


# 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 2021  
(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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Attention: Mr. William WONG

13 August 2021

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 2021**

I refer to the email from the Environmental Team concerning the captioned. I have no adverse comment on the Monthly Environmental Monitoring and Audit Report for July 2021 (Version 1.0) and verify the report according to Conditions 1.9 and 3.5 of Environmental Permit with permit number EP-510/2016.

Yours faithfully,

Kevin W.M. Li  
Independent Environmental Checker

cc. CEDD – K.M. CHENG  
AECOM - Gloria TANG  
ET Leader – Ivy TAM

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**EXECUTIVE SUMMARY****Introduction**

1. This is the 13<sup>th</sup> monthly Environmental Monitoring and Audit (EM&A) Report under the Work Contract (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 1<sup>st</sup> to 31<sup>st</sup> July 2021.

**Summary of Construction Works undertaken during the Reporting Month**

2. The major site activities undertaken in the reporting month include:
  - Site formation at Portion D
  - Retaining wall construction
  - Piling works (foundation socketed H-piles for Retaining Walls and Vehicular Bridge)
  - Stormwater Storage Tank and Sewage storage tank construction
  - Slope upgrading works
  - Road and associated works
  - Sewage trenchless works

**Environmental Monitoring and Audit Progress**

3. 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	2 <sup>nd</sup> , 6 <sup>th</sup> , 8 <sup>th</sup> , 12 <sup>th</sup> , 14 <sup>th</sup> , 16 <sup>th</sup> , 20 <sup>th</sup> , 22 <sup>nd</sup> , 26 <sup>th</sup> , 28 <sup>th</sup> and 30 <sup>th</sup> July 2021
Noise Monitoring	6 <sup>th</sup> , 8 <sup>th</sup> , 12 <sup>th</sup> , 14 <sup>th</sup> , 20 <sup>th</sup> , 22 <sup>nd</sup> , 28 <sup>th</sup> and 30 <sup>th</sup> July 2021
Ecological Monitoring	23 <sup>rd</sup> July 2021
Environmental Site Inspection	2 <sup>nd</sup> , 9 <sup>th</sup> , 16 <sup>th</sup> , 23 <sup>rd</sup> and 30 <sup>th</sup> July 2021

**Breaches of Action and Limit Levels**

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

**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 of the Contract		Action Taken
		Action Level	Limit Level	Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	N/A
Noise	L <sub>eq</sub> (30min)	0	0	0	0	N/A

### **Air Quality**

5. Construction air quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

### **Construction Noise**

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

### **Ecological Monitoring**

7. 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**

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

### **Environmental Complaint**

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

### **Notification of Summons and Successful Prosecutions**

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

### **Reporting Changes**

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

### **Future Key Issues**

12. The major site activities for the coming three months include:
  - Tree felling works
  - Site formation at Portion D
  - Retaining walls, storm water storage tank and sewage storage tank construction
  - Piling works (foundation socketed H-piles)
  - Road and associated works at Kong Nga Po Road
  - Slope upgrading works
  - Sewage trenchless works
  - Drainage and watermains trenchless works
13. Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality and waste management.

## 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 (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.

### Purpose of the report

- 1.2 This is the 13<sup>th</sup> EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 1<sup>st</sup> to 31<sup>st</sup> July 2021. The major construction works for the Project commenced on 3<sup>rd</sup> July 2020.

### Structure of the report

- 1.3 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 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 and monitoring schedule for the next three months.
- Section 10: **Conclusions and Recommendations**

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## 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&TTF, 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 The major construction activities of the Project are site formation and infrastructure works which will include site clearance, excavation and filling, construction of access road, utilities laying and landscaping works. As such, an air quality and noise monitoring programme is recommended in the approved Environmental Monitoring and Audit (EM&A) Manual during the construction phases of this Project to monitor the expected dust and noise nuisances. Baseline air quality and noise monitoring were conducted by ET from 14<sup>th</sup> March 2020 to 2<sup>nd</sup> April 2020 to establish the background conditions of the designated sensitive receivers prior to the commencement of the Project’s construction works.
- 2.7 The site layout plan for the Project is shown in **Figure 1**.

**Project Organization**

- 2.8 Different parties with different levels of involvement in the Project organization 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
- 2.9 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.
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Raymond Cheng	3152 3500	3547 1658
<i>Supervisor / Supervisor's</i> Representative (AECOM)	Chief Resident Engineer	Ms. Gloria Tang	9325 0836	3922 9797
Environmental Team (Wellab Limited)	Environmental Team Leader	Ms. Ivy Tam	2151 2090	2898 7076
Independent Environmental Checker (Acuity Sustainability Consulting Limited)	Independent Environmental Checker	Mr. Kevin Li	9779 2247	2693 9383
Contractor (Build King Construction Limited)	Site Agent	Mr. Book Kin Man	2272 3128	2528 1751
	Environmental Officer	Mr. Kyan Yan	5308 4367	

**Summary of Construction Works Undertaken During Reporting Month**

- 2.10 The major site activities undertaken in the reporting month included:
- Site formation at Portion D
  - Retaining wall construction
  - Piling works (foundation socketed H-piles for Retaining Walls and Vehicular Bridge)
  - Stormwater storage tank and Sewage storage tank construction
  - Slope upgrading works
  - Road and associated works
  - Sewage trenchless works

**Construction Programme**

- 2.11 A copy of Contractors' construction programme is provided in **Appendix A**.

**Status of Environmental Licences, Notifications and Permits**

- 2.12 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	
<b>Environmental Permit (EP)</b>			
EP-510/2016	N/A	N/A	Valid
<b>Construction Noise Permit (CNP)</b>			
GW-RN0049-21	15-2-2021	14-8-2021	Valid
GW-RN0048-21	15-2-2021	14-8-2021	Valid
GW-RN0330-21	24-5-2021	20-11-2021	Valid
GW-RN0398-21	8-6-2021	7-9-2021	Valid
GW-RN0425-21	1-7-2021	30-11-2021	Valid
<b>Notification pursuant to Air Pollution Control (Construction Dust) Regulation</b>			
EPD Ref no.: 451555	N/A	N/A	N/A
<b>Billing Account for Construction Waste Disposal</b>			
Account No. 7036173	24-12-2019	N/A	Valid
<b>Registration of Chemical Waste Producer</b>			
Waste Producer No. 5213-641-B2590-01	18-5-2020	N/A	Valid
<b>Effluent Discharge Licence under Water Pollution Control Ordinance</b>			
WT00035709-2020	11-5-2020	31-5-2025	Valid

**Summary of EM&A Requirement**

2.13 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**

2.14 The status of compliance with Environmental Permit (EP) No. EP-510/2016 and required submission related to this Project under the EP is summarised 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	3 <sup>rd</sup> June 2020	*
2.7	Proposal on the Reporting Mechanism and Curriculum Vitae of the IEC	6 <sup>th</sup> February 2020	*
2.11	Management Organizations	9 <sup>th</sup> March 2020	*
2.12	Construction Works Schedule and Location Plans	20 <sup>th</sup> March 2020	*
2.13 & 2.14	Detailed Vegetation Survey Report (Version 1.0)	2 <sup>nd</sup> April 2020	Approved
	Detailed Vegetation Survey Report (Version 2.0)	8 <sup>th</sup> May 2020	
	Detailed Vegetation Survey Report (Version 3.0)	9 <sup>th</sup> July 2020	
2.4 & 2.14	Transplantation Proposal (Version 1.0)	2 <sup>nd</sup> April 2020	Approved
	Transplantation Proposal (Version 2.0)	8 <sup>th</sup> May 2020	
	Transplantation Proposal (Version 3.0)	9 <sup>th</sup> July 2020	
2.15	Baseline Survey Report for Golden-Headed Cisticola	9 <sup>th</sup> March 2020	Approved
2.16	Explanatory Statement for Revised Layout Plan of Kong Nga Po Road	10 <sup>th</sup> March 2020	Approved
2.18 & 2.19	Landscape and Visual Mitigation Plan	7 <sup>th</sup> April 2020	Approved
	Landscape and Visual Mitigation Plan (Revised Final Rev. 4)	28 <sup>th</sup> 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	N/A
2.23	Helicopter Flight Plan	To be submitted at least one month before the commencement of operation of the Helipad	N/A
3.4	Baseline Air Quality and Noise Monitoring Report	20 <sup>th</sup> April 2020	*
3.4	Baseline Monitoring Report for Landscape and Visual Resources	21 <sup>st</sup> 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	4

- 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 is 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 ( $\mu\text{g}/\text{m}^3$ )		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
AM1	97.8	44.9 – 175.8	308	500
AM2	53.0	30.2 – 85.3	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, excavator, dump truck, other site (crane)
AM2	Road traffic, excavator, mobile crane, roller

### Event and Action Plan

- 3.15 Should project-related non-compliance of the criteria occur, action in accordance with the 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 ( $L_{eq}$ ) 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 conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **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 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 Meter was used for impact noise monitoring. The meters are Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level ( $L_{eq}$ ) and percentile sound pressure level ( $L_x$ ) 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	2
Acoustical Calibrator	SV30A	1

### 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 <sub>10</sub> (30 min.) dB(A) <sup>[2]</sup> L <sub>90</sub> (30 min.) dB(A) <sup>[2]</sup> L <sub>eq</sub> (30 min.) dB(A) <sup>[2]</sup> (as six consecutive L <sub>eq, 5min</sub> readings)	0700-1900 hrs on normal weekdays	Once per week	Free field <sup>[1]</sup>
NM2				Free field <sup>[1]</sup>
NM3				Facade
NM4				Facade
NM5				Facade
NM6				Free field <sup>[1]</sup>
NM7				Facade
NM8				Free field <sup>[1]</sup>
NM9				Free field <sup>[1]</sup>
NM10				Free field <sup>[1]</sup>
NM11				Facade
NM12				Facade
NM13				Free field <sup>[1]</sup>
NM14				Free field <sup>[1]</sup>

Remarks:

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

[2]: A-weighted equivalent continuous sound pressure level (L<sub>eq</sub>). 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<sub>10</sub> 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<sub>10</sub>.

L<sub>90</sub> 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:

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– frequency weighting	: A
– time weighting	: Fast
– time measurement	: $L_{eq(30 \text{ min.})}$ dB(A) (as six consecutive $L_{eq, 5\text{min}}$ 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**

<b>Monitoring Station</b>	<b>Average L<sub>eq</sub> (30 min) dB(A)</b>	<b>Range L<sub>eq</sub> (30 min) dB(A)</b>	<b>Baseline Level dB(A)</b>	<b>Limit Level dB(A)</b>
NM1 <sup>[1]</sup>	58.4	53.7 – 61.2	54.9	75.0
NM2 <sup>[1]</sup>	63.9	60.9 – 67.0	56.7	
NM3	60.9	59.6 – 61.9	54.5	
NM4	64.6	59.4 – 67.2	58.7	
NM5	62.9	57.5 – 65.4	57.0	
NM6 <sup>[1]</sup>	63.8	55.4 – 65.9	56.0	
NM7	63.0	54.9 – 66.4	49.8	
NM8 <sup>[1]</sup>	58.0	53.9 – 61.4	57.6	
NM9 <sup>[1]</sup>	65.4	57.3 – 69.8	55.9	
NM10 <sup>[1]</sup>	55.5	52.7 – 56.7	52.8	
NM11	50.4	45.6 – 52.9	46.4	
NM12	66.1	54.0 – 69.8	54.7	
NM13 <sup>[1]</sup>	54.6	49.5 – 58.8	61.3	
NM14 <sup>[1]</sup>	53.8	52.4 – 56.0	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.
- 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**

<b>Monitoring Station</b>	<b>Major Noise Source</b>
NM1	Road traffic, piling
NM2	Road traffic, mobile crane, piling, pile driver
NM3	Road traffic, mobile crane, piling
NM4	Road traffic, excavator
NM5	Road traffic, excavator, dump truck
NM6	Road traffic, excavator, piling
NM7	Road traffic, excavator
NM8	Road traffic, excavator
NM9	Road traffic, excavator
NM10	Road traffic
NM11	Road traffic
NM12	Road traffic, excavator
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 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 monitoring 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.
- 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. 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.

### Results and Observations

- 5.6 Monthly monitoring of flora species of conservation interest was conducted by ET on 23<sup>rd</sup> July 2021 during the reporting month. The implementation status of protection measures as stated in approved transplantation proposal 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 H**.

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Transplanted *Brainea insignis* and *Spiranthes sinensis*

- 5.7 71 individuals of *Brainea insignis* and 41 individuals of *Spiranthes sinensis* were transplanted to receptor site from 21<sup>st</sup> to 26<sup>th</sup> 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 were 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 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. Post-transplantation monitoring on transplanted *Brainea insignis* and *Spiranthes sinensis* was conducted on 31<sup>st</sup> July 2021 during the reporting month and the post-transplantation monitoring record is shown in **Appendix H**. The health condition of the transplanted species affected by bushfire were closely monitored and reported in the post-transplantation monitoring record.
- 5.8 During monthly monitoring, no construction activity and equipment storage was observed within the receptor site. Temporary protective fence were properly erected and maintained for the transplanted species.

Transplanted *Aquilaria sinensis*

- 5.9 3 individuals of *Aquilaria sinensis* were transplanted to receptor site from 3<sup>rd</sup> to 19<sup>th</sup> 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 were 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 condition 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. Post-transplantation monitoring on transplanted *Aquilaria sinensis* was conducted on 31<sup>st</sup> July 2021 during the reporting month and the post-transplantation monitoring record is shown in **Appendix H**.
- 5.10 During monthly monitoring, no construction activity and equipment storage was observed within the receptor site. Temporary protective fence were properly erected and maintained for the transplanted species.

Retained *Keteleeria fortunei* and *Aquilaria sinensis*

- 5.11 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.
- 5.12 During monitoring, a retained individual of undersized seedling of *Keteleeria fortunei* was found collapsed due to internal decay. No construction activity was observed within the area of retained species. Temporary protective fence were properly erected and maintained for the retained species. The photographic record for the collapsed individual is shown in **Appendix H**.

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

Recommended Mitigation Measures	Implementation Status
<b><i>Brainea insignis</i></b>	
<b>Identification of Plant Species of Conservation Importance to be Retained / Transplanted</b> To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
<b>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</b> 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
<b>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Post-transplantation Monitoring</b> a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	^
<b>Maintenance of Transplanted Species</b> 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.	^ ^ ^
<b>Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas</b> 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.	^ ^ ^ ^ ^ ^ ^ ^ ^ ^

Recommended Mitigation Measures	Implementation Status
<b><i>Spiranthes sinensis</i></b>	
<b>Identification of Plant Species of Conservation Importance to be Retained / Transplanted</b> To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
<b>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</b> 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
<b>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Post-transplantation Monitoring</b> a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	^
<b>Maintenance of Transplanted Species</b> 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.	^ ^ ^
<b>Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas</b> 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.	^ ^ ^ N/A ^ ^ N/A ^ N/A ^

Recommended Mitigation Measures	Implementation Status
<b><i>Keteleeria fortunei</i></b>	
<b>Identification of Plant Species of Conservation Importance to be Retained / Transplanted</b> To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
<b>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</b> 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
<b>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Post-transplantation Monitoring</b> a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	N/A
<b>Maintenance of Transplanted Species</b> 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
<b>Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas</b> 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.	^ ^ ^ ^ ^ ^ ^ ^ ^ ^

Recommended Mitigation Measures	Implementation Status
<b><i>Aquilaria sinensis</i></b>	
<b>Identification of Plant Species of Conservation Importance to be Retained / Transplanted</b> To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
<b>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</b> 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
<b>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree</b> 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.	^ ^
<b>Post-transplantation Monitoring</b> a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	^
<b>Maintenance of Transplanted Species</b> 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.	^ ^ ^
<b>Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas</b> 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

5.13 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

5.14 Site audit were conducted by ET on weekly basis to monitor the timely implementation of the recommended mitigation measures by the Contractor on the Contract 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 will be provided by the Contractor to site staff and frontline workers. Presence of avifauna and bird nest will be checked prior to site clearance work.

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**Precautionary Measure for Butterfly Species of Conservation Interest**

- 5.15 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.
- 5.16 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**

- 5.17 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 Contract 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 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 on 2<sup>nd</sup>, 9<sup>th</sup>, 16<sup>th</sup>, 23<sup>rd</sup> and 30<sup>th</sup> July 2021 in the reporting month. Joint site audits with the representative of the *Supervisor's* Representative, the Contractor and IEC were carried out on 9<sup>th</sup>, 16<sup>th</sup>, 23<sup>rd</sup> and 30<sup>th</sup> July 2021.
- 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	2/7/2021	<u>Reminder</u> The three-side enclosure with top shelter at DA-C should be enhanced to ensure the cement de-bagging work is properly conducted inside avoiding dust impact.	Improvement/Rectification was observed during follow-up audit session on 9/7/2021.
	9/7/2021	<u>Reminder</u> NRMM Label was observed faded, Contractor was reminded to replace the NRMM Label. (DA-M Bay 26)	Improvement/Rectification was observed during follow-up audit session on 16/7/2021.
Construction Noise Impact	25/6/2021	<u>Reminder</u> Provide noise mitigation measures for noisy part of breaker.	Improvement/Rectification was observed during follow-up audit session on 2/7/2021.
	9/7/2021	<u>Reminder</u> Compressor should be operated with doors closed. (DA-M Bay 26)	Improvement/Rectification was observed during follow-up audit session on 16/7/2021.
Water Quality	25/6/2021	<u>Reminder</u> To ensure wastewater are properly treated in wastewater treatment facilities before discharge at Retaining Wall C.	Improvement/Rectification was observed during follow-up audit session on 2/7/2021.
	9/7/2021	To provide water mitigation measures at Sewage Treatment Tank.	Improvement/Rectification was observed during follow-up audit session on 16/7/2021.
	30/7/2021	<u>Reminder</u> Public road near site entrance should be clean and free of dust. (near new wheel washing bay)	Follow-up action is needed to be reported in the following month.
	30/7/2021	Proper review the capacity of wastewater treatment facilities at Abutment A.	Follow-up action is needed to be reported in the following month.
Waste/ Chemical Management	9/7/2021	<u>Reminder</u> Drip tray should be provided for chemical storage. (DA-M Bay 26)	Improvement/Rectification was observed during follow-up audit session on 16/7/2021.
	9/7/2021	<u>Reminder</u> To clear the stagnant water in drip tray. (DA-M Bay 26)	Improvement/Rectification was observed during follow-up audit session on 16/7/2021.

Parameters	Date	Observations	Follow Up Action
	9/7/2021	<u>Reminder</u> General refuse should be disposed of properly. (DA-M Bay 26)	Improvement/Rectification was observed during follow-up audit session on 16/7/2021.
	16/7/2021	<u>Reminder</u> Replace damaged drip tray for air compressor (Hin Sum container office).	Improvement/Rectification was observed during follow-up audit session on 30/7/2021.
	16/7/2021	<u>Reminder</u> Clear the drip tray and plug the opening of the drip tray. (Hin Sum container office)	Improvement/Rectification was observed during follow-up audit session on 30/7/2021.
	16/7/2021	<u>Reminder</u> Chemical container should be stored in drip tray provided (Hin Sum container office)	Improvement/Rectification was observed during follow-up audit session on 23/7/2021.
	16/7/2021	<u>Reminder</u> Clear general refuse at Abutment B.	Improvement/Rectification was observed during follow-up audit session on 23/7/2021.
	23/7/2021	Provide drip tray for air compressors to prevent oil leakage at M6z.	Improvement/Rectification was observed during follow-up audit session on 30/7/2021.
	23/7/2021	<u>Reminder</u> Provide proper receptacles for collection of general refuse at Abutment B.	Improvement/Rectification was observed during follow-up audit session on 30/7/2021.
	23/7/2021	<u>Reminder</u> Replace damaged drip tray for air compressor at Him Sum Container office.	Improvement/Rectification was observed during follow-up audit session on 30/7/2021.
	23/7/2021	<u>Reminder</u> Clear the stagnant water and maintain drip tray well at Hum Sum Container office and M61.	Improvement/Rectification was observed during follow-up audit session on 30/7/2021.
	30/7/2021	<u>Reminder</u> To avoid oil leakage from drip tray. (near Tak Wan container)	Follow-up action is needed to be reported in the following month.
<b>Landscape and Visual</b>	25/6/2021	<u>Reminder</u> Avoid stockpile of construction materials near retained tree at Retaining Wall C.	Improvement/Rectification was observed during follow-up audit session on 2/7/2021.
	25/6/2021	<u>Reminder</u> Maintain the protection zone for retained trees properly at Portion B1.	Improvement/Rectification was observed during follow-up audit session on 2/7/2021.
	9/7/2021	Stockpile of construction materials should be avoided within the tree protection zone and properly erect the protective fence at Portion A	Improvement/Rectification was observed during follow-up audit session on 16/7/2021.
	23/7/2021	Retained trees should be well protected from damage by construction activities at Portion A1.	Improvement/Rectification was observed during follow-up audit session on 30/7/2021.
<b>Ecology</b>	--	No environmental deficiency was identified during the reporting month.	--
<b>Permit/Licences</b>	--	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,

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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**.

### **Solid and Liquid Waste Management Status**

- 7.5 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.
- 7.6 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.
- 7.7 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**.
- 7.8 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 in the reporting month. The summary of exceedance record in reporting month is shown in **Appendix J**.
- 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.

### 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 No environmental complaint was 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 programme for the Project is provided in **Appendix A**. The major construction activities undertaken in the coming three months will include:

- Tree felling works
- Site formation at Portion D
- Retaining walls, storm water storage tank and sewage storage tank construction
- Piling works (foundation socketed H-piles)
- Road and associated works at Kong Nga Po Road
- Slope upgrading works
- Sewage trenchless works
- Drainage and watermains trenchless works

9.2 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**.

### Monitoring Schedule for the Next Month

9.4 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 2021 in accordance with EM&A Manual.
- 10.2 No Action/Limit Level exceedance was recorded for air quality and construction noise monitoring in the reporting month.
- 10.3 Environmental site inspections were conducted on 2<sup>nd</sup>, 9<sup>th</sup>, 16<sup>th</sup>, 23<sup>rd</sup> and 30<sup>th</sup> July 2021 by ET in the reporting month. No environmental non-compliance was recorded in the reporting month.
- 10.4 No environmental complaint and 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 provide dust mitigation measures for dusty work like grouting during operation;
- To cover stockpile of dusty materials for dust suppression; and
- To deploy dust screen for socketed H pile during piling work.

#### *Construction Noise Impact*

- To provide temporary noise barriers for operations of noisy equipment.

#### *Water Impact*

- To keep review on and enhance the sediment control measures regarding the storm water management, especially during the rainy season;
- To divert all the water generated from construction site to de-silting facilities with enough handling capacity before discharge; and
- To ensure surface runoff discharge to temporary drainage and treated before discharging.

#### *Waste/Chemical Management*

- To maintain the drip tray well to prevent oil and chemical leakage

#### *Landscape & Visual Impact*

- To avoid any construction materials being placed inside the tree protection zone; and
- To erect and maintain the protection fence around the retained trees.

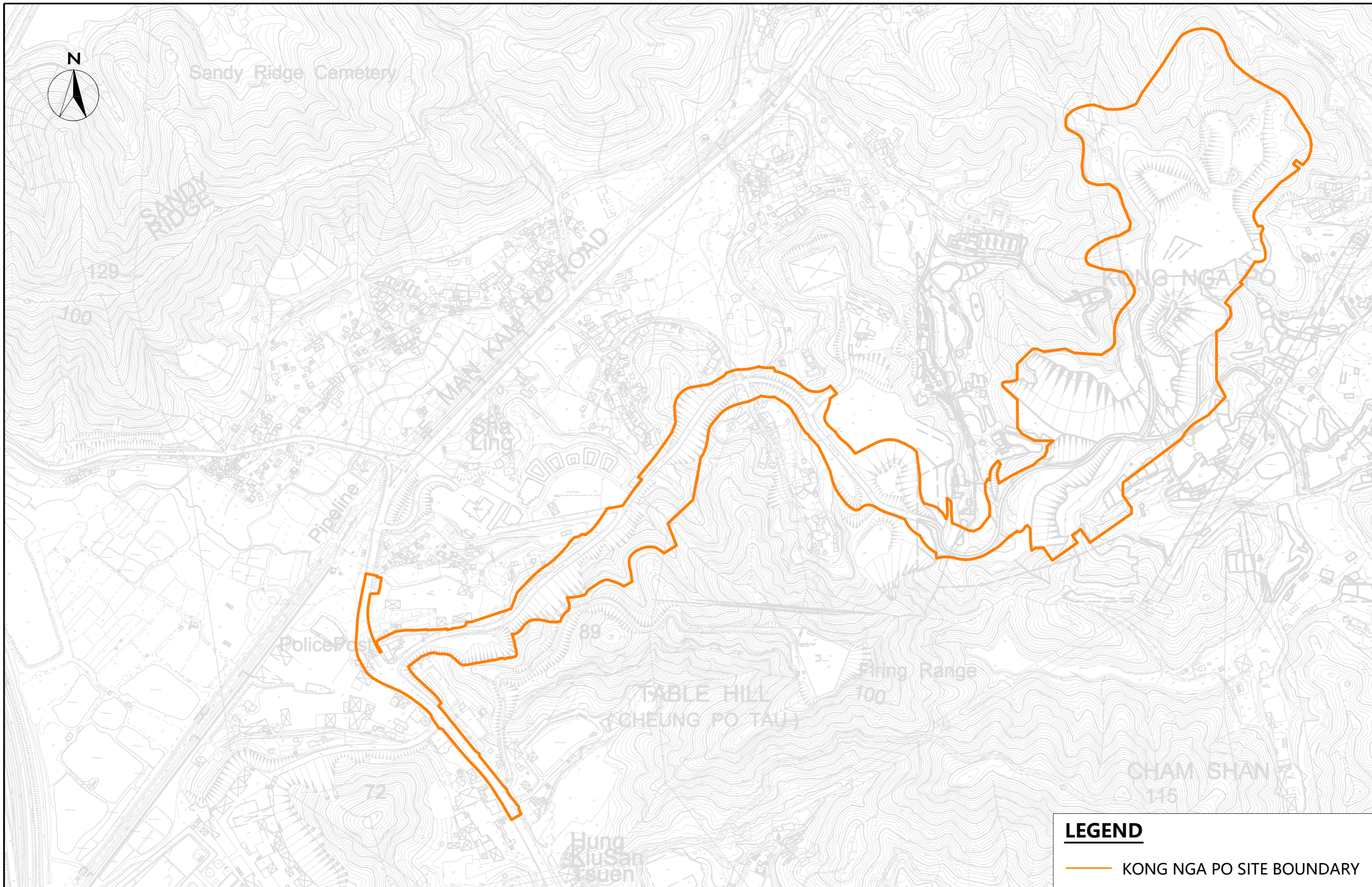
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**FIGURE(S)**

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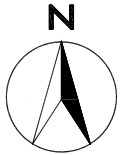


<b>LEGEND</b>			
—		KONG NGA PO SITE BOUNDARY	

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	MAY 2020
CHECK	IT	DRAWN	KIKI
JDB No.	WMA20001	FIGURE No.	1
		REV	—

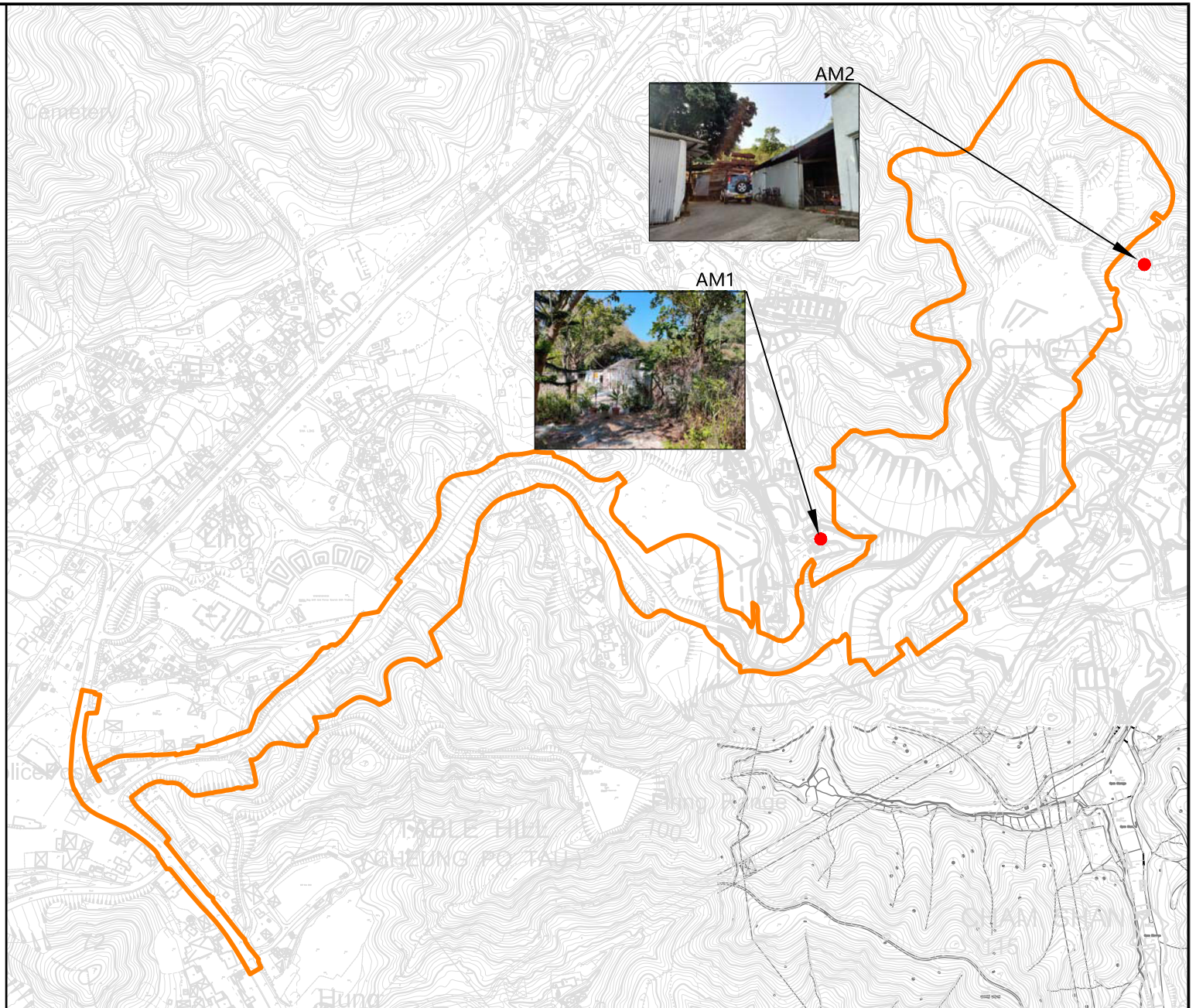


**LEGEND**

 SITE BOUNDARY

 AIR QUALITY MONITORING STATIONS

AIR QUALITY MONITORING STATIONS	
I.D	Description
AM1	Village House, Kong Nga Po
AM2	Village House, Kong Nga Po





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

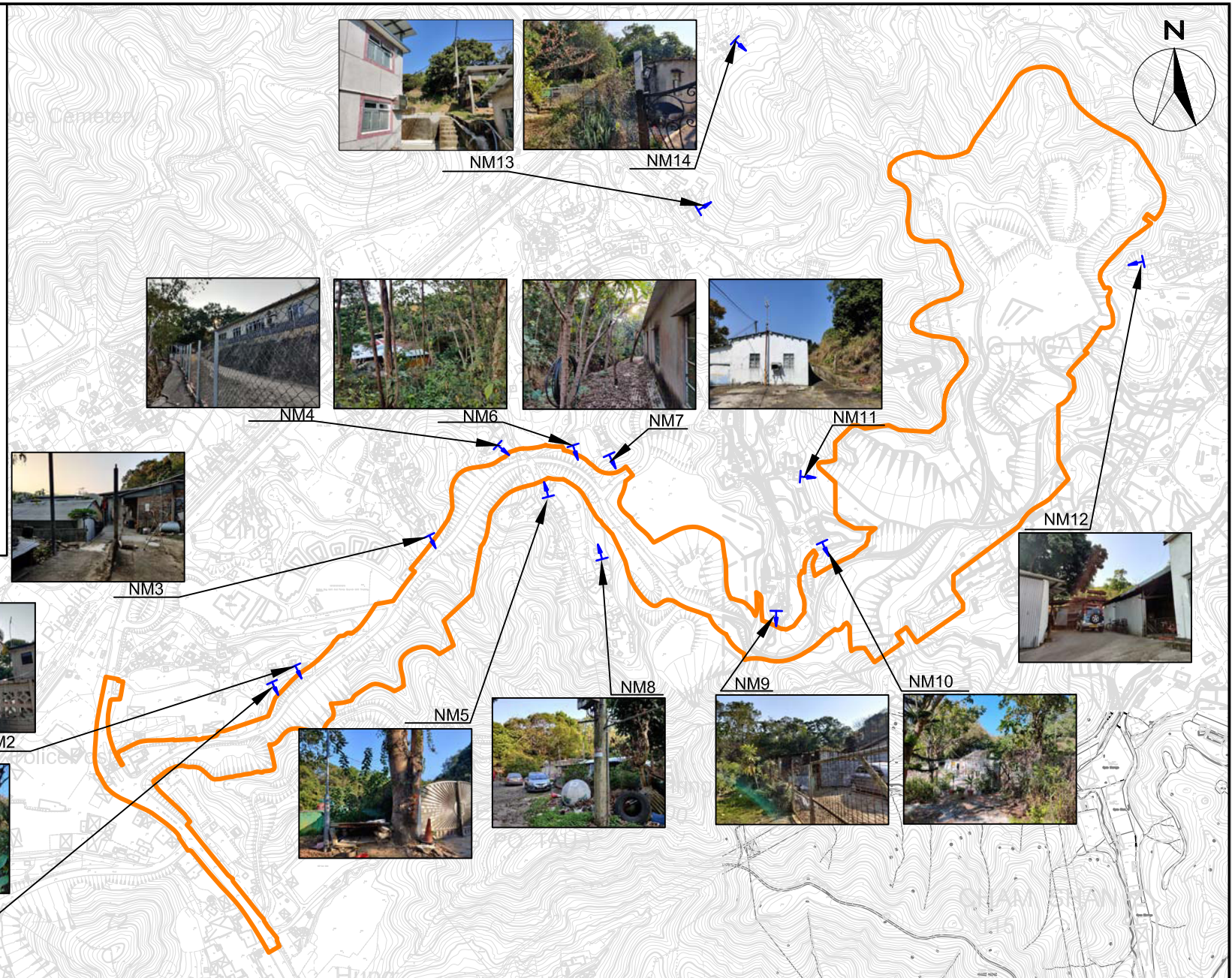
**Air Quality Monitoring Stations**

SCALE	A4 @ 1:50000	DATE	JUL 2020	
CHECK	IT	DRAWN	NL	
JOB No.	WMA20001	FIGURE NO.	2	REV —

**LEGEND**

-  SITE BOUNDARY
-  NOISE 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



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	JUL 2020	
CHECK	IT	DRAWN	NL	
JOB No.	WMA20001	FIGURE NO.	3	REV —

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**APPENDIX A  
CONSTRUCTION PROGRAMME AND  
PROACTIVE ENVIRONMENTAL  
PROTECTION PROFORMA**

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Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Activity % Complete	2021				
							Jul	Aug	Sep	Oct	Nov

Monthly Update (31 July 2021)

**Dates**

Contractor's Entitlement in Completion Date

CD.E.S7	Section 7	0	0		05-Aug-21*	0%
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**Contract Submission**

General Submission

GS-1750	Design of Road Lighting System [PS-31.1]	90	183	30-Jan-21 A	09-Aug-21	90%
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**Works in KD1 and KD2 (Portion A, A1, B, B1, & B2)**

Submissions and Approvals

Preliminary Works

KD.PW-1150	Site Clearance	50	327	26-Jun-20 A	04-Aug-21	95%
KD.B.RD-1100	Tree Felling Works	7	327	26-Jun-20 A	03-Aug-21	80%

**Portion A and A1**

Road, Drain and Utilities Works

**Watermains by Trenchless Method**

Jacking Pit Modification

KD.A.RD-1450.130	Backfilling to Watermains Jacking Level	6	0	11-Oct-21	18-Oct-21	0%
KD.A.RD-1450.180	Thrust Wall and Face Wall Opening	6	0	19-Oct-21	25-Oct-21	0%

Watermains Trenchless Works

KD.A.RD-1500	OD960mm Sleeve Pipe Jacking (1st Pipe) [34.61m]	17	0	26-Oct-21	13-Nov-21	0%
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Receiving Pit Construction

KD.A.RD-1470.80	Face Wall Opening	4	0	27-Oct-21	30-Oct-21	0%
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**Drainage by Trenchless Method**

Jacking Pit Construction

KD.A.RD-1750.140	Thrust Wall and Face Wall Opening	6	0	02-Aug-21	07-Aug-21	0%
KD.A.RD-1750.190	Trenchless Excavation for Drain Pipe (S2213-S2214) [61.79m]	31	0	09-Aug-21	13-Sep-21	0%
KD.A.RD-1750.240	Manhole S2213 Benching and Wall Construction up to Watermains Jacking Level	21	0	14-Sep-21	09-Oct-21	0%

Receiving Pit Construction and Modification

KD.A.RD-1770.140	Road Works Commencement Notice and TTA Implementation for Enlargement of Jacking Pit	7	0	27-Aug-21	03-Sep-21	0%
KD.A.RD-1770.40	Face Wall Opening	2	0	04-Sep-21	06-Sep-21	0%
KD.A.RD-1770.50	Sheet Piling for Enlarging Receiving Pit to Jacking Pit Size	12	0	14-Sep-21	28-Sep-21	0%
KD.A.RD-1770.60	Excavation and Lateral Support for Enlarging Receiving Pit to Jacking Pit Size	18	0	29-Sep-21	21-Oct-21	0%
KD.A.RD-1770.100	Thrust Wall and Face Wall Opening	6	0	22-Oct-21	28-Oct-21	0%
KD.A.RD-1770.90	Trenchless Excavation for Drain Pipe (S2214-S2215) [70.55m]	36	0	29-Oct-21	09-Dec-21	0%

**Sewerage**

KD.A.RD-2550	Liaise, Agree and Coordinate with D.SDE & MP, DSD/ST1 and DSD/Building & Civil Maintenance	486	320	15-Sep-20 A	13-Feb-22	59.5%
KD.A.RD-1950.30	[PMI281]KNP137 to KNP136	52	82	23-Apr-21 A	07-Aug-21	90%
KD.A.RD-1950.20	[PMI281]KNP138 to KNP137	44	26	02-Jul-21 A	17-Aug-21	80%
KD.A.RD-1950.10	[PMI281]KNP138 to KNP139	54	2	30-Jul-21 A	22-Oct-21	0%
KD.A.RD-1950.01	[PMI281]KNP139 to KNP140	48	0	23-Oct-21	17-Dec-21	0%

**Portion B, B1 and B2**

Sewerage Trenchless Works

Construct Receiving Pit for Sewerage Trenchless at FMH-KNP125

KD.B.TR-1020.01	Trial Pit Excavation	5	0	04-Aug-21	10-Aug-21	0%
KD.B.TR-1020.10	Breaking up Hard Surface	5	0	10-Aug-21	16-Aug-21	0%
KD.B.TR-1020.20	Sheet Piles Installation	10	0	16-Aug-21	27-Aug-21	0%
KD.B.TR-1020.30	Excavation and Lateral Support	40	0	27-Aug-21	16-Oct-21	0%
KD.B.TR-1020.330	Face Wall Opening	6	0	16-Oct-21	23-Oct-21	0%

Construct Receiving Pit for Sewerage Trenchless at FMH-KNP122

KD.B.TR-1020.280	Face Wall Opening	6	2	30-Jul-21 A	09-Aug-21	0%
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Trenchless Construction of Twins ND280 Sewer

KD.B.TR-1050.10	Trenchless Method for Twins Sewers (FMH-KNP125 - FMH-KNP122)	104	51	01-Jun-21 A	09-Aug-21	93.27%
KD.B.TR-1050.20	Annual Grout outside Sleeve Pipe	12	0	10-Aug-21	23-Aug-21	0%

Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Activity % Complete	2021				
							Jul	Aug	Sep	Oct	Nov
KD.B.TR-1080	Trenchless Method for Twins Sewers (FMHKNP125 - FMHKNP126)	60	0	11-Aug-21	23-Oct-21	0%		Trenchless Method for Twins Sewers (FMHKNP125 - FMHKNP126)			
KD.B.TR-1050.30	Guide Rail Installation	6	0	24-Aug-21	30-Aug-21	0%		Guide Rail Installation			
KD.B.TR-1050.40	Installation of Twins NS280 Sewer and Grouting	21	0	31-Aug-21	24-Sep-21	0%		Installation of Twins NS280 Sewer and Grouting			
<b>Manholes Construction</b>											
KD.B.TR-1100	Manhole Construction (FMHKNP122)	45	0	25-Sep-21	18-Nov-21	0%		Manhole Construction (FMHKNP122)			
KD.B.TR-1200	Manhole Construction (FMHKNP125 & KNP126)	60	0	23-Oct-21	05-Jan-22	0%		Manhole Construction (FMHKNP125 & KNP126)			
<b>Road, Drain and Utilities Works</b>											
<b>Works at Existing Kong Nga Po Road (TTA Required)</b>											
<b>CH0+000 - CH0+320</b>											
<b>at Verge</b>											
KD.B.RD.V-1050	CH0+170 - CH+200 Drainage, Sewerage, Waterworks and Road Works	84	189	09-Dec-20 A	25-Aug-21	92%		CH0+170 - CH+200 Drainage, Sewerage, Waterworks and Road Works			
KD.B.RD.V-1000	CH0+040 - CH0+080 Drainage, Sewerage	54	65	14-May-21 A	10-Sep-21	40%		CH0+040 - CH0+080 Drainage, Sewerage			
KD.B.RD.V-1200	CH0+200 - CH+230 Drainage, Sewerage, Waterworks and Road Works	54	0	25-Aug-21	30-Oct-21	0%		CH0+200 - CH+230 Drainage, Sewerage, Waterworks and Road Works			
KD.B.RD.V-1100	CH0+115 - CH0+170 Drainage, Sewerage, Waterworks and Road Works	86	0	22-Oct-21	07-Feb-22	0%		CH0+115 - CH0+170 Drainage, Sewerage, Waterworks and Road Works			
KD.B.RD.V-1250	CH0+230 - CH0+300 Drainage, Sewerage, Waterworks and Road Works	84	0	30-Oct-21	12-Feb-22	0%		CH0+230 - CH0+300 Drainage, Sewerage, Waterworks and Road Works			
<b>TTA Required</b>											
KD.B.RD.R-2150	CH0+250 - CH0+320 Utilities and Road Works	36	0	10-Sep-21	26-Oct-21	0%		CH0+250 - CH0+320 Utilities and Road Works			
KD.B.RD.R-2100	CH0+190 - CH0+230 Utilities and Road Works	36	0	26-Oct-21	07-Dec-21	0%		CH0+190 - CH0+230 Utilities and Road Works			
<b>Road and Drain CH190 - CH250</b>											
KD.B.RD.R-2100.10	Drainage S2205 to S2207 Construction	51	0	28-Oct-21	28-Dec-21	0%		Drainage S2205 to S2207 Construction			
KD.B.RD.R-2100.15	Sewerage Manholes KNP 128 to KNP 130 Construction	51	0	28-Oct-21	28-Dec-21	0%		Sewerage Manholes KNP 128 to KNP 130 Construction			
<b>CH0+310 - CH0+600</b>											
<b>at Verge</b>											
KD.B.RD.V-1350	CH0+460 - CH0+580 Utilities and Road Works	48	0	25-Sep-21	22-Nov-21	0%		CH0+460 - CH0+580 Utilities and Road Works			
<b>TTA Required</b>											
<b>Retaining Wall RD-A</b>											
KD.B.RD.R-1400.15	Existing Drainage Diversion	5	18	12-Jul-21 A	05-Aug-21	70%		Existing Drainage Diversion			
KD.B.RD.R-1400.30	Excavation and Lateral Support Works	18	2	30-Jul-21 A	26-Aug-21	0%		Excavation and Lateral Support Works			
KD.B.RD.R-1400.35	Blinding Layer for Retaining Wall RD-A	3	0	27-Aug-21	30-Aug-21	0%		Blinding Layer for Retaining Wall RD-A			
KD.B.RD.R-1400.40	Base Slab 1, 3 & 5 Construction	14	0	31-Aug-21	15-Sep-21	0%		Base Slab 1, 3 & 5 Construction			
KD.B.RD.R-1400.45	Base Slab 2, 4 & 6 Construction	14	0	16-Sep-21	04-Oct-21	0%		Base Slab 2, 4 & 6 Construction			
KD.B.RD.R-1400.50	Backfilling with Concrete	4	0	05-Oct-21	08-Oct-21	0%		Backfilling with Concrete			
KD.B.RD.R-1400.55	Wall Stem Bay 1, 3 & 5 Construction	16	0	09-Oct-21	28-Oct-21	0%		Wall Stem Bay 1, 3 & 5 Construction			
KD.B.RD.R-1400.60	Wall Stem Bay 2, 4 & 6 Construction	16	0	29-Oct-21	16-Nov-21	0%		Wall Stem Bay 2, 4 & 6 Construction			
<b>CH0+600 - CH0+900</b>											
<b>Road and Drain CH580 - CH740R</b>											
KD.B.RD.R-1850.10	Sewerage KNP122 - 120 - 119 - 117	64	0	25-Aug-21	11-Nov-21	0%		Sewerage KNP122 - 120 - 119 - 117			
KD.B.RD.R-1850.15	Drainage S1901 to S1905	64	0	25-Aug-21	11-Nov-21	0%		Drainage S1901 to S1905			
<b>Retaining Wall RD-B</b>											
KD.B.RD.R-1050.15	Bay 1 to Bay 2 Base Slab Construction	8	13	17-Jul-21 A	11-Aug-21	20%		Bay 1 to Bay 2 Base Slab Construction			
KD.B.RD.R-1050.20	Bay 1 to Bay 2 Backfill with Concrete	3	0	11-Aug-21	14-Aug-21	0%		Bay 1 to Bay 2 Backfill with Concrete			
KD.B.RD.R-1050.40	Excavation and Lateral Support for Bay 3 to Bay 5	12	0	11-Aug-21	25-Aug-21	0%		Excavation and Lateral Support for Bay 3 to Bay 5			
KD.B.RD.R-1050.25	Bay 1 to Bay 2 Remove 2nd Layer of Strut	4	0	14-Aug-21	19-Aug-21	0%		Bay 1 to Bay 2 Remove 2nd Layer of Strut			
KD.B.RD.R-1050.30	Bay 1 to Bay 2 Erect Scaffolding	5	0	19-Aug-21	25-Aug-21	0%		Bay 1 to Bay 2 Erect Scaffolding			
KD.B.RD.R-1050.35	Bay 1 to Bay 2 Wall Construction	12	0	25-Aug-21	08-Sep-21	0%		Bay 1 to Bay 2 Wall Construction			
KD.B.RD.R-1050.45	Bay 3 to Bay 5 Blinding Layer	6	0	25-Aug-21	01-Sep-21	0%		Bay 3 to Bay 5 Blinding Layer			
KD.B.RD.R-1050.50	Bay 3 to Bay 5 Base Slab Construction	12	0	01-Sep-21	15-Sep-21	0%		Bay 3 to Bay 5 Base Slab Construction			
KD.B.RD.R-1050.55	Bay 3 to Bay 5 Backfill with Concrete	4	0	15-Sep-21	20-Sep-21	0%		Bay 3 to Bay 5 Backfill with Concrete			
KD.B.RD.R-1050.60	Bay 3 to Bay 5 Remove 2nd Layer of Strut	5	0	20-Sep-21	27-Sep-21	0%		Bay 3 to Bay 5 Remove 2nd Layer of Strut			
KD.B.RD.R-1050.65	Bay 3 to Bay 5 Erect Scaffolding	5	0	27-Sep-21	04-Oct-21	0%		Bay 3 to Bay 5 Erect Scaffolding			
KD.B.RD.R-1050.70	Bay 3 to Bay 5 Wall Construction	18	0	04-Oct-21	26-Oct-21	0%		Bay 3 to Bay 5 Wall Construction			
KD.B.RD.R-1050.80	Backfill with Rock Fill	5	0	26-Oct-21	01-Nov-21	0%		Backfill with Rock Fill			
<b>Road and Drain CH840 - CH890L</b>											

■ Remaining Level of Effort   
 ■ Remaining Work   
 ◆ Milestone   
 ■ Actual Work   
 ■ Critical Remaining Work   
 ▶ Summary

Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Activity % Complete	2021				
							Jul	Aug	Sep	Oct	Nov
<b>Road and Drain CH890 - CH920L</b>							<b>Road and Associated Works</b>				
KD.B.RD.R-1550.15	Excavation and Lateral Support Works	12	13	17-Jul-21 A	16-Aug-21	15%	Excavation and Lateral Support Works				
KD.B.RD.R-1550.20	Sewerage KNP112 to KNP114 Construction	12	0	16-Aug-21	30-Aug-21	0%	Sewerage KNP112 to KNP114 Construction				
KD.B.RD.R-1550.25	Backfill with Rock Fill	6	0	30-Aug-21	06-Sep-21	0%	Backfill with Rock Fill				
KD.B.RD.R-1550.30	Utilities Laying and Backfilling	26	0	06-Sep-21	08-Oct-21	0%	Utilities Laying and Backfilling				
KD.B.RD.R-1550.35	Road Works	12	0	08-Oct-21	23-Oct-21	0%	Road Works				
KD.B.RD.R-2250.10	Excavation and Lateral Support Works	12	0	23-Oct-21	06-Nov-21	0%	06-Nov-21, Road and Drain Excavation and Lateral Support Works				
<b>Section 1 (Portions A, A1, B, B1 and B2)</b>							<b>Portion B, B1 and B2</b>				
<b>Site Formation and Slope Works</b>							<b>Slope Upgrading Works</b>				
S1.B.SL-1000	Fill Slope near 3NW-C/C67	72	6	26-Jul-21 A	22-Oct-21	10%	Fill Slope near 3NW-C/C67				
S1.B.SL-0000	Commencement and Plant Mobilization for Site Formation & Slope Works	0	0	01-Aug-21		0%	Commencement and Plant Mobilization for Site Formation & Slope Works				
S1.B.SL-1050	Slope Upgrading Works for Feature 3NW-C/F16	99	0	02-Aug-21*	27-Nov-21	0%					
<b>3NW-C/C8</b>							<b>3NW-C/C67</b>				
S1.B.SL.C8-2150	Landscape Treatment on Slope	72	39	16-Jun-21 A	02-Dec-21	50%	Landscape Treatment on Slope				
S1.B.SL.C8-2200	U-Channel and Catchpit Construction	67	0	02-Aug-21	21-Oct-21	0%	U-Channel and Catchpit Construction				
S1.B.SL.C67-1000	Erection of Scaffolding	52	75	03-May-21 A	12-May-22	35%	Erection of Scaffolding				
S1.B.SL.C67-1050	Tree Stump Removal	24	56	26-May-21 A	07-Jun-22	15%	Tree Stump Removal				
<b>3NW-C/C43</b>							<b>3NW-C/C37</b>				
S1.B.SL.C43-1100	Site Clearance	18	2	30-Jul-21 A	21-Aug-21	0%	Site Clearance				
S1.B.SL.C43-1600	Cut Slope from Top to Row B	18	0	23-Aug-21	11-Sep-21	0%	Cut Slope from Top to Row B				
S1.B.SL.C43-1650	Road B Soil Nails	24	0	13-Sep-21	12-Oct-21	0%	Road B Soil Nails				
S1.B.SL.C43-1700	Cut Slope to Formation	12	0	13-Oct-21	27-Oct-21	0%	Cut Slope to Formation				
S1.B.SL.C43-1050	Erection of Scaffolding	44	0	28-Oct-21	17-Dec-21	0%	Erection of Scaffolding				
S1.B.SL.C37-1250	Row C Soil Nails (75 nos. C1 to C75)	18	105	24-Mar-21 A	05-Aug-21	82.7%	Row C Soil Nails (75 nos. C1 to C75)				
S1.B.SL.C37-1400	Row B Soil Nails (81 nos. B1 to B81)	22	78	28-Apr-21 A	30-Aug-21	82.7%	Row B Soil Nails (81 nos. B1 to B81)				
S1.B.SL.C37-1450	Excavate 1m below Row A	30	37	18-Jun-21 A	25-Aug-21	40%	Excavate 1m below Row A				
S1.B.SL.C37-1500	Test Nails (TN1 & TN4)	16	37	18-Jun-21 A	08-Sep-21	50%	Test Nails (TN1 & TN4)				
S1.B.SL.C37-1550	Row A Soil Nails (86 nos. A1 to A86)	22	0	08-Sep-21	06-Oct-21	0%	Row A Soil Nails (86 nos. A1 to A86)				
<b>3NW-C/C38</b>							<b>3NW-C/C38</b>				
S1.B.SL.C38-1500	Formation of Temporary Road	26	57	25-May-21 A	04-Aug-21	90%	Formation of Temporary Road				
S1.B.SL.C38-1350	Test Nail (TN3 & TN6)	14	0	02-Aug-21	17-Aug-21	0%	Test Nail (TN3 & TN6)				
S1.B.SL.C38-1400	Row C Soil Nails (61 nos. C1 to C61)	16	0	18-Aug-21	04-Sep-21	0%	Row C Soil Nails (61 nos. C1 to C61)				
<b>Section 2 (Portions C and C1)</b>							<b>Submissions and Approvals</b>				
<b>Preliminary Works</b>							<b>Ground Investigation Field Works</b>				
S2.C.PW-1250	Site Clearance	50	327	26-Jun-20 A	04-Aug-21	95%	04-Aug-21, Preliminary Works Site Clearance				
S2.C.GH-1800	Inspection Pits for Foundation of RW RD-D	24	0	02-Aug-21	28-Aug-21	0%	01-Sep-21, Ground Investigation Field Works Inspection Pits for Foundation of RW RD-D				
S2.C.GH-1750	Inspection Pits for Foundation of RW RD-C	24	0	04-Aug-21	01-Sep-21	0%	Inspection Pits for Foundation of RW RD-C				
<b>Road, Drain and Utilities Works</b>							<b>Works at Existing Verge</b>				
S2.C.RD.V-1000	CH1+010 - CH1+140 Drainage and Sewerage and Road Works	165	115	12-Mar-21 A	12-Jan-22	20%	CH1+010 - CH1+140 Drainage and Sewerage and Road Works				
<b>Works at Existing Kong Nga Po Road (TTA Required)</b>							<b>Bridge Construction (CH1+190 - CH1+320)</b>				
S2.C.RD.R-1350	CH0+890 - CH950L Drainage, Sewerage, Waterworks and Utilities	68	24	05-Jul-21 A	15-Oct-21	10%	CH0+890 - CH950L Drainage, Sewerage, Waterworks and Utilities				
S2.C.RD.R-1400	CH0+950 - CH1+010L Drainage, Sewerage, Waterworks and Utilities	64	0	15-Oct-21	31-Dec-21	0%	CH0+950 - CH1+010L Drainage, Sewerage, Waterworks and Utilities				
S2.C.BG-2050	Pile Caps for Pier 01 and 02	30	80	24-Apr-21 A	07-Aug-21	80%	Pile Caps for Pier 01 and 02				
S2.C.BG-1700	Delivery of Bridge Bearings and Movement Joints	90	27	30-Jun-21 A	12-Oct-21	34%	Delivery of Bridge Bearings and Movement Joints				
S2.C.BG-1910	Excavation for Pile Cap of Abutment B	14	0	06-Aug-21	23-Aug-21	0%	Excavation for Pile Cap of Abutment B				

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**Construction Programme (Aug 2021 - Oct 2021)**

Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Activity % Complete	2021				
							Jul	Aug	Sep	Oct	Nov
S2.C.BG-1350.20	Pile Caps for Abutment B	30	0	23-Aug-21	28-Sep-21	0%					
S2.C.BG-1350.10	Pile Cap for Abutment A	30	0	13-Sep-21	20-Oct-21	0%					
S2.C.BG-1400	Bridge Piers Erection	65	0	12-Oct-21	30-Dec-21	0%					
S2.C.BG-1600	Abutments	60	0	21-Oct-21	31-Dec-21	0%					
<b>Drainage Trenchless Works</b>											
S2.C.TD-0050	Ground Investigation for Drainage Trenchless Works	7	0	28-Sep-21	07-Oct-21	0%					
<b>Site Formation and Slope Upgrading Works</b>											
S2.C.SF-1450	Fill Slope near CH0+910 - CH1+040L	100	0	04-Aug-21	02-Dec-21	0%					
S2.C.SF-1050	Feature A Soil Nails	30	0	04-Aug-21	08-Sep-21	0%					
<b>Section 3 (Portion D, D1)</b>											
<b>Submissions and Approvals</b>											
<b>Key Event</b>											
<b>Preliminary Works</b>											
S3.D.PW-1250	Tree Felling	430	324	30-Jun-20 A	06-Oct-21	87.4%					
<b>Portion D</b>											
<b>Platform I (+54.5mPD), Platform H (+64.5mPD) &amp; Platform J (+64.5mPD)</b>											
<b>Ground Investigation Field Works</b>											
S3.D.GH-3400	Inspection Pits for Foundation of RW DA-J	24	0	02-Aug-21	28-Aug-21	0%					
<b>Site Formation</b>											
S3.D.SF-1250.02	Formation of Access from Platform +54.5mPD to Feature L	28	306	22-Jul-20 A	11-Aug-21	70%					
S3.D.SF-1350	Excavate 3NW-C/C403 and 3NW-C/C404 at Platform H/J (6200 cum)	100	146	01-Feb-21 A	05-Nov-21	20%					
S3.D.SF-1255	Excavate 3NW-C/C402 at Platform H	60	130	23-Feb-21 A	11-Sep-21	40%					
S3.D.SF-2400	Fill to +54.5mPD to Complete Platform I (9000 cum)	60	111	17-Mar-21 A	08-Oct-21	60%					
S3.D.SF-3400	Mass Concrete Fill (Concrete Blocks) and Backfill for Retaining Wall DA-K 15 to 18 Construction	21	0	02-Aug-21	25-Aug-21	0%					
S3.D.SF-2250	Feature K (9200 cum)	60	0	27-Sep-21	08-Dec-21	0%					
<b>Foundation Socketed H-Piles for DA-M Bay 61</b>											
S3.D.F-2000	[PM345] Foundation Socketed H-Piles for Bay 61 (20nos.)	100	16	14-Jul-21 A	11-Nov-21	15%					
<b>Retaining Wall</b>											
<b>DA-K</b>											
<b>Bay 14 to 18</b>											
S3.D.RW-DA-K-1100.15	DA-K1 Bay 15 Base	18	0	26-Aug-21	15-Sep-21	0%					
S3.D.RW-DA-K-1100.25	DA-K1 Bay 17 Base	18	0	26-Aug-21	15-Sep-21	0%					
S3.D.RW-DA-K-1100.20	DA-K1 Bay 16 Base	18	0	16-Sep-21	08-Oct-21	0%					
S3.D.RW-DA-K-1100.30	DA-K1 Bay 18 Base	18	0	16-Sep-21	08-Oct-21	0%					
S3.D.RW-DA-K-1100.40	DA-K1 Bay 15 Wall	20	0	16-Sep-21	11-Oct-21	0%					
S3.D.RW-DA-K-1100.45	DA-K1 Bay 16 Wall	20	0	09-Oct-21	02-Nov-21	0%					
S3.D.RW-DA-K-1100.50	DA-K1 Bay 17 Wall	20	0	09-Oct-21	02-Nov-21	0%					
S3.D.RW-DA-K-1100.55	DA-K1 Bay 18 Wall	20	0	09-Oct-21	02-Nov-21	0%					
<b>DA-M (Bay 52 - Bay 58)</b>											
S3.D.RW-DA-M-2200	DA-M4 Bay 55 Wall	22	112	16-Mar-21 A	06-Aug-21	80%					
S3.D.RW-DA-M-2300	DA-M5A Bay 57 Wall	22	110	18-Mar-21 A	06-Aug-21	80%					
<b>Road, Drain and Utilities</b>											
<b>L06</b>											
<b>CH178 - CH305</b>											
S3.D.RD-1900	L06 - CH178 - CH305 (near Drainage SMH-S0205 to SMH-S0607)	50	0	18-Aug-21	18-Oct-21	0%					
<b>L10</b>											
<b>CH300 - CH364</b>											
S3.D.RD-2000.10	L10 - CH300 - CH364 Backfill to Drainage/Sewerage Level	30	90	14-Apr-21 A	04-Aug-21	90%					
S3.D.RD-2000	L10 - CH300 - CH364 Drainage (near SMH-S0603 to SMH-S0606)	40	0	05-Aug-21	20-Sep-21	0%					
S3.D.RD-2000.20	L10 - CH300 - CH364 Backfill to Road Formation	20	0	21-Sep-21	16-Oct-21	0%					
S3.D.RD-2000.70	L10 - CH300 - CH364 Utilities and Road Works	14	0	18-Oct-21	02-Nov-21	0%					
<b>L12</b>											
S3.D.RD-2150	L12 - CH100 - CH150 Backfill to Drainage Level	20	80	26-Apr-21 A	03-Aug-21	90%					

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							Jul	Aug	Sep	Oct	Nov
S3.D.RD-2100	L12 - CH100 - CH150 Drainage Construction	30	0	04-Aug-21	07-Sep-21	0%					
<b>Platform G (+70.0mPD)</b>											
<b>Site Formation</b>											
S3.D.SF-1150.02	Cut and Lower Platform G to +70.0mPD (7800 cum)	90	72	06-May-21 A	08-Oct-21	80%					
S3.D.SF-1250	Fill Slope in front of RW DA-H	20	0	08-Oct-21	02-Nov-21	0%					
<b>Road, Drainage and Utilities</b>											
S3.D.RD-1250	L11 - CH100 - CH213 (near Drainage SMH-S1101 to SMH-S10109)	56	20	09-Jul-21 A	05-Oct-21	15%					
S3.D.RD-2250	L11 - CH100 - CH213 Backfill to Road Formation	30	0	06-Oct-21	10-Nov-21	0%					
<b>Slope Upgrading Works</b>											
<b>Feature H</b>											
S3.D.SL-1050-68	Landscape Treatment on Sbppe	106	18	12-Jul-21 A	26-Aug-21	80%					
<b>Platform F (+64.5mPD)</b>											
<b>Ground Investigation Field Works</b>											
S3.D.GI-3350	Inspection Pits for Foundation of RW DA-E	24	0	08-Oct-21	06-Nov-21	0%					
S3.D.GI-3500	Inspection Pits for Foundation of RW DA-F (Bay 10-30)	24	0	20-Oct-21	16-Nov-21	0%					
<b>Site Formation</b>											
S3.D.SF-1450.20	Cutting Platform F (3NW-C/C364) to +64.5mPD	104	285	15-Aug-20 A	13-Aug-21	90%					
S3.D.SF-1300	Excavate 3NW-C/C454, 3NW-C/C401 at Platform F (126900cum)	130	251	24-Sep-20 A	23-May-22	30%					
S3.D.SF-3450	Excavation for Formation of DA-M Bay 1	14	14	16-Jul-21 A	12-Aug-21	30%					
S3.D.SF-1450.30	Excavate to Formation Level of Inspection Pit for Foundation RW DA-F (Bay 10-30) (15300 cum)	65	0	02-Aug-21	19-Oct-21	0%					
S3.D.SF-1450.50	Cutting to Bottom of DA-E and L01 CH477 - CH581 (12000cum)	46	0	13-Aug-21	08-Oct-21	0%					
S3.D.SF-1600	Excavate 3NW-C/C363 to 54.5mPD (Sothem of Platform F) (24300 cum)	98	0	04-Sep-21	04-Jan-22	0%					
S3.D.SF-1450.40	Cutting to Bottom of DA-F (Bay 1 to Bay 9) (2400 cum)	10	0	20-Oct-21	30-Oct-21	0%					
S3.D.SF-2950	Excavate 3NW-C/C454 & C401 near L01 to Backfill DAM Bay 30-35	65	0	25-Oct-21	12-Jan-22	0%					
<b>Retaining Wall</b>											
S3.D.RW-DA-M-1000	Construct RW DA-M (Bay 2-9)	80	14	16-Jul-21 A	01-Nov-21	5%					
S3.D.RW-DA-M-1050	Construct RW DA-M (Bay 1)	20	0	12-Aug-21	04-Sep-21	0%					
<b>Road, Drainage and Utilities</b>											
<b>L01</b>											
<b>CH477 - CH518</b>											
S3.D.RD-1200	L01 - CH477 - CH581 Drainage and Sewerage (near SMH-S0113 to SMH-S0118)	70	0	23-Sep-21	16-Dec-21	0%					
<b>Platform K (+64.5mPD) &amp; Platform L (+62.5mPD)</b>											
<b>Site Formation</b>											
S3.D.GI-1050	Form Piling Platform for DA-M(P) Bay 16 to 26 (34500 cum)	56	327	26-Jun-20 A	07-Aug-21	95%					
S3.D.SF-2700	[NCE041] for DA-M(P) Bay 16 to 26 due to High Rock Profile	14	203	23-Nov-20 A	07-Aug-21	60%					
S3.D.SF-2150	Compacted Fill 3NW-C/F56 (near RW DA-M Bay 42/43)	60	0	02-Aug-21	12-Oct-21	0%					
S3.D.SF-2200	Compacted Fill 3NW-C/F57 (near RW DA-M Bay 39/40)	60	0	25-Sep-21	07-Dec-21	0%					
S3.D.SF-2800	No-Fines Concrete Fill 3NW-C/F58 (near RW DA-M Bay 30 to 34)	30	0	25-Sep-21	02-Nov-21	0%					
<b>Foundation Works</b>											
<b>Bay 16 - Bay 26</b>											
S3.D.F-1100	Socketed H-Piles for DA-M(P) Bay 16 to 26	115	131	22-Feb-21 A	02-Oct-21	60%					
S3.D.F-1310	Setup for Pile Load Test for DA-M(P) Bay 16 to 26	21	0	02-Oct-21	28-Oct-21	0%					
S3.D.F-1250	Grout achieved 28 days Strength - DA-M(P) Bay 16 to 26	28	0	02-Oct-21	30-Oct-21	0%					
S3.D.F-1300	Pile Load Test for Socketed H-Piles in DA-M(P) Bay 16 to 26	7	0	30-Oct-21	08-Nov-21	0%					
<b>Retaining Wall</b>											
<b>DA-1</b>											
S3.D.RW-DA-1-1050	Backfill to Formation of DA-2 Bay 12-17	20	0	25-Sep-21	21-Oct-21	0%					
<b>Bay 8 to Bay 10</b>											
S3.D.RW-DA-1-1100.10	DA-1 Bay 8 Base	16	0	21-Oct-21	09-Nov-21	0%					
S3.D.RW-DA-1-1100.20	DA-1 Bay 10 Base	16	0	21-Oct-21	09-Nov-21	0%					
<b>Bay 12 to Bay 17</b>											
S3.D.RW-DA-1-1150.10	DA-2 Bay 12 Base	16	0	21-Oct-21	09-Nov-21	0%					
S3.D.RW-DA-1-1150.20	DA-2 Bay 14 Base	16	0	21-Oct-21	09-Nov-21	0%					
S3.D.RW-DA-1-1150.30	DA-2 Bay 16 Base	16	0	21-Oct-21	09-Nov-21	0%					

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**Construction Programme (Aug 2021 - Oct 2021)**

Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Activity % Complete	2021				
							Jul	Aug	Sep	Oct	Nov
<b>DA-M</b>											
S3.D.RW-DA-M-1200	Construct RW DA-M (Bay 30-35)	58	50	02-Jun-21 A	25-Sep-21	20%					Construct RW DA-M (Bay 30-35)
S3.D.RW-DA-M-1250	Construct RW DA-M (Bay 36-39)	36	39	16-Jun-21 A	11-Sep-21	0%					Construct RW DA-M (Bay 36-39)
S3.D.RW-DA-M-1100	Construct RW DA-M (Bay 16-26)	60	0	02-Oct-21	13-Dec-21	0%					
S3.D.RW-DA-M-1300	Construct RW DA-M (Bay 27-29)	30	0	02-Oct-21	08-Nov-21	0%					Construct RW DA-M (Bay 27-29)
<b>Road, Drainage and Utilities</b>											
<b>L08</b>											
<b>CH100 - CH227</b>											
S3.D.RD-1300.10	L08 - CH100 - CH227 Backfill to Drainage & DA-I Level	20	0	25-Sep-21	21-Oct-21	0%					L08 - CH100 - CH227 Backfill to Drainage & DA-I Level
S3.D.RD-1300	L08 - CH100 - CH227 Drainage (near SMH-S0601 to SMH-S0612/Outfall)	25	0	21-Oct-21	19-Nov-21	0%					L08 - CH100 - CH227 Drainage (near SMH-S0601 to SMH-S0612/Outfall)
<b>Platform C (+48.0mPD) &amp; Tanks/Underpass</b>											
<b>Site Formation</b>											
S3.D.SF-1525	Open cut for Sewage Storage Tank and Underpass (23000cum)	25	154	21-Jan-21 A	02-Aug-21	100%					Open cut for Sewage Storage Tank and Underpass (23000cum)
S3.D.SEW	Sewerage Storage Tank (Structural)	146	90	14-Apr-21 A	03-Sep-21	80.48%					Sewerage Storage Tank (Structural)
S3.D.SWT	Stormwater Storage Tank (Structural)	166	19	09-Jul-21 A	01-Mar-22	0%					Stormwater Storage Tank (Structural)
S3.D.UP	Underpass (Structural)	100	0	20-Sep-21	21-Jan-22	0%					Underpass (Structural)
<b>Retaining Wall</b>											
S3.D.RW-DA-B-1000	Construct RW DA-B	45	23	06-Jul-21 A	20-Sep-21	5%					Construct RW DA-B
<b>Stormwater Storage Tank</b>											
S3.D.SWT-1000	Stormwater Storage Tank - Base Slab (First Portion)	30	19	09-Jul-21 A	20-Sep-21	5%					Stormwater Storage Tank - Base Slab (First Portion)
S3.D.SWT-1250	Delivery of Waterproofing Materials	90	0	04-Aug-21	20-Nov-21	0%					Delivery of Waterproofing Materials
S3.D.SWT-1050	Stormwater Storage Tank - Wall and Columns (First Portion)	65	0	20-Sep-21	08-Dec-21	0%					Stormwater Storage Tank - Wall and Columns (First Portion)
S3.D.SWT-1000.01	Stormwater Storage Tank - Base Slab (Second Portion)	30	0	20-Sep-21	28-Oct-21	0%					Stormwater Storage Tank - Base Slab (Second Portion)
S3.D.SWT-1050.01	Stormwater Storage Tank - Wall and Columns (Second Portion)	50	0	28-Oct-21	28-Dec-21	0%					Stormwater Storage Tank - Wall and Columns (Second Portion)
<b>Underpass</b>											
S3.D.UP-1000	Underpass - Base Slab	30	0	20-Sep-21	28-Oct-21	0%					Underpass - Base Slab
S3.D.UP-1050	Underpass - Side Wall	30	0	28-Oct-21	02-Dec-21	0%					Underpass - Side Wall
<b>Sewerage Storage Tank</b>											
S3.D.SEW-1100	Sewerage Storage Tank - Roof	30	8	23-Jul-21 A	03-Sep-21	5%					Sewerage Storage Tank - Roof
S3.D.SEW-1400	Delivery of Waterproofing Materials	90	0	04-Aug-21	20-Nov-21	0%					Delivery of Waterproofing Materials
<b>Slope Upgrading Works</b>											
S3.D.SL-1100	Upgrading Works for Slope at Platform C +48mPD (Feature D)	60	0	12-Oct-21	22-Dec-21	0%					Upgrading Works for Slope at Platform C +48mPD (Feature D)
<b>Platform B (+52.5mPD)</b>											
<b>Site Formation</b>											
S3.D.SF-2000	Cut 3NW-C/C358 (Platform B)	60	211	13-Nov-20 A	28-Aug-21	60%					Cut 3NW-C/C358 (Platform B)
S3.D.SF-1400	Fill to RW DA-C to complete +52.5 Platform B	75	0	15-Sep-21	15-Dec-21	0%					Fill to RW DA-C to complete +52.5 Platform B
<b>Retaining Wall</b>											
<b>DA-C Bay 1-8</b>											
S3.D.RW-DA-C-1200	RW DA-C1 Bay 1 Base	16	0	15-Sep-21	06-Oct-21	0%					RW DA-C1 Bay 1 Base
S3.D.RW-DA-C-3300	[PMI301] RW DA-C1 Bay 1A Base	16	0	15-Sep-21	06-Oct-21	0%					[PMI301] RW DA-C1 Bay 1A Base
S3.D.RW-DA-C-1600	RW DA-C1 Bay 1 Wall	24	0	06-Oct-21	04-Nov-21	0%					RW DA-C1 Bay 1 Wall
S3.D.RW-DA-C-3350	[PMI301] RW DA-C1 Bay 1A Wall	24	0	06-Oct-21	04-Nov-21	0%					[PMI301] RW DA-C1 Bay 1A Wall
<b>DA-C Bay 9-15</b>											
S3.D.RW-DA-C-2350	RW DA-C3 Bay 9 Wall	24	144	03-Feb-21 A	09-Sep-21	60%					RW DA-C3 Bay 9 Wall
S3.D.RW-DA-C-2450	RW DA-C3 Bay 11 Wall	24	73	05-May-21 A	03-Sep-21	80%					RW DA-C3 Bay 11 Wall
S3.D.RW-DA-C-2500	RW DA-C2 Bay 12 Wall	24	59	22-May-21 A	15-Sep-21	40%					RW DA-C2 Bay 12 Wall
S3.D.RW-DA-C-2600	RW DA-C2 Bay 14 Wall	24	58	24-May-21 A	09-Sep-21	60%					RW DA-C2 Bay 14 Wall
S3.D.RW-DA-C-2550	RW DA-C2 Bay 13 Wall	24	49	03-Jun-21 A	01-Sep-21	90%					RW DA-C2 Bay 13 Wall
S3.D.RW-DA-C-2650	RW DA-C2 Bay 15 Wall	24	48	03-Jun-21 A	01-Sep-21	90%					RW DA-C2 Bay 15 Wall
<b>Platform A (+49.0mPD)</b>											
<b>Site Formation</b>											
S3.D.SF-1550	Excavate to +49.0mPD at Platform A	54	155	21-Jan-21 A	23-Mar-22	15%					Excavate to +49.0mPD at Platform A
S3.D.SF-3100	Cut to Bottom to Formation Level of DA-A Bay 8 Bay 22	62	0	28-Oct-21	12-Jan-22	0%					Cut to Bottom to Formation Level of DA-A Bay 8 Bay 22

█ Remaining Level of Effort   
 █ Remaining Work   
 ◆ Milestone   
 █ Critical Remaining Work   
 ▶ Summary   
 █ Actual Work

**Construction Programme (Aug 2021 - Oct 2021)**

Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Activity % Complete	2021				
							Jul	Aug	Sep	Oct	Nov
<b>Retaining Wall</b>							<b>Retaining Wall Construction</b>				
<b>Bay 1 to Bay 7</b>											
S3.D.FW-DA-A-1100.45	[PMI318] DA-A1 Bay 7A Base	18	94	09-Apr-21 A	04-Oct-21	5%	[PMI318] DA-A1 Bay 7A Base				
S3.D.FW-DA-A-1100.40	DA-A1 Bay 7 Base	18	92	12-Apr-21 A	11-Sep-21	5%	DA-A1 Bay 7 Base				
S3.D.FW-DA-A-1100.15	DA-A2 Bay 2 Base	18	76	30-Apr-21 A	23-Aug-21	10%	DA-A2 Bay 2 Base				
S3.D.FW-DA-A-1100.10	DA-A1 Bay 1 Base	18	75	03-May-21 A	11-Sep-21	5%	DA-A1 Bay 1 Base				
S3.D.FW-DA-A-1100.65	DA-A2 Bay 4 Wall	30	24	05-Jul-21 A	04-Sep-21	0%	DA-A2 Bay 4 Wall				
S3.D.FW-DA-A-1100.75	DA-A2 Bay 6 Wall	30	22	07-Jul-21 A	28-Sep-21	0%	DA-A2 Bay 6 Wall				
S3.D.FW-DA-A-1100.60	DA-A2 Bay 3 Wall	30	19	10-Jul-21 A	28-Sep-21	0%	DA-A2 Bay 3 Wall				
S3.D.FW-DA-A-1100.70	DA-A2 Bay 5 Wall	30	15	15-Jul-21 A	28-Sep-21	0%	DA-A2 Bay 5 Wall				
S3.D.FW-DA-A-1100.55	DA-A2 Bay 2 Wall	30	0	23-Aug-21	28-Sep-21	0%	DA-A2 Bay 2 Wall				
S3.D.FW-DA-A-1100.50	DA-A1 Bay 1 Wall	30	0	11-Sep-21	20-Oct-21	0%	DA-A1 Bay 1 Wall				
S3.D.FW-DA-A-1100.80	DA-A1 Bay 7 Wall	30	0	11-Sep-21	20-Oct-21	0%	DA-A1 Bay 7 Wall				
S3.D.FW-DA-A-1100.85	[PMI318] DA-A1 Bay 7A Wall	30	0	04-Oct-21	09-Nov-21	0%	[PMI318] DA-A1 Bay 7A Wall				
<b>Portion D1</b>											
S3.D1.FW-DA-M-1050	Construct RW DA-M (Bay 10-12) and Slope Works at 3NW-C/C366	60	0	04-Sep-21	17-Nov-21	0%	Construct RW DA-M (Bay 10-12) and Slope Works at 3NW-C/C366				
S3.D1.SF-1000	Excavate 3NW-C/C439 to +48.0mPD (11900cum)	30	0	04-Sep-21	12-Oct-21	0%	Excavate 3NW-C/C439 to +48.0mPD (11900cum)				
<b>Section 4 (Preservation and Protection of Existing Trees, other than Establishment Works)</b>											
S4-1000	Preservation and Protection of Existing Trees, other than Establishment Works	1248	613	27-Nov-19 A	14-Mar-23	52.68%	Preservation and Protection of Existing Trees, other than Establishment Works				

█ Remaining Level of Effort   
 █ Remaining Work   
 █ Actual Work   
 █ Critical Remaining Work   
 ◆ Milestone   
 ⇨ Summary

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 7.5.1.3; EM&A Log 6.2	Tree felling works	Kong Nga Po Main Site Kong Nga Po Road	Generation of timber waste and yard waste	<ul style="list-style-type: none"> <li>• Sorting, cutting and delivering suitable timber to shredding facilities for recycling and reused</li> <li>• Regular inspection for compliance of tree treatment schedule</li> <li>• Provide training to frontline workers for conservative species</li> </ul>
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul style="list-style-type: none"> <li>• Properly fenced off the conservative species</li> <li>• Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement.</li> <li>• Control construction area to minimize the impact on existing retained trees.</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Piling Works (Foundation Socketed H-Piles)	Kong Nga Po Main Site	Air Pollution	<ul style="list-style-type: none"> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> </ul>
EIA 5.6.1.2; EM&A Log 4.2			Wastewater generated from drilling works	<ul style="list-style-type: none"> <li>Re-circulation of water will be adopted for drilling rigs to minimize wastewater generation</li> <li>Provide wastewater treatment facilities (Wetsep) for treatment before discharge</li> <li>Regular inspection and maintenance of wastewater treatment facilities by the supplier</li> <li>Enclosure will be provided to drill rods to minimize the risk of water spillage</li> <li>Establish soil berm near piling area to control water outflow</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Noise from drilling rigs and accessory equipment	<ul style="list-style-type: none"> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> <li>Use of proprietary noise barrier (SilentUP) for noisy works near sensitive receiver</li> <li>Deployment of quality powered mechanical equipment as possible</li> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 4.4.6; EM&A Log 3.2	(Cont') Piling Works (Foundation Socketed H-Piles)	(Cont') Kong Nga Po Main Site	Working in Restricted Hours	<ul style="list-style-type: none"> <li>• Valid construction noise permit should be obtained and displayed on site</li> <li>• Conditions of the permit should be strictly complied with</li> <li>• Deployed supervisory staff to monitoring the compliance of construction noise permit</li> <li>• In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out</li> </ul>
EIA 7.5.1.4; EM&A Log 6.2			Chemicals such as diesel and lubricants from maintenance of construction vehicles and mechanical equipment	<ul style="list-style-type: none"> <li>• Drip tray and chemical spillage kit will be provided on site</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 10.11, EM&A Log 9.4	(Cont') Piling Works (Foundation Socketed H-Piles)	(Cont') Piling Works (Foundation Socketed H-Piles)	Ecology Concern	<ul style="list-style-type: none"> <li>• Provide training to frontline workers for conservative species</li> <li>• Use of proprietary noise barrier (SilentUP) for noise works to minimize impact to nearby species</li> <li>• Deployment of quality powered mechanical equipment as possible</li> <li>• Regular inspection and maintenance of plant &amp; equipment in good condition</li> </ul>
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul style="list-style-type: none"> <li>• Construction area had been controlled with proper fencing to minimize the landscape and visual impacts arising from construction activities</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Site Formation	Kong Nga Po Main Site	Dust impact from excavation activities	<ul style="list-style-type: none"> <li>• Provision of sprinklers provide dust suppression control. Moisture sensor-operated sprinklers had been installed for automatic water spraying</li> <li>• Deployment of water tank truck for regular water spraying to enhance dust suppression</li> <li>• Speed control of site vehicles</li> <li>• Stockpile of dusty materials will be covered by tarpaulin to avoid wind-blow dust</li> <li>• Vehicles used for transporting dusty materials/spoils will be covered by mechanical cover before leaving the site</li> <li>• Wheel washing facilities had been provided and cleaning the wheel of all vehicles before leaving the site</li> </ul>
EIA 5.6.1.2; EM&A Log 4.2			Water Pollution Control	<ul style="list-style-type: none"> <li>• Existing drainage/runoff within the site where connected to communal drainage system will be covered or sealed to prevent water entering the communal drainage/sewerage system.</li> <li>• Appropriate and sufficient desilting devices, wastewater treatment facilities provided on site prior to discharge</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
	(Cont') Site Formation	(Cont') Kong Nga Po Main Site		<ul style="list-style-type: none"> <li>• Regular inspection and maintenance of wastewater treatment facilities by the supplier</li> <li>• Provision of soil berms, rock check dam and retention pit near excavation area/low-lying region, grassy vegetation had been provided to bare face of soil berm as natural filtration</li> <li>• Cover the stockpiling with appropriate materials</li> <li>• Hard paving or well-compact of main haul road to minimize washout of soil</li> <li>• Slope stabilization such as hydroseeding and shotcrete provision</li> <li>• Wheels of all vehicles and plants should be cleaned before leaving the site. The wastewater generated from wheel washing activities will be treated and reused on site</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Noise	<ul style="list-style-type: none"> <li>• Scheduling of works to minimize the concentration of noisy works</li> <li>• Regular inspection and maintenance of plant &amp; equipment in good condition</li> <li>• Enclose the noisy part of machineries with noise isolating mats</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
	(Cont') Site Formation	(Cont') Kong Nga Po Main Site		<ul style="list-style-type: none"> <li>• Deployment of quality powered mechanical equipment as possible</li> </ul>
EIA 7.5.1.4; EM&A Log 6.2			Chemicals such as diesel and lubricants from maintenance of construction vehicles and mechanical equipment	<ul style="list-style-type: none"> <li>• Oils and fuel should be stored in designated area</li> <li>• Drip tray and chemical spillage kit will be provided on site</li> </ul>
EIA 7.5.1.1 & 7.5.1.2; EM&A Log 6.2			Waste Generation	<ul style="list-style-type: none"> <li>• Training of site personnel in proper waste management and chemical handling procedures</li> <li>• Provision of sufficient waste disposal point and regular collection of wastes</li> <li>• Trash bins with cover had been provided at designated location for domestic refuse collection</li> <li>• Encourage recycling of useful wastes such as aluminum, plastic and paper and provided facilities for collection</li> <li>• The excavated materials will be sorted and screened for subsequent backfilling works.</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
	(Cont') Site Formation	(Cont') Kong Nga Po Main Site		<ul style="list-style-type: none"> <li>• Alternative disposal ground had been sought (Tung Chung Extension, Tseung Kwan O Road D9, Fanling North and Kwu Tung South) and delivered to other projects to minimize the use of Public Fills</li> </ul>
EIA 10.11, EM&A Log 9.4			Ecology Concern	<ul style="list-style-type: none"> <li>• Provide training to frontline workers for the conservative species</li> <li>• Provision of protective fence for the conservative species</li> <li>• Regular inspection for concerned vegetation and conservative species</li> <li>• Adopted low intensity lighting to minimize the light impact to surrounding species</li> <li>• Regular inspection and maintenance of plant &amp; equipment in good condition</li> <li>• Enclose the noisy part of machineries with noise isolating mats to minimize noise level to nearby species</li> <li>• Deployment of quality powered mechanical equipment as possible</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA Table 10.11 EM&A Table 9.1	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	Landscape and visual impact	<ul style="list-style-type: none"> <li>• Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement</li> <li>• Restrict construction area to minimize the impact on existing retained trees</li> <li>• Provide grassy vegetation on soil berms greening effect on the construction works</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Retaining Wall Construction Stormwater Storage Tank, Sewage Storage Tank and Underpass Construction	Kong Nga Po Main Site Kong Nga Po Road	Air	<ul style="list-style-type: none"> <li>Dusty materials that exceeded 20 bags will be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.</li> </ul>
EIA 5.6.1.2; EM&A Log 4.2			Waste water pollution control	<ul style="list-style-type: none"> <li>Soil berm and retention pit will be provided for the control of water outflow</li> <li>Desilting/sedimentation devices will be provided for wastewater treatment prior to discharge</li> <li>Designated location for residual concrete washout</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Noise	<ul style="list-style-type: none"> <li>Well-planning of concreting works to prevent working in restricted hours</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Working in Restricted Hours	<ul style="list-style-type: none"> <li>Valid construction noise permit should be obtained and displayed on site</li> <li>Conditions of the permit should be strictly complied with</li> <li>Deployed supervisory staff to monitoring the compliance of construction noise permit</li> <li>In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 7.5.1.4; EM&A Log 6.2	(Cont') Retaining Wall Construction Stormwater Storage Tank, Sewage Storage Tank and Underpass Construction	(Cont') Kong Nga Po Main Site Kong Nga Po Road	Chemicals for concreting works	<ul style="list-style-type: none"> <li>• Chemical for concreting works such as curing compound and retarder should be stored in designated area with proper labelling and packing</li> <li>• Designated location for residual concrete washout</li> </ul>


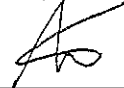
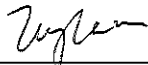

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Slope Upgrading Works	Kong Nga Po Main Site Kong Nga Po Road	Dust impact from soil nail works	<ul style="list-style-type: none"> <li>• Three side enclosure with top shelter for cement mixing works</li> <li>• Regular spraying of water on dusty materials</li> <li>• Cover the drilling part of machine to minimize dust generation</li> <li>• Dusty materials should be exceeded 20 bags and stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.</li> </ul>
EIA 5.6.1.2; EM&A Log 4.2			Water	<ul style="list-style-type: none"> <li>• Deployment of desilting/sedimentation devices for wastewater treatment prior to discharge</li> <li>• Establish soil berm with retention pit to control water outflow.</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Noise	<ul style="list-style-type: none"> <li>• Regular inspection and maintenance of plant and equipment in good condition</li> <li>• Provide noise isolating mat to drilling rigs where near to the sensitive receiver</li> </ul>
EIA 10.11, EM&A Log 9.4			Ecology Concern	<ul style="list-style-type: none"> <li>• Provide training to frontline workers for the conservative species</li> <li>• Provision of protective fence for the conservative species</li> <li>• Regular inspection for concerned vegetation</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
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	<ul style="list-style-type: none"> <li>• Properly fenced off the conservative species</li> <li>• Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement</li> </ul>
EIA 3.91; EM&A Log 2.2	Trenchless Works	Kong Nga Po Road	Air	<ul style="list-style-type: none"> <li>• Regular inspection and maintenance of plant and equipment in good condition</li> <li>• Regularly clean up stockpiles and debris to avoid accumulation of materials</li> <li>• Dusty materials should be exceeded 20 bags and stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.</li> </ul>
EIA 5.6.1.2; EM&A Log 4.2			Water	<ul style="list-style-type: none"> <li>• Provide desilting/sedimentation devices for wastewater treatment before discharge</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Noise from roadworks	<ul style="list-style-type: none"> <li>• Enclose the noise part of machineries with noise isolating mats during hard surface breaking</li> </ul>
EIA 7.5.1.4; EM&A Log 6.2			Chemical Waste	<ul style="list-style-type: none"> <li>• Drip tray and chemical spillage kit will be provided on site</li> </ul>

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA Table 10.11 EM&A Table 9.1	(Con't) Trenchless Works	Kong Nga Po Road	Landscape and visual impact	<ul style="list-style-type: none"> <li>• Properly fenced off the conservative species</li> <li>• Properly implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts</li> </ul>
EIA 3.91; EM&A Log 2.2	Road and Associated Works	Kong Nga Po Main Site Kong Nga Po Road	Air	<ul style="list-style-type: none"> <li>• Regular inspection and maintenance of plant and equipment in good condition</li> <li>• Regularly clean up stockpiles and debris to avoid accumulation of materials</li> </ul>
EIA 5.6.1.2; EM&A Log 4.2			Water	<ul style="list-style-type: none"> <li>• Provide desilting/sedimentation devices for wastewater treatment before discharge</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Noise from roadworks	<ul style="list-style-type: none"> <li>• Enclose the noisy part of machineries with noise isolating mats during hard surface breaking</li> </ul>
EIA 7.5.1.4; EM&A Log 6.2			Chemical Waste	<ul style="list-style-type: none"> <li>• Drip tray and chemical spillage kit will be provided on site</li> </ul>
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul style="list-style-type: none"> <li>• Properly fenced off the conservative species</li> <li>• Properly implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts</li> </ul>

*\*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	Kyan YAN		7/8/2021
Endorsed by <i>Supervisor's</i> Representative	Winston Wong		8/8/2021
Reviewed by Environmental Team Leader	Jerry Chan		10/8/2021
Approved by Independent Environmental Checker	Kevin Li		13/8/2021

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**APPENDIX B  
ACTION AND LIMIT LEVELS**

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

Monitoring station	Action Level (ug/m <sup>3</sup> )	Limit Level (ug/m <sup>3</sup> )
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.

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**APPENDIX C  
COPIES OF CALIBRATION  
CERTIFICATES**

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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.:	35376A
Date of Issue:	2021-07-05
Date Received:	2021-07-02
Date Tested:	2021-07-02
Date Completed:	2021-07-05
Next Due Date:	2021-09-04

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

<b>Certificate of Calibration</b>
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**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)	1.066
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*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:	2-Jul-21	2-Jul-21
Location:	Wellab Office (Calibration Room)	

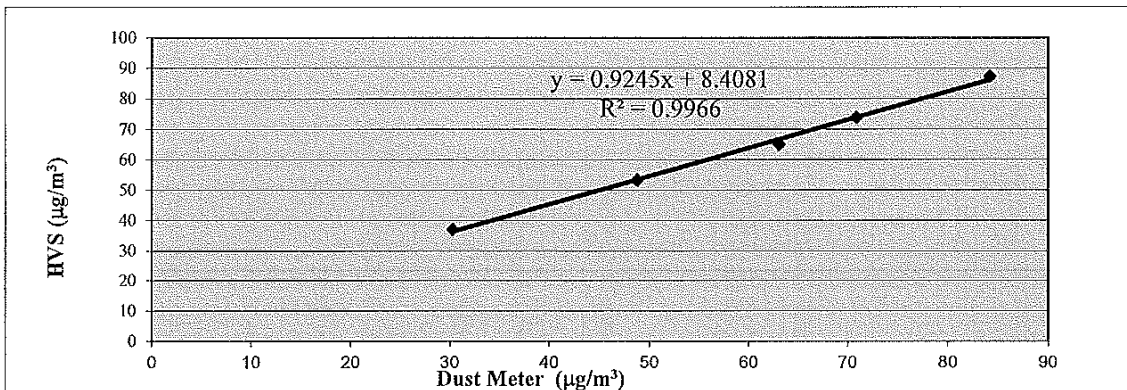
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	30	37
2	49	53
3	63	65
4	71	74
5	84	87
<b>Average</b>	<b>59.5</b>	<b>63.4</b>

By Linear Regression of Y on X  
 Slope, mw = 0.9245                      Intercept, bw = 8.4081  
 Correlation coefficient\* = 0.9983

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	63.4
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	59.5
Measuring time, (min)	60

Set Correlation Factor, SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ]                      1.066



QC Reviewer: LEE MAN HEZ      Signature: lee      Date: 2-7-2021

**TEST REPORT**

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

Test Report No.:	35375A
Date of Issue:	2021-06-28
Date Received:	2021-06-25
Date Tested:	2021-06-25
Date Completed:	2021-06-28
Next Due Date:	2021-08-27
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)	1.097
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*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:	25-Jun-21	25-Jun-21
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	38	46
2	54	60
3	70	76
4	82	88
5	88	93
<b>Average</b>	<b>66.3</b>	<b>72.7</b>

By Linear Regression of Y on X

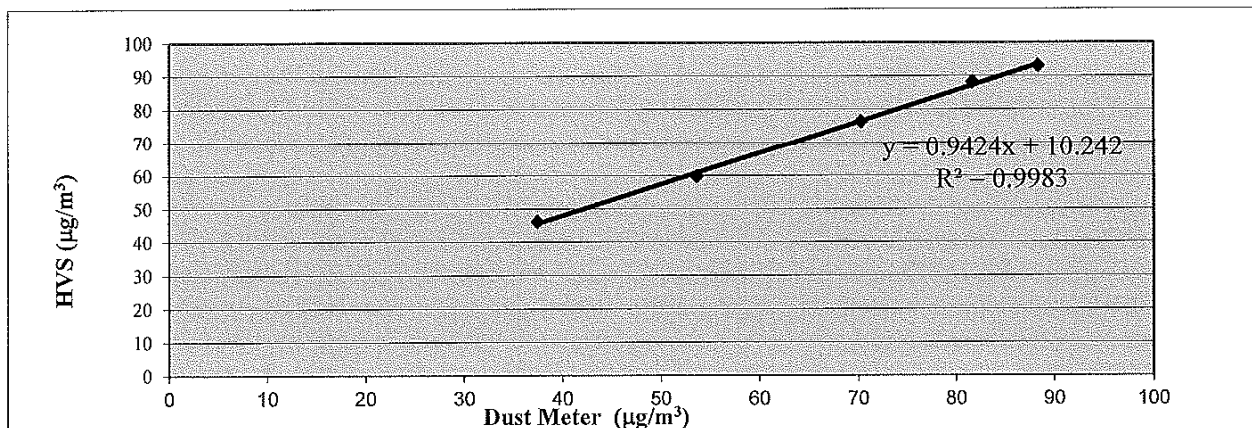
Slope,  $m_w =$  0.9424      Intercept,  $b_w =$  10.2422  
Correlation coefficient\* = 0.9991

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	72.7
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	66.3
Measuring time, (min)	60

Set Correlation Factor, SCF

SCF =  $[ K = \text{High Volume Sampler} / \text{Dust Meter, } (\mu\text{g}/\text{m}^3) ]$       1.097



QC Reviewer: JEB Maw HED      Signature: hi      Date: 25-6-2021

**TEST REPORT**

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

Test Report No.:	35375B
Date of Issue:	2021-06-28
Date Received:	2021-06-25
Date Tested:	2021-06-25
Date Completed:	2021-06-28
Next Due Date:	2021-08-27

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)	1.116
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\*\*\*\*\*

*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:	25-Jun-21	25-Jun-21
Location:	Wellab Office (Calibration Room)	

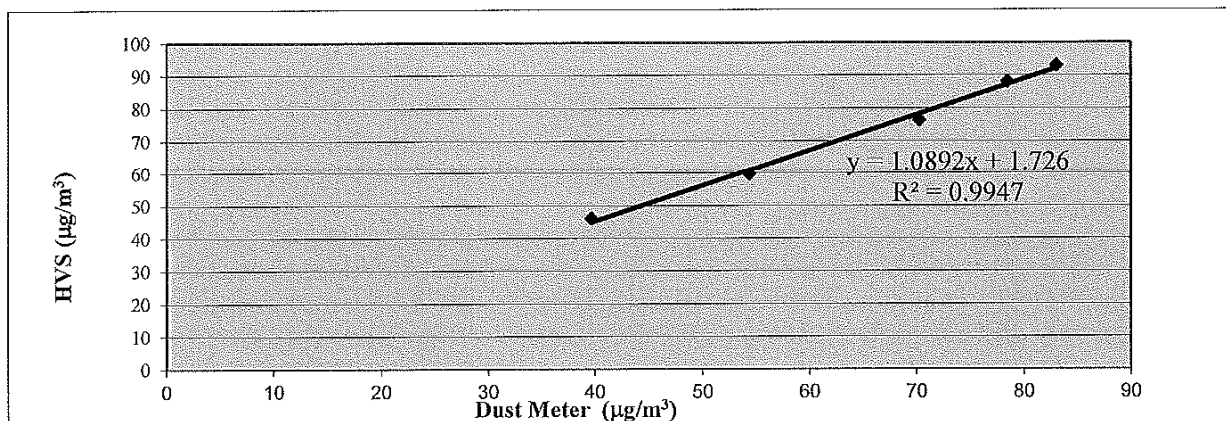
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	40	46
2	54	60
3	70	76
4	79	88
5	83	93
<b>Average</b>	<b>65.2</b>	<b>72.7</b>

By Linear Regression of Y on X  
 Slope, mw = 1.0892 Intercept, bw = 1.7260  
 Correlation coefficient\* = 0.9973

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	72.7
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	65.2
Measuring time, (min)	60

Set Correlation Factor, SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ] 1.116



QC Reviewer: LEE MAN HEE Signature: hee Date: 25-6-2021

**TEST REPORT**

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

Test Report No.:	35375C
Date of Issue:	2021-06-28
Date Received:	2021-06-25
Date Tested:	2021-06-25
Date Completed:	2021-06-28
Next Due Date:	2021-08-27
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)	1.114
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*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:	25-Jun-21	25-Jun-21
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	38	46
2	51	60
3	67	76
4	82	88
5	89	93
<b>Average</b>	<b>65.3</b>	<b>72.7</b>

By Linear Regression of Y on X

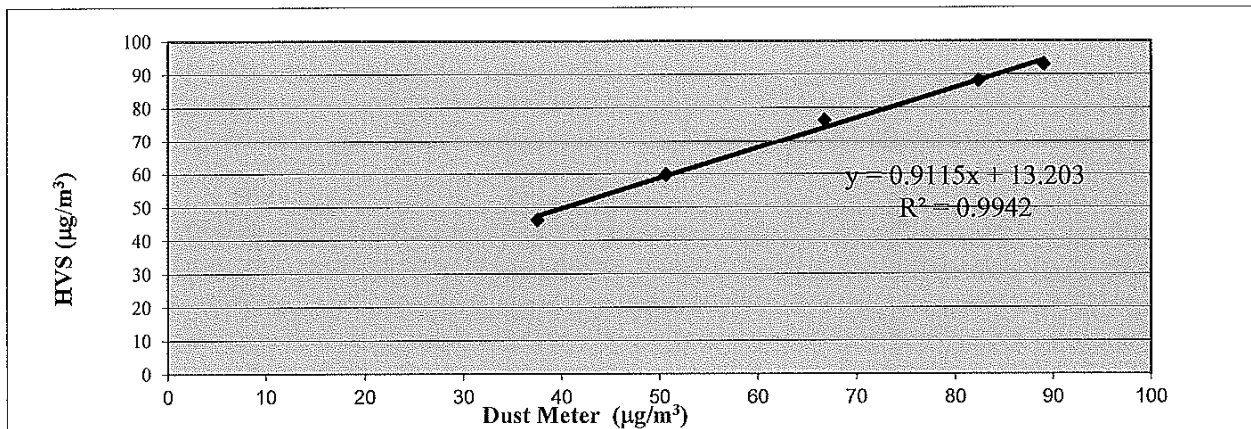
Slope,  $m_w =$  0.9115      Intercept,  $b_w =$  13.2031  
Correlation coefficient\* = 0.9971

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	72.7
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	65.3
Measuring time, (min)	60

Set Correlation Factor, SCF

SCF = [  $K = \text{High Volume Sampler} / \text{Dust Meter}, (\mu\text{g}/\text{m}^3)$  ]      1.114



QC Reviewer: LEE WAN HEE      Signature: hei      Date: 25-6-2021

**TEST REPORT**

**APPLICANT:** Wellab Limited  
(EM&A Department)  
Room 1701, Technology Park,  
18 On Lai Street,  
Shatin, NT, Hong Kong

Test Report No.:	34872B
Date of Issue:	2021-03-08
Date Received:	2021-03-05
Date Tested:	2021-03-05
Date Completed:	2021-03-08
Next Due Date:	2022-03-07

Page: 1 of 1

**ATTN:** Mr. W. K. 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

### TEST REPORT

**APPLICANT:** Wellab Limited  
(EM&A Department)  
Room 1701, Technology Park,  
18 On Lai Street,  
Shatin, NT, Hong Kong

Test Report No.:	34873B
Date of Issue:	2021-03-15
Date Received:	2021-03-12
Date Tested:	2021-03-12
Date Completed:	2021-03-15
Next Due Date:	2022-03-14

Page: 1 of 1

**ATTN:** Mr. W. K. 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:*

For and On Behalf of **WELLAB Ltd.**



**PATRICK TSE**  
General Manager

### TEST REPORT

APPLICANT: Wellab Limited  
(EM&A Department)  
Room 1701, Technology Park,  
18 On Lai Street,  
Shatin, NT, Hong Kong

Test Report No.:	33963A
Date of Issue:	2020-08-21
Date Received:	2020-08-19
Date Tested:	2020-08-19
Date Completed:	2020-08-21
Next Due Date:	2021-08-20

Page: 1 of 1

ATTN: Mr. W. K. 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 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

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**APPENDIX D  
ENVIRONMENTAL MONITORING  
SCHEDULES**

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**Service Contract No. NDO 07/2019**  
**Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po**  
**Impact Air Quality, Noise and Ecological Monitoring Schedule (July 2021)**

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

**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, Noise and Ecological Monitoring Schedule (August 2021)**

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

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

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**APPENDIX E  
AIR QUALITY MONITORING RESULTS  
AND GRAPHICAL PRESENTATION**

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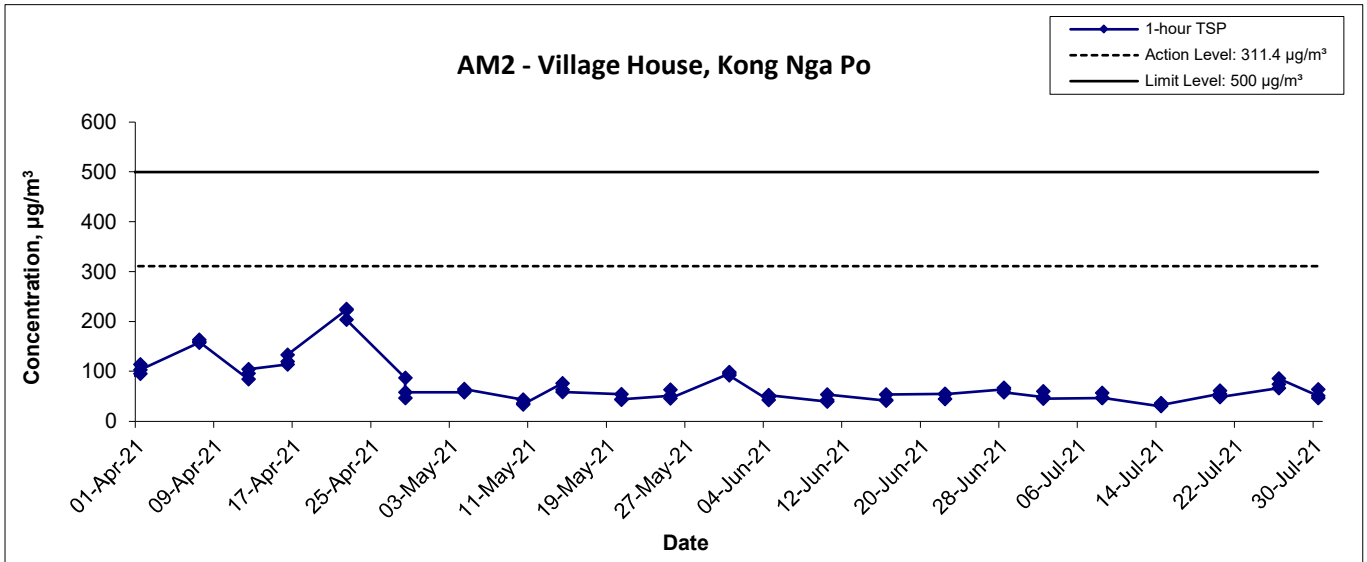
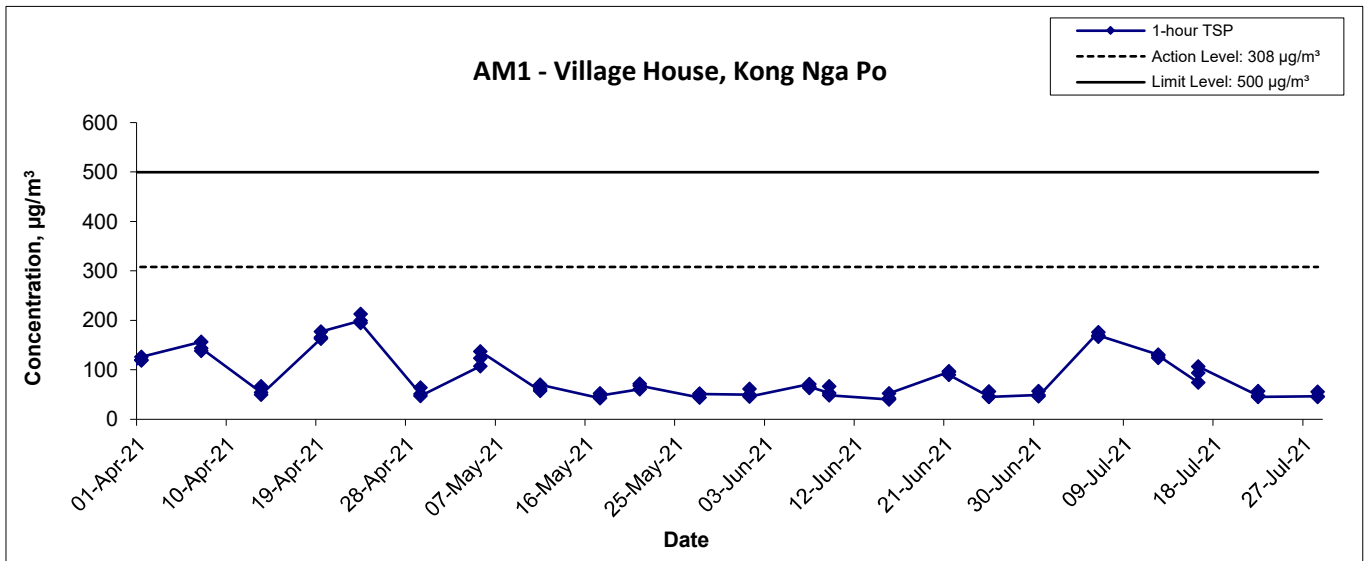
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## Appendix E - 1-hour TSP Monitoring Results

Location AM1 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
6-Jul-21	13:00	Sunny	175.8
6-Jul-21	14:00	Sunny	167.0
6-Jul-21	15:00	Sunny	169.7
12-Jul-21	13:00	Cloudy	130.5
12-Jul-21	14:00	Cloudy	123.9
12-Jul-21	15:00	Cloudy	128.5
16-Jul-21	13:00	Cloudy	74.3
16-Jul-21	14:00	Cloudy	93.8
16-Jul-21	15:00	Cloudy	106.9
22-Jul-21	9:00	Sunny	47.5
22-Jul-21	10:00	Sunny	56.6
22-Jul-21	11:00	Sunny	45.1
28-Jul-21	13:30	Sunny	46.3
28-Jul-21	14:30	Sunny	55.6
28-Jul-21	15:30	Sunny	44.9
		Minimum	44.9
		Maximum	175.8
		Average	97.8

Location AM2 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
2-Jul-21	9:00	Sunny	48.6
2-Jul-21	10:00	Sunny	59.9
2-Jul-21	11:00	Sunny	45.3
8-Jul-21	9:00	Sunny	46.1
8-Jul-21	10:00	Sunny	56.7
8-Jul-21	11:00	Sunny	47.3
14-Jul-21	9:00	Sunny	30.2
14-Jul-21	10:00	Sunny	35.8
14-Jul-21	11:00	Sunny	32.3
20-Jul-21	9:00	Cloudy	55.0
20-Jul-21	10:00	Cloudy	60.8
20-Jul-21	11:00	Cloudy	48.6
26-Jul-21	13:10	Sunny	66.4
26-Jul-21	14:10	Sunny	73.8
26-Jul-21	15:10	Sunny	85.3
30-Jul-21	9:00	Cloudy	51.1
30-Jul-21	10:00	Cloudy	63.5
30-Jul-21	11:00	Cloudy	46.4
		Minimum	30.2
		Maximum	85.3
		Average	53.0

### 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	 consulting . testing . research
	Date Jul 21	Appendix E	

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**APPENDIX F  
NOISE MONITORING RESULTS AND  
GRAPHICAL PRESENTATION**

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**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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
6-Jul-21	Sunny	0.1	13:45	56.9	57.4	52.9	59.1	54.9
			13:50	57.3	60.3	50.6		
			13:55	59.8	59.3	50.2		
			14:00	59.5	61.6	57.1		
			14:05	58.6	60.8	55.6		
			14:10	61.0	63.7	54.1		
12-Jun-21	Cloudy	0.1	13:45	58.4	58.8	54.4	55.8	
			13:50	55.7	57.1	53.8		
			13:55	54.3	55.2	53.1		
			14:00	54.4	56.6	48.1		
			14:05	57.0	58.4	55.2		
			14:10	51.7	54.1	49.2		
22-Jul-21	Sunny	0.1	10:50	60.3	62.0	53.3	61.2	
			10:55	61.4	62.4	60.6		
			11:00	61.2	61.8	60.5		
			11:05	61.6	62.9	60.6		
			11:10	61.3	62.3	60.5		
			11:15	61.4	62.4	60.6		
28-Jul-21	Sunny	0.1	14:15	53.1	54.3	51.1	53.7	
			14:20	53.0	54.9	51.2		
			14:25	53.6	55.2	50.7		
			14:30	54.1	56.4	50.9		
			14:35	54.5	57.6	50.9		
			14:40	53.7	54.2	49.8		

Location NM2 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
6-Jul-21	Sunny	0.0	14:25	64.9	68.4	52.9	67.0	56.7
			14:30	64.2	67.1	57.2		
			14:35	67.5	66.0	57.5		
			14:40	67.8	69.5	65.0		
			14:45	66.7	68.6	63.7		
			14:50	69.1	69.2	64.5		
12-Jul-21	Cloudy	0.1	14:25	61.3	62.5	59.0	61.6	
			14:30	61.5	64.1	58.8		
			14:35	62.4	65.3	59.6		
			14:40	61.3	62.7	59.3		
			14:45	61.9	64.4	59.3		
			14:50	61.1	63.9	57.9		
22-Jul-21	Sunny	0.1	11:30	63.1	66.3	57.8	63.3	
			11:35	60.5	62.7	54.4		
			11:40	63.3	65.3	57.2		
			11:45	62.8	64.7	54.1		
			11:50	64.5	67.8	54.8		
			11:55	64.4	67.3	55.8		
28-Jul-21	Sunny	0.2	14:45	67.1	67.7	51.5	60.9	
			14:50	58.8	61.5	51.9		
			14:55	58.1	61.4	51.8		
			15:00	55.8	58.7	49.7		
			15:05	52.7	54.1	49.1		
			15:10	55.5	58.6	49.8		

**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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
6-Jul-21	Sunny	0.1	15:10	61.1	62.6	50.4	59.6	54.5
			15:15	58.9	62.8	50.8		
			15:20	61.9	66.4	50.9		
			15:25	59.9	64.0	53.6		
			15:30	55.1	57.3	49.8		
15:35	57.6	59.6	50.2	60.0				
12-Jul-21	Cloudy	0.1	15:00		59.4	61.0	54.0	
			15:05		62.0	65.3	51.3	
			15:10		59.9	62.8	50.7	
			15:15		56.8	59.8	50.6	
			15:20	58.7	61.7	50.5		
15:25	61.1	64.9	50.4	61.9				
22-Jul-21	Sunny	0.2	10:00		59.0	60.2	54.6	
			10:05		63.9	64.2	55.5	
			10:10		61.4	62.8	55.0	
			10:15		61.0	62.7	54.8	
			10:20	62.7	63.4	55.2		
10:25	61.9	63.9	55.1	61.5				
28-Jul-21	Sunny	0.1	13:15		67.3	68.1	54.8	
			13:20		60.5	63.3	54.6	
			13:25		57.2	59.3	52.3	
			13:30		57.3	60.4	51.4	
			13:35	57.1	60.2	52.1		
13:40	56.6	59.3	51.8					

Location NM4 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
6-Jul-21	Sunny	0.1	16:20	60.8	63.3	57.1	59.4	58.7
			16:25	58.1	60.4	56.3		
			16:30	59.6	61.8	56.7		
			16:35	60.4	60.6	56.6		
			16:40	58.1	60.2	56.5		
16:45	58.7	60.3	56.9	60.6				
12-Jul-21	Cloudy	0.1	16:15		63.5	64.8	58.9	
			16:20		59.0	61.7	58.4	
			16:25		59.6	62.7	58.8	
			16:30		60.5	62.2	59.0	
			16:35	59.3	60.7	58.5		
16:40	60.0	61.8	58.8	66.2				
22-Jul-21	Sunny	0.1	13:40		69.0	69.1	57.7	
			13:45		65.2	65.8	64.5	
			13:50		64.9	65.4	64.4	
			13:55		65.3	65.7	64.7	
			14:00	65.4	66.1	64.4		
14:05	65.8	66.6	65.1	67.2				
28-Jul-21	Sunny	0.2	15:40		61.3	65.2	60.0	
			15:45		63.7	66.2	61.0	
			15:50		62.4	64.3	60.5	
			15:55		66.5	69.3	61.3	
			16:00	66.1	68.4	62.8		
16:05	72.4	71.1	61.7					

**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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>			
6-Jul-21	Sunny	0.1	15:45	64.5	64.9	50.2	59.1	57.0			
			15:50	56.3	59.7	49.7					
			15:55	55.7	60.1	49.7					
			16:00	54.9	59.0	49.1					
			16:05	55.5	59.4	50.1					
16:10	57.9	61.8	49.5								
12-Jul-21	Cloudy	0.1	15:40	57.7	61.4	51.7	57.5		57.0		
			15:45	59.3	62.6	51.6					
			15:50	54.0	57.1	50.8					
			15:55	58.0	60.7	50.9					
			16:00	56.2	59.6	50.9					
16:05	58.3	62.3	51.3								
22-Jul-21	Sunny	0.1	13:00	69.7	71.6	63.5	65.4			57.0	
			13:05	67.7	70.9	58.2					
			13:10	59.3	63.0	53.7					
			13:15	63.9	63.7	54.6					
			13:20	61.0	64.3	53.7					
13:25	59.5	62.5	54.5								
28-Jul-21	Sunny	0.3	15:30	57.5	59.7	52.2	64.8				57.0
			15:35	57.3	60.3	52.2					
			15:40	63.5	66.5	53.0					
			15:45	60.4	63.3	54.5					
			15:50	69.0	70.7	53.3					
15:55	67.7	72.0	58.4								

Location NM6 - Village House, Sha Ling											
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level			
				L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>			
6-Jul-21	Sunny	0.1	17:35	57.7	58.2	51.3	55.4	56.0			
			17:40	55.6	57.0	49.2					
			17:45	53.0	55.6	50.2					
			17:50	54.6	57.0	50.0					
			17:55	54.7	56.9	49.0					
18:00	55.5	57.2	50.2								
12-Jul-21	Cloudy	0.1	17:35	70.6	72.3	66.9	65.9		56.0		
			17:40	65.8	69.5	61.9					
			17:45	62.2	62.8	61.7					
			17:50	62.9	63.9	61.9					
			17:55	62.6	64.1	61.7					
18:00	63.9	66.4	61.8								
22-Jul-21	Sunny	0.1	15:10	63.9	66.4	58.0	62.5			56.0	
			15:15	62.3	63.2	61.6					
			15:20	62.2	62.9	61.7					
			15:25	62.2	62.7	61.6					
			15:30	62.3	63.5	61.6					
15:35	62.0	62.8	61.4								
28-Jul-21	Cloudy	0.1	16:40	68.1	68.2	61.3	65.5				56.0
			16:45	64.9	68.0	60.1					
			16:50	66.5	66.0	59.8					
			16:55	63.9	65.9	59.9					
			17:00	64.0	65.5	59.5					
17:05	63.9	65.6	59.5								

**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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>			
6-Jul-21	Sunny	0.0	17:00	60.4	62.7	50.3	64.3	49.8			
			17:05	52.8	56.2	49.0					
			17:10	51.2	52.4	49.7					
			17:15	65.6	70.2	49.7					
			17:20	69.2	73.0	62.0					
17:25	64.2	66.5	61.1								
12-Jul-21	Cloudy	0.1	16:50	58.7	61.1	55.9	58.1		49.8		
			16:55	57.7	59.8	53.8					
			17:00	59.8	61.7	53.7					
			17:05	57.2	60.0	53.6					
			17:10	56.1	61.2	47.4					
17:15	58.4	61.1	52.2								
22-Jul-21	Sunny	0.1	14:25	54.4	56.6	50.7	54.9			49.8	
			14:30	53.5	55.0	50.3					
			14:35	54.7	55.7	54.5					
			14:40	56.5	57.3	54.0					
			14:45	55.1	57.3	53.7					
14:50	54.6	56.9	52.6								
28-Jul-21	Cloudy	0.1	16:30	68.1	71.9	61.7	66.4				49.8
			16:35	68.3	72.0	60.9					
			16:40	66.2	69.8	60.5					
			16:45	64.7	67.3	59.9					
			16:50	65.0	68.2	59.7					
16:55	64.3	67.5	60.0								

Location NM8 - Village House, Sha Ling											
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level			
				L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>			
8-Jul-21	Sunny	0.0	09:45	57.9	60.7	55.3	57.2	57.6			
			09:50	58.0	61.6	51.7					
			09:55	56.9	60.1	50.8					
			10:00	56.6	58.9	49.5					
			10:05	56.8	59.6	50.3					
10:10	57.0	60.2	51.0								
14-Jul-21	Cloudy	0.2	13:00	59.2	57.6	44.5	53.9		57.6		
			13:05	53.3	55.1	45.7					
			13:10	47.1	50.0	43.9					
			13:15	50.6	53.7	45.1					
			13:20	50.2	52.4	44.9					
13:25	52.2	55.4	46.0								
20-Jul-21	Cloudy	0.9	10:30	54.8	57.8	49.6	55.8			57.6	
			10:35	56.1	58.2	51.2					
			10:40	55.3	57.6	51.8					
			10:45	55.7	56.9	50.6					
			10:50	56.8	57.4	52.9					
10:55	55.8	58.2	52.1								
30-Jul-21	Cloudy	0.2	09:45	66.8	70.2	50.5	61.4				57.6
			09:50	54.2	56.7	50.0					
			09:55	60.0	60.2	50.6					
			10:00	60.8	65.6	50.7					
			10:05	56.7	55.5	49.6					
10:10	58.1	56.6	48.4								

**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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
8-Jul-21	Sunny	0.1	10:30	57.0	59.5	54.8	57.3	55.9	
			10:35	56.8	58.2	53.2			
			10:40	57.6	59.7	54.0			
			10:45	58.0	59.5	54.1			
			10:50	57.5	59.0	54.0			
10:55	56.5	57.6	53.6						
14-Jul-21	Cloudy	0.4	13:40	62.9	63.5	59.1	64.9		55.9
			13:45	66.5	67.3	60.9			
			13:50	66.7	69.4	62.4			
			13:55	63.4	64.7	59.1			
			14:00	61.9	63.6	59.1			
14:05	65.5	68.8	58.7						
20-Jul-21	Cloudy	0.6	11:25	68.4	71.0	64.5	69.8	55.9	
			11:30	69.4	71.6	66.8			
			11:35	70.8	73.1	66.2			
			11:40	69.7	71.8	66.1			
			11:45	70.7	73.8	66.4			
11:50	69.3	72.0	65.5						
30-Jul-21	Cloudy	0.1	10:40	59.6	61.2	57.3	59.4		55.9
			10:45	59.9	61.4	58.7			
			10:50	60.5	62.2	57.4			
			10:55	59.4	61.8	56.4			
			11:00	58.4	59.9	56.2			
11:05	57.8	59.3	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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
6-Jul-21	Sunny	0.1	13:00	55.7	56.3	50.2	55.2	52.8	
			13:05	54.6	55.8	47.2			
			13:10	51.4	53.8	47.9			
			13:15	54.5	56.4	50.0			
			13:20	55.0	57.1	48.7			
13:25	56.0	57.6	53.3						
12-Jul-21	Cloudy	0.1	13:00	51.6	53.6	49.3	52.7		52.8
			13:05	50.8	52.8	48.7			
			13:10	50.0	50.8	48.9			
			13:15	56.7	60.7	50.6			
			13:20	51.8	53.7	49.9			
13:25	51.4	52.8	49.4						
22-Jul-21	Sunny	0.1	09:10	58.0	59.5	54.8	56.7	52.8	
			09:15	59.1	62.0	55.6			
			09:20	56.9	59.1	50.2			
			09:25	54.4	57.1	50.3			
			09:30	54.6	58.8	50.6			
09:35	54.8	57.7	49.3						
28-Jul-21	Sunny	0.1	13:30	58.1	59.8	54.5	56.6		52.8
			13:35	56.5	59.0	53.9			
			13:40	56.8	58.0	54.6			
			13:45	55.9	57.5	53.9			
			13:50	56.2	58.1	54.0			
13:55	55.9	58.1	53.6						

**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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
8-Jul-21	Sunny	0.1	11:15	46.2	47.5	40.9	45.6	46.4
			11:20	42.8	44.2	41.0		
			11:25	45.0	46.5	42.1		
			11:30	45.4	47.5	42.3		
			11:35	46.3	48.3	42.4		
			11:40	47.0	59.4	41.6		
14-Jul-21	Cloudy	0.1	14:15	51.4	53.5	49.2	51.2	
			14:20	53.3	55.0	51.3		
			14:25	50.6	51.6	49.2		
			14:30	49.5	50.2	48.4		
			14:35	52.0	46.8	48.2		
			14:40	48.9	49.4	47.9		
20-Jul-21	Cloudy	0.8	13:00	48.5	51.2	44.0	48.8	
			13:05	48.3	51.0	43.3		
			13:10	48.6	51.4	44.3		
			13:15	49.0	51.7	44.5		
			13:20	49.2	51.7	44.6		
			13:25	49.0	51.6	44.8		
30-Jul-21	Cloudy	0.3	13:00	59.8	60.8	46.6	52.9	
			13:05	49.4	54.1	46.6		
			13:10	43.6	45.6	41.1		
			13:15	46.4	50.3	40.6		
			13:20	42.6	44.4	40.4		
			13:25	47.3	53.6	40.7		

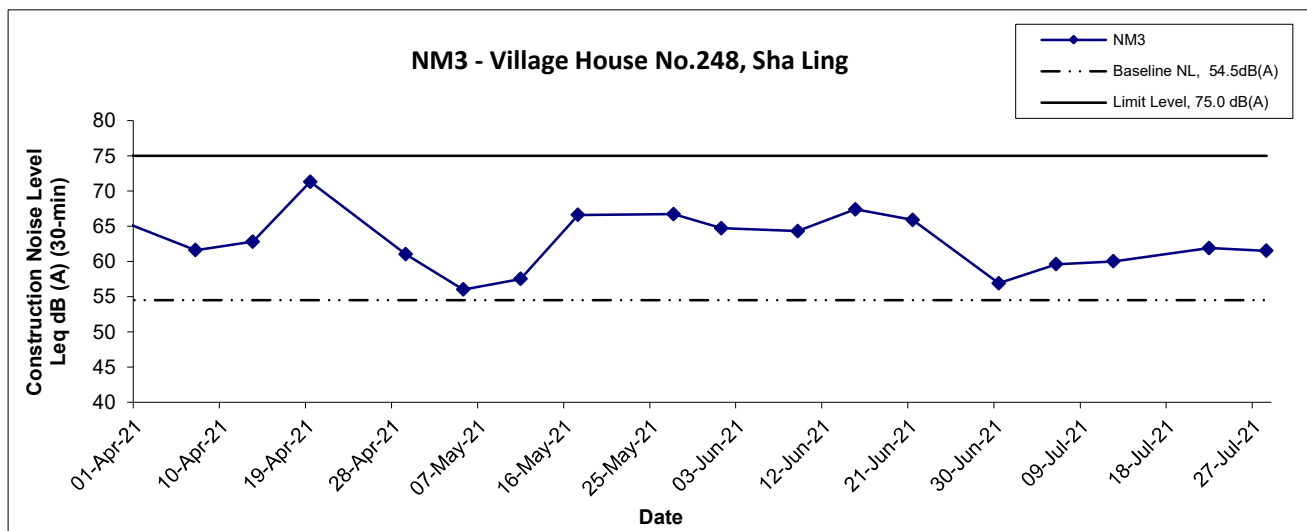
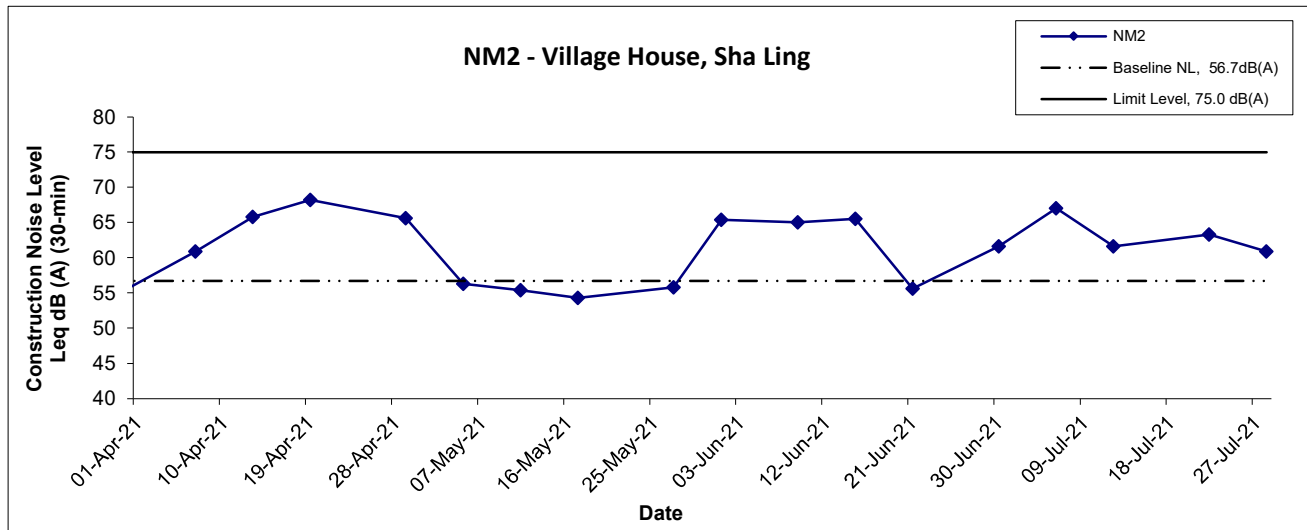
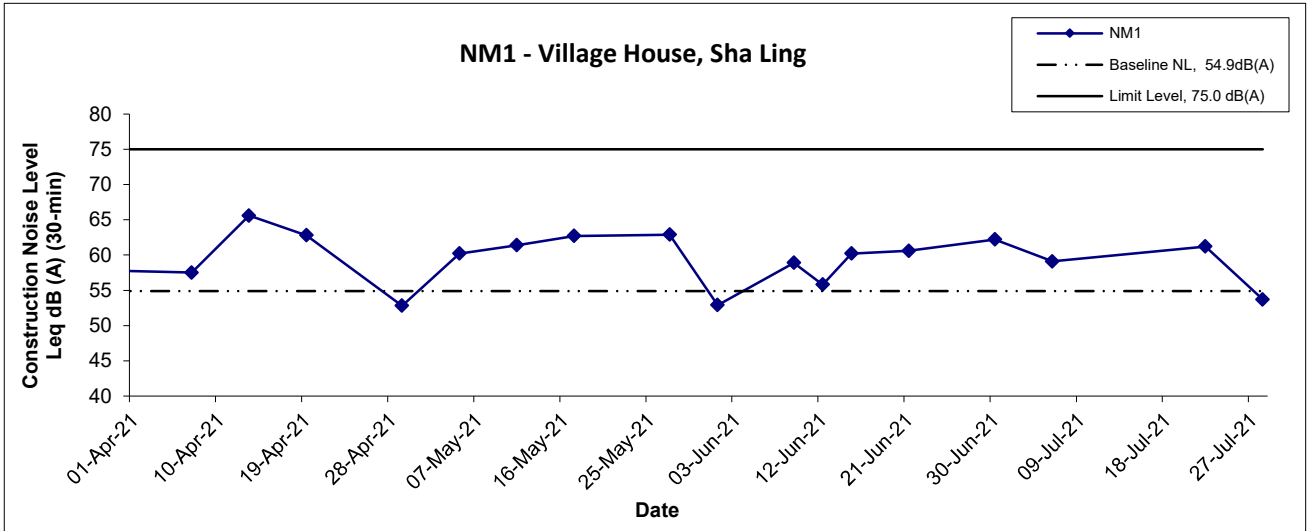
Location NM12 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
8-Jul-21	Sunny	0.1	09:00	55.7	57.1	53.6	55.5	54.7
			09:05	56.0	57.3	52.9		
			09:10	55.8	56.9	53.3		
			09:15	55.9	56.7	53.6		
			09:20	55.1	57.0	53.3		
			09:25	54.3	55.9	52.2		
14-Jul-21	Sunny	0.1	11:30	54.1	54.4	53.3	54.0	
			11:35	53.4	53.6	53.0		
			11:40	53.3	53.5	53.1		
			11:45	53.9	55.0	53.1		
			11:50	55.0	55.4	54.6		
			11:55	54.0	54.9	52.8		
20-Jul-21	Cloudy	0.7	09:30	69.4	71.6	66.8	69.8	
			09:35	70.8	73.1	66.2		
			09:40	69.7	71.8	66.1		
			09:45	70.7	73.8	66.4		
			09:50	69.3	72.0	65.5		
			09:55	68.4	71.0	64.5		
30-Jul-21	Cloudy	0.1	09:00	69.1	70.9	62.0	67.9	
			09:05	70.2	71.0	65.2		
			09:10	68.5	68.7	65.9		
			09:15	66.4	67.6	64.9		
			09:20	66.4	67.2	64.9		
			09:25	64.6	67.1	56.8		

**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 <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
8-Jul-21	Sunny	0.2	13:00	48.0	51.2	44.3	49.5	61.3	
			13:05	50.5	53.3	44.2			
			13:10	50.4	53.0	45.1			
			13:15	48.7	50.6	42.5			
			13:20	48.6	50.5	42.6			
13:25	50.0	52.9	43.6						
14-Jul-21	Sunny	0.1	14:50	55.8	54.8	46.9	51.7		61.3
			14:55	49.6	52.8	46.2			
			15:00	49.9	52.2	47.6			
			15:05	49.8	52.2	47.4			
			15:10	49.8	52.0	47.0			
15:15	51.1	52.7	47.8						
20-Jul-21	Cloudy	0.1	13:45	52.1	56.9	49.9	52.3	61.3	
			13:50	54.6	58.1	47.1			
			13:55	52.7	54.8	47.3			
			14:00	52.1	54.9	45.6			
			14:05	52.5	55.8	46.0			
14:10	46.8	50.2	43.9						
30-Jul-21	Cloudy	0.1	14:15	66.0	70.9	48.5	58.8		61.3
			14:20	50.7	54.4	47.8			
			14:25	49.4	51.8	46.8			
			14:30	51.9	54.6	46.3			
			14:35	48.6	50.3	46.4			
14:40	49.6	51.0	46.8						

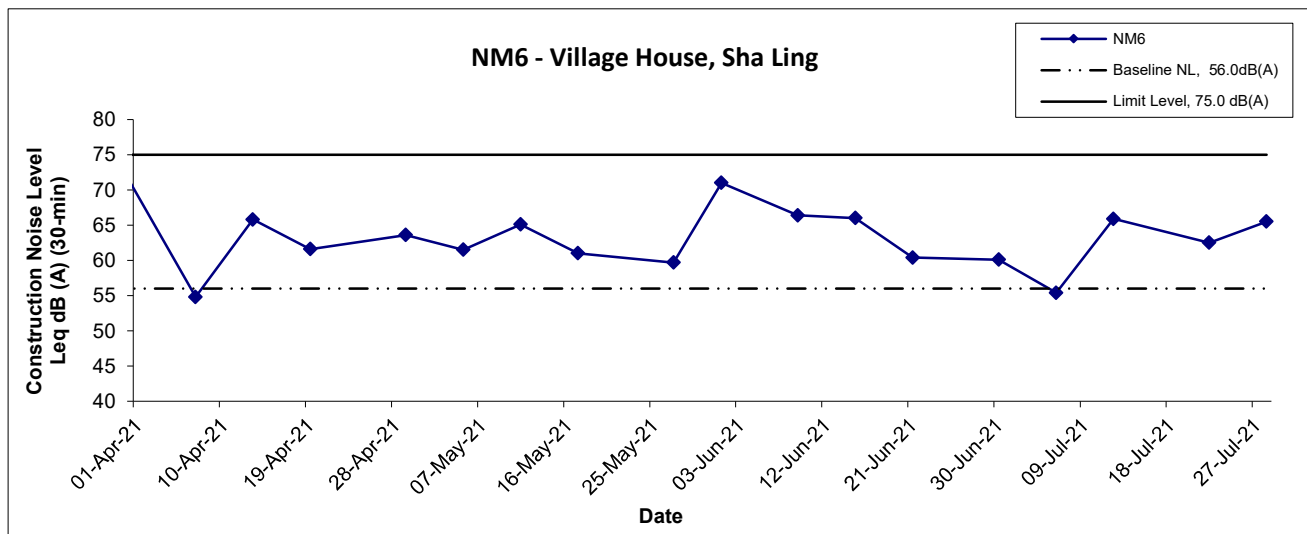
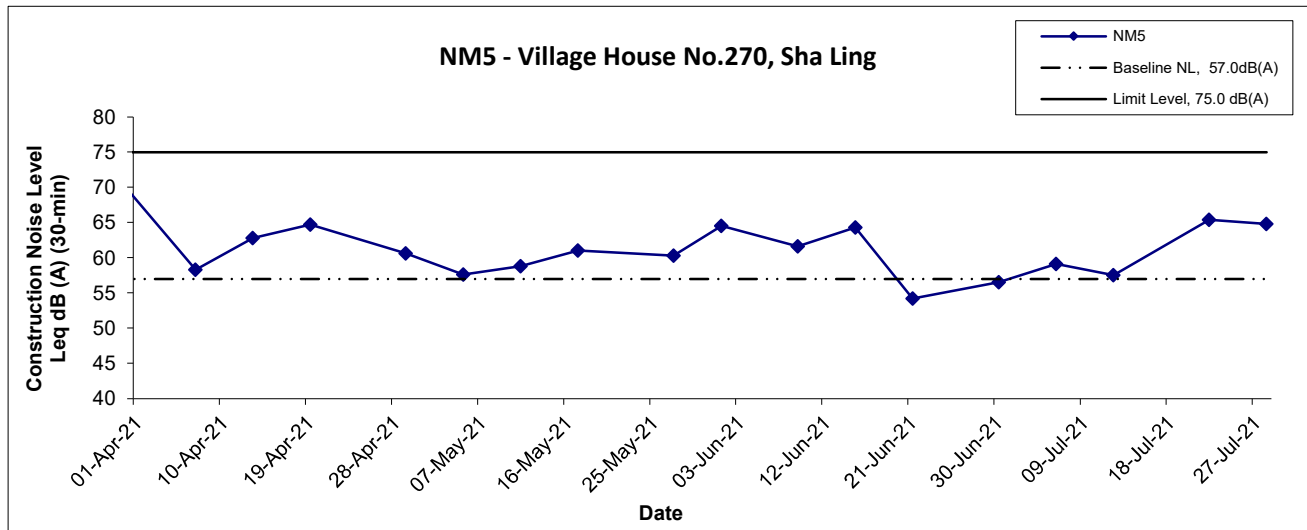
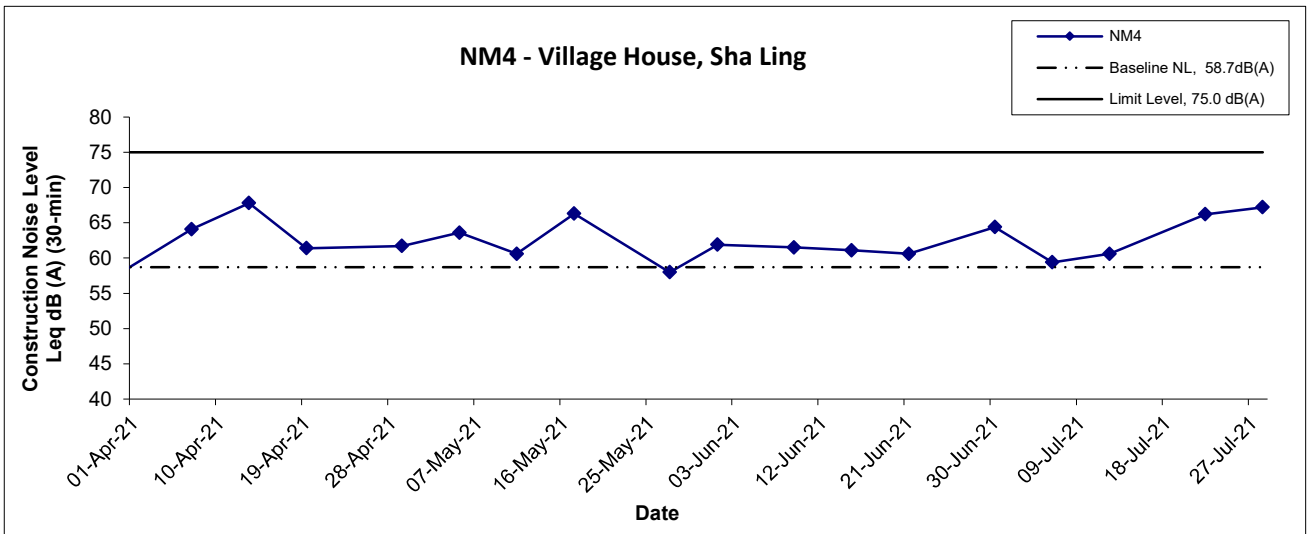
Location NM14 - Village House, near Man Kam To Road									
Date	Weather	Wind Speed (m/s)	Time				Average	Baseline Level	
				L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
8-Jul-21	Sunny	0.0	14:00	53.2	54.5	43.2	53.0	59.6	
			14:05	54.0	56.9	42.4			
			14:10	54.3	56.2	42.2			
			14:15	47.9	51.0	43.0			
			14:20	51.0	52.2	43.5			
14:25	54.4	57.0	43.3						
14-Jul-21	Sunny	0.1	16:00	57.2	64.7	42.5	56.0		59.6
			16:05	45.6	49.5	40.0			
			16:10	60.3	68.0	40.0			
			16:15	46.0	46.5	40.1			
			16:20	51.0	50.2	39.5			
16:25	57.8	62.6	39.8						
20-Jul-21	Cloudy	0.1	14:35	51.0	53.1	46.1	52.5	59.6	
			14:40	51.6	54.3	47.4			
			14:45	53.1	56.1	46.9			
			14:50	53.4	55.7	49.6			
			14:55	52.7	55.2	47.6			
15:00	52.8	55.3	48.9						
30-Jul-21	Cloudy	0.1	16:10	53.0	53.1	45.8	52.4		59.6
			16:15	52.0	54.8	45.7			
			16:20	54.1	58.4	46.8			
			16:25	53.7	58.2	46.0			
			16:30	50.8	53.4	45.6			
16:35	49.2	51.8	45.7						

## 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	Project No. WMA20001	consulting . testing . research
	Date Jul 21	Appendix F	

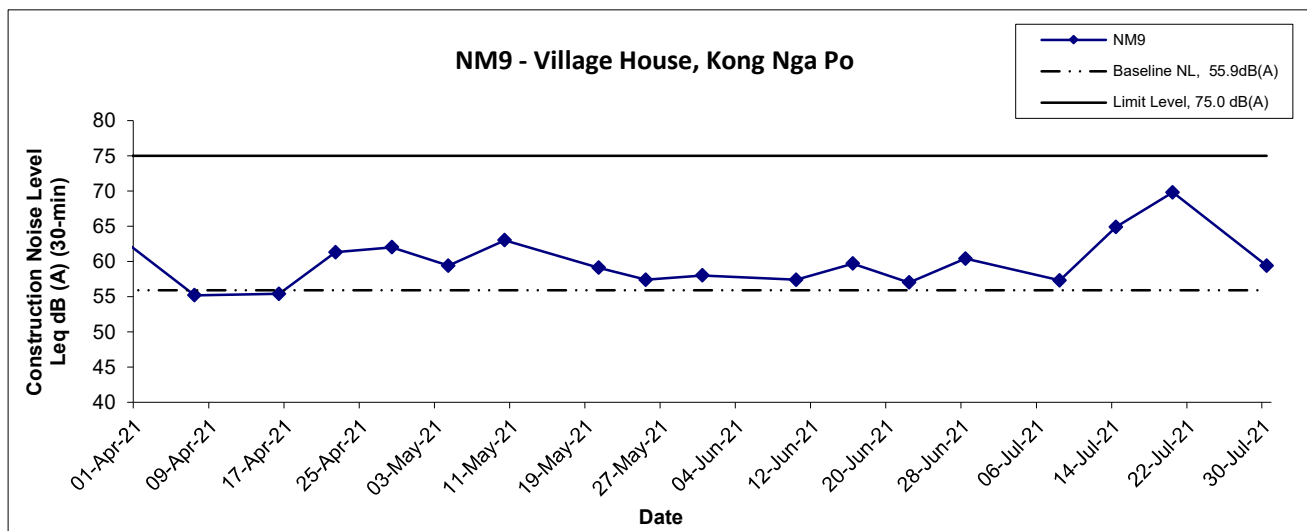
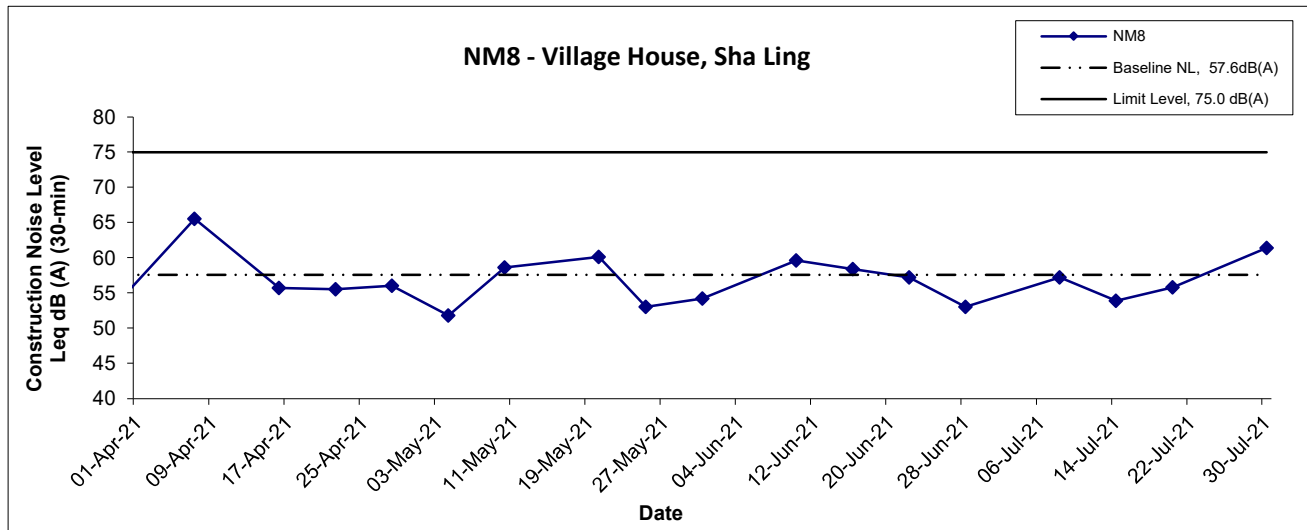
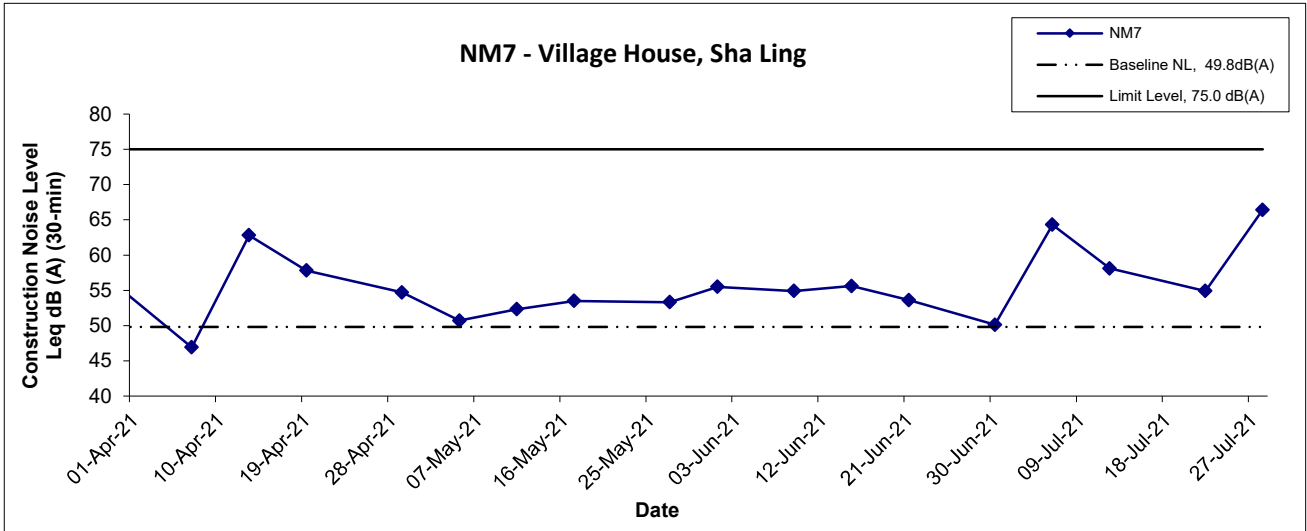
## Noise Levels



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
	Date	Jul 21	Appendix	F



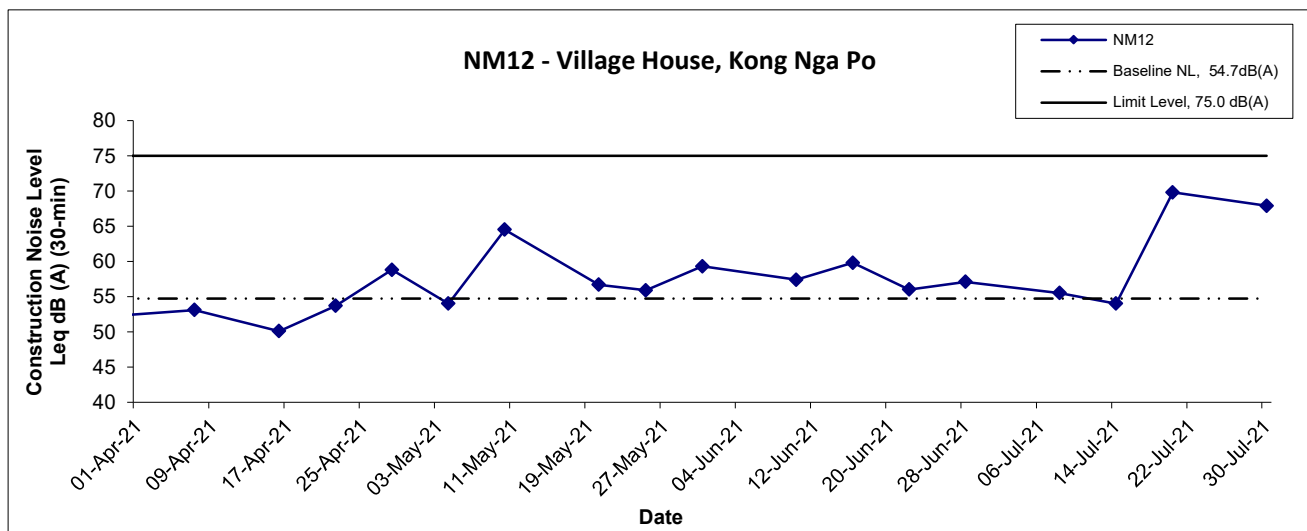
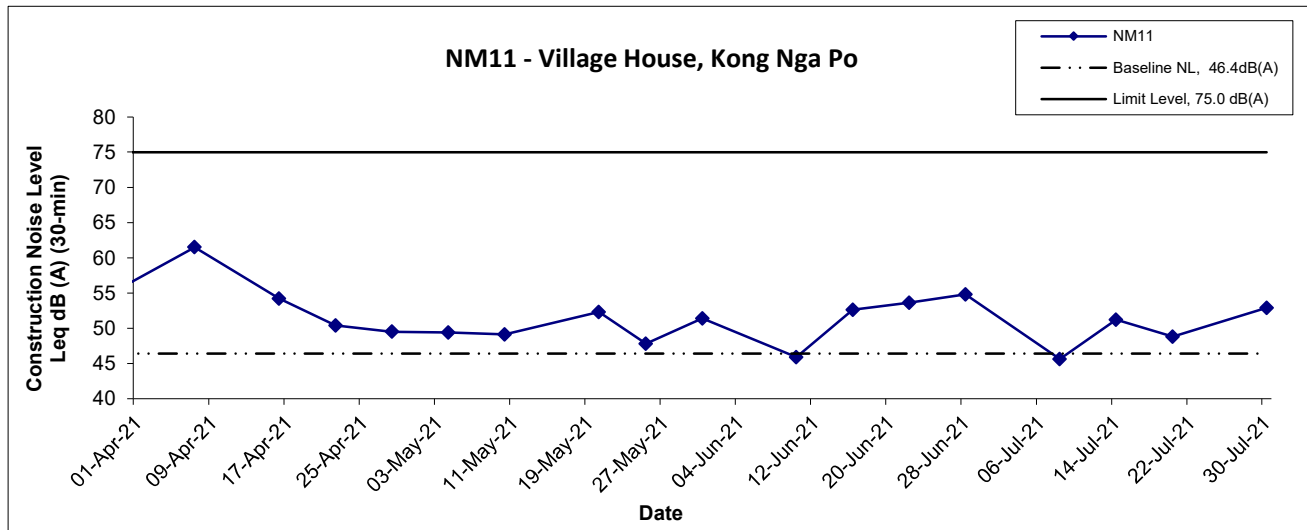
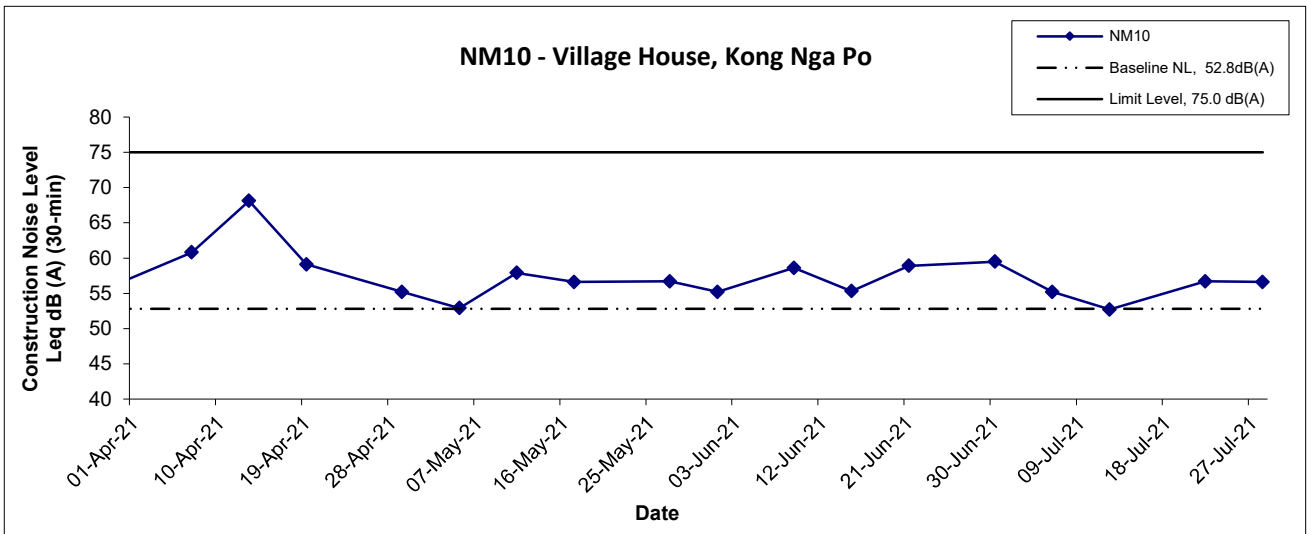
## Noise Levels



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
	Date	Jul 21	Appendix	F

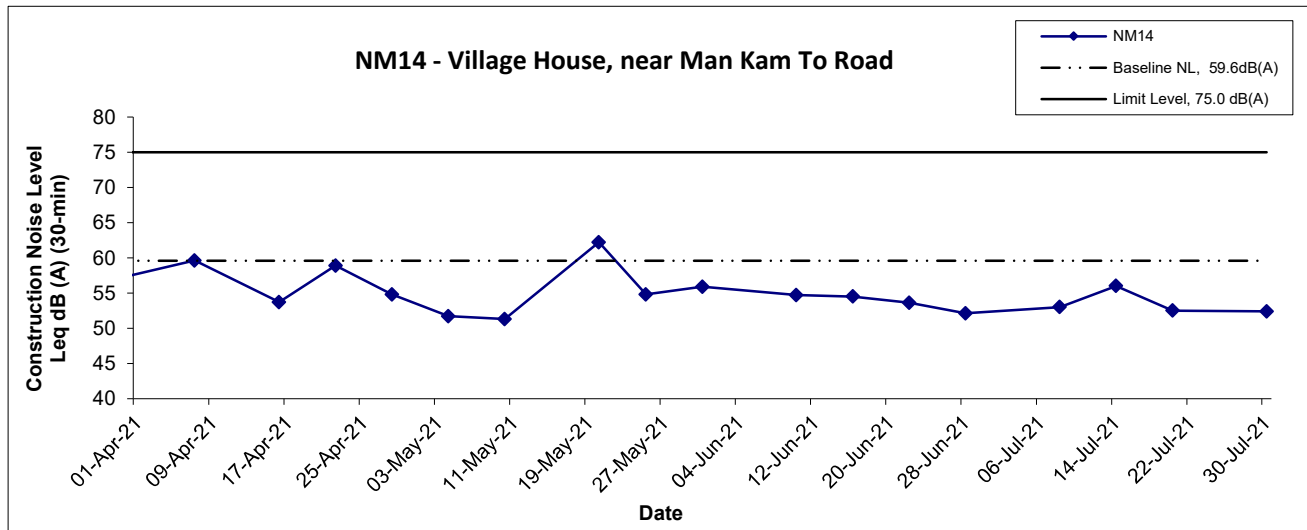
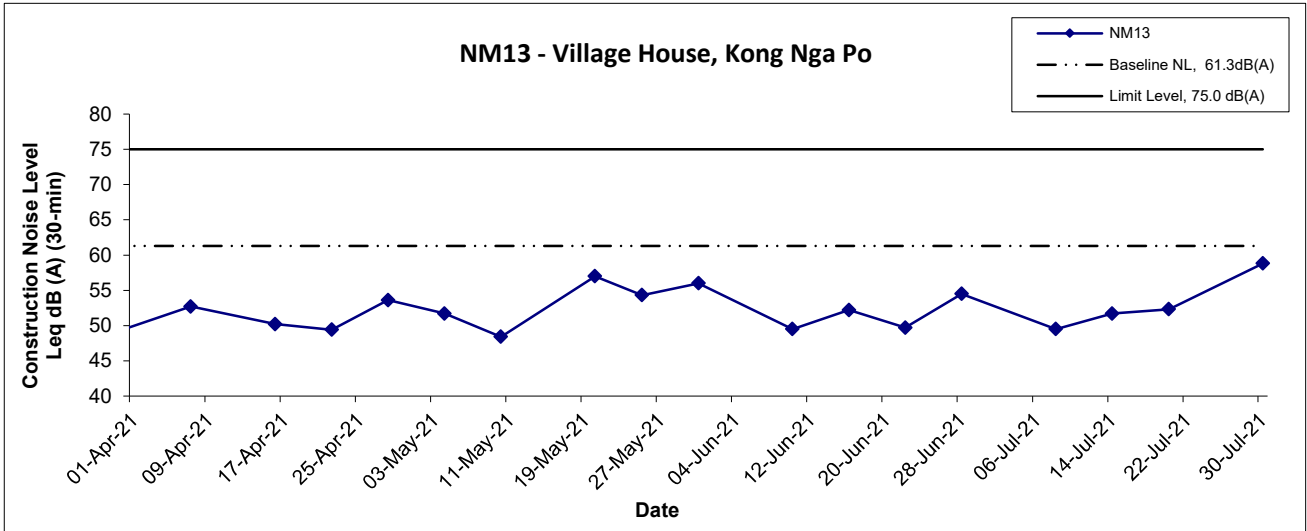


## Noise Levels



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	consulting . testing . research
	Date Jul 21	Appendix F	

## 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	匯力 consulting . testing . research
	Date Jul 21	Appendix F	

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**APPENDIX G  
WEATHER CONDITION**

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**Appendix G –****General Weather Conditions during the Monitoring Period (July 2021)**

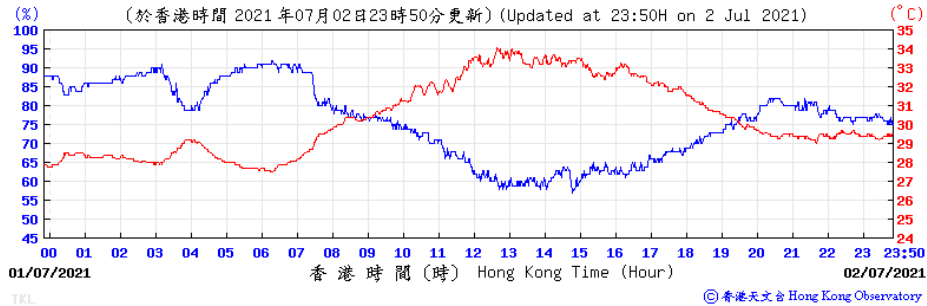
<b>Date</b>	<b>Mean Air Temperature (°C)</b>	<b>Mean Relative Humidity (%)</b>	<b>Precipitation (mm)</b>
1 July 21	30.3	78	Trace
2 July 21	30.6	77	-
3 July 21	30.4	79	Trace
4 July 21	30.4	79	-
5 July 21	30.2	79	2.3
6 July 21	29.4	80	18.4
7 July 21	29.4	81	11.7
8 July 21	29.8	79	1.5
9 July 21	30.5	76	-
10 July 21	30.5	76	-
11 July 21	30.6	77	Trace
12 July 21	30.9	75	0.1
13 July 21	31.1	72	-
14 July 21	30.7	75	1.5
15 July 21	31.3	71	-
16 July 21	29.6	78	Trace
17 July 21	28.8	80	0.2

<b>Date</b>	<b>Mean Air Temperature (°C)</b>	<b>Mean Relative Humidity (%)</b>	<b>Precipitation (mm)</b>
18 July 21	26.9	90	42.4
19 July 21	26.5	93	117.2
20 July 21	26.2	94	87.8
21 July 21	26.8	94	28.4
22 July 21	29.3	80	-
23 July 21	30.3	77	-
24 July 21	29.8	82	26.5
25 July 21	29.6	81	8.9
26 July 21	30.7	78	-
27 July 21	31.3	75	Trace
28 July 21	30.8	79	Trace
29 July 21	29.5	82	7.8
30 July 21	28.8	73	7.9
31 July 2021	29.7	84	16.9

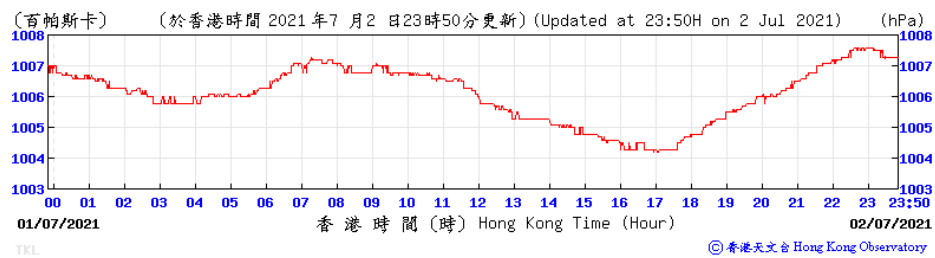
\* The above information was extracted from the daily weather summary by Hong Kong Observatory.

## 2 July 2021

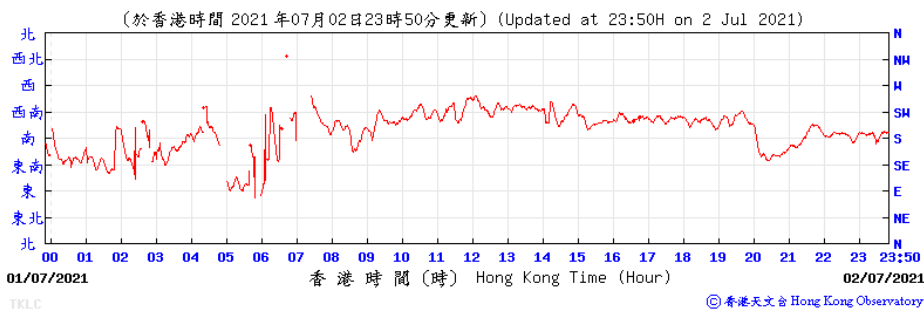
### Temperature/Humidity:



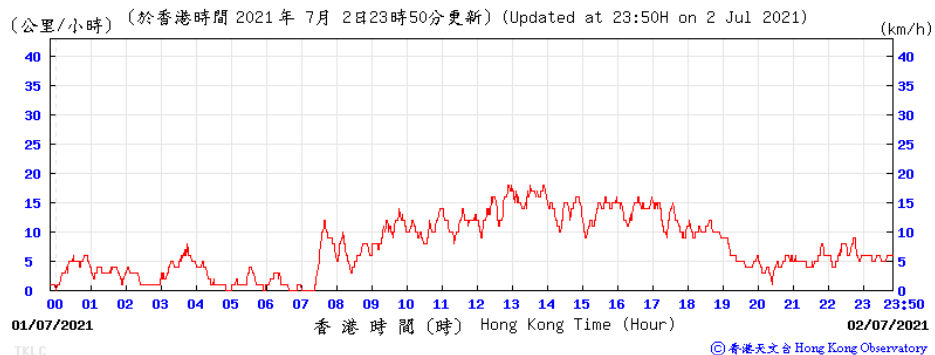
### Pressure:




### Wind Direction:



### Wind Speed:



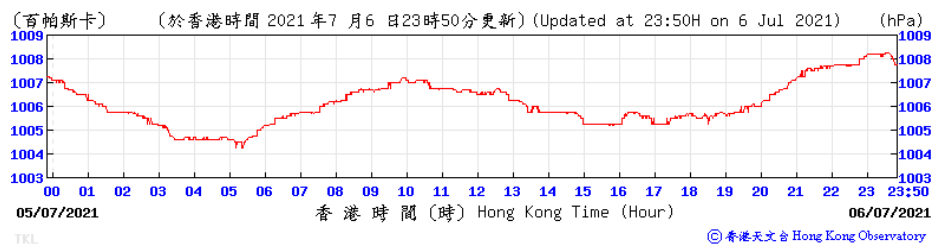
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
	Date July 21	Appendix G	

## 6 July 2021

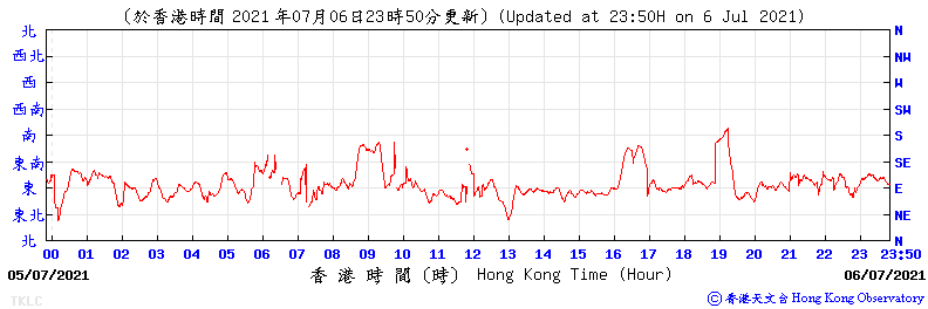
Temperature/Humidity:

The record of Temperature and Humidity provided by Hong Kong observatory is not available for download.

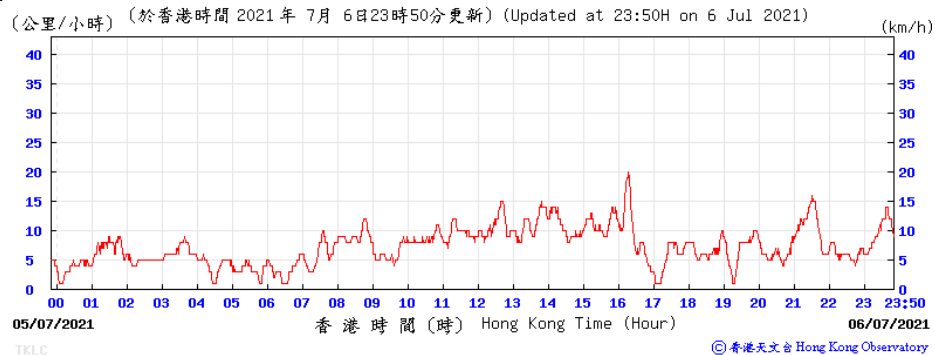
Pressure:



Wind Direction:



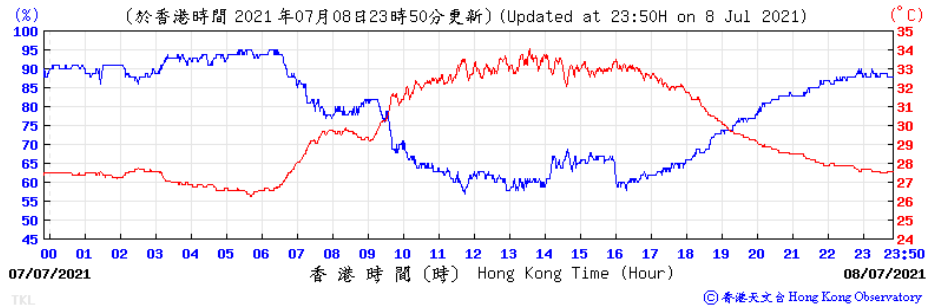
Wind Speed:



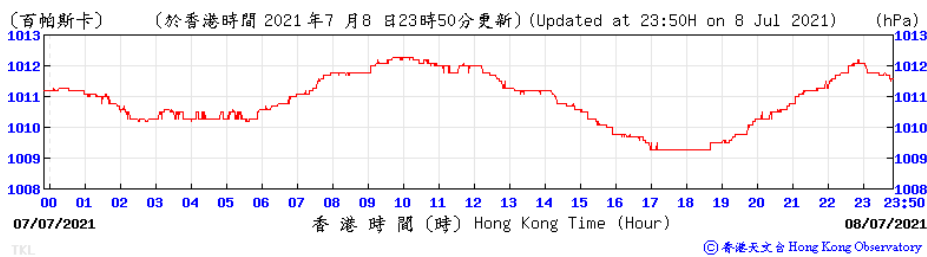
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	
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## 8 July 2021

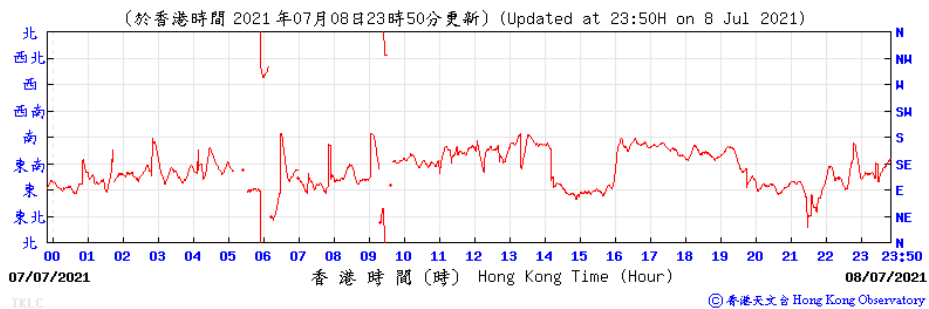
### Temperature/Humidity:



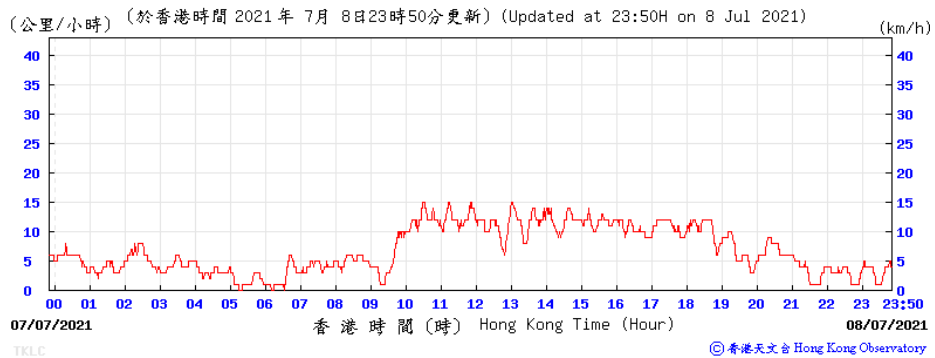
### Pressure:




### Wind Direction:



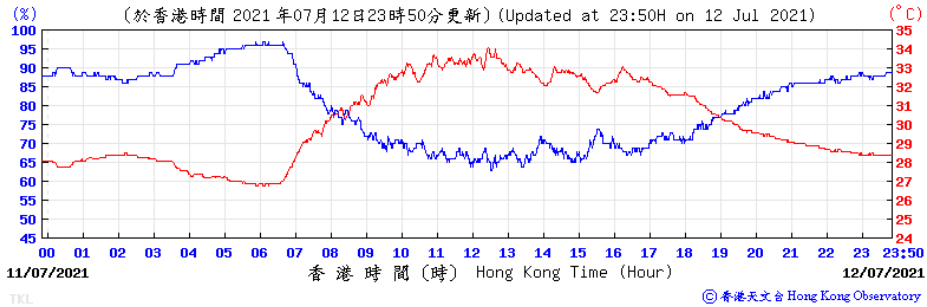
### Wind Speed:



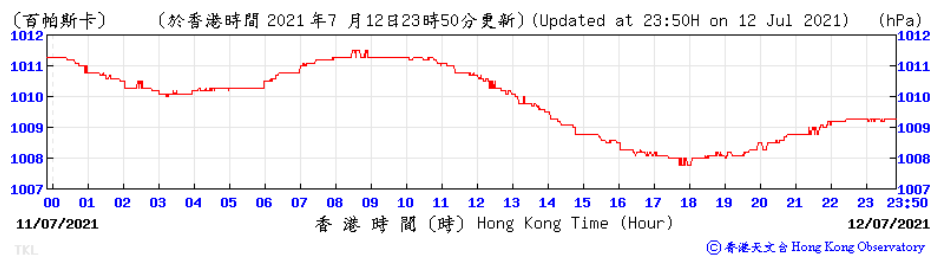
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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**12 July 2021**

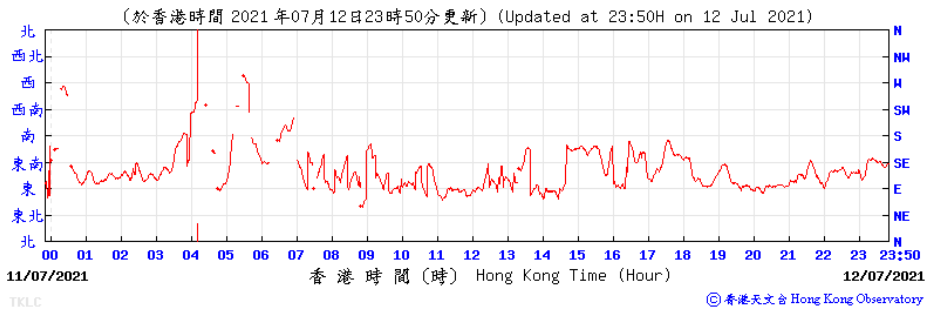
**Temperature/Humidity:**



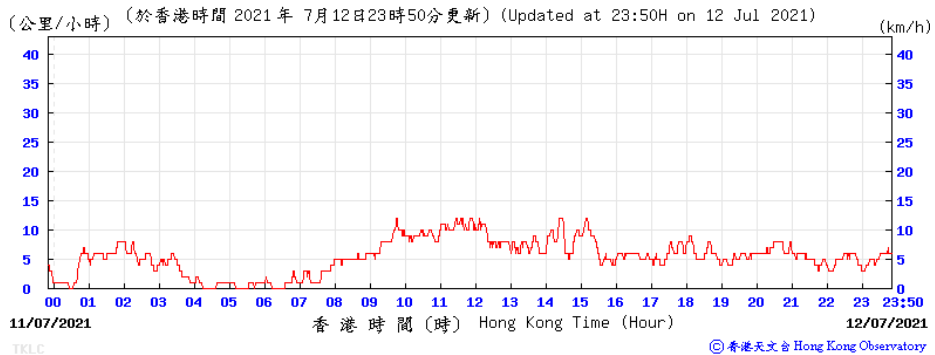
**Pressure:**




**Wind Direction:**



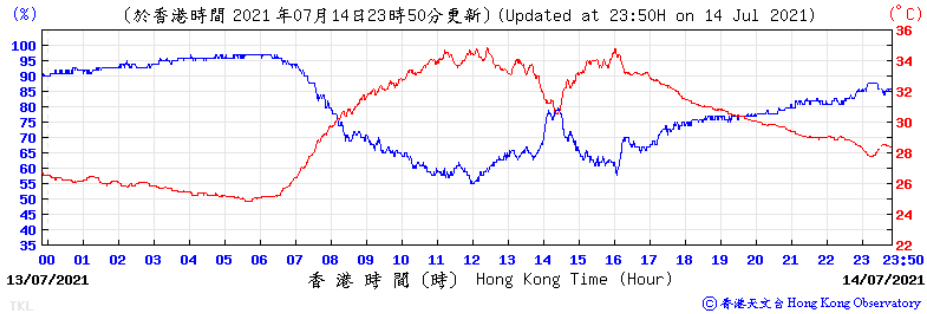
**Wind Speed:**



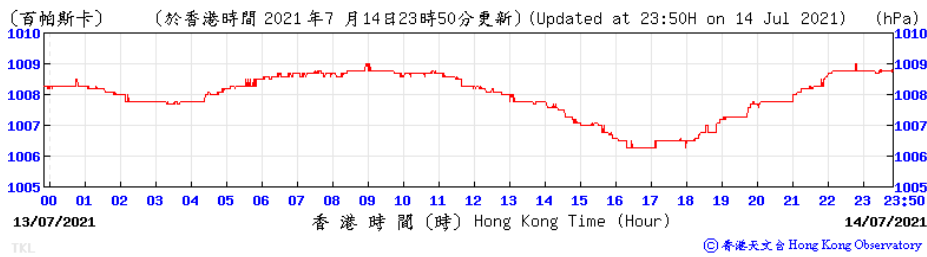
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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**14 July 2021**

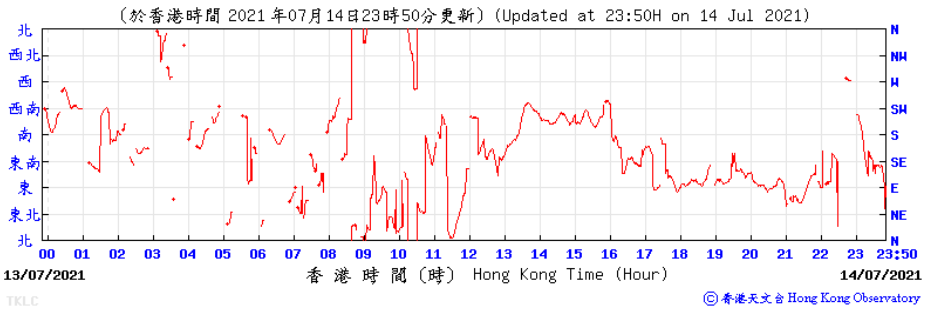
**Temperature/Humidity:**



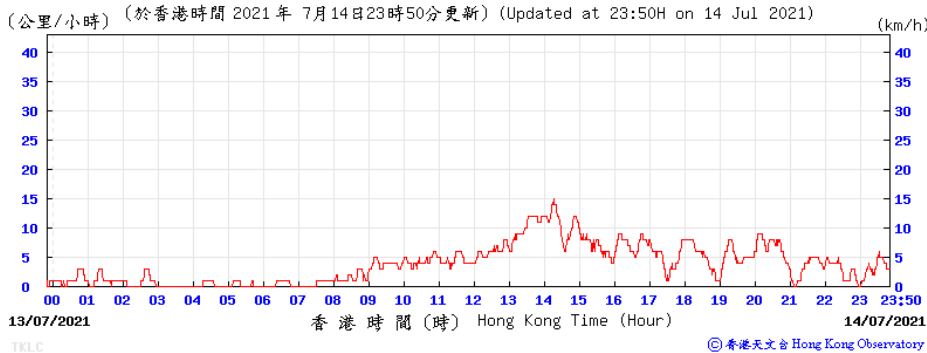
**Pressure:**




**Wind Direction:**



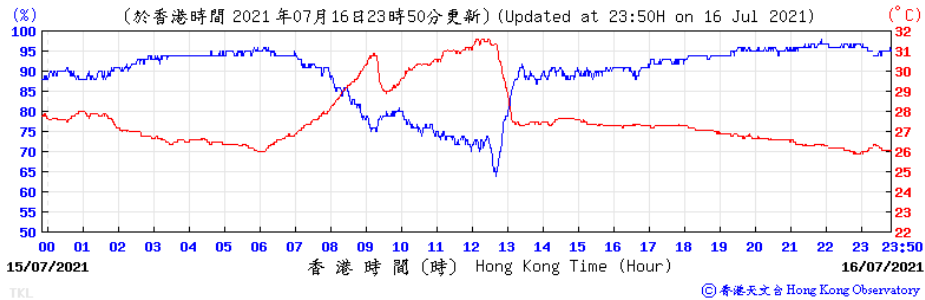
**Wind Speed:**



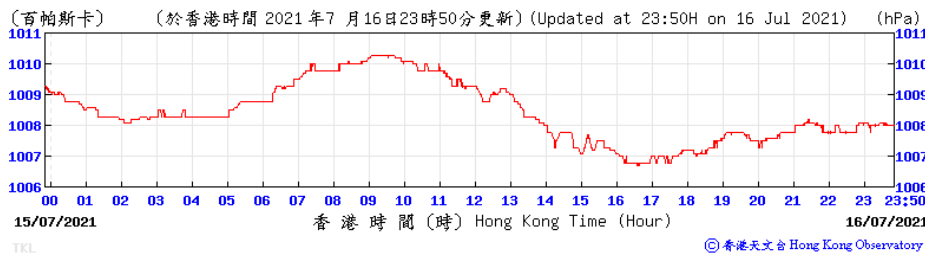
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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**16 July 2021**

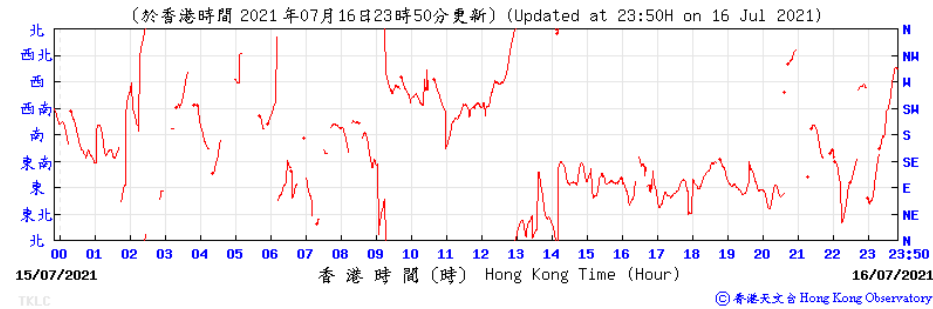
**Temperature/Humidity:**



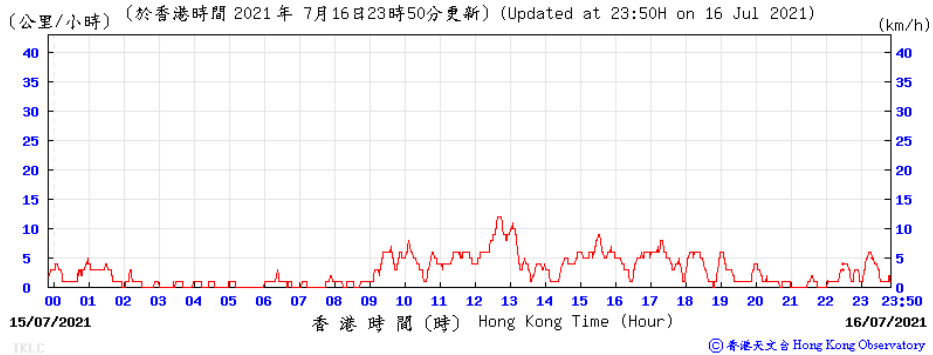
**Pressure:**




**Wind Direction:**



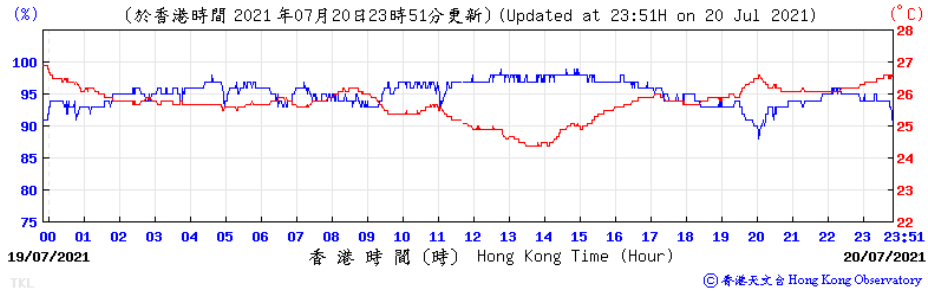
**Wind Speed:**



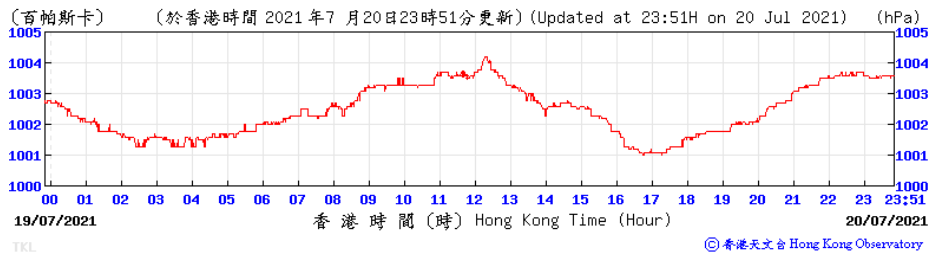
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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20 July 2021

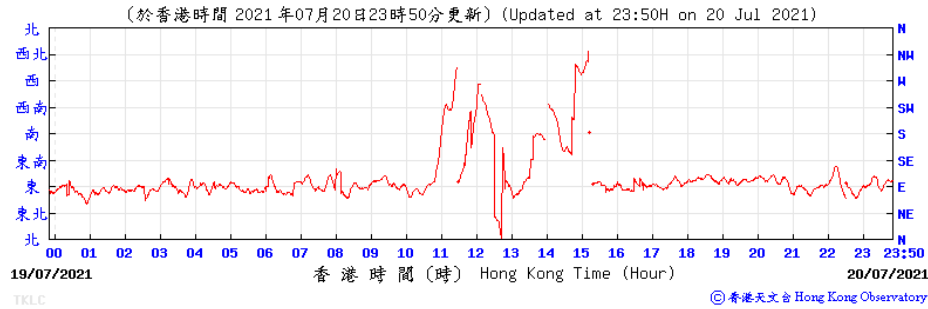
Temperature/Humidity:



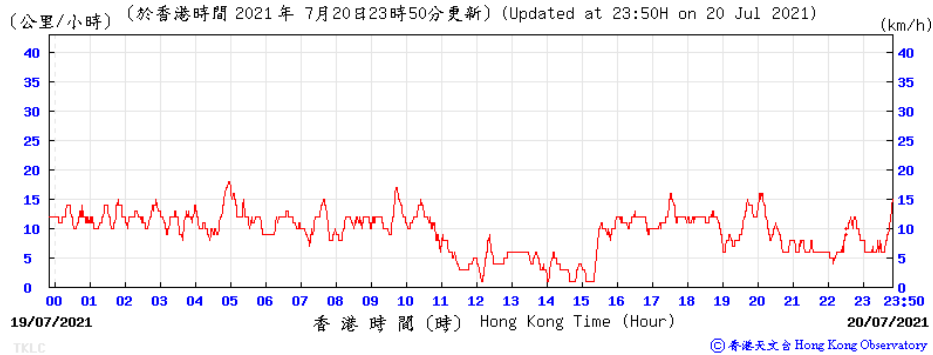
Pressure:



Wind Direction:



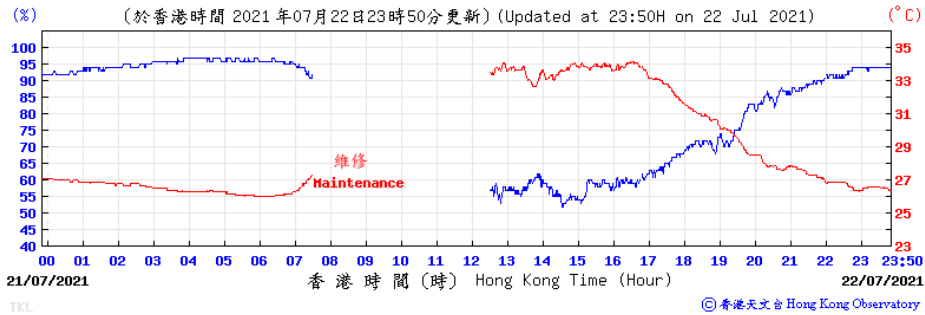
Wind Speed:



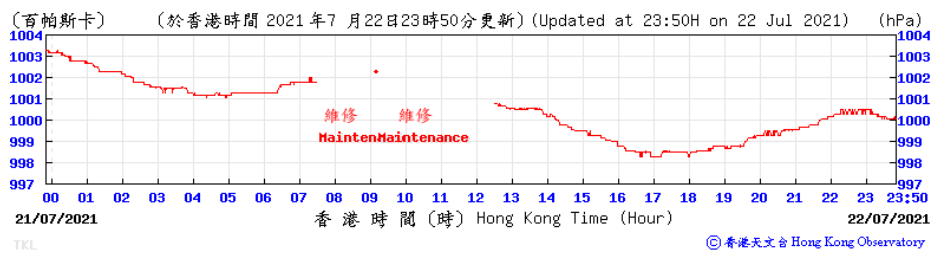
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	
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22 July 2021

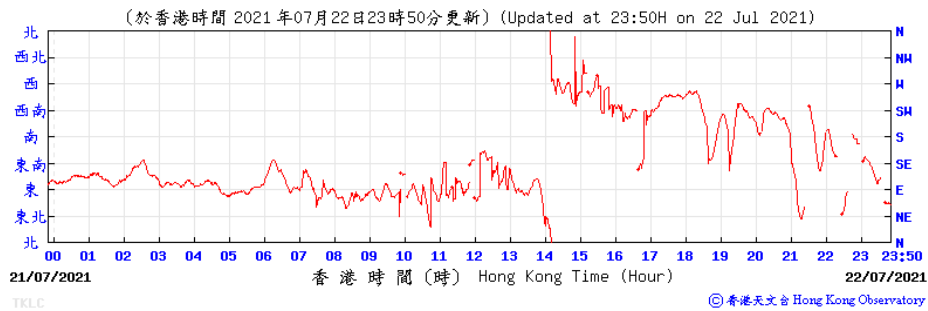
Temperature/Humidity:



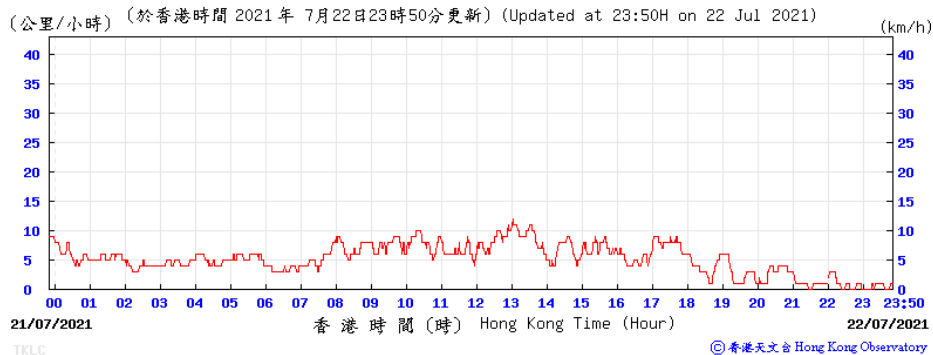
Pressure:




Wind Direction:



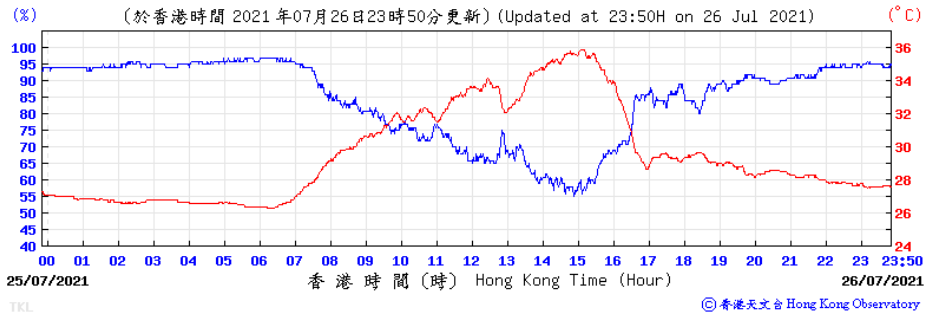
Wind Speed:



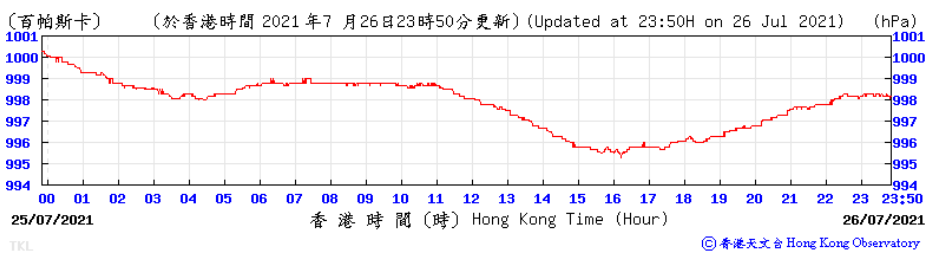
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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26 July 2021

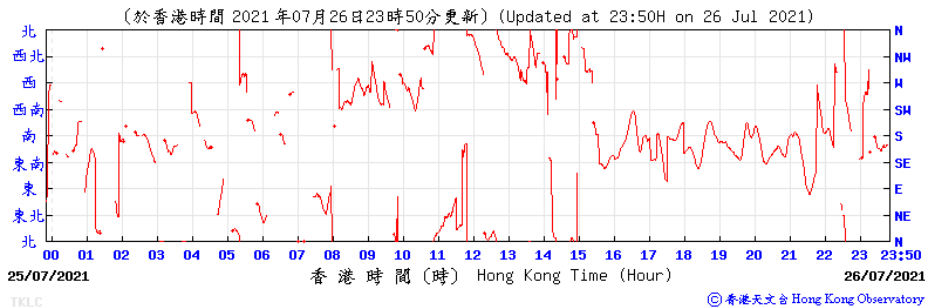
Temperature/Humidity:



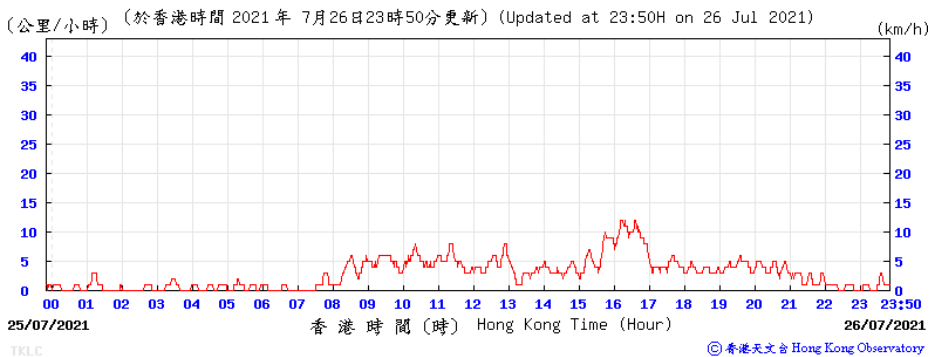
Pressure:



Wind Direction:



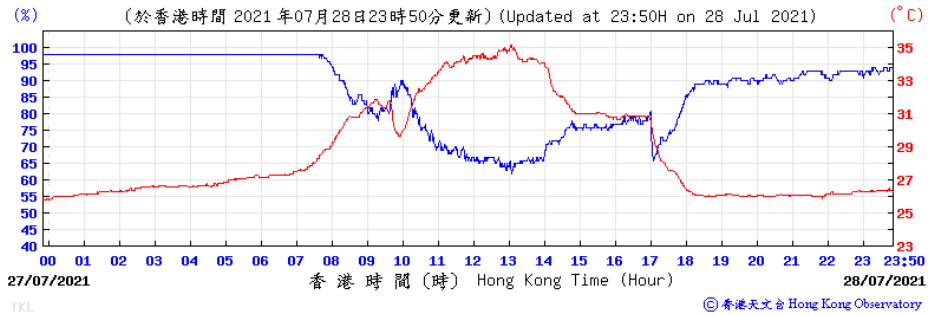
Wind Speed:



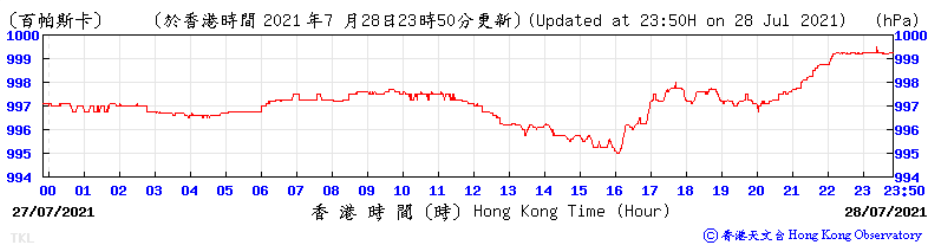
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	
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28 July 2021

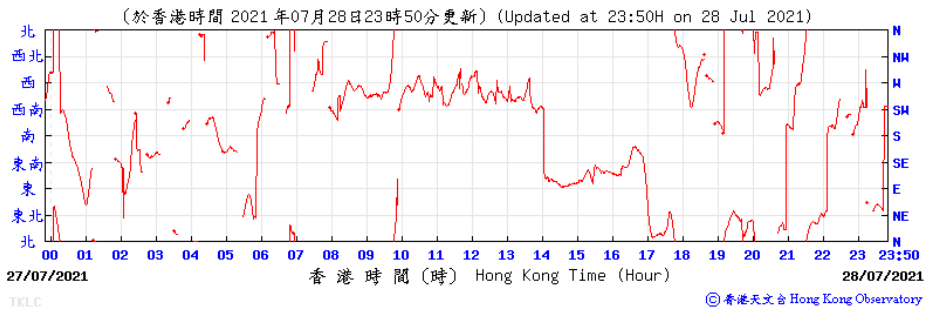
Temperature/Humidity:



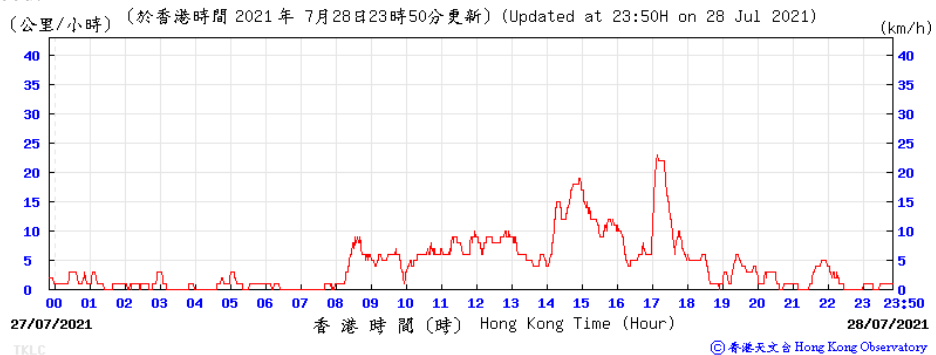
Pressure:




Wind Direction:



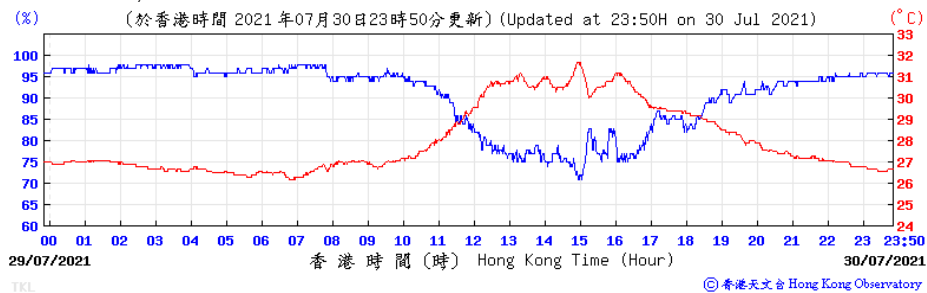
Wind Speed:



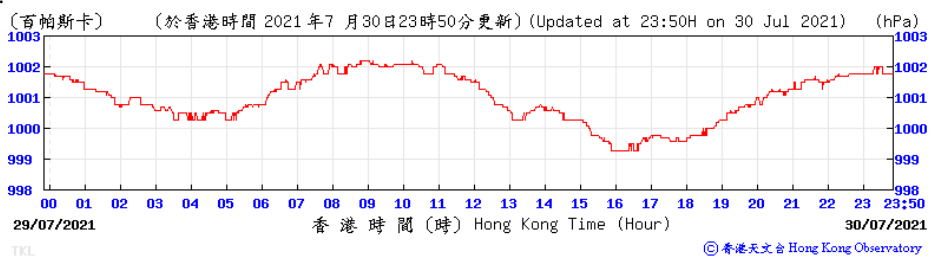
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po  Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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### 30 July 2021

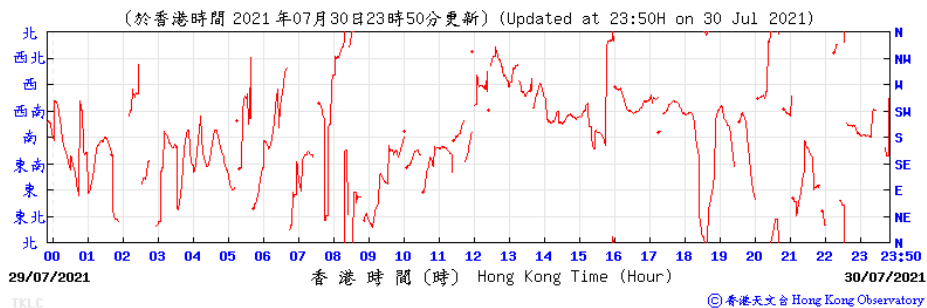
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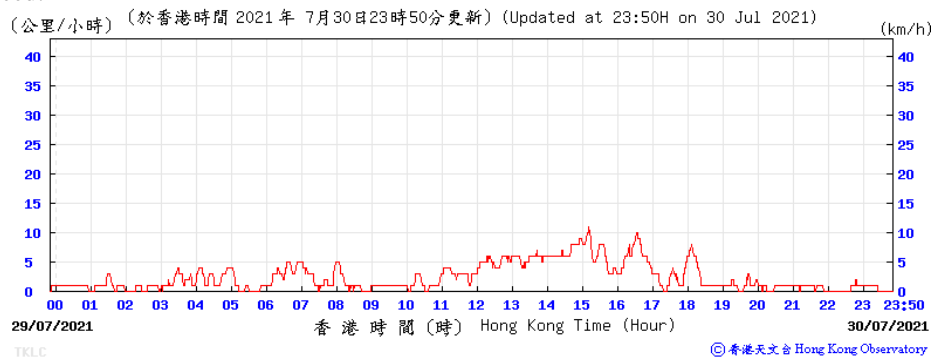
#### Pressure:




#### Wind Direction:



#### Wind Speed:



Title	Service Contract No. NDO 07/2019	Scale	Project	 consulting . testing . research
	Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po	N.T.S	No. WMA20001	
	Meteorological Data at Ta Kwu Ling Weather Station	Date	Appendix	
		July 21	G	

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**APPENDIX H  
ECOLOGICAL MONITORING RESULTS**

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**Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 23<sup>rd</sup> July 2021**

**1. *Brainea insignis***

<p>Photo 1</p>  <p>Description: Protective fence for transplanted <i>Brainea insignis</i> are properly erected with warning flags for bushfire prevention.</p>	<p>Photo 2</p>  <p>Description: Protective fence for transplanted <i>Brainea insignis</i> are properly erected.</p>
<p>Photo 3</p>  <p>Description: General view of transplanted <i>Brainea insignis</i>.</p>	<p>Photo 4</p>  <p>Description: General view of transplanted <i>Brainea insignis</i>.</p>

**Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 23<sup>rd</sup> July 2021**

**2. *Spiranthes sinensis***

Photo 5



Description: General view of transplanted *Spiranthes sinensis*.

Photo 6



Description: General view of transplanted *Spiranthes sinensis*.

Photo 7



Description: General view of transplanted *Spiranthes sinensis*.

Photo 8



Description: Protective fence for transplanted *Spiranthes sinensis* are properly erected.

**Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 23<sup>rd</sup> July 2021**

**3. *Keteleeria fortunei***

Photo 9



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

Photo 10



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

Photo 11



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

Photo 12



Description: An undersized seedling of *Keteleeria fortunei* (F-0081) was found collapsed due to internal decay.

Photo 13



Description: An undersized seedling of *Keteleeria fortunei* (F-0081) was found collapsed due to internal decay. No construction activity was observed at the location of *Keteleeria fortunei*.

Photo 14



Description: An undersized seedling of *Keteleeria fortunei* (F-0081) was found collapsed due to internal decay.

**Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 23<sup>rd</sup> July 2021**

**4. *Aquilaria sinensis***

Photo 15



Description: General view of transplanted *Aquilaria sinensis*.

Photo 16



Description: General view of transplanted *Aquilaria sinensis*.

Photo 17



Description: General view of transplanted *Aquilaria sinensis*.

Photo 18



Description: Protective fence for *Aquilaria sinensis* are properly erected.

**Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 23<sup>rd</sup> July 2021**

**5. Undersized seedling of *Aquilaria sinensis***

Photo 19



Description: General view of undersized seedling of *Aquilaria sinensis*

Photo 20



Description: Protective fence for undersized seedling of *Aquilaria sinensis* are properly erected.

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. 210723

Contract <u>Service Contract No. NDO 07/2019</u> <u>Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po</u>	Env. Team <u>Wellab Limited</u> Supervisor's Rep. <u>AECOM</u> IEC <u>Acuity Sustainability Consulting Limited</u>
Inspected By <u>ET Auditor: Kenneth Leung</u> Supervisor's Rep.: _____ IEC: _____	Inspection Date <u>20 23/11/2021</u> Time Period <u>12:30-13:30</u>

**Part A Weather**

Condition  Sunny  Fine  Overcast  Drizzle  Rain  Storm  Hazy

Temperature 32 °C

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

Wind  Calm  Light  Breeze  Strong

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

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

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
<b>2. <i>Spiranthes sinensis</i></b>						
2.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>3. <i>Keteleeria fortunei</i></b>						
3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.15a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.15b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

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

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

Part C Follow-up for the Previous Site Audit on Date: 18/6/2021 (Ref. No. 210618)

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
1.	Is the situation in item <u>001</u> improved/rectified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks/Observations

A retained individual of *Keteleeria fortunei* (☐-Undersized seedling - F-0081) was found collapsed due to internal decay.  
 No construction activity was observed at the location of the flora species of conservation interest.  
 Temporary protection fence was properly erected and maintained.

Signatures:

ET Auditor

*Kenneth Leung*  
 (Name: Kenneth Leung)  
 (Date: 23/7/2021)

Supervisor's Rep.

*Winston Wong*  
 (Name: Winston Wong)  
 (Date: 23/7/2021)

Contractor's Representative

*Alex Lim*  
 (Name: Alex Lim)  
 (Date: 23-7-2021)

IEC Auditor

*Tandy Lee*  
 (Name: Tandy Lee)  
 (Date: 23/7/2021)

Post-Transplantation  
Monitoring Record  
Conducted by Contractor

Template of Post-transplantation Monitoring Checklist  
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Audit Ref. No. \_\_\_\_\_

Contract \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Inspected By Kenny Lam

Inspection Date 31 July 2021  
 Time Period \_\_\_\_\_

**Part A Weather**

Condition  Sunny  Fine  Overcast  Drizzle  Rain  Storm  Hazy

Temperature 31 °C

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

Wind  Calm  Light  Breeze  Strong

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
<b>Part B</b>						
<b>1. <i>Cycadfern Brainea insignis</i></b>						
1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Transplanting shock</u>
1.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15a	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
<b>2. <i>Ladies Tresses Spiranthes sinensis</i></b>						
2.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Transplanting shock</u>
2.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Template of Post-transplantation Monitoring Checklist  
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2.8 Are equipment or stockpile placed outside the protection zone?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.9 Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.10 Are fixings driven into plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11 Are the plants used for anchoring or winching purposes or for the display of signs avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.13 Are all plants kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.14 Are there enough area for growth and development of plant roots?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15a Is exposure of plant roots avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15b If not, were broken off or rotting of roots avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
<b>3. Incense Trees <i>Aquilaria sinensis</i></b>						
3.1 Are the trees's health conditions satisfactory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2 Are transplanted trees on site protected carefully?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.3 Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.4 Are the tree protection zone set 1m from the trees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5 Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.6 Is compaction of the soil avoided for the trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.7 Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.9 Are soil, debris or construction materials deposited around and against the trunk of a tree as this causes bark damage avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.10 Are fixings driven into trees avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.11 Are the trees used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the trees avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13 Are all trees kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14 Are there enough area for growth and development of tree roots?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.15a Is exposure of tree roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.15b If not, were broken off or rotting of roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.16 Are wounds/mechanical injuries avoided on tree trunk?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.17 Are leaning of trees avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18 Are dead/detached branches avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.19 Are decay/cavity avoided on tree trunks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Template of Post-transplantation Monitoring Checklist  
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Part C Follow-up for the Previous Site Audit on Date: _____ (Ref. No. _____)		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
1.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
7.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
8.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
9.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
10.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks/Observations

Signatures:

Contractor's Representative

(Name: Kenny Lau )

(Date: 31 July 2021 )

Supervisor's Rep.

(Name: \_\_\_\_\_ )

(Date: \_\_\_\_\_ )

# ENVIRONMENTAL PERMIT No.: EP-510/2016

Contract No. ND/2018/01

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Tree/Plant/C olony No.	Number of Individuals	Species Name	From (G/F/P)	Health (G/F/P)	Remark
C-0001	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
	08	<i>Brainea insignis</i>	F	F	
C-0002	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	Young fronds observed
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
	08	<i>Brainea insignis</i>	F	F	
C-0003	01	<i>Brainea insignis</i>	F	F	
C-0004	01	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
	08	<i>Brainea insignis</i>	F	F	Young fronds observed
	09	<i>Brainea insignis</i>	P	P	Burned by bushfire initially outside site boundary on 2 Feb 2021
	10	<i>Brainea insignis</i>	P	P	
	11	<i>Brainea insignis</i>	F	F	
	12	<i>Brainea insignis</i>	F	F	
	13	<i>Brainea insignis</i>	P	P	Burned by bushfire initially outside site boundary on 2 Feb 2021
	14	<i>Brainea insignis</i>	F	F	
	15	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021

# ENVIRONMENTAL PERMIT No.: EP-510/2016

Contract No. ND/2018/01

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Tree/Plant/Colony No.	Number of Individuals	Species Name	From (G/F/P)	Health (G/F/P)	Remark
	16	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	17	<i>Brainea insignis</i>	F	F	Young fronds observed
	18	<i>Brainea insignis</i>	P	P	Burned by bushfire initially outside site boundary on 2 Feb 2021
	19	<i>Brainea insignis</i>	F	F	
	20	<i>Brainea insignis</i>	F	F	
C-0005	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
C-0006	01	<i>Brainea insignis</i>	F	F	
C-0007	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
C-0008	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	Young fronds observed
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	P	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
C-0009	01	<i>Brainea insignis</i>	F	F	
C-0010	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	

## ENVIRONMENTAL PERMIT No.: EP-510/2016

Contract No. ND/2018/01

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Tree/Plant/Colony No.	Number of Individuals	Species Name	From (G/F/P)	Health (G/F/P)	Remark
C-0011	01	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	P	P	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	P	P	
	08	<i>Brainea insignis</i>	F	F	
	09	<i>Brainea insignis</i>	F	F	
	10	<i>Brainea insignis</i>	F	F	
	11	<i>Brainea insignis</i>	F	F	
	12	<i>Brainea insignis</i>	F	F	
	13	<i>Brainea insignis</i>	F	F	

# Environmental Permit No. EP-510/2016

Contract No.: ND/2018/01

Project Title:  
**Site Formation and Infrastructure Works  
For Police Facilities in Kong Nga Po**

## Post-Transplantation Monitoring Record of *Brainea insignis* (Cycad fern)

Inspection Date : 31 July 2021

Cycad fern (*Brainea insignis*)



C-0001(Patch)\_01



C-0001(Patch)\_02

**Cycad fern (*Brainea insignis*)**



C-0001(Patch)\_03



C-0001(Patch)\_04

Cycad fern (*Brainea insignis*)



C-0001(Patch)\_05



C-0001(Patch)\_06

Cycad fern (*Brainea insignis*)



C-0001(Patch)\_07



C-0001(Patch)\_08

Cycad fern (*Brainea insignis*)



C-0002(patch)\_01



C-0002(patch)\_02

Cycad fern (*Brainea insignis*)



C-0002(Patch)\_03



C-0002(Patch)\_04

Cycad fern (*Brainea insignis*)



C-0002(Patch)\_05



C-0002(Patch)\_06

Cycad fern (*Brainea insignis*)



C-0002(Patch)\_07



C-0002(Patch)\_08

Cycad fern (*Brainea insignis*)



C-0003

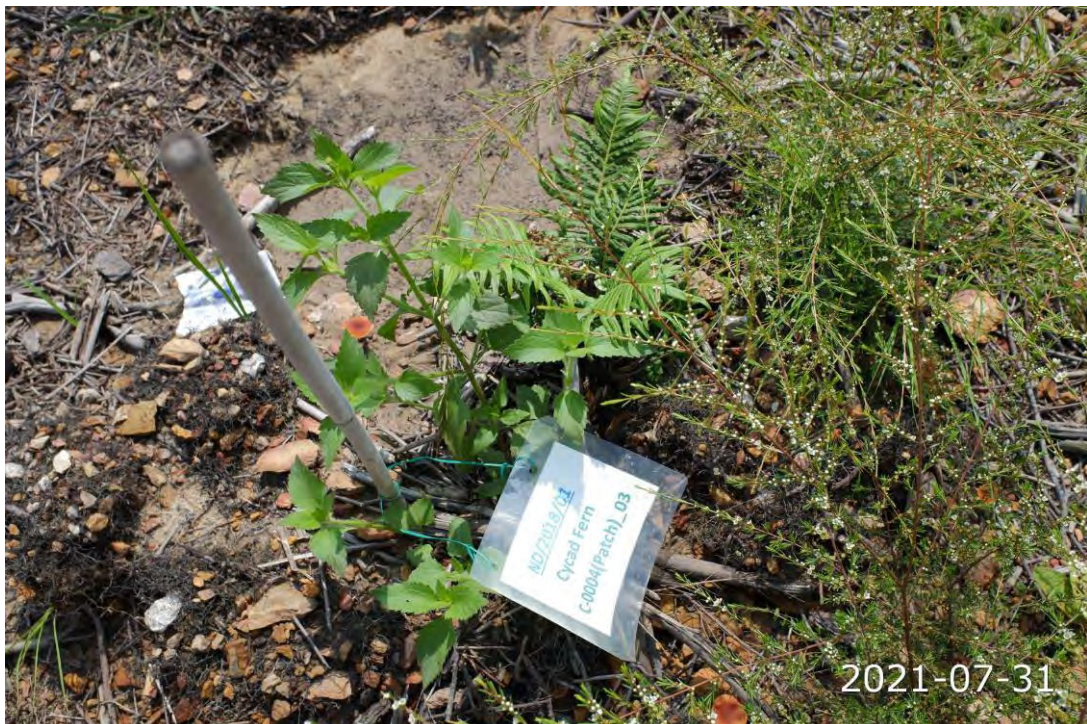


C-0004(Patch)\_01

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_02



C-0004(Patch)\_03

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_04



C-0004(Patch)\_05

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_06



C-0004(Patch)\_07

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_08



C-0004(Patch)\_09

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_10



C-0004(Patch)\_11

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_12



C-0004(Patch)\_13

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_14



C-0004(Patch)\_15

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_16



C-0004(Patch)\_17

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_18



C-0004(Patch)\_19

Cycad fern (*Brainea insignis*)



C-0004(Patch)\_20



C-0005(Patch)\_01

**Cycad fern (*Brainea insignis*)**



C-0005(Patch)\_02



C-0005(Patch)\_03

Cycad fern (*Brainea insignis*)



C-0005(Patch)\_04



C-0005(Patch)\_05

Cycad fern (*Brainea insignis*)



C-0005(Patch)\_06



C-0005(Patch)\_07

Cycad fern (*Brainea insignis*)



C-0006



C-0007(Patch)\_01

Cycad fern (*Brainea insignis*)



C-0007(Patch)\_02



C-0008(Patch)\_01

Cycad fern (*Brainea insignis*)



C-0008(Patch)\_02



C-0008(Patch)\_03

Cycad fern (*Brainea insignis*)



C-0008(Patch)\_04



C-0008(Patch)\_05

Cycad fern (*Brainea insignis*)



C-0008(Patch)\_06



C-0008(Patch)\_07

Cycad fern (*Brainea insignis*)



C-0009



C-0010(Patch)\_01

**Cycad fern (*Brainea insignis*)**



C-0010(Patch)\_02



C-0010(Patch)\_03

Cycad fern (*Brainea insignis*)



C-0011(Patch)\_01



C-0011(Patch)\_02

Cycad fern (*Brainea insignis*)



C-0011(Patch)\_03



C-0011(Patch)\_04

Cycad fern (*Brainea insignis*)



C-0011(Patch)\_05



C-0011(Patch)\_06

**Cycad fern (*Brainea insignis*)**



C-0011(Patch)\_07



C-0011(Patch)\_08

Cycad fern (*Brainea insignis*)



C-0011(Patch)\_09



C-0011(Patch)\_10

Cycad fern (*Brainea insignis*)



C-0011(Patch)\_11



C-0011(Patch)\_12

**Cycad fern (*Brainea insignis*)**



C-0011(Patch)\_13

# ENVIRONMENTAL PERMIT No.: EP-510/2016

Contract No. ND/2018/01

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Tree/Plant/Colony No.	Species Name	Form (G/F/P)	Health (G/F/P)	Remark
L-0001	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0002	<i>Spiranthes sinensis</i>	F	F	
L-0003	<i>Spiranthes sinensis</i>	F	F	
L-0004	<i>Spiranthes sinensis</i>	F	F	
L-0005	<i>Spiranthes sinensis</i>	F	F	
L-0006	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0007	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0008	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0009	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0010	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0011	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0012	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0013	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0014	<i>Spiranthes sinensis</i>	F	F	
L-0015	<i>Spiranthes sinensis</i>	F	F	
L-0016	<i>Spiranthes sinensis</i>	F	F	
L-0018	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0019	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0020	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0021	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0022	<i>Spiranthes sinensis</i>	F	F	
L-0023	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0024	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0025	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0026	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0027	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0028	<i>Spiranthes sinensis</i>	F	F	
L-0029	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0030	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0031	<i>Spiranthes sinensis</i>	F	F	
L-0032	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0033	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0034	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0035	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0036	<i>Spiranthes sinensis</i>	F	F	
L-0037	<i>Spiranthes sinensis</i>	F	F	
L-0038	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0039	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0040	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0041	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0042	<i>Spiranthes sinensis</i>	-	-	No sprout observed

# Environmental Permit No. EP-510/2016

Contract No.: ND/2018/01

Project Title:

**Site Formation and Infrastructure Works  
For Police Facilities in Kong Nga Po**

## Post-Transplantation Monitoring Record of *Spiranthes sinensis* (Ladies Tresses)

Inspection Date : 31 July 2021

**Ladies Tresses (*Spiranthes sinensis*)**



L-0001



L-0002

**Ladies Tresses (*Spiranthes sinensis*)**



L-0003



L-0004

Ladies Tresses (*Spiranthes sinensis*)



L-0005



L-0006

Ladies Tresses (*Spiranthes sinensis*)



L-0007



L-0008

**Ladies Tresses (*Spiranthes sinensis*)**



L-0009



L-0010

**Ladies Tresses (*Spiranthes sinensis*)**



L-0011



L-0012

**Ladies Tresses (*Spiranthes sinensis*)**



L-0013



L-0014

Ladies Tresses (*Spiranthes sinensis*)



L-0015



L-0016

Ladies Tresses (*Spiranthes sinensis*)



L-0018



L-0019

**Ladies Tresses (*Spiranthes sinensis*)**



L-0020



L-0021

**Ladies Tresses (*Spiranthes sinensis*)**



L-0022



L-0023

Ladies Tresses (*Spiranthes sinensis*)



L-0024



L-0025

**Ladies Tresses (*Spiranthes sinensis*)**



L-0026



L-0027

Ladies Tresses (*Spiranthes sinensis*)



L-0028



L-0029

Ladies Tresses (*Spiranthes sinensis*)



L-0030



L-0031

**Ladies Tresses (*Spiranthes sinensis*)**



L-0032



L-0033

**Ladies Tresses (*Spiranthes sinensis*)**



L-0034



L-0035

Ladies Tresses (*Spiranthes sinensis*)



L-0036



L-0037

Ladies Tresses (*Spiranthes sinensis*)



L-0038



L-0039

Ladies Tresses (*Spiranthes sinensis*)



L-0040



L-0041

**Ladies Tresses (*Spiranthes sinensis*)**



L-0042

Template of Post-transplantation Monitoring Checklist  
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Audit Ref. No. \_\_\_\_\_

Contract \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Inspected By Kenny Lau

Inspection Date 31 July 2021  
 Time Period \_\_\_\_\_

**Part A Weather**

Condition  Sunny  Fine  Overcast  Drizzle  Rain  Storm  Hazy  
 Temperature 31 °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
<b>1. <u>Cycadfern <i>Brainea insignis</i></u></b>						
1.1 Are the plants' health conditions satisfactory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.2 Are transplanted plants on site protected carefully?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.3 Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.4 Are the plant protection zone set 1m from the plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.5 Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.6 Is compaction of the soil avoided for the plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.7 Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.9 Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.10 Are fixings driven into plants avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.11 Are the plants used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.13 Are all plants kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.14 Are there enough area for growth and development of plant roots?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15a Is exposure of plant roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15b If not, were broken off or rotting of roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Part B	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
<b>2. <u>Ladies Tresses <i>Spiranthes sinensis</i></u></b>						
2.1 Are the plants' health conditions satisfactory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.2 Are transplanted plants on site protected carefully?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.3 Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.4 Are the plant protection zone set 1m from the plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.5 Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.6 Is compaction of the soil avoided for the plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.7 Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Template of Post-transplantation Monitoring Checklist  
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.9 Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.10 Are fixings driven into plants avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.11 Are the plants used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.13 Are all plants kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.14 Are there enough area for growth and development of plant roots?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.15a Is exposure of plant roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.15b If not, were broken off or rotting of roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<hr/>						
3. <u>Incense Trees <i>Aquilaria sinensis</i></u>	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
3.1 Are the trees's health conditions satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.2 Are transplanted trees on site protected carefully?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.3 Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.4 Are the tree protection zone set 1m from the trees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.5 Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.6 Is compaction of the soil avoided for the trees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.7 Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.9 Are soil, debris or construction materials deposited around and against the trunk of a tree as this causes bark damage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.10 Are fixings driven into trees avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.11 Are the trees used for anchoring or winching purposes or for the display of signs avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the trees avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.13 Are all trees kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.14 Are there enough area for growth and development of tree roots?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.15a Is exposure of tree roots avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.15b If not, were broken off or rotting of roots avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.16 Are wounds/mechanical injuries avoided on tree trunk?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.17 Are leaning of trees avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.18 Are dead/detached branches avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.19 Are decay/cavity avoided on tree trunks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Template of Post-transplantation Monitoring Checklist  
 Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Part C Follow-up for the Previous Site Audit on Date: _____ (Ref. No. _____)		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
1.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
7.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
8.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
9.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
10.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks/Observations

Signatures:

Contractor's Representative

(Name: Kenny Law )

(Date: 31-7-2021 )

Supervisor's Rep.

(Name: \_\_\_\_\_ )

(Date: \_\_\_\_\_ )

**TREE SURVEY SCHEDULE**

**ENVIRONMENTAL PERMIT** EP-510/2016

**MAIN CONTRACTOR** Build King Construction Limited

**PROJECT** ND/2018/01  
Site Formation and Infrastructure Works  
for Police Facilities in Kong Nga Po

**FOR THE MONTH** Jul-21  
**INSPECTION DATE** 31-Jul-21

Tree / Plant / Colony No	Botanical Name	DBH (mm)	Height (mm)	Spread (mm)	Structural Condition (Good/Fair/Poor)	Form (Good/Fair/Poor)	Health (Good/Fair/Poor)	Remark
A-0010 (T1700)	<i>Aquilaria sinensis</i>	132	5000	3000	Fair	Fair	Fair	Young leaves observed on crown and trunk  Generally in fair condition, no sign of infection or disease
A-0009 (T2298)	<i>Aquilaria sinensis</i>	96	6000	3000	Fair	Good	Fair	Young leaves observed on trunk and near stump  Generally in fair condition, no sign of infection or disease
A-0008 (T5153)	<i>Aquilaria sinensis</i>	312	6000	4000	Fair	Fair	Fair	Wounded Trunk Young leaves observed on crown  Generally in fair condition, no sign of infection or disease

# Environmental Permit No. EP-510/2016

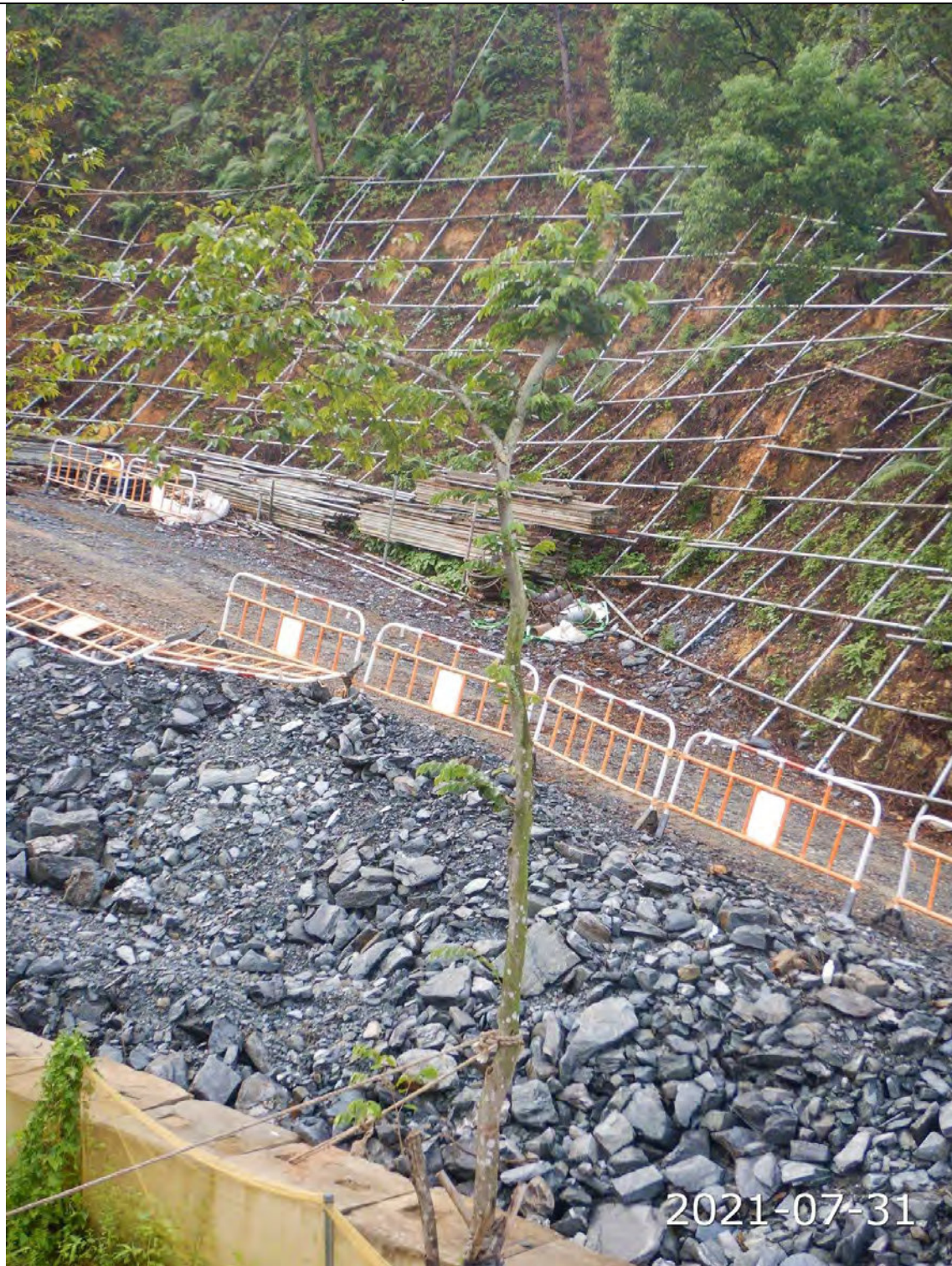
Contract No.: ND/2018/01

Project Title:  
**Site Formation and Infrastructure Works  
For Police Facilities in Kong Nga Po**

## Post-Transplantation Monitoring Record of *Aquilaria sinensis*

Inspection Date : 31 July 2021

*Aquilaria sinensis*



A-0010  
(T1700)

***Aquilaria sinensis***



A-0009  
(T2298)

***Aquilaria sinensis***



A-0008  
(T5153)

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**APPENDIX I**  
**EVENT ACTION PLANS**

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

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
<b>ACTION LEVEL</b>				
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.

	8. If exceedance stops, cease additional monitoring.			
<b>LIMIT LEVEL</b>				
1.Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Inform ER, Contractor and EPD;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily; and</li> <li>5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and the ER informed of the results.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the ER on the effectiveness of the proposed remedial measures; and</li> <li>5. Monitor the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor; and</li> <li>3. Ensure remedial measures properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals; and</li> <li>4. Amend proposal if appropriate.</li> </ol>
2.Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Notify IEC, the ER, Contractor and EPD;</li> <li>2. Identify source;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Arrange meeting with IEC, and ER to discuss</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>4. Review Contractor's remedial actions whenever necessary to assure</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consultation with IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Ensure remedial measures properly implemented; and</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control; and</li> <li>5. Stop the relevant portion of works as determined by the ER</li> </ol>

	<p>the remedial actions to be taken;</p> <p>7. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results; and</p> <p>8. If exceedance stops, cease additional monitoring.</p>	<p>their effectiveness and advise the ER accordingly; and</p> <p>5. Monitor implementation of remedial measures.</p>	<p>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.</p>	<p>until the exceedance is abated.</p>
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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	<p>1. Notify ER, IEC and Contractor;</p> <p>2. Carry out investigation;</p> <p>3. Report the results of investigation to the IEC, ER and Contractor;</p> <p>4. Discuss with the IEC and Contractor on remedial measures required; and</p> <p>5. Increase monitoring frequency to check mitigation effectiveness.</p>	<p>1. Review the monitoring data submitted by the ET;</p> <p>2. Review the proposed remedial measures by the Contractor and advise ER; and</p> <p>3. Advise the ER on the effectiveness of the proposed remedial measures.</p>	<p>1. Confirm receipt of notification of failure in writing;</p> <p>2. Notify Contractor;</p> <p>3. In consolidation with the IEC, agree with the Contractor on the remedial measure to be implemented; and</p> <p>4. Supervise the implementation of remedial measure.</p>	<p>1. Submit noise mitigation proposals to IEC and ER; and</p> <p>2. Implement noise mitigation proposals.</p>

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit Level	<ol style="list-style-type: none"> <li>1. Inform IEC, ER and Contractor and EPD;</li> <li>2. Repeat measurements to confirm findings;</li> <li>3. Increase the monitoring frequency;</li> <li>4. Identify source and investigate the cause of exceedance;</li> <li>5. Carry out analysis of Contractor's working procedures;</li> <li>6. Discuss with the IEC, Contractor and ER on remedial measure required;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions; and</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify the Contractor;</li> <li>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Supervise the implementation of remedial measures; and</li> <li>5. If exceedance continues, consider stopping the Contractor to continue working in that portion of work which causes the exceedance until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to the IEC and ER within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Submit further proposal if problem still not under control; and</li> <li>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>

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

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**APPENDIX J**  
**SUMMARY OF EXCEEDANCE**

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**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	$L_{eq(30 \text{ min.})}$ dB(A)	0	0	0	0	3

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**APPENDIX K  
ENVIRONMENTAL MITIGATION  
IMPLEMENTATION SCHEDULE (EMIS)**

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## 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
		<p>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.</p>					
		<p><b>Disturbed Parts of the Roads</b></p> <ul style="list-style-type: none"> <li>• Main temporary access points should be paved with concrete, bituminous hardcore materials or metal plates and be kept clear of dusty materials; or</li> <li>• Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road wet.</li> </ul>					^
		<p><b>Exposed Earth</b></p> <ul style="list-style-type: none"> <li>• Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seeding with latex,</li> </ul>					^

## 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
		<p>vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.</p> <p><b>Loading, Unloading or Transfer of Dusty Materials</b></p> <ul style="list-style-type: none"> <li>All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.</li> </ul> <p><b>Debris Handling</b></p> <ul style="list-style-type: none"> <li>Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.</li> <li>Before debris is dumped into a chute, water should be sprayed onto the debris so that it remains wet when it is dumped.</li> </ul> <p><b>Transport of Dusty Materials</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p><b>Wheel Washing</b></p> <ul style="list-style-type: none"> <li>Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the</li> </ul>					<p>^</p> <p>*</p> <p>^</p> <p>^</p> <p>^</p>

**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
		<p>construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</p> <p><b>Use of Vehicles</b></p> <ul style="list-style-type: none"> <li>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</li> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> <li>Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.</li> </ul> <p><b>Site hoarding</b></p> <ul style="list-style-type: none"> <li>Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.</li> </ul>					<p>^</p> <p>^</p> <p>^</p> <p>^</p>

## 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
<i>Noise Impact – Construction Phase</i>							
4.4.6	3.2	<p><b>Good Site Practice</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• Only well-maintained plant to be operated onsite and plant should be serviced regularly during the construction works;</li> <li>• Machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum;</li> <li>• Plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;</li> <li>• Mobile plant should be sited as far away from NSRs as possible; and</li> <li>• Material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	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	<p><b>Adoption of QPME</b></p> <ul style="list-style-type: none"> <li>• QPME should be adopted as far as applicable.</li> </ul>	Minimise/ avoid construction noise	Contractor	Within the	Construction Phase	^

## 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
4.4.6	3.2	<b>Use of Movable Barriers</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	impacts to the surrounding NSRs		Project site / During construction phase / Prior to commencement of operation.		*
4.4.6	<b>Use of Noise Enclosure/ Acoustic Shed</b> <ul style="list-style-type: none"> <li>Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.</li> </ul>	^					
4.4.6	<b>Use of Noise Insulating Fabric</b> <ul style="list-style-type: none"> <li>Noise insulating fabric can also be adopted for certain PME (e.g. pilling machine etc.).</li> </ul>	^					
<b>Water Quality Impact – Construction Phase</b>							
5.6.1.1	4.2	<b>General Construction Activities</b> The following measures should be implemented: <ul style="list-style-type: none"> <li>Construction waste, debris and refuse generated on-site should be stored or contained appropriately to prevent them entering nearby watercourses or blocking stormwater drains.</li> <li>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.</li> <li>Stockpiles of construction materials such as cement and</li> </ul>	Maintain good site practices to avoid pollution of water courses	Contractor	Within the Project site / During construction phase	Construction Phase	^  ^  ^



**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
		<p>rainstorms are forecast.</p> <ul style="list-style-type: none"> <li>• Final surface levels should be compacted and final surface protections installed to prevent erosion caused by rainstorms.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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</li> <li>• 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</li> </ul>					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p>

## 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
		<p>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.</p> <p>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).</p>					#
5.6.1.3	4.2	<p><b>Accidental Spillage of Chemicals</b></p> <p>In accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C), the following measures should be implemented:</p> <ul style="list-style-type: none"> <li>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.</li> <li>Oils and fuels should only be stored in designated areas which have appropriate pollution prevention control facilities such as oil and grease traps.</li> </ul>	Prevent accidental discharge of chemicals into the surrounding environment	Contractor	Within the Project site / During construction phase	Construction phase	^  ^

## 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
		<ul style="list-style-type: none"> <li>The maintenance of vehicles should only be undertaken in areas of the site served by appropriate pollution prevention control facilities.</li> <li>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.</li> </ul>					<p>^</p> <p>^</p>
5.6.1.4	4.2	<p><b>Sewage from Construction Workforce</b></p> <p>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.</p>	Prevent discharge of sewage into the surrounding environment	Contractor	Within the Project site / During construction phase	construction phase	^
5.6.1.5	4.2	<p><b>Construction Works in Close Proximity to Inland Watercourses</b></p> <p>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 <i>Construction Site Drainage and ETWB TC (Works) No. 5/2005 Protection of</i></p>	Minimise/ control construction site discharges to avoid pollution of nearby watercourses	Contractor	Within the Project site / During construction phase	construction phase	

## 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
		<p><i>Natural Streams/ivers from Adverse Impacts Arising from Construction Works.</i> Measures include the following:</p> <ul style="list-style-type: none"> <li>• Stockpiling of construction materials and spoil, should be properly covered and located away from any natural stream/river.</li> <li>• 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.</li> <li>• 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.</li> </ul>					<p>N/A</p> <p>N/A</p> <p>N/A</p>
<b>Waste Management Implications – Construction Phase</b>							
7.5.1.1	6.2	<p><b>Good Site Practice</b></p> <p>Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> <li>• Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site</li> </ul>	Implement good site practices to minimize waste generation	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	^

## 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
		<ul style="list-style-type: none"> <li>• Training of site personnel in proper waste management and chemical handling procedures</li> <li>• Provision of sufficient waste disposal points and regular collection of waste</li> <li>• Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers</li> <li>• Stockpiles of C&amp;D materials should be kept covered by impervious sheets to avoid windblown dust</li> <li>• All dusty materials including C&amp;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</li> <li>• Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads</li> <li>• Well planned delivery programme for off-site disposal such that adverse environmental impact from transporting the inert or non-inert C&amp;D materials is not anticipated</li> </ul>					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
7.5.1.2	6.2	<p><b>Waste Reduction Measures</b></p> <p>Good management and control can prevent the generation of a</p>	Implement good management and control to	Contractor	Project construction site /	Construction phase	

## 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
		<p>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:</p> <ul style="list-style-type: none"> <li>• Sort non-inert C&amp;D materials to recover any recyclable portions</li> <li>• 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</li> <li>• 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</li> <li>• Proper site practices to minimize the potential for damage or contamination of inert C&amp;D materials</li> <li>• Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste</li> </ul>	minimize waste generation		Throughout construction stage / Until completion of all construction activities		<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
7.5.1.3	6.2	<p><b>Inert and Non-inert C&amp;D Materials</b></p> <p>In order to minimise impacts resulting from collection and transportation of inert C&amp;D materials for off-site disposal, the inert C&amp;D materials should be reused on-site as fill material as</p>	Minimise impacts resulting from collection and transportation of inert C&D materials	Contractor	Project construction site / Throughout construction stage	Construction phase	<p style="text-align: center;">^</p>

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		<p>far as practicable. In addition, inert C&amp;D materials generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.</p> <p>The surplus inert C&amp;D materials will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.</p> <p>The C&amp;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.</p> <p>In order to monitor the disposal of inert and non-inert C&amp;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 &amp; 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 Management on Construction Site</p>			/ Until completion of all construction activities		<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

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7.5.1.4	6.2	<p><b>Chemical Waste</b></p> <p>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.</p> <p>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</p>	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	<p><b>General Refuse</b></p> <p>General refuse should be stored in enclosed bins or compaction units separated from inert C&amp;D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&amp;D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'windblown' light material.</p>	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	*
<b>Land Contamination – Construction Phase</b>							
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 contaminated material excavation and transportation of contaminated materials	Minimise impacts resulting from excavation and	Contractor	Project construction site /	Construction phase	

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		<p>(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:</p> <ul style="list-style-type: none"> <li>• To minimise the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;</li> <li>• 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;</li> <li>• Stockpiling of contaminated excavated materials on site should be avoided as far as possible;</li> <li>• The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;</li> <li>• Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and / or release of contaminated wastewater;</li> <li>• Truck bodies and tailgates should be sealed to stop any discharge;</li> <li>• Only licensed waste haulers should be used to collect and</li> </ul>	<p>transportation in the of contaminated materials</p>		<p>Throughout construction stage / Until completion of all construction activities</p>		<p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>

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<b>EIA Ref.</b>	<b>EM&amp;A Log Ref</b>	<b>Recommended Mitigation Measures (What Measures)</b>	<b>Objectives of the recommended Measures &amp; Main Concerns to address (What Requirements)</b>	<b>Who to implement the measures? (Who)</b>	<b>Location of the measures (Where)</b>	<b>When to Implement the measures? (When)</b>	<b>Implementation Status</b>
		<p>transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping;</p> <ul style="list-style-type: none"> <li>• Speed control for trucks carrying contaminated materials should be exercised;</li> <li>• 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</li> <li>• Maintain records of waste generation, disposal quantities and disposal arrangements.</li> </ul>					<p>N/A</p> <p>N/A</p> <p>N/A</p>
<b>Ecological Impact</b>							
9.7.1	8.3	<p><b>Temporary Protective Fence for Flora Species of Conservation Interest</b></p> <p>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.</p> <p>Monthly monitoring of any other flora species of conservation interest identified in the detailed vegetation survey should be conducted during the construction phase.</p>	<p>To avoid potential impact on flora species of conservation interest from construction activities such as materials storage;</p> <p>To make sure that the flora species of conservation interest are not affected by the construction activities of</p>	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	*

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			the project.				
<i>Golden-headed Cisticola (Recommended Mitigation Measures from Baseline Survey Report of Golden-headed Cisticola)</i>							
-	-	<p>The following mitigation measures are proposed for minimizing noise impacts induced by construction works:</p> <ul style="list-style-type: none"> <li>• Silencers or mufflers on well-maintained construction equipment should be utilized and properly maintained during the construction program</li> <li>• Noise enclosure or acoustic shed should be effectively utilized, where practicable</li> <li>• 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</li> </ul>	Construction noise	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	N/A  ^  ^
-	-	<p>The following mitigation measures are proposed for minimizing light impacts:</p> <ul style="list-style-type: none"> <li>• Adjusting the outdoor lighting to lower intensity</li> <li>• Use of directional lighting to avoid light spill into sensitive areas</li> <li>• Control/timing of lighting periods of some facilities, particularly those close to the ecological sensitive receivers</li> </ul>	To minimize the light disturbance to avifauna	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^ N/A  N/A

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-	-	<p><b>Drainage system</b></p> <ul style="list-style-type: none"> <li>• Proper drainage system should be installed to collect and dispose rainwater</li> <li>• 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)</li> </ul>	Prevent discharge of pollutant into the surrounding environment	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^  ^
-	-	<p><b>Good Site Practice Measures</b></p> <ul style="list-style-type: none"> <li>• Placement of stockpiling into designated area should be selected at disturbed area in order to minimize the disturbance to wildlife</li> <li>• Open fire should be strictly prohibited</li> <li>• The boundary of project boundary should be clearly demarcated</li> <li>• General drainage system arrangement should include sediment and oil trapper to collect the site run-off</li> <li>• Waste bin should be provided to collect the general refuse and construction waste</li> </ul>	To avoid potential impact on Golden-headed Cisticola	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^  ^  N/A  ^  ^

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<b>Landscape and Visual Impacts – Construction Phase</b>							
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	N/A
Table 10.11	Table 9.1	CM03: Construction area control, where possible, to ensure that the landscape and visual impacts arising from the construction activities are minimised. This includes the reduction of the extent	Minimise landscape and visual impacts.	Contractor	Project area / During design stage / construction	Construction phase	^

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		and location of working areas to avoid sensitive LR's, 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.			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	N/A

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<b>Landscape and Visual Impacts (Recommended Mitigation Measures from Landscape and Visual Mitigation Plan)</b>							
-	-	<p><b>Tree protection and preservation</b></p> <p>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.</p> <p>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.</p>	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	*
-	-	<p><b>Tree transplantation</b></p> <p>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.</p>	To preserve the trees with conservation interest which are unavoidably affected by the construction activities.	CEDD's Contractors	The location of three <i>Aquilaria sinensis</i> 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	N/A
-	-	<p><b>Work area and temporary works area</b></p> <p>a. Reduction of the extent and location of working areas to avoid sensitive LRs</p>	To minimize the landscape and visual impacts by construction area control	CEDD's and ArchSD's Contractors	CEDD: Along KNP Road where applicable and	Construction Stage of CEDD's and ArchSD's	^

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		<p>b. Siting of offices or temporary structures so that they are not visually prominent</p> <p>c. Consideration of detailed schedules to shorten the construction period</p> <p>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.</p>			<p>slopes within KNP</p> <p>Police Facilities Site</p> <p>ArchSD: Within KNP Police Facilities Site</p>	Contracts	<p>^</p> <p>^</p> <p>^</p>
-	-	<p><b>Advance implementation of mitigation planting</b></p> <p>a. Replanting of existing / disturbed vegetation shall be undertaken as soon as technically feasible during the construction phase.</p>	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
-	-	<p><b>Decorative screen hoarding</b></p> <p>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)</p> <p>b. It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.</p>	To screen undesirable views of the works site.	CEDD's and ArchSD's Contractors	<p>Along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to</p>	Construction Phase CEDD's and ArchSD's Contracts	<p>N/A</p> <p>N/A</p>

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					visually sensitive receivers (VSRs)		
-	-	<p><b>Detail design considerations</b></p> <p>a. Detailed design of development components should reduce landscape footprint and visibility of structures.</p>	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
-	-	<p><b>Aesthetically pleasing design and responsive design of buildings and structures</b></p> <p>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</p> <p>b. Adopting natural building materials such as stone and timber should be for architectural features, where technically feasible.</p>	<p>a. To reduce the visibility of the development components</p> <p>b. To further improve visual amenity</p> <p>c. To reduce the mass of development</p> <p>d. To minimise the 'wall effects' and create a subtle transition at the edges of the</p>	ArchSD's Detailed Designers / Consultants	Within KNP Police Facilities Site	Design Stage ArchSD's Contract	N/A

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		<p>c. Using responsive design for the disposition of the main elements of the proposed scheme including the locations of buildings and utility structures.</p> <p>d. Grouping of utilities and infrastructure components into proposed buildings as far as technically feasible to reduce the mass of development</p> <p>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,</p> <p>f. Creation of setbacks, articulating the development frontage and maintenance of view corridors when technically feasible</p>	<p>site</p> <p>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.</p>				
-	-	<p><b>Design of engineering structure</b></p> <p>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.</p> <p>b. The detailed design landscape consultants shall work in unison with the engineers on the aesthetic aspects of the structures and their relationship with the landscape.</p> <p>c. The design of engineering structures shall avoid any unnecessary visual clutter achieved through the co-ordination of</p>	<p>To give the engineering structures a more natural appearance that allows them to blend into the local rural landscape.</p>	<p>CEDD's Detailed Designers / Consultants</p>	<p>Whole project site area</p>	<p>Design Stage of CEDD's Contracts</p>	<p>N/A</p>

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		the various engineering disciplines involved to arrive at integrated design solutions.					
-	-	<p><b>Design of retaining walls and slopes</b></p> <p>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".</p> <p>b. These engineering structures will be aesthetically enhanced through the use of soft landscape works including tree and shrub planting.</p>	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	N/A
-	-	<p><b>Compensatory planting proposal</b></p> <p>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.</p> <p>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,</p> <p>c. Some compensatory shrub and ground cover planting will also be provided within the woodland area to create a more structurally diverse woodland.</p> <p>d. Woodland areas will utilise a combination of large sized tree</p>	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 Facilities Site	Construction Stage of CEDD's and ArchSD's Contract	N/A

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		<p>stock (including heavy standard sized trees) and whip sized trees to create a more naturalistic</p> <p>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.</p> <p>f. Roadside and amenity planting will utilise largely heavy standard sized trees.</p>					
-	-	<p><b>Landscape buffer tree planting</b></p> <p>a. Tree planting using larger sized tree stock shall be provided to screen the proposed structures and associated facilities.</p> <p>b. The planting will utilise native species wherever possible.</p>	<p>To improve compatibility with the surrounding environment and create a pleasant pedestrian environment.</p>	<p>CEDD’s and ArchSD’s Contractors</p>	<p>CEDD: along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD : within KNP Police Facilities Site</p>	<p>Construction Stage of CEDD’s and ArchSD’s Contract</p>	<p>N/A</p>
-	-	<p><b>Roadside and amenity planting (within KNP Police Facilitate Site)</b></p> <p>a. Roadside and amenity planting using predominantly native species</p>	<p>To enhance the landscape and visual quality of the existing and proposed transport routes and car parks.</p>	<p>ArchSD’s Contractor</p>	<p>KNP Police Facilities Site</p>	<p>Construction Stage of ArchSD’s Contract</p>	<p>N/A</p>

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-	-	<b>Grassland (ecological mitigation)</b> a. Creation of new grassland areas approximately 1.02 ha in size. Inclusion of common grass species <i>Ischaemum barbatum</i> and <i>Tetradium glabrifolium</i> (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
-	-	<b>Green roof (within KNP Police Facilitate Site)</b> 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
-	-	<b>Vertical greening</b> 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
-	-	<b>Green paving (within KNP Police Facilitate Site)</b> a. Green paving approach such as grass-crete or grass-grid to maximise the area of planting and reduce the area of hard paving	To reduce the area of hard paving	ArchSD's Contractor	Within KNP Police Facilitate Site	Construction stage of ArchSD's Contracts	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. 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.					
-	-	<p><b>Light control (operation)</b></p> <p>a. Street and night time lighting glare will be controlled</p>	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

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**APPENDIX L  
WASTE GENERATION IN THE  
REPORTING MONTH**

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**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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
<b>Jan</b>	0.00304	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00304
<b>Feb</b>	0.00699	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00699
<b>Mar</b>	0.01294	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01294
<b>Apr</b>	0.02173	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02173
<b>May</b>	0.02534	0.00000	0.00000	0.00000	0.01329	0.00000	0.00000	0.00000	0.00000	0.00000	0.01205
<b>Jun</b>	0.10368	0.00000	0.00000	0.00000	0.00687	0.00000	0.00000	0.00000	0.00000	0.00000	0.09681
<b>Sub-Total</b>	<b>0.17372</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.02016</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.15355</b>
<b>Jul</b>	33.65416	0.00000	0.00000	33.07233	0.07872	0.00000	0.00000	0.00000	0.00000	0.00000	0.50311
<b>Aug</b>	26.60619	0.00000	0.00000	25.47880	0.48478	0.00000	0.00000	0.00000	0.00000	0.00000	0.64260
<b>Sep</b>	50.56237	0.00000	0.00000	48.88600	0.45676	0.00000	0.00000	0.00000	0.00000	0.00000	1.21961
<b>Oct</b>	41.97128	0.00000	0.00000	41.63335	0.02784	0.00000	0.00000	0.00000	0.00000	0.00000	0.31009
<b>Nov</b>	62.67238	0.00000	0.00000	61.98935	0.09226	0.00000	0.00000	0.00000	0.00000	0.00000	0.59077
<b>Dec</b>	61.43492	0.00000	0.00000	52.40582	8.76826	0.00000	0.00000	0.00000	0.00000	0.00000	0.26083
<b>Total</b>	<b>277.07501</b>	<b>0.00000</b>	<b>0.00000</b>	<b>263.46567</b>	<b>9.92879</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>3.68056</b>

**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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
<b>Cumulative in 2020</b>	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056
<b>Jan</b>	44.91877	0.00000	0.00000	20.33601	24.31886	0.00000	0.00000	0.00000	0.00000	0.00000	0.26389
<b>Feb</b>	13.08831	N/A	N/A	9.64034	3.40955	N/A	N/A	N/A	N/A	N/A	0.03841
<b>Mar</b>	35.52359	N/A	N/A	19.92956	15.50902	N/A	N/A	N/A	N/A	N/A	0.08501
<b>Apr</b>	42.22569	N/A	11.95500	7.21197	22.96688	N/A	N/A	N/A	N/A	N/A	0.09183
<b>May</b>	9.09491	N/A	4.13844	4.47821	0.43554	N/A	N/A	N/A	N/A	N/A	0.04272
<b>Jun</b>	40.50170	N/A	22.95720	16.78316	0.68899	N/A	N/A	N/A	N/A	N/A	0.07235
<b>Sub-Total</b>	462.42797	0.00000	39.05064	341.84492	77.25764	0.00000	0.00000	0.00000	0.00000	0.00000	4.27477
<b>Jul</b>	38.56656	N/A	2.04766	34.19166	2.26520	N/A	N/A	N/A	N/A	N/A	0.06204
<b>Aug</b>	0.00000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Sep</b>	0.00000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Oct</b>	0.00000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Nov</b>	0.00000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Dec</b>	0.00000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	500.99453	0.00000	41.09830	376.03658	79.52284	0.00000	0.00000	0.00000	0.00000	0.00000	4.33681

**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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
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

\*The total quantity of C&D materials to be generated from the Contract had been updated by surveying record

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**APPENDIX M  
COMPLAINT LOG**

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**Appendix M - Complaint Log****Reporting month: July 2021**

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	19 <sup>th</sup> 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.	<p>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.</p> <p>Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:</p> <ul style="list-style-type: none"> <li>• Erect noise isolating mat at Portion B1 to reduce noise nuisance arising from the site</li> </ul> <p>Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&amp;A Manual on site, such as:</p> <ul style="list-style-type: none"> <li>• Selection of quieter plant;</li> <li>• 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.</li> <li>• To strengthen site supervision and provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact</li> </ul>	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	22 <sup>nd</sup> September 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and pollution problem.	<p>According to EM&amp;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.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>• Provision of soil berm at edge near retaining wall DAM Bay 43-46</li> <li>• Setting up of wastewater treatment facilities near wheel washing bay</li> </ul>	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<ul style="list-style-type: none"> <li>• Re-formation of haul road in Portion D</li> <li>• Provision of soil berm near Platform B</li> <li>• Increase in capacity of retention pit near Platform B</li> <li>• Reinforcement of soil berm near excavation area and near retaining wall at Portion D to minimize water leakage</li> <li>• Regular maintenance of clear U-channel which was blocked by natural debris at Kong Nga Po Road</li> </ul> <p>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.</p>	
C-003	N/A	Kong Nga Po Road	8 <sup>th</sup> 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 and if the design of drainage system	According to the finding of <i>ad-hoc</i> 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 outflow from the site to the location of complaint was observed. Potential source of muddy water to the location of complaint is likely from natural surface runoff from shrubland and grassland	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				is sufficient to handle the discharge.	along the Kong Nga Po Road during heavy rainfall.	
C-004	N/A	Kong Nga Po Road	28 <sup>th</sup> October 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and water pollution problem.	<p>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.</p> <p>In addition, the Contractor has taken the following mitigation measures to minimize the water quality impact arising from the construction works:</p> <ul style="list-style-type: none"> <li>• Regular inspection and maintenance on sediment control measure at Project site;</li> <li>• <i>Ad-hoc</i> inspection on the water pollution control measures at Project site before onset of the typhoon;</li> <li>• Regular maintenance record on wastewater treatment facilities; and</li> <li>• Provision of vegetated filter strips at outer side of existing soil berms and slope surface to act as natural filtration for water pollution control.</li> </ul> <p>The environmental condition of the site and the control of work will be continuously reviewed and monitored by the Supervisor, ET and IEC.</p>	

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	28 <sup>th</sup> October 2020	The complainant complained about the noise generated from the construction activities at Slope Feature A that caused annoyance to his family.	<p>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.</p> <p>Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:</p> <ul style="list-style-type: none"> <li>• Setting up of double layers of noise barrier to block the transmission of noise from breaking point to Noise Sensitive Receivers;</li> <li>• Conducting internal noise monitoring to ensure the noise mitigation measures are properly implemented; and</li> <li>• To check and maintain the noise insulating fabric enclosed the noisy part of the breaker.</li> </ul> <p>Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&amp;A Manual on site , such as</p> <ul style="list-style-type: none"> <li>• To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers;</li> <li>• To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary;</li> <li>• To provide regular training to the workers to</li> </ul>	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<p>increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours;</p> <ul style="list-style-type: none"> <li>To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area</li> </ul>	
C-006	N/A	Portion C at Kong Nga Po Road	30 <sup>th</sup> 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	30 <sup>th</sup> 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	19 <sup>th</sup> April 2021	The complainant complained about suspected dumping soil at nullah, causing blockage and flooding near lamp post BD2370.	<p>According to the finding of <i>ad-hoc</i> 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.</p> <p>Existing U-channel near slope toe had been covered and</p>	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<p>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.</p> <p>Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:</p> <ul style="list-style-type: none"> <li>● Excavated slop had been covered by erosion mat</li> <li>● Strictly implemented trip ticket system to monitor the C&amp;D waste disposal</li> <li>● Deployed sufficient submersible pump and wastewater treatment facilities for the surface runoff treatment</li> </ul>	

**Cumulative Complaint Log**

Reporting Period	Total no. of Complaint Received
This reporting month	0
From 3 <sup>rd</sup> July 2020 to end of the reporting month	8

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**APPENDIX N  
SUMMARY OF SUCCESSFUL  
PROSECUTION**

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**Appendix N - Summary of Successful Prosecution**

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