	N/A	N/A	N/A	N/A	N/A	0.07235
Sub-Total	462.42797	0.00000	39.05064	341.84492	77.25764	0.00000	0.00000	0.00000	0.00000	0.00000	4.27477
Jul	38.56656	N/A	2.04766	34.19166	2.26520	N/A	N/A	N/A	N/A	N/A	0.06204
Aug	32.57509	N/A	3.80440	23.63834	4.94379	N/A	N/A	N/A	N/A	N/A	0.18856
Sep	14.56695	N/A	13.46440	0.00000	0.99677	N/A	N/A	N/A	N/A	N/A	0.10578
Oct	6.10194	N/A	5.02740	0.00000	0.96228	N/A	N/A	N/A	N/A	N/A	0.11225
Nov	15.41373	N/A	14.04710	0.00000	1.25681	N/A	N/A	N/A	N/A	N/A	0.10982
Dec	16.44356	N/A	15.59920	0.00000	0.73992	N/A	N/A	N/A	N/A	N/A	0.10444
Total	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767

Name of Department: ~~ArchSD~~ / CEDD / ~~DSD~~ / ~~EMSD~~ / ~~HyD~~ / ~~WSD~~ Contracto No.: ND/2018/01

Environmental Permit No.: EP-510/2016

Monthly Summary Waste Flow Table for 2022

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Cumulative up to 2021	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767
Jan	15.52131	N/A	14.62310	0.00000	0.75883	0.00000	0.00000	0.00000	0.00000	0.00000	0.13939
Feb	0.75965	N/A	0.00000#	0.00000	0.68681	0.00000	0.00000	0.00000	0.00000	0.00000	0.07283
Mar	11.42694	N/A	11.19380	0.00000	0.13435	0.00000	0.00000	0.00000	0.00000	0.00000	0.09879
Apr	21.11792	N/A	20.93220	0.00000	0.03174	0.00000	0.00000	0.00000	0.00000	0.00000	0.15399
May	23.62989	N/A	22.75850	0.00000	0.78923	0.00000	0.00000	0.00000	0.00000	0.00000	0.08216
Jun	50.32256	N/A	49.84710	0.00000	0.38282	0.00000	0.00000	0.00000	0.00000	0.00000	0.09264
Sub-Total	708.87407	0.00000	212.39550	399.67493	91.20618	0.00000	0.00000	0.00000	0.00000	0.00000	5.59747
Jul	55.65088	N/A	54.26760	0.00000	0.37304	0.91776	0.00000	0.00000	0.00000	0.00000	0.09247
Aug	43.19611	N/A	29.70000	0.00000	8.72599	4.69637	0.00000	0.00000	0.00000	0.00000	0.07375
Sep	36.80396	N/A	33.21960	0.00000	3.50538	0.00000	0.00000	0.00000	0.00000	0.00000	0.07898
Oct	5.67507	N/A	5.40497	0.00000	0.19936	0.00000	0.00000	0.00000	0.00000	0.00000	0.07074
Nov	0.21425	N/A	0.00000	0.00000	0.10276	0.00000	0.00000	0.00000	0.00000	0.00000	0.11149
Dec	1.48147	N/A	0.00000	0.00000	1.26914	0.00000	0.00000	0.00000	0.00000	0.00000	0.21233
Total	851.89581	0.00000	334.98767	399.67493	105.38185	5.61413	0.00000	0.00000	0.00000	0.00000	6.23723

Name of Department: ~~ArchSD~~ / CEDD / ~~DSD~~ / ~~EMSD~~ / ~~HyD~~ / ~~WSD~~ Contracto No.: ND/2018/01

Environmental Permit No.: EP-510/2016

Monthly Summary Waste Flow Table for 2023

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Cumulative up to 2022	851.89581	0.00000	334.98767	399.67493	105.38185	5.61413	0.00000	0.00000	0.00000	0.00000	6.23723
Jan	1.74468	N/A	0.00000	0.00000	1.66413	0.00000	0.00000	0.00000	0.00000	0.00000	0.08055
Feb	6.16174	N/A	0.00000	0.37018	5.71394	0.00000	0.00000	0.00000	0.00000	0.00000	0.07762
Mar	1.48006	N/A	0.00000	0.00000	1.41025	0.00000	0.00000	0.00000	0.00000	0.00000	0.06981
Apr	0.64705	N/A	0.00000	0.00000	0.59785	0.00000	0.00000	0.00000	0.00000	0.00000	0.04921
May	0.61516	N/A	0.00000	0.00000	0.48302	0.00000	0.00000	0.00000	0.00000	0.00000	0.13215
Jun	0.93964	N/A	0.00000	0.00000	0.89660	0.00000	0.00000	0.00000	0.00000	0.00000	0.04303
Sub-Total	863.48415	0.00000	334.98767	400.04510	116.14764	5.61413	0.00000	0.00000	0.00000	0.00000	6.68960
Jul	1.55613	N/A	0.00000	0.00000	1.53049	0.00000	0.00000	0.00000	0.00000	0.00000	0.02564
Aug	0.00000	N/A									
Sep	0.00000	N/A									
Oct	0.00000	N/A									
Nov	0.00000	N/A									
Dec	0.00000	N/A									
Total	865.04027	0.00000	334.98767	400.04510	117.67813	5.61413	0.00000	0.00000	0.00000	0.00000	6.71524

Name of Department: ~~ArchSD~~ / CEDD / ~~DSD~~ / ~~EMSD~~ / ~~HyD~~ / ~~WSD~~ Contracto No.: ND/2018/01

Environmental Permit No.: EP-510/2016

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	Metal	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
630.500	0.000	190.000	358.000	78.000	0.000	0.000	0.000	0.000	0.000	4.500

Notes:

(1) Not Used.

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

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

(4) The summary table shall be submitted to the *Supervisor* monthly together with the Waste Flow Table for review and monitoring in accordance with the PS Clause 25.20A(4)

(5) The density of inert C&D is assumed 2.2 tonnes per cubic meter

(6) The density of non-inert C&D is assumed 1.5 tonnes per cubic meter

(7) The C&D materials generated before Jul 2020 are from domestic activities, site investigation, clearance, and preparation for surveying works

#Quantity to be included in Mar-2022 since lack of manpower of Survey Team for data logging in Feb-2022 due to Covid-19

*The quantity of Inert Materials reused in the contract to be updated upon surveying record

APPENDIX M
COMPLAINT LOG

Appendix M - Complaint Log

Reporting month: July 2023

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-001	EP3/N07/RN/18746-20	Kong Nga Po Road	19th August 2020	The complainant complained about the construction noise nuisance of the Kong Nga Po Road and requested noise monitoring and mitigation measures to lower the noise level.	According to the results from regular noise monitoring, no Limit Level Exceedance was recorded at sensitive receivers since the commencement of the construction of the Project. In addition, there was no environmental deficiency regarding construction noise impact recorded during site inspection. It is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works in July and August 2020. Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow: • Erect noise isolating mat at Portion B1 to reduce noise nuisance arising from the site Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site, such as: • Selection of quieter plant; • Provision of sufficient noise mitigation measures (e.g. movable noise barrier, noise enclosure. acoustic shed, noise insulating fabric etc.) for the site activities on nearby NSRs where appropriate. • To strengthen site supervision and provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					to the nearby residents during working hours as well as restricted hours.	
C-002	EP3/N07/RN/ 21538-20	Kong Nga Po Road	22nd September 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and pollution problem.	According to EM&A Manual of the Project, the complaint was referred to the ET for investigation. Ad-hoc site inspections were conducted by ET and IEC to identify the source of the complaint, review the effectiveness of the Contractor's remedial measures and the updated situation once received the complaint. According to the site inspection finding, no muddy effluent discharged from Portion D entrance was observed at Kong Nga Po Road. Wastewater generated from wheel washing, construction works or surface runoff was collected and treated in wastewater treatment facilities. Wastewater treatment facilities were functioning properly. No Limit Level exceedance for pH, suspended solid and chemical oxygen demand was recorded in effluent discharge monitoring. In order to avoid any circumstances that may lead to the complaint, ET and IEC have recommended enhancement on water quality mitigation measures. The Contractor had undertaken the follow up actions and additional mitigation measures on drainage system to minimize the water quality impact arising from the construction works as follow: • Provision of soil berm at edge near retaining wall DAM Bay 43-46 • Setting up of wastewater treatment facilities near wheel washing bay	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					• Re-formation of haul road in Portion D • Provision of soil berm near Platform B • Increase in capacity of retention pit near Platform B • Reinforcement of soil berm near excavation area and near retaining wall at Portion D to minimize water leakage • Regular maintenance of clear U-channel which was blocked by natural debris at Kong Nga Po Road Nevertheless, the Contractor was reminded to ensure the wastewater generated from construction works must comply with the condition stated in the Effluent Discharge license and enhance sediment control measure regarding storm water management to assure no muddy water is being discharged from the construction site. The environmental conditions of the site and the control of works will be continuously reviewed and monitored by the Supervisor, ET and IEC.	
C-003	N/A	Kong Nga Po Road	8th October 2020	The complainant complained about the muddy water discharged from construction site into Kong Nga Po Road during heavy rainfall. Also, he concerned if there is illegal discharge	According to the finding of *ad-hoc* site inspection, no muddy effluent discharge was observed on road surface and road drainage along the Kong Nga Po road section from construction site to the location of complaint during rainfall. Also, no direct slope surface and pathway for muddy water outflew from the site to the location of complaint was observed. Potential source of muddy water to the location of complaint is likely from	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				and if the design of drainage system is sufficient to handle the discharge.	natural surface runoff from shrubland and grassland along the Kong Nga Po Road during heavy rainfall. Continuous improvement works on the temporary drainage system at Project site have been conducted for water pollution control since September 2020. Regular checking were carried out by the Contractor to ensure the system is working properly. All wastewater were collected and treated to ensure discharge comply with condition stated in the Effluent Discharge Licence. In addition, the Contractor has taken the following mitigation measures to minimize the water quality impact arising from the construction works: ● Regular inspection and maintenance on sediment control measure at Project site; ● *Ad-hoc* inspection on the water pollution control measures at Project site before onset of the typhoon; ● Regular maintenance record on wastewater treatment facilities; and ● Provision of vegetated filter strips at outer side of existing soil berms and slope surface to act as natural filtration for water pollution control. The environmental condition of the site and the control of work will be continuously reviewed and monitored by the Supervisor, ET and IEC.	
C-004	N/A	Kong Nga Po Road	28th October 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and water pollution problem.		

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-005	N/A	Slope Feature A at Kong Nga Po Road	28th October 2020	The complainant complained about the noise generated from the construction activities at Slope Feature A that caused annoyance to his family.	According to the results from regular noise monitoring, no Limit Level exceedance was recorded at sensitive receivers during the time of complaint. In addition, there was no environmental deficiency regarding construction noise impact was recorded during site inspection. In view of the above, it is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works. Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow: ● Setting up of double layers of noise barrier to block the transmission of noise from breaking point to Noise Sensitive Receivers; ● Conducting internal noise monitoring to ensure the noise mitigation measures are properly implemented; and ● To check and maintain the noise insulating fabric enclosed the noisy part of the breaker. Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site , such as ● To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; ● To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; ● To provide regular training to the workers to	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours; ● To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area	
C-006	N/A	Portion C at Kong Nga Po Road	30th November 2020	The complainant complained about the noise nuisance from the construction activities at Portion C on Kong Nga Po Road.	No complaint investigation is required as this complaint has been withdrawn by the complainant.	Closed
C-007	N/A	Portion C at Kong Nga Po Road	30th November 2020	The complainant complained about the muddy water discharged from construction site into nearby drainage system and some oil slicks observed at the downstream of the drainage.	No complaint investigation is required as this complaint has been withdrawn by the complainant.	Closed
C-008	EP3/N07/RN/8845-21	Near Lamp Post BD2370 at Kong Nga Po Road	19th April 2021	The complainant complained about suspected dumping soil at nullah, causing blockage and flooding near lamp post BD2370.	According to the finding of *ad-hoc* site inspection conducted by the Contractor, no excavation nor construction works were carried out by ND/2018/01 near Lamp Post BD2370. Slope excavation was carrying out at Slope Feature 3NW-C/C38, the disposal was recorded and controlled by trip ticket system. Existing U-channel near slope toe had been covered	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					and surface runoff was guided to sedimentation tank by submersible pump. No discharge was taken place due to dry season and excavation was not a wastewater-generated activity. Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow: ● Excavated slop had been covered by erosion mat ● Strictly implemented trip ticket system to monitor the C&D waste disposal ● Deployed sufficient submersible pump and wastewater treatment facilities for the surface runoff treatment	
C-009	N/A	Kong Nga Po Road (Feature A)	22nd October 2021	The complainant complained about noise generated from rock breaking activities at Construction Site caused nuisance to his family and the village.	According to the results from regular noise monitoring, no Limit Level exceedance was recorded at the noise sensitive receivers during the construction works. In addition, there was no environmental deficiency regarding construction noise impact was recorded during site inspection. In addition, Contractor has also undertaken the follow up action as follow: ● The hammer of excavator had been wrapped with sound proof canvas; ● Silent-up retractable noise barriers were deployed for noise mitigation measure during the rock breaking works. Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site , such as:	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					● To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; ● To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; ● o provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours; and ● To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area.	
C-010	N/A	Kong Nga Po Road	18th November 2021	The complainant complained about noise and vibration generated from sheet-piling works and rock breaking works for pipe laying works at Kong Nga Po Road	Noise mitigation measures have been implemented for sheet-piling works as below: ● noisy part of sheet-piling plant has been enclosed by sound insulation materials; ● proactive environmental protection proforma has been prepared to identify the potential noise impact to NSRs and corresponding mitigation measures has been implemented; ● toolbox talk training for site engineers and frontline workers on construction noise suppression has been conducted. In addition, noise mitigation measures have been implemented for rock breaking activities as below: ● hammer of the excavator has been wrapped by	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					soundproofing material; ● checking and maintenance of the soundproofing material wrapped on the hammer has been implemented before operation; ● SilentUP Retractable Noise Barriers have been installed to block the noise transmission to the village of complainant; ● proactive environmental protection proforma has been prepared to identify the potential noise impact to NSRs and corresponding mitigation measures has been implemented; ● toolbox talk training for site engineers and frontline workers on construction noise suppression has been conducted; ● nearby villagers close to the rock breaking works have been informed before the commencement of the works Moreover, no Limit Level exceedance was recorded at the noise sensitive receivers during the construction works. There was also no environmental deficiency regarding construction noise impact at Kong Nga Po Road was recorded during site inspection. However, in order to avoid the recurrence of the complaint due to the rock breaking works at Feature A works area, alternative working methods such as the use of hydraulic splitters, hydraulic jaw crushers and rock sawing will be considered for the upcoming rock breaking works.	

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					Enhancement on the noise mitigation measures such as strengthening the use of noise barriers to enclose the noise source from rock breaking works and controlling the working period to avoid continuous noisy works will also be implemented for upcoming rock breaking works.	
C-011	N/A	Kong Nga Po Road near 警察訓練學校	22nd December 2021	The complainant complained about soil / muddy water discharging out from construction site near 警察訓練學校 at Kong Nga Po Road	Internal movement of excavated materials by dump truck were carried out by ND/2018/01 at 3NW-C/C37 near Lamp Post BD2369 and RD-A near Lamp Post BD2356, and both near the Police Dog Unit and Force Search Unit Training School as mentioned in the complaint. The following was observed during the investigation: ● wheel washing facilities have been provided for vehicles and plants leaving the works areas; ● the section before the site exits have been paved with backfall to prevent the wheel washing water from entering the public road; ● frontline worker was carrying out public road washing for public cleanliness in the perspective of the general public; ● no earth, mud or muddy water were deposited on roads. Enhancement measures have been carried out RD-A to restore the pavement quality and further prevent the wheel washing water from entering the public road.	Closed
C-012	N/A	Works Area Near Lamp Post	3rd May 2022	The complainant complained about the following issues:	The main construction works near the complaint location as stated by the complainant was the pre-boring works at works area “S0131” from 21 April	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
		GD0460 at Kong Nga Po Road		- Noise from construction activities that caused nuisance to public - Vibration may cause damage to nearby structure - Suspected muddy water discharged into private drainage	2022 to 30 April 2022. Observations have been spotted during the investigation as below: <u>Noise & Vibration</u> - Additional noise barrier has been erected for the pre-boring works to minimize the noise transmitted to the noise sensitive receiver (NSR) even the line of sight between the noise source point and the NSR was blocked by the natural barrier. <u>Muddy Water Discharge</u> - Wastewater Treatment Facilities has been in place and functioning to treat the wastewater generated from the pre-boring works. - discharged effluent from the wastewater treatment system for the works area "S0131" has been sampled on 25 April 2022 and the test report showed a result of Total Suspended Solid of < 1mg/L which complied with the requirement of < 30mg/L as stipulated in Discharge Licence. - no muddy water along the drainage near the complaint location was observed, the water flowing in the drainage was clean even after the heavy rainstorm on 12 May 2022. - no chemical along the drainage near the complaint location was observed. The following additional measures were implemented by the Contractor: <u>Noise & Vibration (26/4/2022)</u> - self-monitoring on noise at the NSR has been conducted and the result showed a noise level of	

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					Leq,T = 58.7dB(A) that no exceedance of noise level from the pre-boring works. - self-monitoring on vibration at the NSR has been conducted and the result showed a vibration level of 2.977mm/s that was far lower than the Peak Particle Velocity Limits of 15mm/s. <u>Muddy Water Discharge</u> - additional clearance works for the existing drainage to help to clear the soil accumulated in the drainage brought from nearby existing earth and to ensure no blockage of the drainage.	
C-013	N/A	Works Area Near Lamp Post BD2355 at Kong Nga Po Road	23rd June 2022	The complainant complained about vibration from construction activities that caused nuisance to a nearby Sensitive Receiver of the Police Dog Unit and Force Search Unit Training School (HKPDU)	The main construction works near the HKPDU mentioned by the complainant was the pre-boring works at Works Area "RD-A". The works were commenced on 11 June 2022 and completed on 21 June 2022. The following observations were made during the investigation: - no vibration was noticed during the site inspection at Works Area "RD-A" for the pre-boring works on 15 June 2022 - a difference in elevation (at least 3m) between the Works Area "RD-A" and the nearby Sensitive Receiver was formed after the completion of backfilling for the retaining wall system and might has already reduced the vibration transmission to the Sensitive Receiver The following additional measures were implemented by the Contractor:	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					- self-monitoring on vibration at the nearby Sensitive Receiver was conducted on 21 June 2022 and the result showed a vibration level of 0.348 mm/s that was far lower than the Peak Particle Velocity Limits of 15mm/s - feasibility of alternative working methods to further minimize the vibration to nearby Sensitive Receivers for upcoming pre-boring works at other works area will be considered by the Contractor	
C-014	N/A	Works Area Near Lamp Post GD0460 at Kong Nga Po Road	17th Aug 2022	The complainant complained about the muddy surface runoff flowing from the construction site into the private lots during rainy days	According to the finding of ad-hoc site inspection conducted during raining on 13 August 2022, the surface runoff was flowing from the carriageway surface and passing through Kong Nga Po Bridge works area, where had been hard paved, to the lower drainage. No muddy water generated from the construction works area was observed. The discharged effluent from the wastewater treatment system has been sampled on 24 July 2022 and the test report showed a result of Total Suspended Solid of < 1mg/L which complied with the requirement of < 30mg/L as stipulated in Discharge Licence. In addition, the suspected complaint location is an existing low-lying area even before the commencement of the construction. The water accumulation at the suspected location of complaint is considered due to the existing terrain according to the initial topographic survey records.	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					However, additional clearance works for the existing drainage would be conducted to clear the soil accumulated in the drainage brought from nearby existing earth and to ensure no blockage of the drainage.	
C-015	EP3/N07/RN/03386-23	Construction sites along the Kong Nga Po Road	7th Feb 23	The complainant complained about the sand and mud brought onto the traffic road by the dump trucks due to improper wheel washing before leaving the construction sites along the Kong Nga Po Road.	According to the investigation, Kong Nga Po Road involves different road users besides the construction site under Contract No. ND/2018/01 including some workshops and container yards while they also have interfaces with the public traffic road and vehicle in-and-out activities. Referring to the site inspection, no sand and mud at the site exit points were observed. Wheel washing measure was provided and wheel washing has been implementing at site exit points. As a preventive measures, workers performed road washing regularly to maintain cleanliness at interfaces. Based on the site condition and observations abovementioned, the complaint is considered non-project-related.	Closed
C-016	N/A	Works area "RD-D" at Kong Nga Po Road	6th Mar 23	The complainant complained about dust generated from construction activities without proper dust suppression measures	Site clearance and materials exportation works were conducting at the time of the complaint. The works were commenced on 2 March 2023 and completed on 8 March 2023. 1) Water spraying has been implementing at the site clearance areas during the works for dust suppression. 2) The surface maintained wet and no construction dust was observed during inspection. 3) the operator has controlled the dropping height from which the materials dropped into the dump bodies of	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					the dump truck to a practical minimum to prevent construction dust generation. According to the video provided by the complainant, the complaint is project related.	
C-017	N/A	Works area "Feature M" at Kong Nga Po Road	16th Mar 23	The complainant complained about dust generated from construction sites	According to the video provided by the complainant, the suspected location of complaint was the works area of Platform A under management of another contract where above the works area of Feature M under Contract No. ND/2018/01. 1) Dust was generated from works area at Platform A which is under management of another Contract. 2) Dust generated from works area at Platform A of another contract passing the works area of Feature M under Contract No. ND/2018/01where below Platform A. 3) No construction dust was observed at works area of Feature M during inspection on 18 March 2023. 4) Regular water spraying on exposed earth surfaces has been implementing for dust suppression for the works area of Feature M under Contract No. ND/2018/01. The complaint is project related since part of the location of complaint us under Contract No. ND/2018/01.	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-018	EP3/N07/RN/06950-23	Works area at RD-C1 at Kong Nga Po Road	15th Mar 23	The complainant complained about noise generated from construction activities	Sheet piles removal works under the Contract No. ND/2018/01 at works area of RD-C1 was commenced on 9 March 2023 and completed on 18 March 2023. Noise mitigation measures have been implemented during the works: 1) The view from the suspected location of complaint to noise source point of the sheet piles removal works has been blocked by the physical structure. 2) Self-monitoring on noise level at the suspected location of complaint has been conducted on 15 March 2023 during the sheet piles removal works. No Limit Level, 75B(A) exceedance was recorded.	Closed
C-019	N/A	Works Area – Feature M at Kong Nga Po Road	16th June 2023	Public complaint via 1823 received by DSD on 16 June 2023 and referred to CEDD on 21 June 2023. The complainant concerned the muddy water discharge from outfall and potential impact to the downstream natural stream during heavy rain.	The complaint is not project-related due to the investigation results as follow: - 1) manholes have been covered and no rain water can enter the drainage system at Feature M. 2) the level of manholes opening is higher than the backfill level of the platform and no surface runoff can enter the drainage system at Feature M. 3) no muddy water or surface runoff entering the drainage system at Feature M was observed. 4) the treatment of surface runoff at Feature M has followed the Temporary Drainage Management Plan (TDMP) rev. H that the surface runoff is diverted into and captured at the retention pit and then pumped into the Wastewater Treatment Plant at Abutment B for treatment before discharging into the existing catch pit. 5) the existing catch pit used for discharging the treated effluent is not connected to the newly	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					constructed outfall. 6) monthly sampling and testing for discharged effluent from the wastewater treatment plant has been conducted on 30 June 2022 and no exceedance was recorded.	

Cumulative Complaint Log

Reporting Period	Total no. of Complaint Received
This reporting month	0
From 3rd July 2020 to end of the reporting month	19

APPENDIX N
SUMMARY OF SUCCESSFUL PROSECUTION

Appendix N - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up	Total no. Received in this Reporting Month	Total no. Received since Project Commencement
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