# **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 June 2022

(Version 1.0)

Certified By

My 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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Our Ref.: PL-202207019

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Attention: Mr. William WONG

15 July 2022

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 June 2022

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 June 2022 (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,

Wings

Wingo So

Independent Environmental Checker

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

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#### **EXECUTIVE SUMMARY**

#### Introduction

1. This is the 24<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 30<sup>th</sup> June 2022.

## 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
  - Pre-bored Piling Works
  - Retaining Wall Construction
  - Stormwater Storage Tank & Underpass Construction
  - Slope Upgrading Works
  - Road & Associated Works
  - Sewerage Trenchless Works
  - Drainage & Watermain Trenchless Works
  - Bridge & Associated Works
  - Tree Felling 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	1, 2, 6, 8, 10, 14, 16, 20, 22, 24, 28 and 30 June 2022
Noise Monitoring	1, 2, 8, 10, 14, 16, 22, 24, 28 and 30 June 2022
Ecological Monitoring	17 June 2022
Environmental Site Inspection	2, 10, 17, 24 and 30 June 2022

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

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

## **Air Quality**

5. All 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.

Table II Summary Table for Events Recorded in the Reporting Month

Environmental	Parameter	No. of Non-Project rela		No. of Exc related t Constructio	to the	Action
Monitoring		Action Level	Limit Level	Action Level	Limit Level	Taken
Air Quality	1-hr TSP	0	0	0	0	N/A
Noise	L <sub>eq(30min)</sub>	0	0	0	0	N/A

## **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. One (1) environmental complaint was received in the reporting month. The complaint was received by CEDD on 23 June 2022 and was about vibration that caused nuisance to nearby residents.

#### **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:
  - Site Formation at Portion D
  - Pre-bored Piling Works
  - Retaining Wall Construction
  - Stormwater Storage Tank & Underpass Construction
  - Slope Upgrading Works
  - Road & Associated Works
  - Sewerage Trenchless Works
  - Drainage & Watermain Trenchless Works
  - Bridge & Associated Works
  - Tree Felling Works
- 13. Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality and waste management. For the details, please refer to **Appendix A** regarding the anticipated major impacts from the construction works and corresponding recommended mitigation measures.

#### 1 INTRODUCTION

1.1 Wellab Limited was commissioned by the Civil Engineering Development Department (CEDD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) works for the Work Contract (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 24<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 30<sup>th</sup> June 2022. The major construction works for the Project commenced on 3<sup>rd</sup> July 2020 and the main site in Kong Nga Po will be substantially completed in end of October 2022 tentatively.

## 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 ecological monitoring undertaken within the reporting month.
  - Section 6: Landscape and Visual Monitoring summarises the audit results of the site inspection undertaken within the reporting month.
  - Section 7: **Environmental Site Inspection** summarises the audit findings of the weekly site inspections undertaken within the reporting month.
  - Section 8: **Environmental Non-conformance** summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.
  - Section 9: **Future Key Issues** summarises the impact forecast for the next three months and monitoring schedule in the next month.
  - Section 10: Conclusions and Recommendations

#### 2 PROJECT INFORMATION

#### **Background**

- 2.1 The Project consists of site formation works and building works for the co-location of various police facilities in the Project site at Kong Nga Po as well as road improvement works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road. The police facilities include:
  - Lo Wu Firing Range (LWFR) to be relocated from Lo Wu;
  - Ma Tso Lung Firing Range (MTLFR) to be relocated from Ma Tso Lung;
  - Weapons Training Facilities (WTF) and Police Driving and Traffic Training Facilities (PD&TTF) to be relocated from Fan Garden;
  - Helipad to be relocated from Lo Wu;
  - A Proposed Police Training Facility (PTF); and
  - A new internal access road network with underpass within the Project site.
- 2.2 The improvement works to Kong Nga Po Road between the police facilities and Man Kam To Road includes roadworks, viaduct of less than 100m between abutments, and associated works such as slopeworks and retaining walls.
- 2.3 In addition to the above, associated supporting infrastructure and utilities including an underground stormwater storage tank, sewage pumping station, petrol / diesel filling station, a multi-storey training complex associated with the PD&TFF, and other ancillary facilities will also be provided.
- 2.4 The Project is a Designated Project under the Environmental Impact Assessment Ordinance (EIAO). An Environmental Impact Assessment (EIA) Report (Report No.: AEIAR-201/2016) for the Project was approved under EIAO in October 2016 in accordance with the EIA Study Brief (No. ESB-276/2014) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM). The corresponding Environmental Permit was issued (EP no.: EP-510/2016) by the Director of Environmental Protection (DEP) in November 2016.
- 2.5 The Works Contract (Contract No. ND/2018/01 Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) generally consists of site formation & infrastructure works for the co-location of various police facilities at Kong Nga Po as well as upgrading works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road (hereinafter called "the Project").
- 2.6 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
Supervisor / Supervisor's 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. Wingo So	2698 6833	2693 9383
Contractor (Build King	Site Agent	Mr. Book Kin Man	2272 3128	
Construction Limited)	Environmental Officer	Mr. Alex Liu	9754 3432	2528 1751

## **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
  - Pre-bored Piling Works
  - Retaining Wall Construction
  - Stormwater Storage Tank & Underpass Construction
  - Slope Upgrading Works
  - Road & Associated Works
  - Sewerage Trenchless Works
  - Drainage & Watermain Trenchless Works
  - Bridge & Associated Works
  - Tree Felling 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

Valid Period						
Permit / Licence No.			Status			
Termit / Electice 140.	From	To	Status			
Environmental Permit (EP)						
EP-510/2016	N/A	N/A	Valid			
<b>Construction Noise Permi</b>	t (CNP)					
GW-RN0918-21	28-12-2021	27-06-2022	Expired in the report month			
GW-RN0442-22	15-06-2022	14-08-2022	Valid			
GW-RN0482-22	29-06-2022	28-09-2022	Valid			
GW-RN0522-22	28-06-2022	27-09-2022	Valid			
Notification pursuant to A	ir Pollution Control (	Construction Dust) Re	egulation			
EPD Ref no.: 451555	N/A	N/A	N/A			
Billing Account for Consti	ruction Waste Disposa	l				
Account No. 7036173	24-12-2019	N/A	Valid			
Registration of Chemical	Registration of Chemical Waste Producer					
WPN5213-641-B2590-01	18-5-2020	N/A	Valid			
Effluent Discharge Licence under Water Pollution Control Ordinance						
WT00035709-2020	11-5-2020	31-5-2025	Valid			

## **Summary of EM&A Requirement**

- 2.13 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 summarized in **Table 2.3**:

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

	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	nism and Curriculum Vitae 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	*			
	Detailed Vegetation Survey Report (Version 1.0)	2 <sup>nd</sup> April 2020				
2.13 & 2.14	Detailed Vegetation Survey Report (Version 2.0)	8 <sup>th</sup> May 2020	Approved			
	Detailed Vegetation Survey Report (Version 3.0)	9 <sup>th</sup> July 2020				
	Transplantation Proposal (Version 1.0)	2 <sup>nd</sup> April 2020				
2.4 & 2.14	Transplantation Proposal (Version 2.0)	8 <sup>th</sup> May 2020	Approved			
	Transplantation Proposal (Version 3.0)  9th July 2020					
2.15	Baseline Survey Report for Golden- Headed Cisticola	9 Narch /11/11				
2.16	Explanatory Statement for Revised Layout Plan of Kong Nga Po Road	10 <sup>th</sup> March 2020	Approved			
2.17	Layout Plan for Permeable Pavings	To be submitted no later than 1 month before the commencement of the construction works of the Project (under ArchSD's building works Contract)	N/A			
2.18 & 2.19	Landscape and Visual Mitigation Plan	7 <sup>th</sup> April 2020	Approved			
2.10 & 2.19	Landscape and Visual Mitigation Plan (Revised Final Rev. 4)	28 <sup>th</sup> September 2020	Approved			
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				
2.23	Helicopter Flight Plan	To be submitted at least one month before the commencement of operation of the Helipad (under ArchSD's building works Contract)				
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	21st April 2020	*			

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

## 3 AIR QUALITY MONITORING

## **Monitoring Requirements**

- 3.1 In accordance with the EM&A Manual, impact 1-hour TSP monitoring was conducted to monitor the air quality for the Works Contracts. **Appendix B** shows the established Action/Limit Levels for the air quality monitoring works.
- 3.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 day at one air quality monitoring station.

## **Monitoring Location**

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

**Table 3.1** Location for Air Quality Monitoring Stations

<b>Monitoring Station</b>	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	5

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

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

## Monitoring Parameters, Frequency and Duration

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

Table 3.3 Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times/ 6 days

## Monitoring Methodology and QA/QC Procedure

## 1-hour TSP Air Quality Monitoring

#### Instrumentation

- 3.9 Direct reading dust meter was deployed for the air quality monitoring as shown in **Table 3.2**.
- 3.10 The measuring procedures of the dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

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

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

#### Maintenance/Calibration

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

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

#### **Results and Observations**

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

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

Monitoring Station		entration ug/m³)	Action Level, µg/m³	Limit Level, µg/m³
Station	Average	Range	μg/III	μg/m²
AM1	73.6	35.4 – 114.7	308	500
AM2	62.4	45.2 - 74.7	311	500

- 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** 

<b>Monitoring Station</b>	Major Dust Source
AM1	Road traffic, exposed site area, site vehicle / equipment operation and
	movement
AM2	Road traffic, exposed site area, site vehicle / equipment operation and
	movement, vehicle / equipment operation and movement at warehouse
	nearby

#### **Event and Action Plan**

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

#### 4 NOISE MONITORING

## **Monitoring Requirements**

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

## **Monitoring Location**

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

**Table 4.1 Location of Noise Monitoring Stations** 

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

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

#### **Monitoring Equipment**

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

**Table 4.2 Noise Monitoring Equipment** 

Equipment	Model	Quantity
Integrating Sound Level Meter	BSWA 308	7
Acoustical Calibrator	B&K 4231 and SVANTEK SV30A	3

## 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				Free field <sup>[1]</sup>
NM2				Free field <sup>[1]</sup>
NM3				Facade
NM4				Facade
NM5	T 1D(A)[2]			Facade
NM6	$\begin{array}{c} L_{10(30 \text{ min.})}  dB(A)^{[2]} \\ - L_{90(30 \text{ min.})}  dB(A)^{[2]} \\ - L_{eq(30 \text{ min.})}  dB(A)^{[2]} \\ - (\text{as six consecutive $L_{eq}$,} \\ - S_{min}  \text{readings}) \end{array}$			Free field <sup>[1]</sup>
NM7		0700-1900 hrs on	Once per	Facade
NM8		normal weekdays	week	Free field <sup>[1]</sup>
NM9				Free field <sup>[1]</sup>
NM10				Free field <sup>[1]</sup>
NM11				Façade
NM12				Façade
NM13				Free field <sup>[1]</sup>
NM14				Free field <sup>[1]</sup>

#### Remarks:

## 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;

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

<sup>[2]:</sup> A-weighted equivalent continuous sound pressure level ( $L_{eq}$ ). It is the constant noise level which, under a given situation and time period, contains the same acoustic energy as the actual time-varying noise level.

 $L_{10}$  is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above  $L_{10}$ .  $L_{90}$  is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

• Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

frequency weighting : Atime weighting : Fast

time measurement  $: L_{eq(30 \text{ min.})} dB(A)$ 

(as six consecutive  $L_{eq, 5min}$  readings) during non-restricted hours (i.e. 0700-1900 hrs on normal

weekdays)

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

#### **Maintenance and Calibration**

- 4.6 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 4.7 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 4.8 Immediately prior to and following each noise measurement, the accuracy of the sound level meter should be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements would be accepted as valid only if the calibration levels before and after the noise measurement agreed to within 1.0 dB.

## **Results and Observations**

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

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

Monitoring Average		Range	Baseline Level	Limit Level
Station	$L_{eq (30 min)} dB(A)$	Leq (30 min) dB(A)	dB(A)	dB(A)
NM1 <sup>[1]</sup>	63.9	58.8 – 68.6	54.9	
NM2 <sup>[1]</sup>	60.2	51.3 – 61.5	56.7	
NM3	58.1	53.9 – 61.6	54.5	
NM4	62.3	56.3 – 64.8	58.7	
NM5	60.6	54.7 – 65.8	57.0	
NM6 <sup>[1]</sup>	61.9	52.7 – 67.2	56.0	
NM7	57.4	54.1 – 59.7	49.8	75.0
NM8 <sup>[1]</sup>	57.2	52.9 – 61.4	57.6	75.0
NM9 <sup>[1]</sup>	59.9	52.9 – 61.7	55.9	
NM10 <sup>[1]</sup>	56.6	55.0 – 59.1	52.8	
NM11	54.7	52.2 – 57.7	46.4	
NM12	60.6	55.3 – 62.6	54.7	
NM13 <sup>[1]</sup>	56.2	51.7 – 60.3	61.3	
NM14 <sup>[1]</sup>	63.0	55.8 – 67.0	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. The summary of exceedance record in reporting month is shown in **Appendix J**.
- 4.11 According to our field observations, the major noise sources identified at the designated noise monitoring stations in the reporting month are as follows:

**Table 4.5 Observation at Noise Monitoring Stations** 

Table 4.5 Observation at Poise Monitoring Stations	
Monitoring Station	Major Noise Source
NM1	Road traffic, excavation works, loading & unloading, sheet piling
NM2	Road traffic, excavation works, loading & unloading, sheet piling
NM3	Road traffic, excavation works
NM4	Road traffic, excavation works
NM5	Road traffic, excavation works
NM6	Road traffic, excavation works
NM7	Road traffic, excavation works
NM8	Road traffic, excavation works
NM9	Road traffic, excavation works
NM10	Road traffic, excavation works, loading & unloading
NM11	Road traffic, excavation works, sheet piling
NM12	Road traffic, excavation works
NM13	Road traffic
NM14	Road traffic

## **Event and Action Plan**

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

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#### 5 ECOLOGICAL MONITORING

## **Monitoring of Flora Species of Conservation Interest**

- 5.1 As required under Section 8.3.2 of EM&A Manual, during construction phase, temporary protective fence shall be erected enclosing the flora species of conservation interest identified under the detailed vegetation survey. The temporary protective fence shall be properly maintained and monitored for the effectiveness. Monthly monitoring of individual of flora species of conservation interest identified in the detailed vegetation survey shall be conducted during the construction phase to make sure that the flora species of conservation interest are not affected by the construction activities of the Project.
- The purpose of the monitoring is to monitor the timely implementation of proper environmental management practices and mitigation measures for the retained and transplanted individuals of flora species of conservation interest. Proper erection and maintenance of the temporary protective fence enclosing the individuals was inspected for the effectiveness. The recommended protection measures in the implementation schedule as stated in approved transplantation proposal were monitored and the conditions of the individuals of flora species of conservation interest were recorded as shown in **Table 5.1**.
- 5.3 According to the approved detailed vegetation survey report and transplantation proposal, 71 individuals of *Brainea insignis*, 41 individuals of *Spiranthes sinensis* and 3 individuals of *Aquilaria sinensis* were identified to be transplanted to the receptor site. 51 individuals of *Keteleeria fortunei*, 26 undersized seedlings of *Keteleeria fortunei* and 7 undersized seedlings of *Aquilaria sinensis* were identified to be retained along Kong Nga Po Road near Police Dog Unit and Force Search Unit Training School.

## Post-Transplantation Monitoring and Maintenance Programme

- 5.4 According to approved transplantation proposal, post-transplantation monitoring should be conducted by the Contractor once per week in the first three months and once per month afterwards during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. Regular monitoring allows early detection of the growth status of transplanted species, sign of construction activity within and nearby the receptor site, and any environmental change of the receptor site.
- 5.5 Maintenance works were recommended for the first year of establishment to allow health growth of the transplanted species. In view of the condition of transplanted individuals after the 12-month establishment period, maintenance works were recommended to extend during the Post-establishment Period until the end of Construction Phase. Watering was recommended in daily practice during the first three months after the transplantation and during dry season. Watering frequency may be reduced to at least twice a week and adjusted based on the plant condition to keep the soil moist. Other maintenance works like use of mulch and weeding shall be conducted if required.

#### **Results and Observations**

Monthly monitoring of flora species of conservation interest was conducted by ET on 17<sup>th</sup> June 2022 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.** 

#### 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 was conducted once per week in the first three months (June to August 2020) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. The health condition of the transplanted species was monitored by the Contractor. The Contractor provided maintenance works including watering, use of mulch and weeding in the first year of establishment to allow health growth of the transplanted species. Post-transplantation monitoring on transplanted *Brainea insignis* and *Spiranthes sinensis* was conducted on 29<sup>th</sup> June 2022 during the reporting month and the post-transplantation monitoring record is shown in **Appendix H**. The health condition of the transplanted *Brainea insignis* affected by bushfire on 2<sup>nd</sup> February 2021 were closely monitored and reported in the post-transplantation monitoring records.
- 5.8 During monthly monitoring, no construction activity and equipment storage was observed within the receptor site. Temporary protective fence was 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 was conducted once per week in the first three months (October 2020 to January 2021) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. The health conditions of the transplanted species were monitored by the Contractor. The Contractor provided maintenance works including watering, use of mulch and weeding in the first year of establishment to allow health growth of the transplanted species. Post-transplantation monitoring on transplanted *Aquilaria sinensis* was conducted on 30<sup>th</sup> June 2022 during the reporting month. Due to the poor health condition of transplanted *Aquilaria sinensis*, the monitoring frequency was increased to bi-weekly in the reporting month (i.e. 11<sup>th</sup> and 25<sup>th</sup> June 2022) upon recommended by ET and IEC. The post-transplantation monitoring records are shown in **Appendix H**.
- 5.10 During the monthly monitoring, poor health condition of *Aquilaria sinensis* A-008, A-0009 and A-0010 (dead branches, dieback twigs, algae on the branches etc.) were found. The Contractor was reminded to urge the landscape specialist to closely monitor and take appropriate and prompt action to rescue the plants without further delay especially during the growing season.
- 5.11 In addition, the Contractor was recommended to erect and maintain the temporary protective

fence properly for *Aquilaria sinensis*. Nevertheless, no construction activity and equipment storage were observed within the receptor site.

## Retained Keteleeria fortunei and Aquilaria sinensis

- 5.12 51 individuals of *Keteleeria fortunei*, 26 undersized seedlings of *Keteleeria fortunei* and 7 undersized seedlings of *Aquilaria sinensis* were identified to be retained along Kong Nga Po Road near Police Dog Unit and Force Search Unit Training School. Individuals of *Keteleeria fortunei* and *Aquilaria sinensis* were preserved based on the revised layout plan of Kong Nga Po Road.
- 5.13 During monitoring, no construction activity was observed within the area of retained species. Temporary protective fence was properly erected and maintained for the retained species. The photographic records for the retained individuals are shown in **Appendix H**.

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

Recommended Mitigation Measures	Implementation Status
Brainea insignis	
Identification of Plant Species of Conservation Importance to be Retained /	
Transplanted	٨
To mark trees/plants proposed to be retained and to be transplanted on the layout plan	
prior to commencement of site construction works.	
Protection of Plant Species of Conservation Importance prior to Site Clearance /	
Transplantation Works	
a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed.	N/A
b) Set up buffer zone to enhance the protection of flora species of conservation	N/A
importance to be preserved / transplanted including the proposed location for	
transplantation when the site clearance works shall commence before the	
transplantation works completed.	
Temporary Protective Fence for Flora Species of Conservation Interest / Retained	
Tree	٨
a) To erect a temporary protective fence enclosing the flora species of conservation	
interest identified under the detailed vegetation survey.	٨
b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	
Maintenance of the Protection Zone for Flora Species of Conservation Interest /	
Retained Tree	
a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted.	۸
b) To inspect the temporary protective fence whether it is properly erected and	٨
maintained during construction.	
Post-transplantation Monitoring	
a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	۸
Maintenance of Transplanted Species	
a) To keep the soil moist by watering the receptor sites properly and adequately.	^

	Recommended Mitigation Measures		
b) c)	To apply mulches on the soil surface over the plant root system, if required.  To remove unwanted weeds found in receptor sites.	^ ^	
	her Protection Measures for Flora Species of Conservation Interest / Retained		
	ee / Vegetated Areas		
a)	All works should be confined within the site boundary.	۸	
b)	Access of site staff should be controlled.	^	
c)	Care should be taken to prevent trees/plants being damaged by mechanical	٨	
	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.	۸	
g)	No soil, debris or construction materials should be deposited around and against the	٨	
h)	trunk of a tree/plant as this causes bark damage and compaction of the soil.  No fire should be lit below the branches and no petrol, oil or caustic substances	٨	
	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		
Cross	as possible for repair immediately.		
	ranthes sinensis entification of Plant Species of Conservation Importance to be Retained /		
	ansplanted	٨	
	mark trees/plants proposed to be retained and to be transplanted on the layout plan		
	or to commencement of site construction works.		
	otection of Plant Species of Conservation Importance prior to Site Clearance /		
	ansplantation Works		
a)	No site clearance shall be started at the locations of flora species of conservation	N/A	
	interest until the transplantation works completed.		
b)	Set up buffer zone to enhance the protection of flora species of conservation	N/A	
	importance to be preserved / transplanted including the proposed location for		
	transplantation when the site clearance works shall commence before the		
	transplantation works completed.		
	mporary Protective Fence for Flora Species of Conservation Interest / Retained	۸	
Tre		^	
	To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.	٨	
	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.		
Ma	nintenance of the Protection Zone for Flora Species of Conservation Interest /		
	tained Tree		
a)	Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted.	۸	
b)	To inspect the temporary protective fence whether it is properly erected and	۸	
	maintained during construction.		
	st-transplantation Monitoring  Weekly, post transplantation manitoring of transplanted species in the first three	٨	
a)	Weekly post-transplantation monitoring of transplanted species in the first three		

Recommended Mitigation Measures	Implementation Status
months and monthly afterwards.	
Maintenance of Transplanted Species	
a) To keep the soil moist by watering the receptor sites properly and adequately.	٨
b) To apply mulches on the soil surface over the plant root system, if required.	٨
c) To remove unwanted weeds found in receptor sites.	۸
Other Protection Measures for Flora Species of Conservation Interest / Retained	
Tree / Vegetated Areas	
a) All works should be confined within the site boundary.	٨
b) Access of site staff should be controlled.	٨
c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works.	۸
d) No fixings should be driven into trees/plants.	٨
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.	
Keteleeria fortunei  Identification of Plant Species of Conservation Importance to be Retained / Transplanted	^
To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	
Protection of Plant Species of Conservation Importance prior to Site Clearance /	
Transplantation Works	
a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed.	N/A
b) Set up buffer zone to enhance the protection of flora species of conservation	
importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	
importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the	
importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	
importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.  Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree  a) To erect a temporary protective fence enclosing the flora species of conservation	
<ul> <li>importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.</li> <li>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree         <ul> <li>a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.</li> <li>b) To set up a protection zone at least 1m from the plant / retained tree and erect robust,</li> </ul> </li> </ul>	^
<ul> <li>importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.</li> <li>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</li> <li>a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.</li> <li>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.</li> </ul>	^ *
<ul> <li>importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.</li> <li>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</li> <li>a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.</li> <li>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.</li> <li>Maintenance of the Protection Zone for Flora Species of Conservation Interest /</li> </ul>	^ *
<ul> <li>importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.</li> <li>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</li> <li>a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.</li> <li>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.</li> </ul>	^ *

Recommended Mitigation Mea	asures	Implementation Status
maintained during construction.		
Post-transplantation Monitoring		
a) Weekly post-transplantation monitoring of transpla	nted species in the first three	N/A
months and monthly afterwards.		
Maintenance of Transplanted Species		
a) To keep the soil moist by watering the receptor sites p		N/A
b) To apply mulches on the soil surface over the plant ro	oot system, if required.	N/A
c) To remove unwanted weeds found in receptor sites.		N/A
Other Protection Measures for Flora Species of Con	servation Interest / Retained	
Tree / Vegetated Areas		
a) All works should be confined within the site boundary	y.	^
b) Access of site staff should be controlled.		^
c) Care should be taken to prevent trees/plants be equipment or stockpile both during site clearance wor		۸
d) No fixings should be driven into trees/plants.		٨
e) No workshop, canteens, or similar should be installe equipment maintenance etc. be carried out under trees		۸
f) No excavation, including that for services or changes within the spread of the crown of the trees / plants.		۸
g) No soil, debris or construction materials should be do trunk of a tree/plant as this causes bark damage and co		^
h) No fire should be lit below the branches and no p		^
stored near the trees/plants.	h:	^
i) No trees/plants should be used for anchoring or winch	ning purposes or for the display	^
of signs.  j) Any damage or injury to the retained / transplanted pl	ants should be reported as soon	,
as possible for repair immediately.		
Aquilaria sinensis		
Identification of Plant Species of Conservation Import	ance to be Retained /	^
Transplanted	. 1 . 1 . 1 . 1	X
To mark trees/plants proposed to be retained and to be	transplanted on the layout plan	
prior to commencement of site construction works.	• 4 64 61	
Protection of Plant Species of Conservation Importa	nce prior to Site Clearance /	
Transplantation Works	£ £	NT/A
a) No site clearance shall be started at the locations o	i nora species of conservation	N/A
interest until the transplantation works completed.  b) Set up buffer zone to enhance the protection of	flore species of consequation	N/A
b) Set up buffer zone to enhance the protection of importance to be preserved / transplanted includi		IV/A
transplantation when the site clearance works		
transplantation works completed.	shan commence before the	
	sowation Interest / Detained	
<b>Temporary Protective Fence for Flora Species of Cons</b> <b>Tree</b>		
a) To erect a temporary protective fence enclosing the interest identified under the detailed vegetation survey		۸
b) To set up a protection zone at least 1m from the plant bright-coloured fencing of 1.5m in height.		#
Maintenance of the Protection Zone for Flora Speci	es of Conservation Interest /	
Retained Tree		
a) Monthly monitoring of flora species of conserva	tion interest identified in the	۸
detailed vegetation survey should be conducted.		

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	Recommended Mitigation Measures	Implementation Status
b)	To inspect the temporary protective fence whether it is properly erected and	٨
	maintained during construction.	
Po	st-transplantation Monitoring	
a)	Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	۸
Ma	nintenance of Transplanted Species	
a)	To keep the soil moist by watering the receptor sites properly and adequately.	#
b)	To apply mulches on the soil surface over the plant root system, if required.	#
c)	To remove unwanted weeds found in receptor sites.	#
Ot	her Protection Measures for Flora Species of Conservation Interest / Retained	
	ee / Vegetated Areas	
a)	All works should be confined within the site boundary.	٨
b)	Access of site staff should be controlled.	٨
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.	٨
e)	No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants.	۸
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.	۸
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.	۸
i)	No trees/plants should be used for anchoring or winching purposes or for the display	٨
′	of signs.	٨
j)	Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.	

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

## Mitigation Measure for Golden-headed Cisticola

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

#### Noise

• Silencers or mufflers on well-maintained construction equipment should be utilized and

properly maintained during the construction program

- Noise enclosure or acoustic shed should be effectively utilized, where practicable
- Machines or equipment known to emit noise or light strongly in one direction should, wherever possible, be orientated the noise away from the adjacent habitat

#### <u>Light</u>

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

#### Water

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

## **Good Site Practice Measures**

- Placement of stockpiling into designated area should be selected at disturbed area in order to minimize the disturbance to wildlife
- Open fire should be strictly prohibited
- The boundary of project boundary should be clearly demarcated
- General drainage system arrangement should include sediment and oil trapper to collect the site run-off
- Waste bin should be provided to collect the general refuse and construction waste
- 5.15 Site audits were conducted by ET on weekly basis to monitor the timely implementation of the recommended mitigation measures by the Contractor on the Project site. The observations are summarised in **Table 7.1** and the implementation status is given in **Appendix K**. Toolbox talk training related to ecological protection has been provided by the Contractor to site staff and frontline workers. Presence of avifauna and bird nest were checked prior to site clearance work.

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

- 5.16 According to EP Condition 2.21, with consideration of minimizing impact on butterfly species of conservation interest recorded at the grassland in the Project site, planting of common grass species which are the larval food plants for butterfly species such as Small Three-Ring are included in Landscape and Visual Mitigation Plan.
- 5.17 The re-establishment of grassland areas in the Project shall be implemented before Commencement of Operation of the Project. Details of the plant species as larval food plants of butterflies including design and implementation arrangement will be further submitted under ArchSD's building works contract.

#### Precautionary Measures to Minimize Indirect Disturbance on Ecology

5.18 In accordance with Section 9.7.3 of EIA Report, mitigation measures for air, noise, water, waste and landscape aspects could act as precautionary measures to prevent and minimize any indirect disturbance impact or pollution arisen from the construction activities on the

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local ecology and offsite habitats. Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Project site and the observations are summarised in Section 7.3.

#### 6 LANDSCAPE AND VISUAL MONITORING

#### **Monitoring Requirements**

- 6.1 The EIA Report has recommended mitigation measures for landscape and visual resources to be undertaken during the construction and operation phases of the Project.
- 6.2 These measures include the consideration of a number of development options and the provision of mitigation measures to directly offset unavoidable impacts. The measures include strategies for reducing, offsetting and compensating impacts during construction and operation phases according to Section 10.13 in the EIA Report.
- 6.3 The implementation and maintenance of landscape compensatory planting measures is a key aspect of this and shall be checked to ensure that they are fully realised and that potential conflicts between the proposed landscape measures and any other Project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, implementation of the mitigation measures recommended by the EIA shall be monitored throughout the construction phase site audit programme.
- 6.4 Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted by ET during weekly site audit. The observation and recommendations made during the audit sessions are summarised in **Table 7.1**. The implementation status is given in **Appendix K**.

#### 7 ENVIRONMENTAL SITE INSPECTION

#### **Site Audits**

- 7.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site.
- 7.2 Site audits were conducted by ET with the representative of the *Supervisor*'s Representative and the Contractor on 2<sup>nd</sup>, 10<sup>th</sup>, 17<sup>th</sup>, 24<sup>th</sup> and 30<sup>th</sup> June 2022 in the reporting month. Joint site audits with the representative of the *Supervisor*'s Representative, the Contractor and IEC were carried out on 17<sup>th</sup> June 2022.
- 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	17/06/2022	Clear the used cement bags which were accumulated at Portion B1.	The used cement bags were cleared by the Contractor as observed during follow-up audit session on 24/06/2022.
	17/06/2022	The dusty activities (i.e. rock breaking, excavation etc.) at DA-E should be sprayed with water to avoid dust generation.	Water spraying was provided for the excavation works by the Contractor as observed during follow-up audit session on 24/06/2022.
Construction Noise Impact		No environmental deficiency was identified during the reporting month.	
Water Quality	2/06/2022	The maintenance records of wetsep at DA-A should be updated regularly.	Maintenance records of the wetsep was updated by the Contractor as observed during follow-up audit session on 10/06/2022.
	24/06/2022	The runoff that flows into the retention pond at abutment A should be pump out for treatment before discharging out.	A water pump was placed at the retention pond by the Contractor to pump out the water for treatment before discharging as observed during follow-up audit session on 30/06/2022.
Waste/ Chemical Management	10/06/2022	The general refuse should be disposed properly and rubbish bin should be provided on site (water tank area).	The rubbish was cleared and a rubbish bin was provided on site by the Contractor as observed during follow-up audit session on 17/06/2022.
Landscape and Visual	30/06/2022	The contractor should liaise with the landscape specialist for the soil condition to avoid too much water in the soil at the receptor site at Portion B1.	A water pump was placed by the Contractor for dewatering at the receptor site as observed during follow-up audit session on 08/07/2022.
Ecology	17/06/2022	To ensure the tree protection zone for <i>Aquilaria Sinensis</i> is set at 1m away from the trees at Portion B1.	Protection fence was erected by the Contractor to avoid disturbance of construction works to the trees as observed during follow-up audit session on 24/06/2022. However, the area of tree protection zone should be reviewed to ensure it is large enough to protect the trees.
Permit/Licences		No environmental deficiency was identified during the reporting month.	

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

- 7.4 According to the EIA Report, Environmental Permit and the EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix K**.
- 7.5 During site inspections in the reporting month, the Contractor's readiness with the mitigation measures during rainy season against site run-off was found generally satisfactory despite some observations/recommendations as detailed above were raised. The mitigation measures implemented in June 2022 are shown in the summary table in **Appendix K.**

## Solid and Liquid Waste Management Status

- 7.6 In accordance with the EM&A Manual, waste management was audited during weekly site audit to determine if wastes are being managed in accordance with the Waste Management Plan (WMP) prepared for the Project and the relevant legislative and contractual requirements. Waste management practice including waste handling, storage, transportation and disposal were audited.
- 7.7 The Contractor have nominated on-site Environmental Officers to oversee the environmental management, pollution control measures, good site practices and training of site personnel in waste management. Proactive measures have been undertaken to make use of construction and demolition (C&D) materials to minimize the waste generated. On-site sorting and screening of excavated materials have been carried out to recover any recyclable portions. Inert C&D materials were used on-site for backfilling works and hard paving of haul road. In addition, inert C&D materials generated from excavation works were reused as fill materials in other local projects. The surplus inert C&D materials were disposed of at the Government's public fill reception facilities (PFRFs) for beneficial use by other projects. In order to monitor the disposal of inert and non-inert C&D materials and to control fly-tipping, every excavated materials before leaving the site are weighted by a weight bridge and Trip Ticket System is strictly followed.
- 7.8 The Contractors are advised to minimize the wastes generated through the recycling or reusing. All mitigation measures stipulated in the EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and reduction measures are summarised in **Appendix K**.
- 7.9 Waste generated from this Project includes inert C&D materials and non-inert C&D materials. Non-inert C&D materials are made up of general refuse and waste that cannot be reused or recycled and has to be disposed of at the designated landfill sites. The amount of wastes generated by the construction works of the Project during the reporting month is shown in **Appendix L**.

#### 8 ENVIRONMENTAL NON-CONFORMANCE

## **Summary of Exceedances**

- 8.1 No exceedance of Action and Limit Levels of air quality was recorded in the reporting month.
- 8.2 No exceedance of Action and Limit Levels of construction noise was recorded in the reporting month.
- 8.3 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action / Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix I** be carried out. The summary of exceedance record in reporting month is shown in **Appendix J**.

## **Summary of Environmental Non-Compliance**

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

## **Summary of Environmental Complaint**

- 8.5 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.
- 8.6 One (1) environmental complaint about vibration from the construction activities that caused nuisance to nearby sensitive receivers was received by CEDD on 23<sup>rd</sup> June 2022 in the reporting month. Complaint investigation was conducted according to the EM&A Manual of the Project. The Cumulative Complaint Log since the commencement of the Project is presented in **Appendix M**.

## **Summary of Environmental Summon and Successful Prosecution**

8.7 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:
  - Site Formation at Portion D
  - Pre-bored Piling Works
  - Retaining Wall Construction
  - Stormwater Storage Tank & Underpass Construction
  - Slope Upgrading Works
  - Road & Associated Works
  - Sewerage Trenchless Works
  - Drainage & Watermain Trenchless Works
  - Bridge & Associated Works
  - Tree Felling Works
- 9.2 With reference to the site layout plan including the indication of coming three months construction site activities in **Appendix A**, potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality, waste management, landscape and visual and ecology. The foreseeable environmental impacts were taken into consideration of the planned mitigation measures in the coming months.
- 9.3 The mitigation measures to be implemented for the coming three months were proposed by the Contractor and reviewed by ET, IEC and the *Supervisor* through Email, during site audit and SSMC meeting. The Proactive Environmental Protection Proforma summarizing the major site activities, potential environmental impacts and recommended mitigation measures was reviewed and endorsed by the *Supervisor*, ET and IEC and was shown in **Appendix A**.
- 9.4 Dust can be generated during construction works and exposed site area during the summer months. To prevent high dust concentrations during the summer months, the Contractor should pay attention on the air quality mitigation measures as far as practicable to minimise the dust impact to the villages which are located adjacent to the Project works (refer to the layout plan in Appendix A). The Contractor was also reminded to follow the Project Implementation Schedule in approved EIA report / EM&A Manual to implement appropriate dust control measure including "Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather and covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handling at the stockpile areas" as well as the relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation so that no adverse dust impact arising from the Project works site.
- 9.5 The Contractor is also recommended to arrange and maintain water quality mitigation measures during wet season (i.e. April to September). The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary

ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a site/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. Efficient silt removal facilities shall deploy to ensure all treated effluent from wastewater treatment plant shall meet the requirements as stated in WPCO licences. The site drainage plan shall also be updated based on the site condition and construction programme.

- 9.6 In addition, construction noise is also one of the key environmental issues during construction of the Project. Noise mitigation measures such as using quiet plants and noise barriers should be in place, where applicable. In addition, the Contractor was reminded to frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; and provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area.
- 9.7 All other mitigation measures recommended in the Project Implementation Schedule in the approved EIA report / EM&A Manual should be properly implemented and maintained as far as practicable.

## **Monitoring Schedule for the Next Month**

9.8 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 June 2022 in accordance with EM&A Manual.
- 10.2 No Action/Limit Level exceedance was recorded for air quality monitoring in the reporting month.
- 10.3 No Action/Limit Level exceedance was recorded for construction noise monitoring in the reporting month.
- 10.4 Environmental site inspections were conducted on 2<sup>nd</sup>, 10<sup>th</sup>, 17<sup>th</sup>, 24<sup>th</sup> and 30<sup>th</sup> June 2022 by ET in the reporting month. No environmental non-compliance was recorded in the reporting month.
- 10.5 One (1) environmental complaint was received in the reporting month. No notification of summons or successful prosecutions was received in the reporting month.
- 10.6 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

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

#### Air Quality Impact

- To cover stockpile of dusty materials and exposed slope for dust suppression;
- To enhance the dust suppression measures including watering for the dust generation works, exposed site area and haul road;
- To regular check the valid NRMM labels are properly displayed on the regulated machines and non-road vehicles; and
- To provide the 3 sides enclosure with top shelter for dusty generation works.

#### Construction Noise

- To keep inspect the noise sources inside the site;
- To keep space out noisy equipment and position the equipment as far away as possible from sensitive receivers; and
- To maintain temporary noise barriers for operations of noisy equipment near the noise sensitive receivers, if necessary.

## Water Impact

- To keep reviewing and updating temporary drainage system;
- To provide earth bunds or sand bag barriers on site to direct stormwater to silt removal facilities:
- To maintain and ensure the silt removal facilities are functioning properly;

- An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable; and
- To prevent wheel washing water from entering to the public road.

## Waste/Chemical Management

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

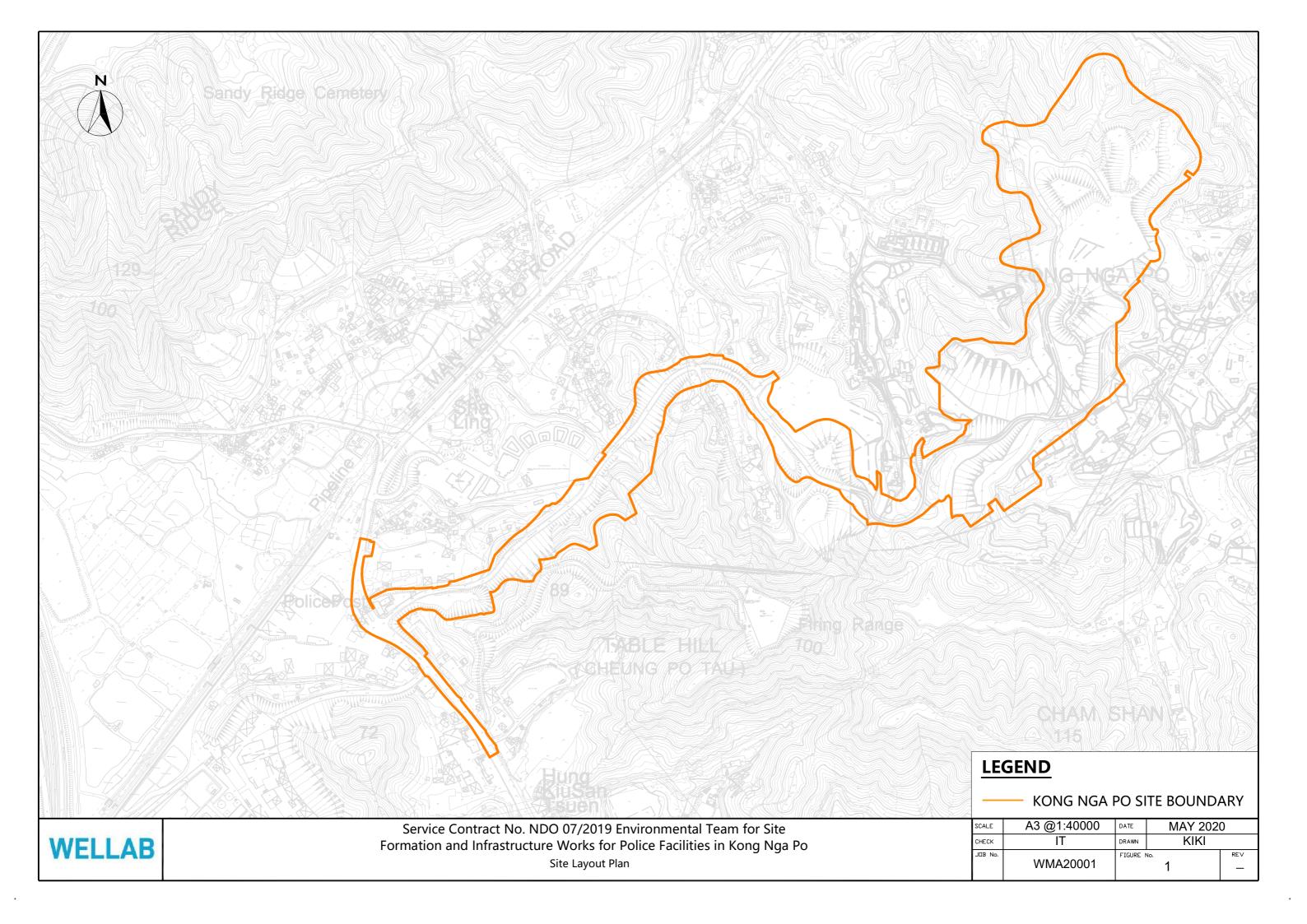
## Ecology

- To erect and maintain the protection fence around the retained trees;
- To review the area of tree protection zone to ensure it is large enough to protect the tress; and
- To keep close monitoring of conservation species and avoid dead/ detached branches.

## Landscape and Visual

- To erect and maintain the protection fencing and tree protection zone around the preserved trees; and
- To liaise with the landscape specialist for the soil condition to avoid too much water in the soil at the receptor site.

FIGURE(S)





LEGEND

SITE BOUNDARY

AIR QUALITY MONITORING STATIONS

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

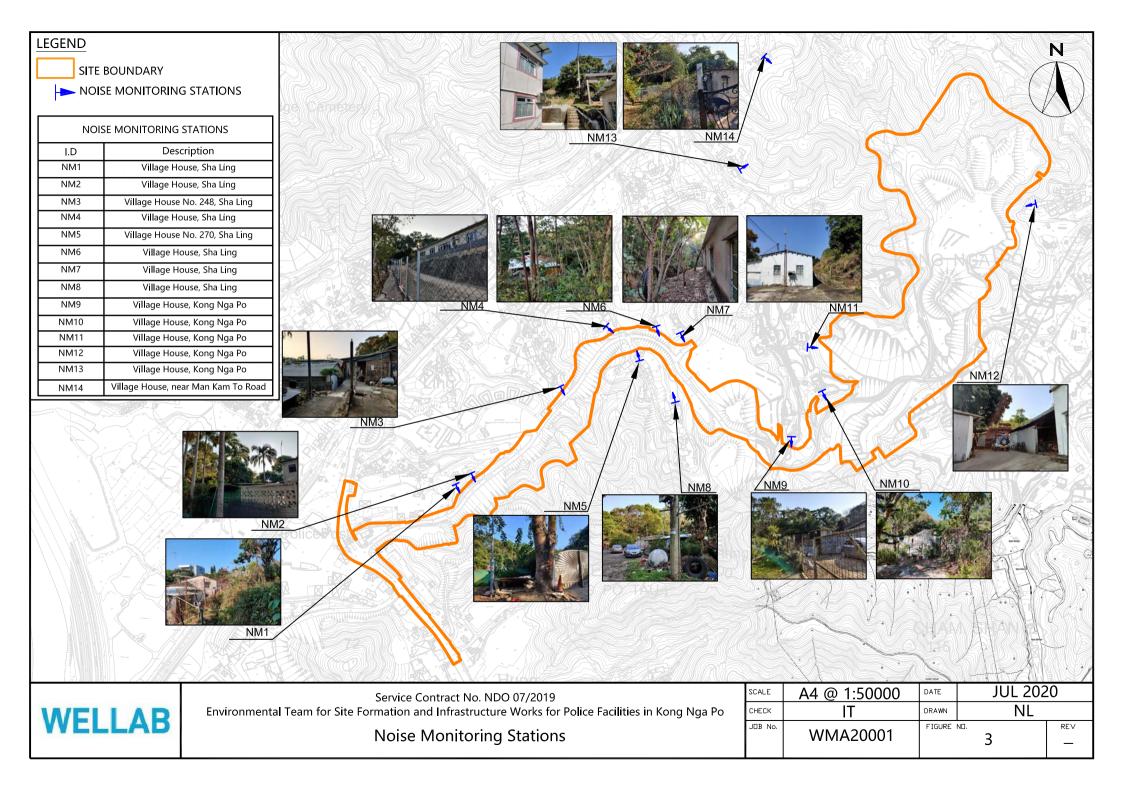




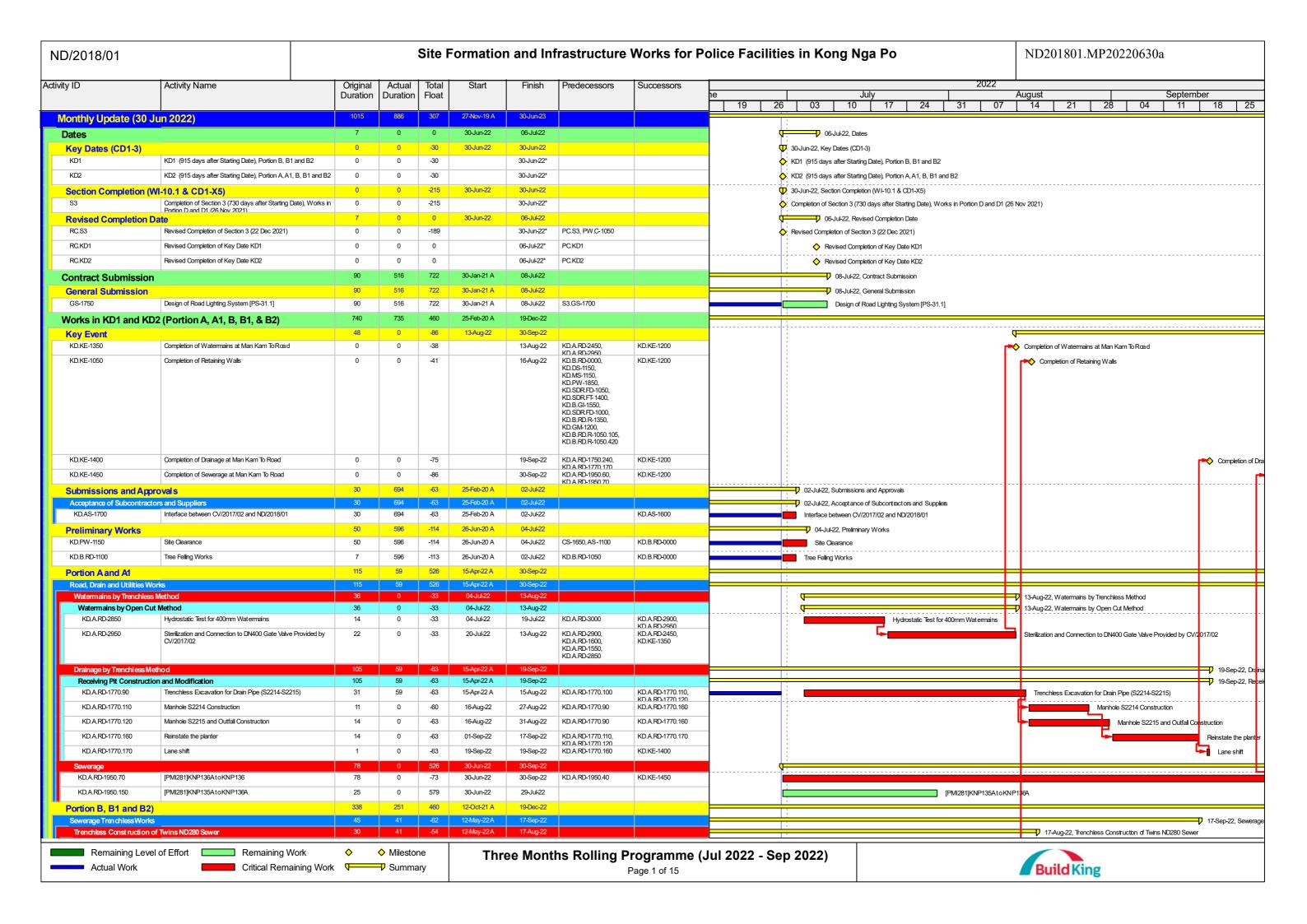
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

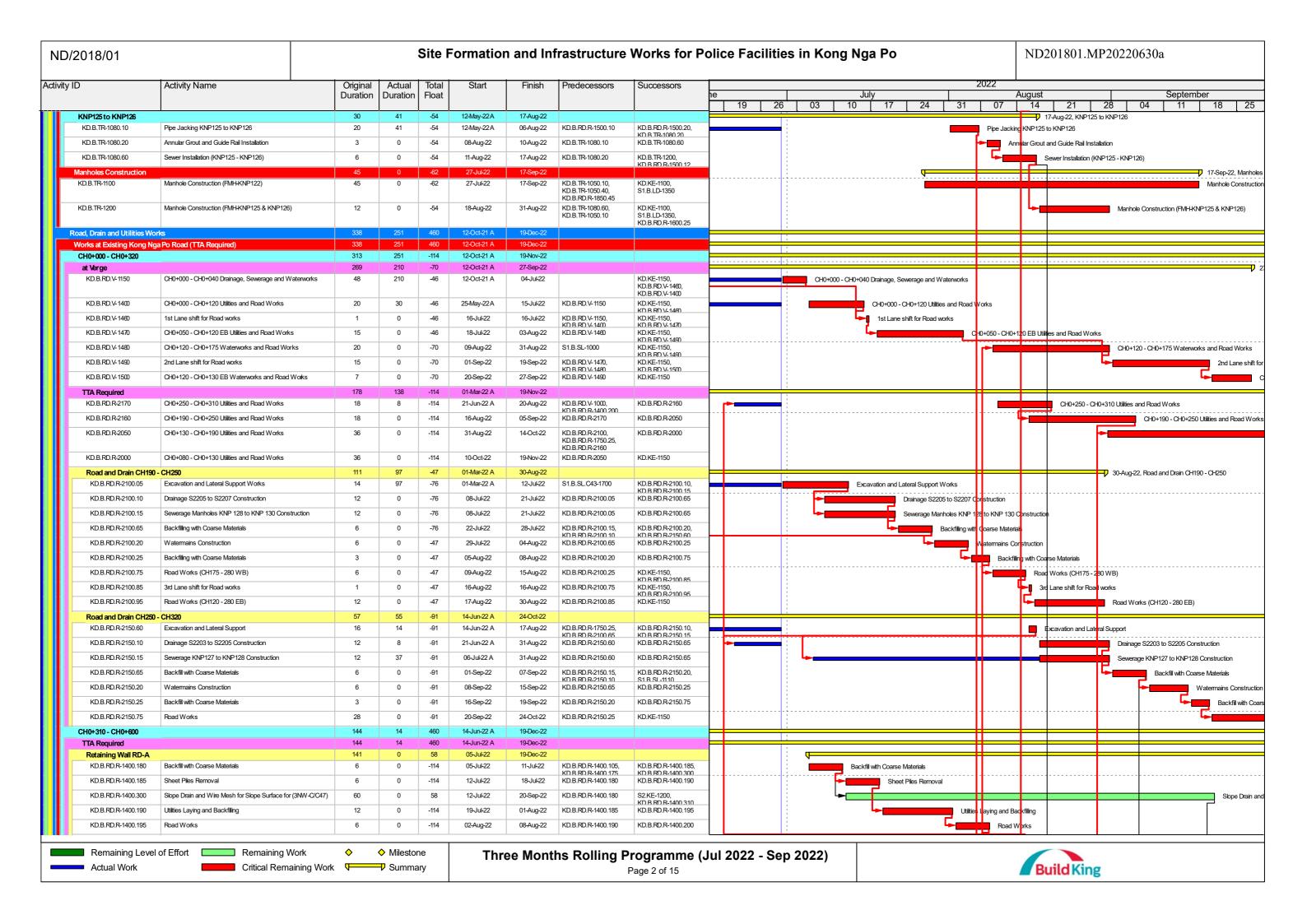
Air Quality Monitoring Stations

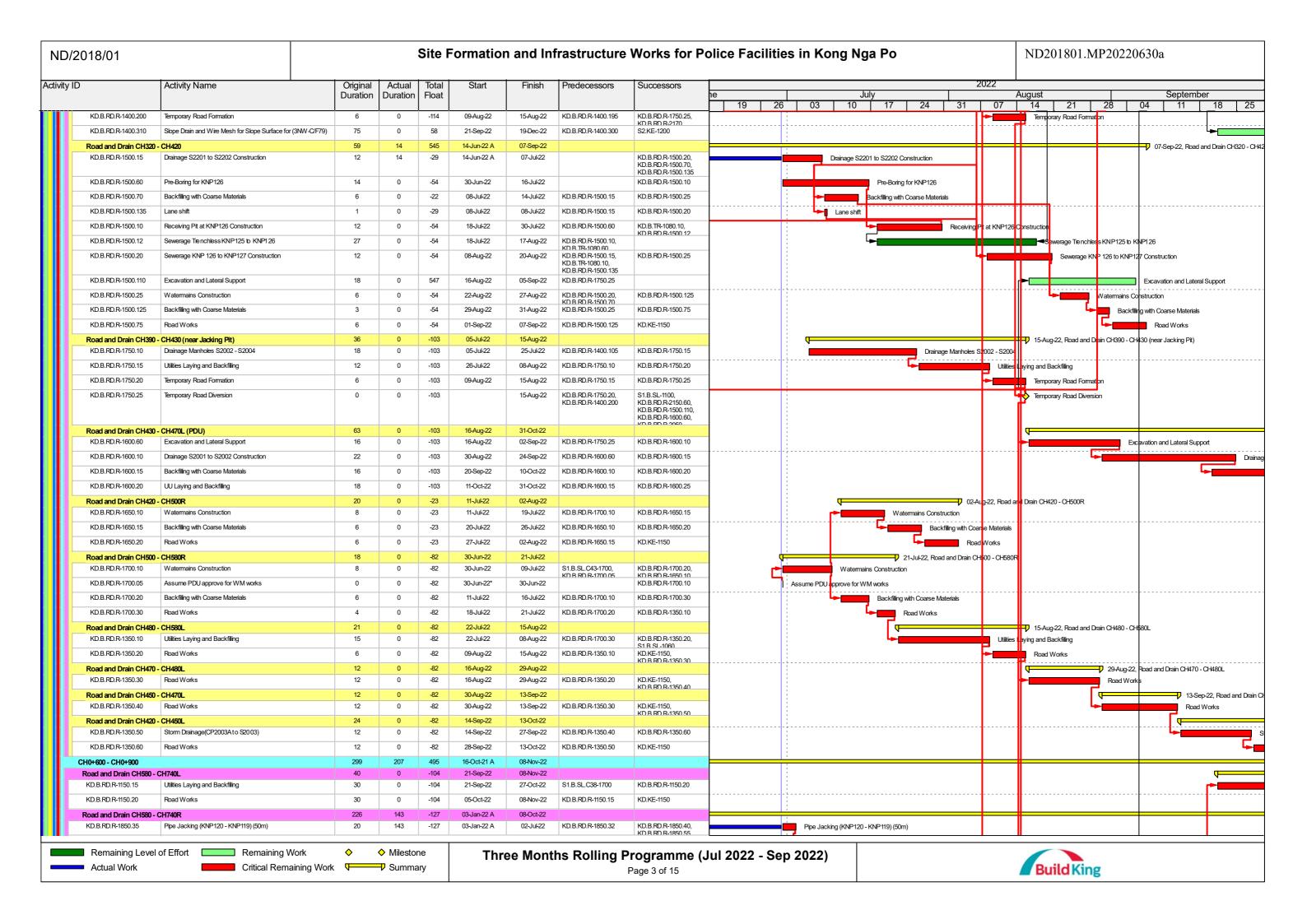
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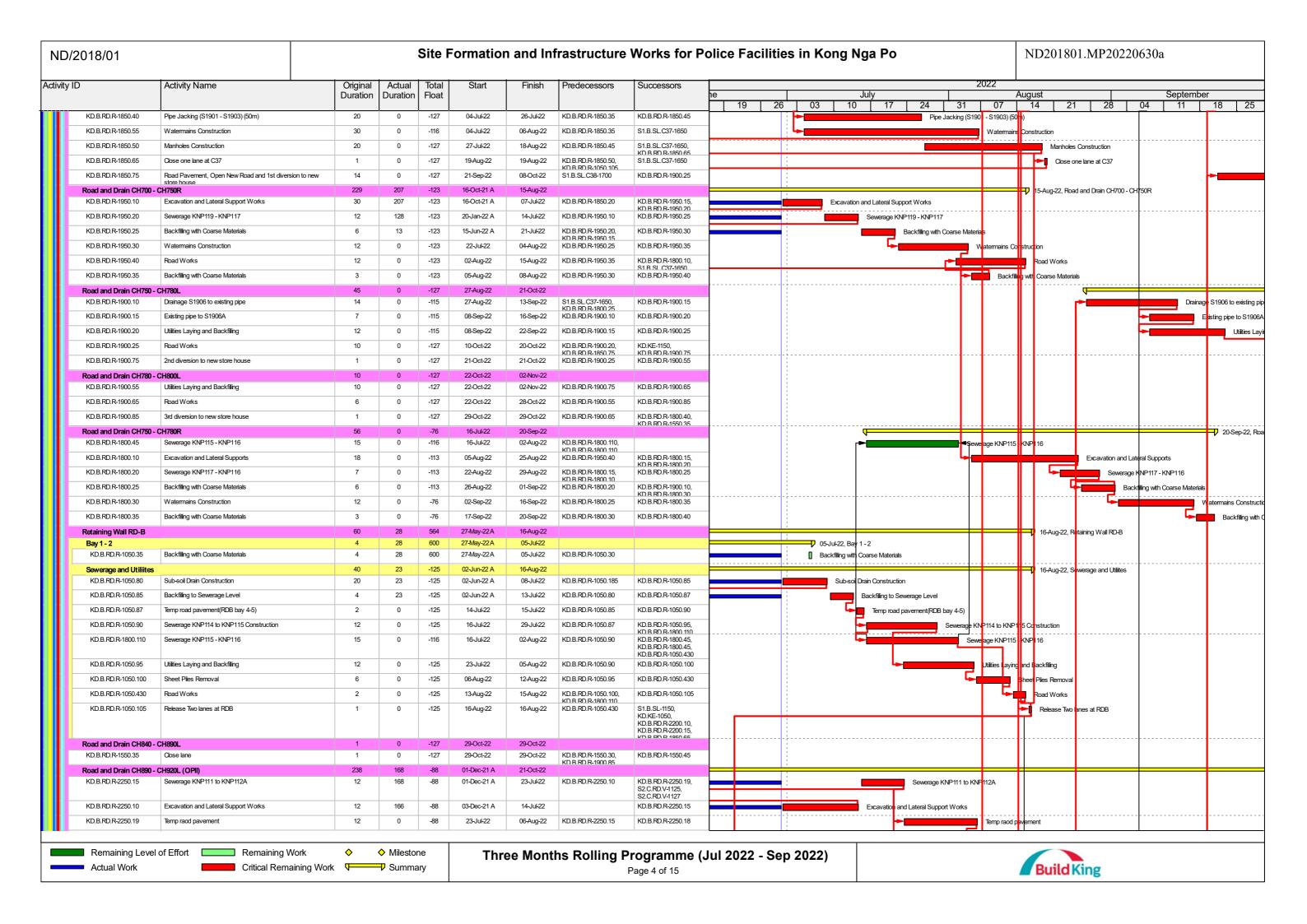


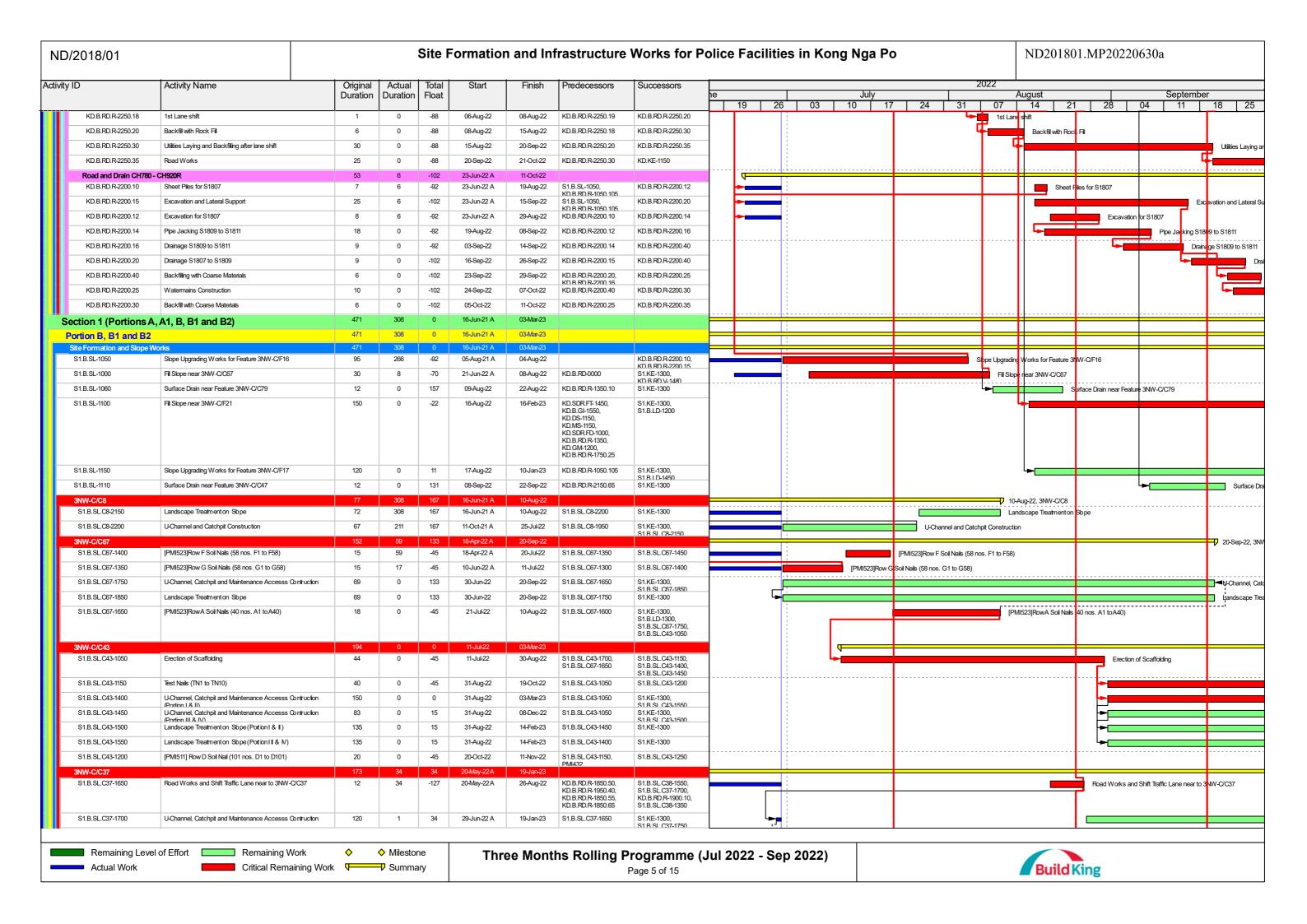
APPENDIX A
CONSTRUCTION PROGRAMME AND
PROACTIVE ENVIRONMENTAL
PROTECTION PROFORMA

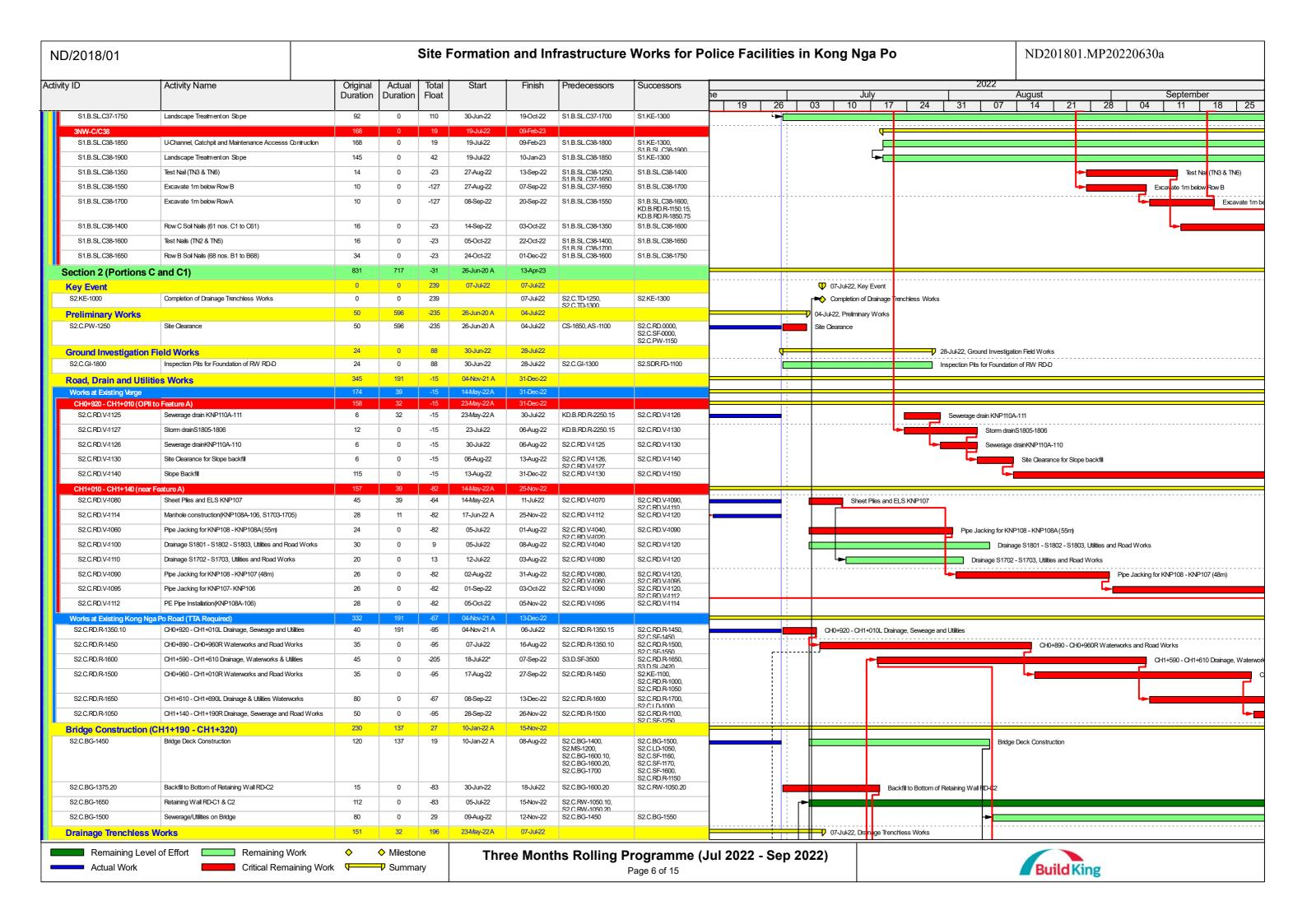


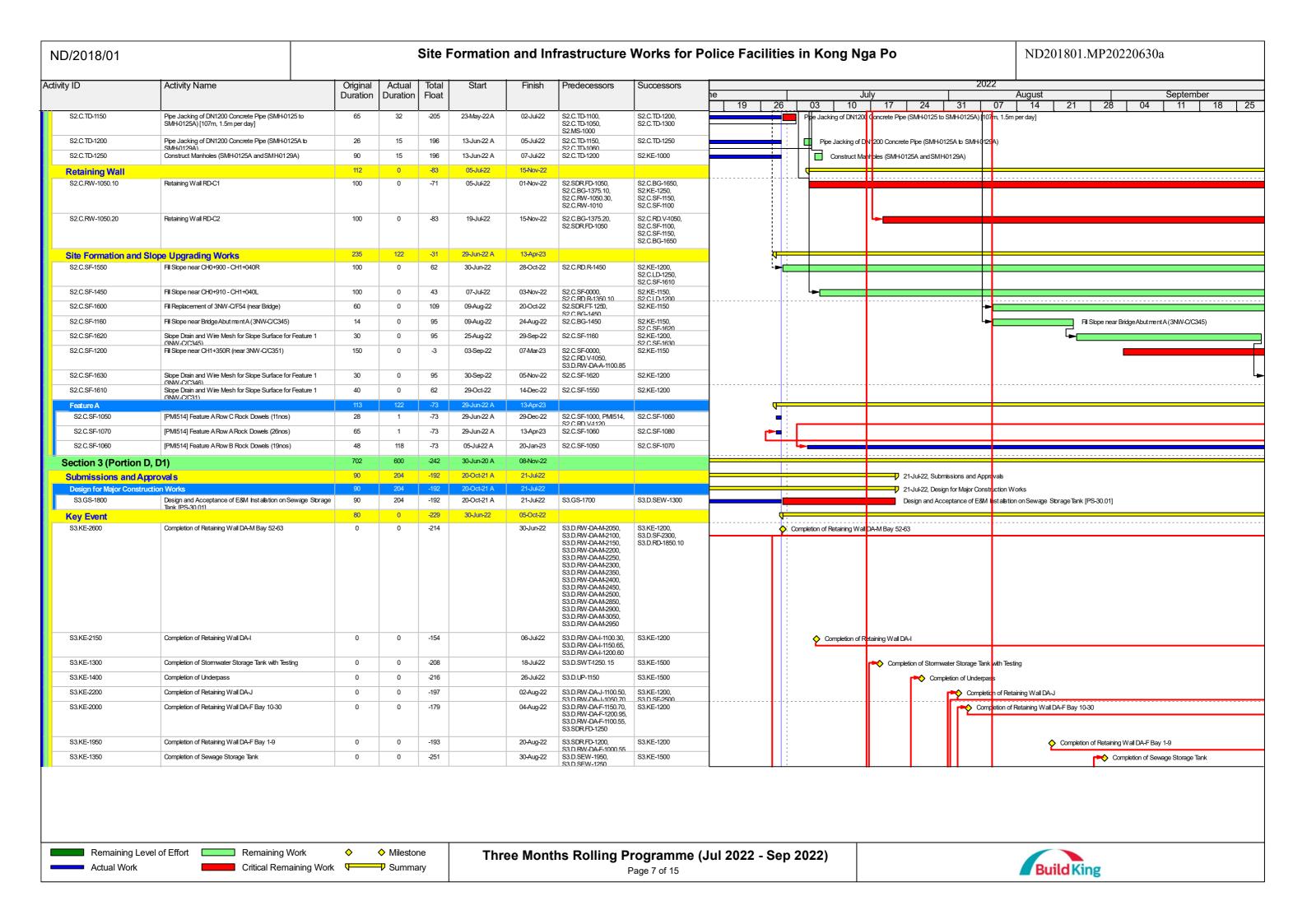




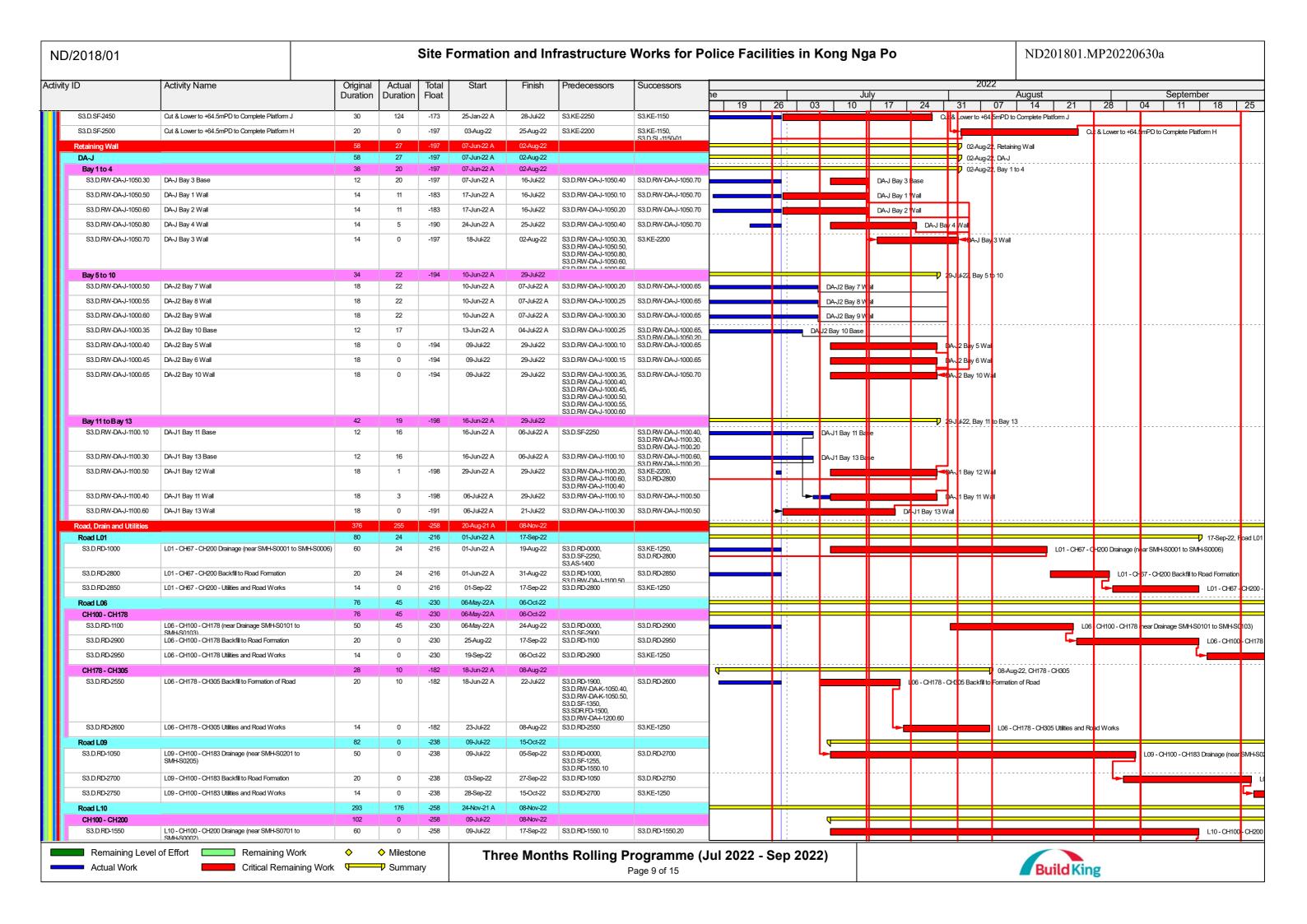


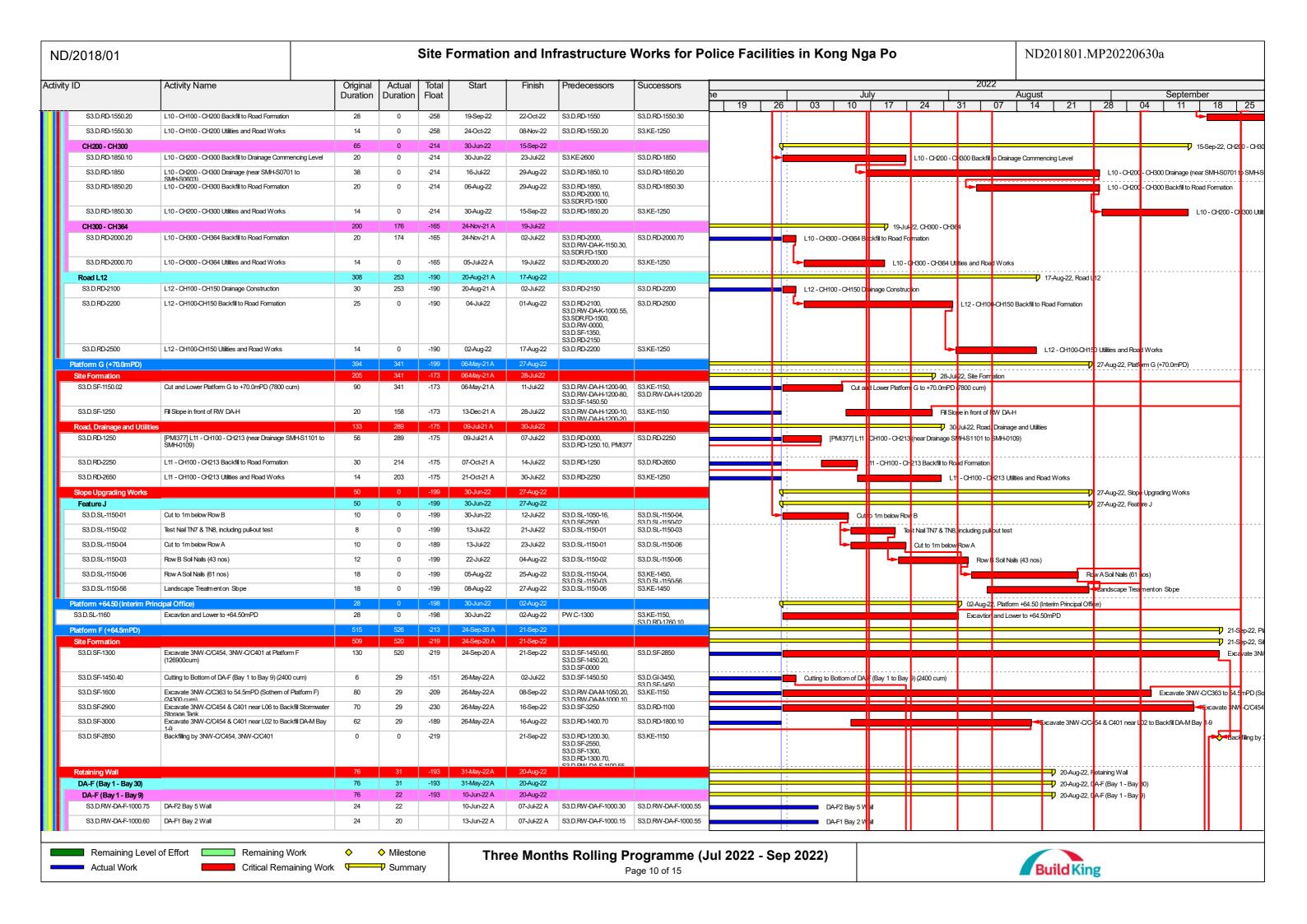


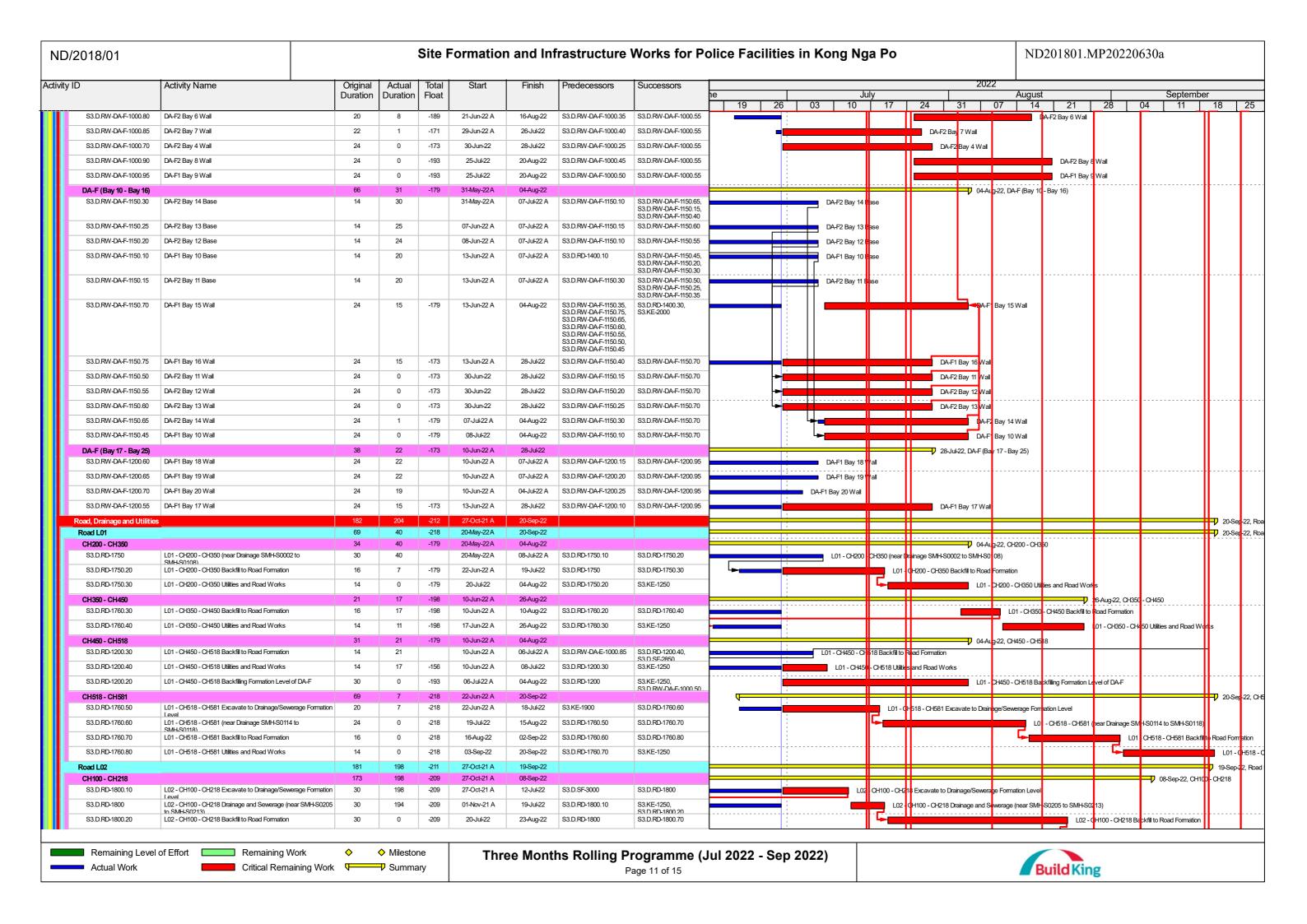


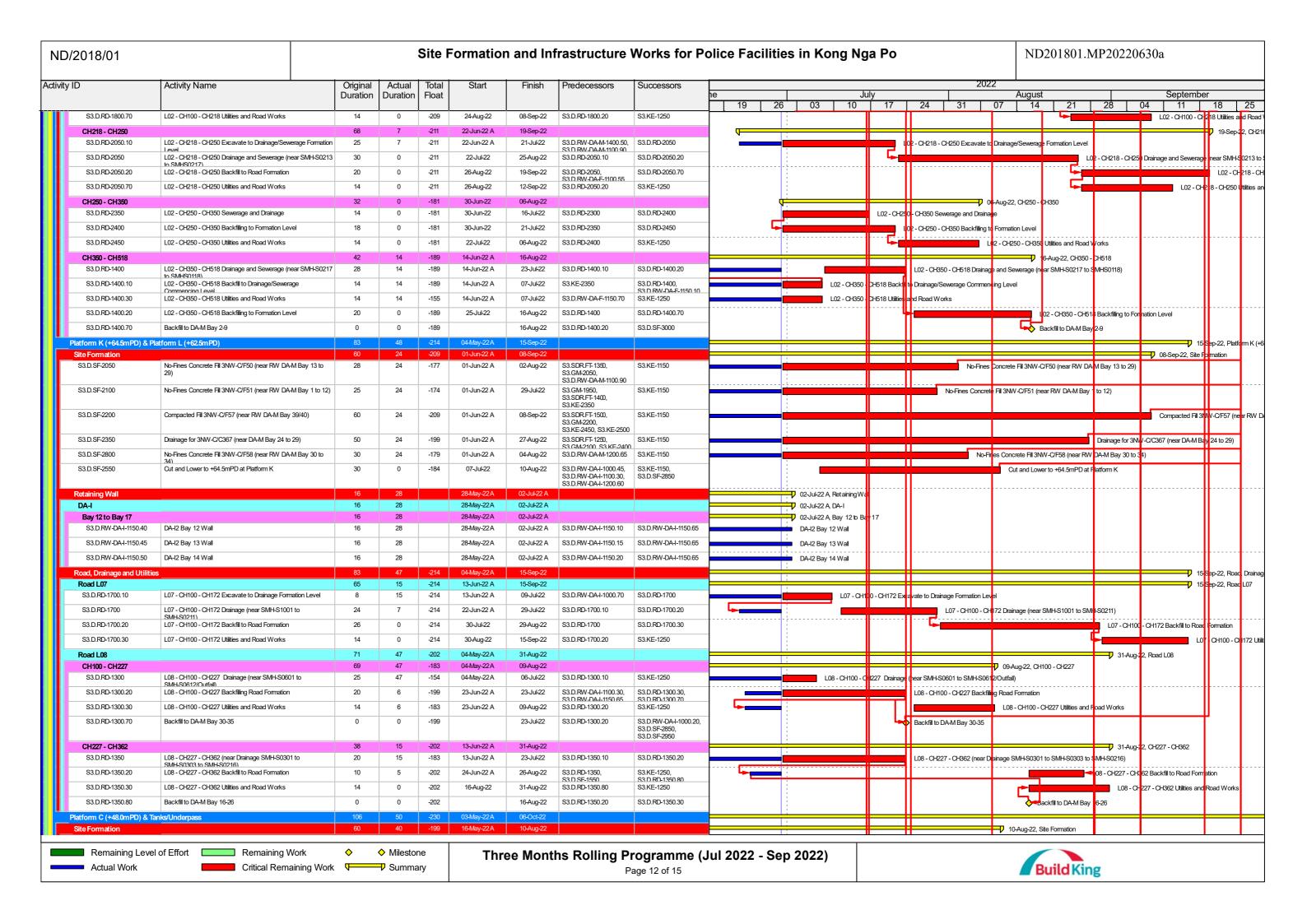


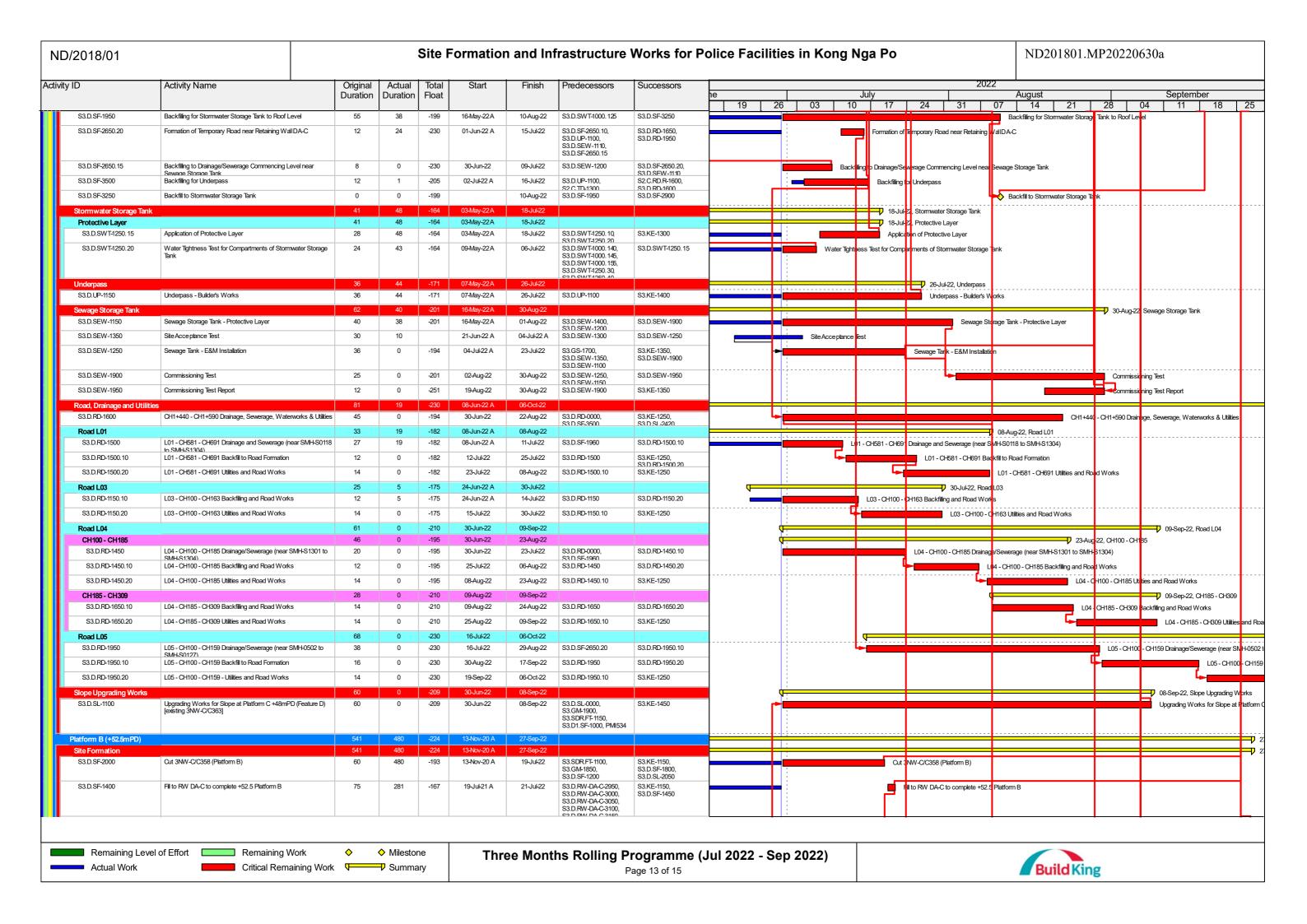
D/2018/01				Site F	ormation	n and In	frastructure	Works for Po	olice Fac	ilities	in K	ong l	Nga P	0					ND20	1801.1	MP2022	20630	a		
ity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	he				July			7	2022	Διι	gust				Septem	nher	
		Duration	Duration	Tioat					19	26	03	10		7	24	31	0		14	21	28	04	11	18	
S3.KE-1450	Completion of Slope Upgrading Works	0	0	-260		08-Sep-22	\$3.D.SL-1050-18, \$3.D.SL-2200, \$3.D.SL-1100, \$3.D.SL-1100, \$3.D.SL-1150-06, \$3.D.SL-2000, \$3.D.SL-1050-68, \$3.D.SL-1150-56, \$3.D.SL-2300, \$3.D.SL-2300, \$3.D.SL-250, \$3.D.SL-250, \$3.D.SL-2410	S3.KE-1500															Completion of	if Slope Upgra	adin
S3.KE-1150	Completion of Site Formation	0	0	-279		27-Sep-22	\$3.D.\$F-2100, \$3.D.\$F-2100, \$3.D.\$F-2000, \$3.D.\$F-2000, \$3.D.\$F-2000, \$3.D.\$F-2200, \$3.D.\$F-2200, \$3.D.\$F-2300, \$3.D.\$F-2300, \$3.D.\$F-250, \$3.D.\$F-1000, \$3.D.\$F-1000, \$3.D.\$F-1250, \$3.D.\$F-1900, \$3.D.\$F-2500, \$3.D.\$F-2400, \$3.D.\$F-2400, \$3.D.\$F-2500, \$3.	\$3.KE-1500																	
\$3.KE-1200	Completion of Retaining Walls	0	0	-287		05-Oct-22	\$3.KE-1750, \$3.KE-1800 \$3.KE-1950, \$3.KE-1900 \$3.KE-1950, \$3.KE-2000 \$3.KE-2050, \$3.KE-2100 \$3.KE-2250, \$3.KE-2200 \$3.KE-2250, \$3.KE-2300 \$3.KE-2350, \$3.KE-2400 \$3.KE-2450, \$3.KE-2500	), , , , , , ,													-				
\$3.KE-1750	Completion of Retaining Wall DA-A	0	0	-229		05-Oct-22	S3.KE-2550. S3.KE-2600 S3.D.RW-DA-A-1100.85, S3.D.RW-DA-A-1000.35, S3.D1.RW-DA-A-1050.5, S3.D.RW-DA-A-1150.95,	S3.KE-1200		1															
<b>Preliminary Works</b>		430	593	-204	30-Jun-20 A	02-Sep-22	C3 D DW DA A 1000 30			+ + +			#			₩	$\Rightarrow$				•	02-Sep-22, I	Preliminary W	/orks	
S3.D.PW-1250	Tree Felling	430	593	-204	30-Jun-20 A	02-Sep-22	S3.MS-1150, CS-1000,	S3.KE-1500													<b>—</b>	Tree Felling			
Portion D		575	527	-242	24-Sep-20 A	08-Nov-22	S3 D PW-1150 NCF024			1:			+			#	#				_	+			_
	Platform H (+64.5mPD) & Platofrm J (+64.5mPD)	503	406	-258	23-Feb-21 A	08-Nov-22																			_
Site Formation		442	399	-197	23-Feb-21 A	25-Aug-22				1			#			₩	#			2	5 Aug-22, Site I	om ation			
S3.D.SF-1255	Excavate 3NW-C/C402 at Platform H	60	399	-236	23-Feb-21 A	06-Jul-22	S3.D.SF-1250.03	S3.D.GI-3400, S3.D.RD-1050, S3.D.RW-DA-I-1200.15, S3.D.RW-DA-J-1000.20		1	_	Excavate 3	NW-0/C402	at Platfoi	mН										
S3.D.SF-2400	Fill to +54.5mPD to Complete Platform I (9000 cum)	60	380	-158	17-Mar-21 A	11-Jul-22	S3.KE-2300, S3.D.SF-1450.50	S3.KE-1150				F	il to 54.5mF	D to Cor	nplete Platfor	n I (9 <mark>000 cu</mark> r	m)								1
S3.D.SF-2250	Feature K (8500 cum)	60	232	-258	14-Sep-21 A	08-Jul-22	S3.GM-1100, S3.SDR-FT-1650, S3.D.RW-DA-L-1100-80, S3.MS-1800, PMI588	S3.D.RD-1000, S3.KE-1150, S3.D.RD-1550.10, S3.D.RW-DA-J-1100.10				Feature	: K (8:500 cur	n)											
	Feature L (4800 cum)	90	200	-156	25-Oct-21 A	08-Jul-22	S3.GM-1650, S3.SDR.FT-1700,	S3.KE-1150				Feature	L (4500 cur	n)											

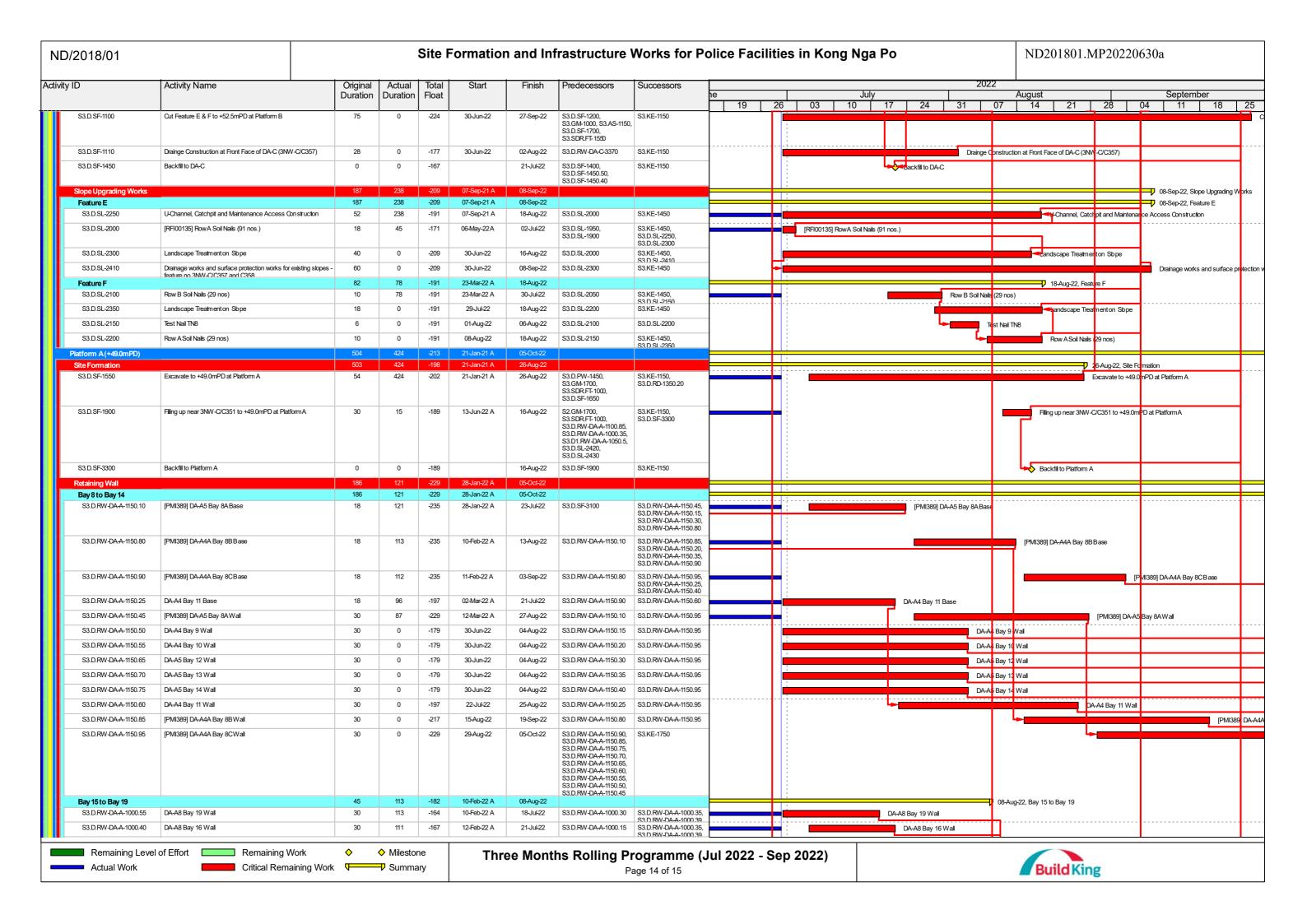


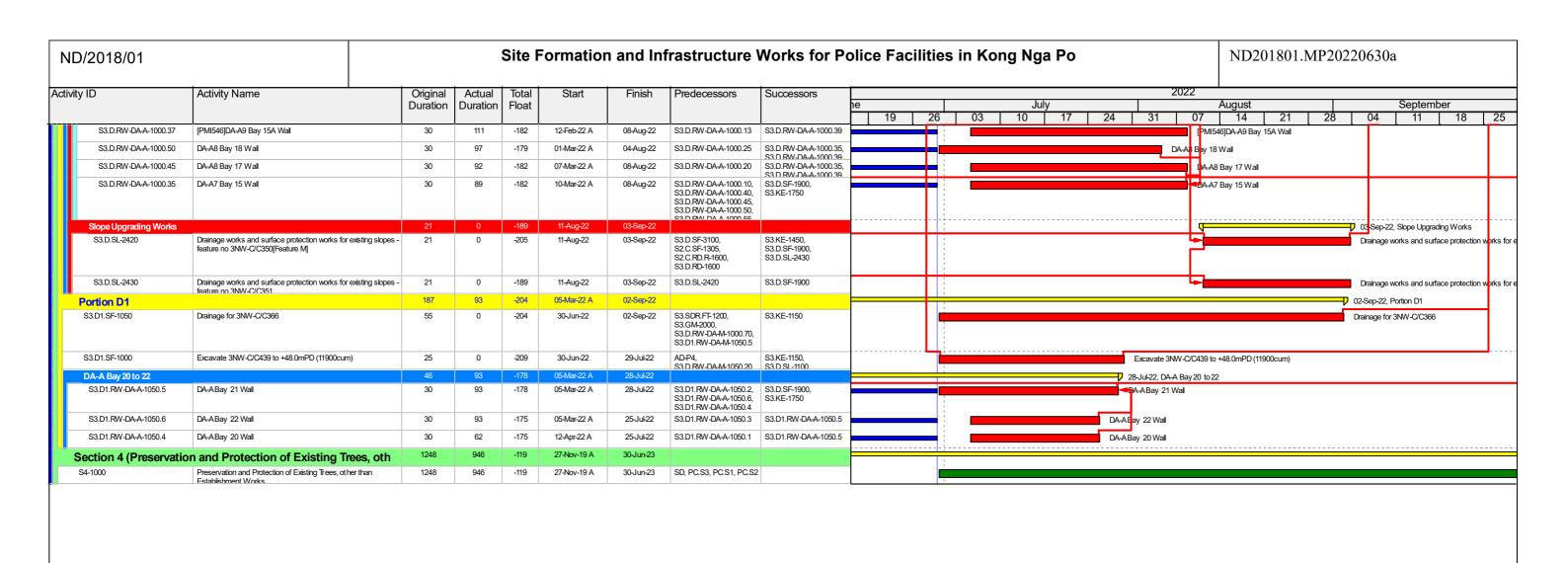


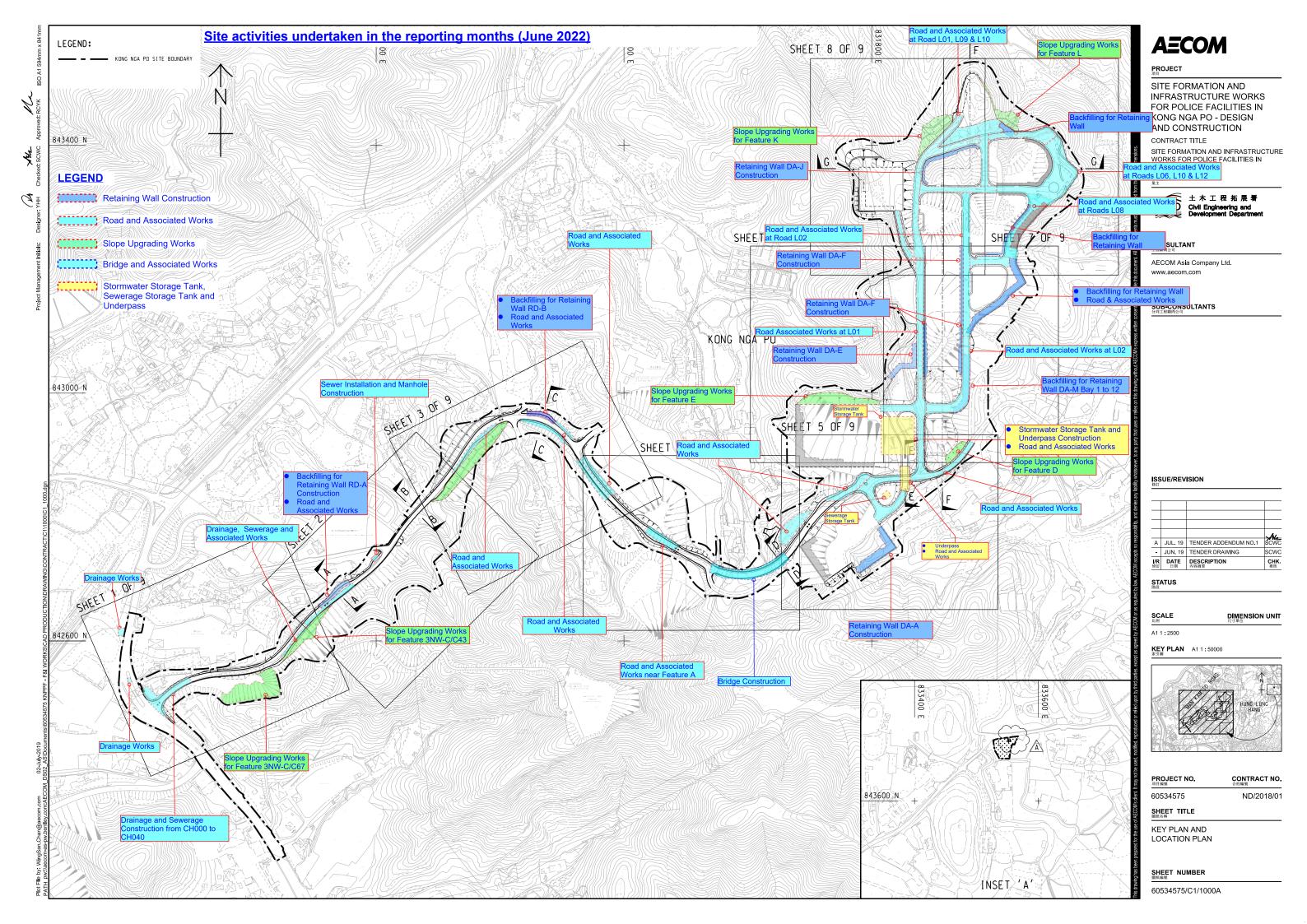


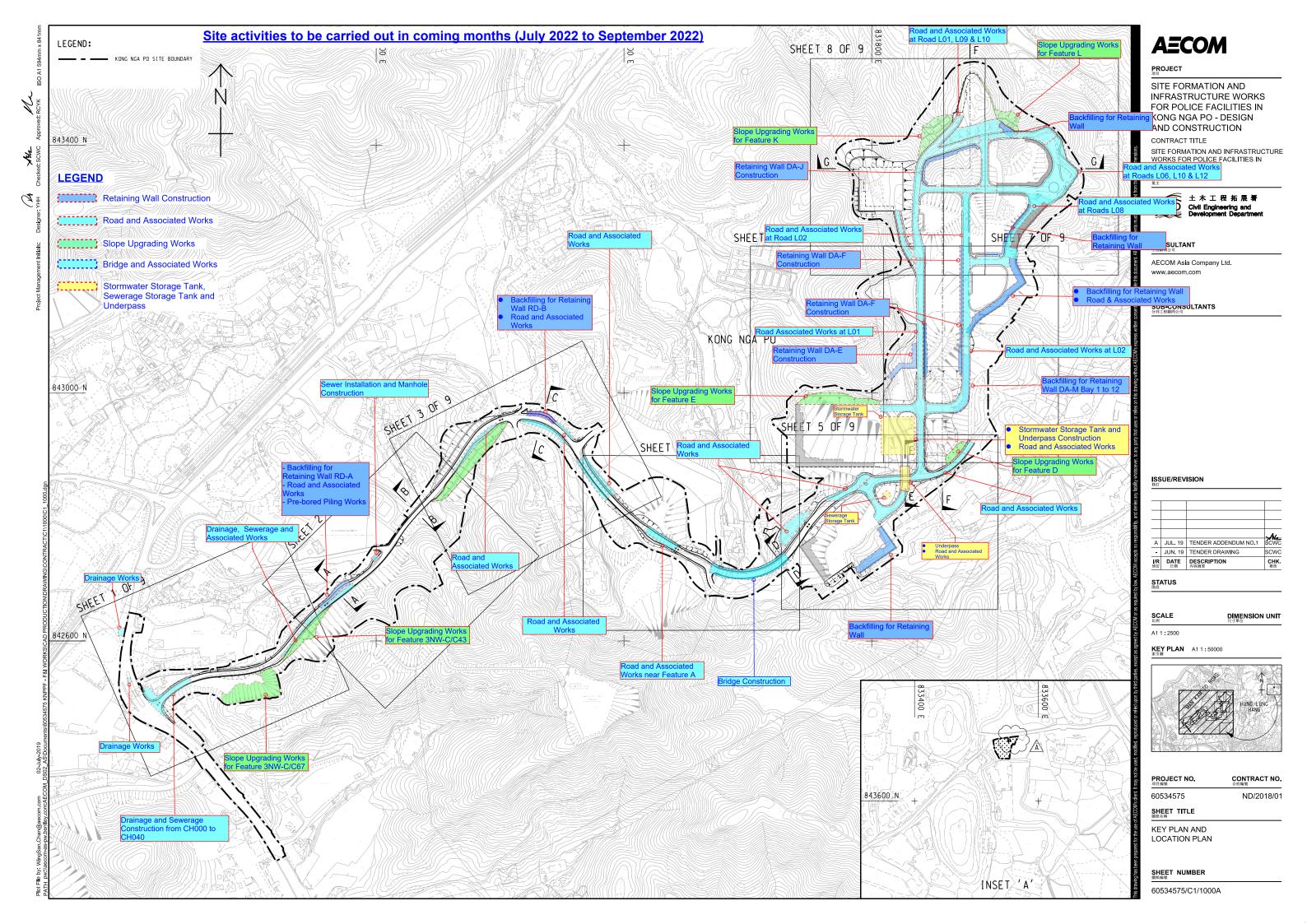












Ref*	<b>Proposed Construction</b>	Location/Working	Anticipated Major	ecommended Mitigation Mea	sures
	Method**	Period	Impacts		
EIA 7.5.1.3;	Tree felling works	Kong Nga Po Main Site	Generation of timber waste	Sorting, cutting and deliver	ing suitable timber to
EM&A Log 6.2		Kong Nga Po Road	and yard waste	shredding facilities for recy	cling and reused
				Regular inspection for comp	pliance of tree
				treatment schedule	
				Provide training to frontline	workers for
				conservative species	
EIA Table 10.11			Landscape and visual	Properly fenced off the cons	servative species
EM&A Table 9.1			impact	Preservation of existing tree	es will be undertaken
				in accordance with DEVB	TC(W) 7/2015 and
				Guidelines for Tree Risk As	sessment and
				Management Arrangement.	
				Control construction area to	minimize the impact
				on existing retained trees.	

Ref*	<b>Proposed Construction</b>	Location/Working	Anticipated Major	Recommended Mitigation Measures
	Method**	Period	Impacts	
EIA 3.91;	Pre-bored Piling Works	Kong Nga Po Road	Air Pollution	Regular inspection and maintenance of plant &
EM&A Log 2.2				equipment in good condition
EIA 5.6.1.2;			Wastewater generated from	Re-circulation of water for dust suppression to
EM&A Log 4.2			drilling works	minimize wastewater generation if possible
				• Provide wastewater treatment facilities (e.g.
				Sedimentation Tank, Wetsep) for treatment before
				discharge
				Regular inspection and maintenance of
				wastewater treatment facilities by the supplier
				Enclosure will be provided to drill rods to
				minimize the risk of water spillage
				Establish soil berm near piling area to control
				water outflow
EIA 4.4.6;			Noise from drilling rigs and	Regular inspection and maintenance of plant &
EM&A Log 3.2			accessory equipment	equipment in good condition
				Use of proprietary noise barrier for noisy works
				near sensitive receiver
				Deployquality powered mechanical equipment as
				possible
				Regular inspection and maintenance of plant &
				equipment in good condition

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 4.4.6; EM&A Log 3.2	(Cont') Pre-bored Piling Works	(Cont') Kong Nga Po Road	Working in Restricted Hours	<ul> <li>Valid construction noise permit should be obtained and displayed on site</li> <li>Supervisory staff to monitor 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	Drip tray and chemical spillage kit will be provided on site
EIA 10.11, EM&A Log 9.4			Ecology Concern	<ul> <li>Provide training to frontline workers for conservative species</li> <li>Use of noise barrier for noise works to minimize impact to nearby species</li> <li>Deployquality powered mechanical equipment if possible</li> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> </ul>

Ref*	<b>Proposed Construction</b>	Location/Working	Anticipated Major	Recommended Mitigation Measures
	Method**	Period	Impacts	
EIA Table 10.11	(Cont')	(Cont')	Landscape and visual	Construction area had been controlled with proper
EM&A Table 9.1	Pre-bored Piling Works	Kong Nga Po Roa	impact	fencing to minimize the landscape and visual
				impacts arising from construction activities
EIA 3.91;	Site Formation	Kong Nga Po Main Site	Dust impact from	Deploy water bowser for regular water spraying
EM&A Log 2.2			excavation activities	to enhance dust suppression
				Manual water spraying for dusty operation where
				inaccessible by water bowser
				Speed control of site transportation
				Stockpile of dusty materials will be covered by
				tarpaulin to avoid wind-blown dust
				Vehicles used for transporting dusty
				materials/spoils will be covered by mechanical
				cover before leaving the site
				Wheel washing facilities had been provided and
				cleaning the wheel of all vehicles before leaving
				the site
EIA 5.6.1.2;			Water Pollution Control	Appropriate and sufficient wastewater treatment
EM&A Log 4.2				according to Temporary Drainage Management
				Plan before discharging of wastewater
				Regular inspection and maintenance of

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	(Cont') Water Pollution Control	<ul> <li>wastewater treatment facilities</li> <li>Provision of soil berms, rock check dam and retention pit near excavation area/low-lying region</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> <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> <li>Deploy quality powered mechanical equipment if possible</li> </ul>
EIA 7.5.1.4; EM&A Log 6.2			Chemicals such as diesel and lubricants from	Chemical wastes should be stored in designated area

Ref*	<b>Proposed Construction</b>	Location/Working	Anticipated Major	Recommended Mitigation Measures
	Method**	Period	Impacts	
	(Cont')	(Cont')	maintenance of	Drip tray and chemical spillage kit shall be
	Site Formation	Kong Nga Po Main Site	construction vehicles and	provided on site
			mechanical equipment	
EIA 7.5.1.1 &			Waste Generation	Training of site personnel in proper waste
7.5.1.2;				management and chemical handling procedures
EM&A Log 6.2				Proper storage and sorting of excavated inert
				materials to maximize on site reuse for backfilling
EIA 10.11,			Ecology Concern	Provide training to frontline workers for the
EM&A Log 9.4				conservative species
				Provision of protective fence for the conservative
				species
				Regular inspection for concerned vegetation and
				conservative species
				Adopted low intensity lighting to minimize the
				light impact to surrounding species
				Regular inspection and maintenance of plant &
				equipment in good condition
				Enclose the noisy part of machineries with noise
				isolating mats to minimize noise level to nearby
				species

Ref*	<b>Proposed Construction</b>	Location/Working	Anticipated Major	Recommended Mitigation Measures
	Method**	Period	Impacts	
	(Cont')	(Cont')		Deploy quality powered mechanical equipment if
	Site Formation	Kong Nga Po Main Site		possible
EIA Table 10.11			Landscape and visual	Preservation of existing trees will be undertaken
EM&A Table			impact	in accordance with DEVB TC(W) 7/2015 and
9.1			•	Guidelines for Tree Risk Assessment and
				Management Arrangement
				Restrict construction area to minimize the impact
				on existing retained trees
EIA 3.91;	Reinforced Concrete	Kong Nga Po Main Site	Air	Dusty materials that exceeded 20 bags will be
EM&A Log 2.2	Structure Construction	Kong Nga Po Road	All	stored in area sheltered on top and the three sides
LIVICA LOG 2.2	Including Retaining Wall,	Kong Nga 10 Koad		or covered entirely by impervious sheeting.
EIA 5.6.1.2;	Stormwater Storage Tank,		Waste water pollution	Soil berm and retention pit will be provided for
EM&A Log 4.2	Underpass, Abutments and		control	the control of water outflow
8	Bridge Deck			Desilting/sedimentation devices will be provided
				for wastewater treatment prior to discharge
				Designated location for residual concrete washout
EIA 4.4.6;			Noise	Well-planning of concreting works to prevent
EM&A Log 3.2				working in restricted hours

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 4.4.6;	(Cont')	(Cont')	Working in Restricted	Valid construction noise permit should be
EM&A Log 3.2	Reinforced Concrete	Kong Nga Po Main Site	Hours	obtained and displayed on site
	Structure Construction	Kong Nga Po Road		• In case of non-compliance with the construction
	Including Retaining Wall,			noise criteria, more frequent monitoring and
	Stormwater Storage Tank,			action should be carried out
EIA 7.5.1.4;	Underpass, Abutments and		Chemicals for concreting	Chemical for concreting works such as curing
EM&A Log 6.2	Bridge Deck		works	compound and retarder should be stored in
				designated area with proper labelling and packing
				Designated location for residual concrete washout
EIA 3.91;	Slope Upgrading Works	Kong Nga Po Main Site	Dust impact from soil nail	• Three side enclosure with top shelter for cement
EM&A Log 2.2		Kong Nga Po Road	works	mixing works
				Water spraying on soil nailing works
				Dusty materials exceeding 20 bags shall be stored
				in area sheltered on top and the three sides or
				covered entirely by impervious sheeting
EIA 5.6.1.2;			Water	Deploy desilting/sedimentation devices for
EM&A Log 4.2				wastewater treatment prior to discharge
				• Establish soil berm with retention pit to control
				water outflow.
EIA 4.4.6;			Noise	Regular inspection and maintenance of plant and
EM&A Log 3.2				equipment in good condition

Ref*	<b>Proposed Construction</b>	Location/Working	Anticipated Major	Recommended Mitigation Measures
	Method**	Period	Impacts	
	(Cont')	(Cont')		Provide noise barriers for soil nailing works
	Slope Upgrading Works	Kong Nga Po Main Site		where near the sensitive receiver
EIA 10.11,		Kong Nga Po Road	Ecology Concern	Provide training to frontline workers for the
EM&A Log 9.4				conservative species
				• Provision of protective fence for the conservative
				species
				Regular inspection for concerned vegetation
EIA Table 10.11			Landscape and visual	Properly fenced off the conservative species
EM&A Table			impact	Preservation of existing trees will be undertaken
9.1				in accordance with DEVB TC(W) 7/2015 and
				Guidelines for Tree Risk Assessment and
				Management Arrangement
EIA 3.91;	Trenchless Works	Kong Nga Po Road	Air	Regular inspection and maintenance of plant and
EM&A Log 2.2		Man Kam To Road		equipment in good condition
				Regularly clean up stockpiles and debris to avoid
				accumulation of materials
				Dusty materials exceeding 20 bags shall be stored
				in area sheltered on top and the three sides or
				covered entirely by impervious sheeting.
EIA 5.6.1.2;			Water	Provide desilting/sedimentation devices for
EM&A Log 4.2				wastewater treatment before discharge

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 4.4.6;	(Con't)	(Con't)	Noise from roadworks	• Enclose the noisy part of machineries with noise
EM&A Log 3.2	Trenchless Works	Kong Nga Po Road		isolating mats during hard surface breaking
EIA 7.5.1.4;		Man Kam To Road	Chemical Waste	Drip tray and chemical spillage kit shall be
EM&A Log 6.2				provided on site
EIA Table 10.11			Landscape and visual	Properly fenced off the conservative species
EM&A Table			impact	• Properly implement temporary traffic
9.1				arrangement which control construction area to minimize landscape and visual impacts
EIA 3.91;	Road and Associated Works	Kong Nga Po Main Site	Air	Regular inspection and maintenance of plant and
EM&A Log 2.2		Kong Nga Po Road		equipment in good condition
				Regularly clean up stockpiles and debris to avoid
				accumulation of materials
EIA 5.6.1.2;			Water	Provide desilting/sedimentation devices for
EM&A Log 4.2				wastewater treatment before discharge
EIA 4.4.6;			Noise from roadworks	Enclose the noisy part of machineries with noise
EM&A Log 3.2				isolating mats during hard surface breaking
EIA 7.5.1.4;			Chemical Waste	Drip tray and chemical spillage kit shall be
EM&A Log 6.2				provided on site

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA Table 10.11 EM&A Table 9.1	(Con't) Road and Associated Works	(Con't) Kong Nga Po Main Site Kong Nga Po Road	Landscape and visual impact	<ul> <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>

<sup>\*</sup>EIA Ref/EM&A Log Ref/Design Document Ref

	Name	Signature	Date
Prepared by Contractor	Alex LTu	7	5 July 2022
Endorsed by Supervisor's Representative	Winston Wong	A	6 July 2022
Reviewed by Environmental Team Leader	Contan	Ivy Tam	14 July 2022
Approved by Independent Environmental Checker	Wings	Wingo So	14 July 2022

<sup>\*\*</sup>Details of equipment, vehicles, plants, processes, technologies for the construction method

## APPENDIX B ACTION AND LIMIT LEVELS

# **Appendix B - Action and Limit Levels**

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

Monitoring station	Action Level (ug/m³)	Limit Level (ug/m³)	
AM1	308	500	
AM2	311		

**TableB-2** Action and Limit Levels for Construction Noise

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

#### Noted:

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

#### APPENDIX C COPIES OF CALIBRATION CERTIFCATES



#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36645

Date of Issue: 2022-05-10

Date Received: 2022-05-06 Date Tested: 2022-05-06

Date Completed: 2022-05-10

Next Due Date: 2022-07-09

Page:

1 of 1

ATTN:

Ms. Meiling Tang

#### Certificate of Calibration

#### Item for Calibration:

Description

: Dust Monitor

Manufacturer

: Met One Instruments

Model No.

: AEROCET-831

Serial No.

: X23807

Flow rate

: 0.1 cfm

Zero Count Test

: 0 count per 1 minute

Equipment No.

: WA-01-01

**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) 1.065

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

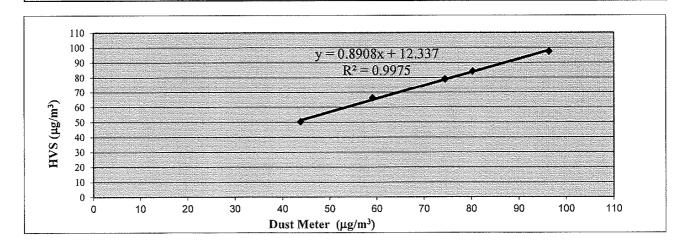
# <u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

Dust Meter	Dust Meter	High Volume Sampler		
Equipment No.:	WA-01-01	WA-12-09		
Model No. :	AEROCET-831	TE-5170		
Serial No.	X23807	2203		
Calibration Date:	6-May-22 6-May-22			
Location:	Wellab Office (Calibration Room)			

Calibration of 1 hr TSP						
Dust Meter	HVS					
Mass Concentration (μg/m³)	Mass concentration (μg/m³)					
X-axis	Y-axis					
44	50					
59	66					
75	79					
80	84					
96	98					
70.8	75.4					
0.8908 nt* = 0.9987	Intercept, bw = 12.3366					
	Dust Meter  Mass Concentration (μg/m³)  X-axis  44  59  75  80  96  70.8  of Y on X  0.8908					

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

Set Correlation	Factor
Particaulate Concentration by High Volume Sampler (µg/m³)	75.4
Particaulate Concentration by Dust Meter (μg/m³)	70.8
Measureing time, (min)	60
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.065



QC Reviewer:	LEE MAN	HEV	_Signature:	he	Date:	6-8-22
•			_ ~			



consulting , testing , research

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

#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36645A Date of Issue: 2022-05-10 Date Received: 2022-05-06 Date Tested: 2022-05-06

Date Completed: 2022-05-10 Next Due Date: 2022-07-09

Page:

1 of 1

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for Calibration:

Description

: Dust Monitor

Manufacturer

: Met One Instruments : AEROCET-831

Model No. 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) 1.096

\*

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

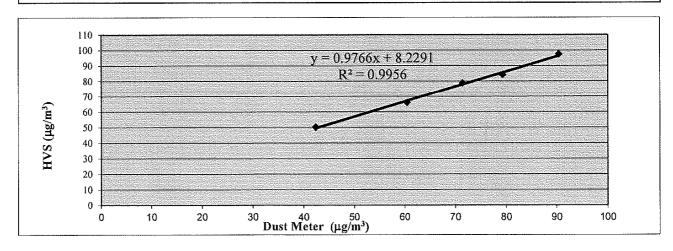
# <u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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:	6-May-22 6-May-22			
Location:	Wellab Office (Calibration Room)			

	Calibration	of 1 hr TSP
	Dust Meter	HVS
Calibration Point	Mass Concentration (μg/m³)	Mass concentration (μg/m³)
	X-axis	Y-axis
1	42	50
2	61	66
3	71	79
4	79	84
5	90	98
Average	68.8	75.4
By Linear Regression Slope , mw = Correlation coefficie	0.9766	Intercept, bw = 8.2291

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

Particaulate Concentration by High Volume Sampler (µg/m³)	75.4
Particaulate Concentration by Dust Meter (µg/m³)	68.8
Measureing time, (min)	60
Set Correlation Factor, SCF SCF = [ K=High Volume Sampler / Dust Meter, (µg/m³) ]	1.096



QC Reviewer:	LET MUN HEZ	Signature:	hei	Date:	6- 5 -222
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consulting , testing , research

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

#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36645B Date of Issue: 2022-05-10

Date Received: 2022-05-06

Date Tested: 2022-05-06

Date Completed: 2022-05-10 Next Due Date: 2022-07-09

Page:

1 of 1

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for Calibration:

Description

: Dust Monitor

Manufacturer

: Met One Instruments

Model No.

: AEROCET-831

Serial No.

: X23809

Flow rate

: 0.1 cfm

Zero Count Test

: 0 count per 1 minute

Equipment No.

: WA-01-03

**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)

1.091

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSÈ

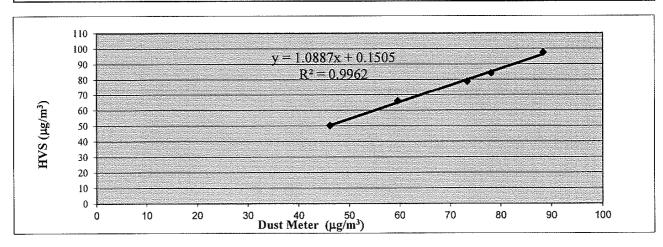
### <u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

Dust Meter	Dust Meter	High Volume Sampler		
Equipment No.:	WA-01-03	WA-12-09		
Model No. :	AEROCET-831	TE-5170		
Serial No.	X23809	2203		
Calibration Date:	6-May-22	6-May-22		
Location:	Wellab Office (Calibration Room)			

	Calibration	n of 1 hr TSP	
	Dust Meter		HVS
Calibration Point	Mass Concentration (μg/m³)		Mass concentration (μg/m³)
	X-axis		Y-axis
1	46		50
2	60		66
3	73		79
4	78		84
5	88		98
Average	69.1		75.4
By Linear Regression of Slope , mw = Correlation coefficie	1.0887	Intercept, bw =	0.1505

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

Set Correlation	
Particaulate Concentration by High Volume Sampler (µg/m³)	75.4
Particaulate Concentration by Dust Meter (μg/m³)	69.1
Measureing time, (min)	60
Set Correlation Factor, SCF SCF = [ K=High Volume Sampler / Dust Meter, (µg/m³) ]	1.091



OC Reviewer:	UE	MAN	HER	Signature:	hei	Date:	6-5-2022



#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street.

Shatin, NT, Hong Kong

Test Report No.: 36644B Date of Issue: 2022-04-25 Date Received: 2022-04-23 Date Tested: 2022-04-23 Date Completed: 2022-04-25

Page:

: AEROCET-831

Next Due Date:

1 of 1

2022-06-24

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for Calibration:

Model No.

Description : Dust Monitor

Manufacturer : Met One Instruments

Serial No. : X24479

: 0.1 cfm Flow rate

: 0 count per 1 minute Zero Count Test

: WA-01-08 Equipment No.

**Test Conditions:** 

Room Temperature : 17-22 degree Celsius

: 40-70% Relative Humidity

#### 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) 1.098 \*

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

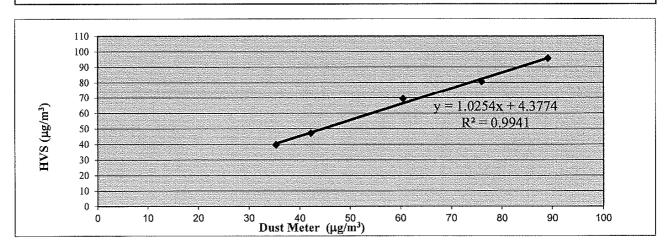
# <u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

Dust Meter	Dust Meter	High Volume Sampler			
Equipment No.:	WA-01-08	WA-12-09			
Model No. :	AEROCET-831	TE-5170			
Serial No.	X24479	2203			
Calibration Date:	23-Apr-22	23-Apr-22			
Location:	Wellab Office (Calibration Room)				

Dust 1           Calibration Point         Mass Concent           X-a           1         3           2         4           3         6           4         7           5         8           Average         60	ration (µg/m³) <b>xis</b> 5	HVS  Mass concentration (μg/m³)  Y-axis  40  47  69
X-a 1 3 2 4 3 6 4 7 5 8	<b>xis</b> 5 2	<b>Y-axis</b> 40 47
1 3 2 4 3 6 4 7 5 8	5 2	40 47
2 4 3 6 4 7 5 8	2	47
3 6 4 7 5 8		
4 7 5 8	1	69
5 8		
	5	81
Average 60	9	96
	.6	66.5
	<u> </u>	
By Linear Regression of Y on X		
Slope, $mw = 1.0254$	Intercept, b	$\mathbf{ow} = 4.3774$

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

Set Correlation Factorical Set Correlation Factorical Partical Representation by High Volume Sampler (µg/m³)	66.5
Particaulate Concentration by Dust Meter (µg/m³)	60.6
Measureing time, (min)	60
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.098





#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

 Test Report No.:
 36644C

 Date of Issue:
 2022-04-25

 Date Received:
 2022-04-23

 Date Tested:
 2022-04-23

 Date Completed:
 2022-04-25

 Next Due Date:
 2022-06-24

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)

1.173

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

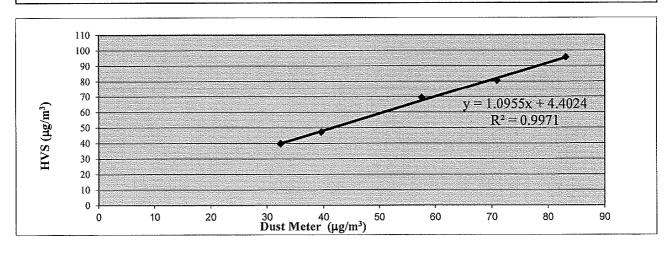
### <u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

Dust Meter	Dust Meter	High Volume Sampler				
Equipment No.:	WA-01-09	WA-12-09				
Model No. :	AEROCET-831	TE-5170				
Serial No.	X23811	2203				
Calibration Date:	23-Apr-22	23-Apr-22				
Location:	Wellab Office (Calibration Room)					

	Ca	libration of 1 hr TSP			
	Dust Meter		HVS		
Calibration Point	Mass Concentration (	μg/m³) N	Mass concentration (μg/m³)		
	X-axis		Y-axis		
1	32		40		
2	40		47		
3	58		69		
4	71		81		
5	83		96		
Average	56.7		66.5		
By Linear Regression		*	4.402.4		
Slope, mw =	1.0955	Intercept, bw =	4.4024		
Correlation coefficient	ent* = 0.99	286			

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

Particaulate Concentration by High Volume Sampler (μg/m³)	66.5	
Particaulate Concentration by Dust Meter (µg/m³)	56.7	
Measureing time, (min)	60	
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.173	



QC Reviewer:	LEF.	MAN	HEZ	Signature:	Lei	Date:	23/4/20W



#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36841C
Date of Issue: 2022-06-27
Date Received: 2022-06-24
Date Tested: 2022-06-25
Date Completed: 2022-06-27
Next Due Date: 2022-08-26

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) 1.107

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

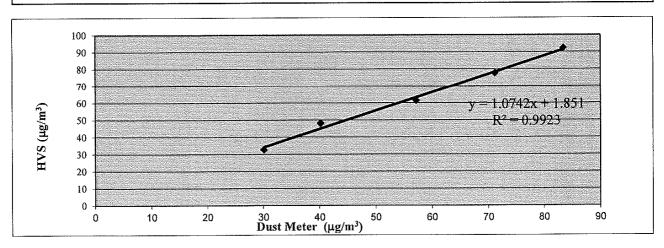
### <u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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-22	25-Jun-22				
Location:	Wellab Office (Calibration Room)					

Calibration of 1 hr TSP								
	Dust Meter		HVS					
Calibration Point	Mass Concentration (μg/m³)	Ma	ss concentration (μg/m³)					
	X-axis		Y-axis					
1	30		33					
2	40		48					
3	57		61					
4	71		78					
5	83		92					
Average	56.4		62.5					
By Linear Regression of Slope, mw =	of Y on X 1.0742	Intercept, bw =	1.8510					
Correlation coefficie	nt* = 0.9962							

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

Set Correlation 1	Factor
Particaulate Concentration by High Volume Sampler (µg/m³)	62.5
Particaulate Concentration by Dust Meter (μg/m³)	56.4
Measureing time, (min)	60
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.107



QC Reviewer:	Uh	MMJ	UFI	Signature:	hi	Date:	261 61 mm
40 xee	uny	1 /6174	11,0				



File No. Cal./220423

# High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Equipment No.:	WA-12	-09		Serial No.	2203		
Model No.	TE-51	70		Cal. Date:	23-Apr-2	2	
Operator:	HL						
			Ambient C	andition			
Temperatu	re, Ta (K)	294.2		Pa (mmHg)		761.8	<u>*</u>
		Orif	ice Transfer Sta	ndard Informati	on		
Serial	No.	2896	Slope, mc	0.0588	Intercept,		0.01030
Last Calibra	-	20-Jan-22		mc x Qstd +	$bc = [\Delta H \times (Pa/760)]$	) x $(298/Ta)$ ] <sup>1/2</sup>	
Next Calibr	ation Date:	20-Jan-23		Qstd = {[∆H	x (Pa/760) x (298/1	[a)]" <sup>2</sup> -bc} / mc	
			Calibration of	TSP Samplar			
a a frankliking sakis		Orfic		131 Sampler		HVS	
Calibration Point	ΔH (orifice), in. of water	[ΔH x (Pa/760)		Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/760) x Y-axi	I
1	13.3	3.6	7	62.72	8.6	2.95	
2	10.8	3.3	1	56.54	7.1	2.68	
3	8.6	2.9	5	50.47	5.7	2.41	
4	5.7	2,4	1	41.12	3.6	1.91	
5	3,6	1.9	1	32.72	2.4	1.56	
By Linear Regi	ession of Y on X						
Slope, mw =	0.0473			Intercept, bw	0.0007		
Correlation c	oefficient* =	0.999	3				
*If Correlation C	Coefficient < 0.990,	check and recalibrate	ē.				
			Set Point C	alculation			
From the TSP F	ield Calibration Cur	ve, take Qstd = 43 C					
		'Y" value according t					
	1 ,	_			1/2		
		mw x Qs	$td + bw = [\Delta W]$	x (Pa/760) x (298	/Ta)] <sup>112</sup>		
Therefor	re. Set Point: W = (	mw x Qstd + bw ) <sup>2</sup> x	(760/Pa)x(T	a/298)=	4.07		
	, - , , ,	,		,			
Remarks:							
0111	LEE MAN H	7a, 1	C:	<i>h</i> .	()	Data: 23/	4/2022
Conducted by:		20//2	Signature:		17	Date: $\frac{2^2}{2^7}$	4/2022 H 702V
Checked by:	n ga	w-	Signature:	(	<u> </u>	Date: <u>73/5</u>	<u> </u>



# High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

						File No	Cal./220506
Equipment No.:	WA-12	-09		Serial No.	2203		
Model No.	el No. TE-5170 Cal. Date:		6-May-22				
Operator:	HL	-					
			Ambient Co	ndition			
Temperatur	e, Ta (K)	294.8	Pressure, Pa	a (mmHg)		762.4	
		Orifi	ce Transfer Stand	lard Informati	on		
Serial		2896	Slope, mc	0.0588	Intercept,		-0.01030
Last Calibra		20-Jan-22	_		bc = [ΔH x (Pa/760		
Next Calibra	ition Date:	20-Jan-23		$Qstd = \{[\Delta H]$	x (Pa/760) x (298/7	[a)] <sup>1/2</sup> -bc} / n	10
			Calibration of TS	SD Sampler		State in land	
	e e graeco de la composição	Orfice		Ji Dampiei		HVS	
Calibration Point	ΔH (orifice), in. of water	[ΔH x (Pa/760) x		Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/	760) x (298/Ta)] <sup>1/2</sup> Y-axis
1	13.5	3.70	)	63.15	8.6		2.95
2	11.3	3.39		57.79	7.1		2.68
3	8.6	2.95	i	50.44	5,4		2.34
4	5.8	2.43		41.45	3.7		1.94
5	3.6	1.91		32.70	2.5		1.59
By Linear Regr	ession of Y on X						
Slope , mw =	0.0447			Intercept, bw	0.1042	:	
Correlation co	oefficient* =	0.9991		<u>.</u>			
*If Correlation C	coefficient < 0.990,	check and recalibrate					
			Set Point Cal	culation			
From the TSP Fi	eld Calibration Cu	rve, take Qstd = 43 CF	'M				
From the Regres:	sion Equation, the	"Y" value according to	)				
		mw x Qs	$td + bw = [\Delta W x]$	Pa/760) x (298/	$(Ta)]^{1/2}$		
		2					
Therefore	e, Set Point; W = (	$mw \times Qstd + bw)^2 \times ($	(760 / Pa)x(Ta/	(298)=	4.06		
Remarks:							
				,	^		Conti
Conducted by: Checked by:	150 Ka	ch-	Signature: Signature:	ki	1/1/	Date:	6/5/62V



# High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Name							File No.	Cal./220625
Calibration   Point   Point	Equipment No.:	WA-12	-09		Serial No.	2203		
Ambient Condition   Temperature, Ta (K)   294.3   Pressure, Pa (mmHg)   758.9	Model No.	TE-51	70		Cal. Date:	25-Jun-2	22	
Temperature, Ta (K)   294.3   Pressure, Pa (mmHg)   758.9	Operator:	HL	<u></u>					
Serial No.   2896   Slope, me   0.0588   Intercept, bc   -0.01030				Ambient Co	ndition			
Serial No.   2896   Slope, mc   0.0588   Intercept, bc   -0.01030	Temperatur	e, Ta (K)	294.3	Pressure, P	a (mmHg)		758.9	
Serial No.   2896   Slope, mc   0.0588   Intercept, bc   -0.01030	yn da freidd ân.			70	1 1T.C. 47			
Last Calibration Date:   20-Jan-22   mc x Qstd + bc = [AH x (Pa/760) x (298/Ta)]^{1/2} - bc } / mc	Carial	No.		1			hc	-0.01030
Next Calibration   Date:   20-Jan-23   Qstd = { AH x (Pa/760) x (298/Ta) ^{1/2} - be} / mc				Siope, me				
Calibration   Form the Regression Equation, the "Y" value according to mw x Qstd + bw =  \( \Delta W \) x (Pa/760) x (298/Ta) \( \frac{1}{2} \)				1				
Calibration   Point   Define   (AH x (Pa/760) x (298/Ta)) 1/2   Qstd (CFM)   X - axis   water   Y-axis	Tront Gariore							
Calibration				Calibration of T	SP Sampler			
Point   ΔH (orifice)   [ΔH x (Pa/760) x (298/Ta)]   1/2   Qstd (CFM)   ΔW (HVS), in. of water   Y-axis   Y-axis   V-axis   1   12.1   3.50   59.71   8.2   2.88   2   10.3   3.23   55.10   7.0   2.66   3   8.4   2.91   49.78   5.4   2.34   4   5.6   2.38   40.68   3.8   1.96   5   3.7   1.93   33.10   2.6   1.62	Calibration		Orfic	e				* p^
2 10.3 3.23 55.10 7.0 2.66 3 8.4 2.91 49.78 5.4 2.34 4 5.6 2.38 40.68 3.8 1.96 5 3.7 1.93 33.10 2.6 1.62  By Linear Regression of Y on X Slope, mw = 0.0472 Intercept, bw: 0.0408  Correlation coefficient* = 0.9981  *If Correlation Coefficient < 0.990, check and recalibrate.  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw = [\Delta W x (Pa/760) x (298/Ta)]^{1/2}  Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 4.24  Remarks:			[ΔH x (Pa/760):	x (298/Ta)] <sup>1/2</sup>	1 ' '		[ΔW x (Pa/	
3 8.4 2.91 49.78 5.4 2.34  4 5.6 2.38 40.68 3.8 1.96  5 3.7 1.93 33.10 2.6 1.62  By Linear Regression of Y on X  Slope , mw = 0.0472 Intercept, bw: 0.0408  *If Correlation Coefficient < 0.990, check and recalibrate.  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 43 CFM  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = [ΔW x (Pa/760) x (298/Fa)] 1/2  Therefore, Set Point; W = (mw x Qstd + bw) 2 x (760 / Pa) x (Ta / 298) = 4.24  Remarks:	1	12.1	3.50	0	59.71	8.2		2.88
4 5.6 2.38 40.68 3.8 1.96 5 3.7 1.93 33.10 2.6 1.62  By Linear Regression of Y on X  Slope, mw = 0.0472 Intercept, bw: 0.0408  Correlation coefficient* = 0.9981  *If Correlation Coefficient < 0.990, check and recalibrate.  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 43 CFM  From the Regression Equation, the "Y" value according to mw x Qstd + bw = [ΔW x (Pa/760) x (298/Γa)] <sup>1/2</sup> Therefore, Set Point; W = (mw x Qstd + bw) <sup>2</sup> x (760 / Pa) x (Ta / 298) = 4.24  Remarks:	2	10.3	3.23	3	55.10	7.0		2.66
Set Point Calculation   Set Point; W = (mw x Qstd + bw) <sup>2</sup> x (760 / Pa) x (Ta / 298) =   4.24	3	8.4	2.9	1	49.78	5.4		2.34
By Linear Regression of Y on X  Slope, mw = 0.0472	4	5.6	2.33	8	40.68	3.8		1.96
Slope, mw =0.0472	5	3.7	1.93	3	33.10	2.6		1.62
Slope, mw =0.0472	D I ! D	af V an V						
*If Correlation Coefficient < 0.990, check and recalibrate.  *Set Point Calculation  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 43 CFM  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = [\Delta W x (Pa/760) x (298/Ta)]^{1/2}  Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 4.24  Remarks:	-				Intercent, hw	. 0.0408	l .	
*If Correlation Coefficient < 0.990, check and recalibrate.  Set Point Calculation  From the TSP Field Calibration Curve, take Qstd = 43 CFM  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = [\Delta W x (Pa/760) x (298/\text{Fa})]^{1/2}  Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 4.24  Remarks:	-	***************************************	0.998	1	inter-cept, an			
From the TSP Field Calibration Curve, take Qstd = 43 CFM  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = [\Delta W x (Pa/760) x (298/Ta)]^{1/2}  Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 4.24  Remarks:								
From the TSP Field Calibration Curve, take Qstd = 43 CFM  From the Regression Equation, the "Y" value according to  mw x Qstd + bw = [\Delta W x (Pa/760) x (298/Ta)]^{1/2}  Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 4.24  Remarks:							******	
From the Regression Equation, the "Y" value according to $\mathbf{mw} \times \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \times (\mathbf{Pa}/760) \times (\mathbf{298/Ta})]^{1/2}$ Therefore, Set Point; W = (mw x Qstd + bw) <sup>2</sup> x (760 / Pa) x (Ta / 298) = 4.24  Remarks:				Set Point Ca	lculation			
mw x Qstd + bw = [\Delta W x (Pa/760) x (298/Ta)]^{1/2}  Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = 4.24  Remarks:	From the TSP Fi	eld Calibration Cu	rve, take Qstd = 43 Cl	FM				
Therefore, Set Point; W = (mw x Qstd + bw) <sup>2</sup> x (760 / Pa) x (Ta / 298) = 4.24  Remarks:	From the Regres	sion Equation, the	"Y" value according t	o				
Remarks:			mw x Qs	$td + bw = [\Delta W x]$	(Pa/760) x (298	/Ta)] <sup>1/2</sup>		
Remarks:								
	Therefor	e, Set Point; W = (	mw x Qstd + bw ) x	(760 / Pa) x (Ta	/ 298 ) =	4.24		
Conducted by: Lit MAN HEV Signature: Les Date: 25-6-2022  Checked by: Lit Ko (h. Signature: 1 Date: 25/6/2012	Remarks:							
Conducted by: Lit MAN HEV Signature: Les Date: 25-6-2022  Checked by: Lit Ko (h. Signature: U. Date: 25/6/2012		Avidence						
Checked by: La Ko (h. Signature: 1 Date: 25/6/2010	Conducted by	121. MAN HB2		Signature:	ker	1	Date:	25-6-2022
		. ,	h	_	1 k		-	25/6/ WW



### RECALIBRATION **DUE DATE:**

January 20, 2023

## alibration ertificate d

**Calibration Certification Information** 

Cal. Date: January 20, 2022

Rootsmeter S/N: 438320

Ta: 293

Operator: Jim Tisch

Pa: 759.7

mm Hg

Calibration Model #:

TE-5025A

Calibrator S/N: 2896

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4610	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9190	7.9	5.00
4	7	8	1	0.8780	8.8	5.50
5	9	10	1	0.7250	12.7	8.00

	Data Tabulation				
Vstd	Qstd	$\sqrt{\Delta H \left( \frac{Pa}{Pstd} \right) \left( \frac{Tstd}{Ta} \right)}$	·	Qa	√∆H(Ta/Pa)
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)
1.0124	0.6929	1.4260	0.9958	0.6816	0.8783
1.0081	0.9731	2.0166	0.9916	0.9571	1.2420
1.0061	1.0948	2.2546	0.9896	1.0768	1.3887
1.0049	1.1445	2.3647	0.9884	1.1258	1.4564
0.9997	1.3789	2.8519	0.9833	1.3563	1.7565
	m=	2.07510		m=	1.29939
QSTD	b=	-0.01030	QA	b=	-0.00634
	r=	0.99995	- 4	r=	0.99995

Calculations				
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)	
<b>Qstd=</b> Vstd/ΔTime <b>Qa=</b> Va/ΔTime			Va/∆Time	
For subsequent flow rate calculations:				
$\mathbf{Qstd=} \ 1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right) \qquad \qquad \mathbf{Qa=} \ 1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$				

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

#### RECALIBRATION

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

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

www.tisch-env.com

TOLL FREE: (877)263-7610 FAX: (513)467-9009



#### **TEST REPORT**

APPLICANT: Y

Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36405

Date of Issue: 2022-03-07

Date Received: 2022-03-04 Date Tested: 2022-03-04

Date Completed: 2022-03-07 Next Due Date: 2023-03-06

Page: 1 of 1

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Sound Level Meter

Manufacturer

: BSWA

Model No.

: BSWA 308

Serial No.

: 570271

Equipment No.

: WN-01-01

#### 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.



consulting , testing , research

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

#### TEST REPORT

Wellab Limited APPLICANT:

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36405A Date of Issue: 2022-03-07 Date Received: 2022-03-04 Date Tested: 2022-03-04 Date Completed: 2022-03-07

Page:

Next Due Date:

1 of 1

2023-03-06

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Sound Level Meter

Manufacturer

: BSWA

Model No.

: BSWA 308 : 580004

Serial No. Equipment No.

: WN-01-02

#### 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.



#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36405C
Date of Issue: 2022-03-07
Date Received: 2022-03-04
Date Tested: 2022-03-04
Date Completed: 2022-03-07
Next Due Date: 2023-03-06

Page:

1 of 1

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No. : BSWA : BSWA 308

Serial No. Equipment No.

: 580006 : WN-01-04

#### Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

#### **Test Specifications:**

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### **Results:**

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	36405E
Date of Issue:	2022-03-07
Date Received:	2022-03-04
Date Tested:	2022-03-04
Date Completed:	2022-03-07
Next Due Date:	2023-03-06

Page:

1 of 1

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No.

: BSWA : BSWA 308

Serial No.

: 580008

Equipment No.

: WN-01-06

#### 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.



consulting . testing . research

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

#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36481

Date of Issue: 2022-03-14

Date Received: Date Tested:

2022-03-11 2022-03-11

Date Completed: 2022-03-14

Next Due Date: 2023-03-13 1 of 1 Page:

ATTN:

Ms. Meiling Tang

#### Certificate of Calibration

#### Item for calibration:

Description

: Sound Level Meter

Manufacturer

: BSWA

Model No.

: BSWA 308 : 580011

Serial No. Equipment No.

: WN-01-08

#### Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

#### **Test Specifications:**

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### **Results:**

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36481A Date of Issue: 2022-03-14 Date Received: 2022-03-11

Date Tested: 2022-03-11

Date Completed: 2022-03-14 Next Due Date: 2023-03-13

Page: 1 of 1

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Sound Level Meter

Manufacturer

: BSWA

Model No. Serial No.

: BSWA 308 : 580013

Equipment No.

: WN-01-09

#### Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

#### **Test Specifications:**

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



### **TEST REPORT**

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

 Test Report No.:
 36481B

 Date of Issue:
 2022-03-14

 Date Received:
 2022-03-11

 Date Tested:
 2022-03-11

 Date Completed:
 2022-03-14

Page:

Next Due Date:

1 of 1

2023-03-13

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Sound Level Meter

Manufacturer

: BSWA : BSWA 308

Model No. 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



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong.

Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 35658
Date of Issue: 2021-08-23
Date Received: 2021-08-20
Date Tested: 2021-08-20

Page:

Date Completed:

Next Due Date:

1 of 1

2021-08-23

2022-08-22

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for Calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No.

: 4231

Serial No.

: 2412367

Equipment No.

: N-02-03

#### **Test Conditions:**

Room Temperatre

: 17-22 degree Celsius

Relative Humidity

: 40-70%

#### Methodology:

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

#### Results:

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

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin,

N.T., Hong Kong.

Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 35658A 2021-08-23 Date of Issue: Date Received: 2021-08-20 Date Tested: 2021-08-20 Date Completed: 2021-08-23

Page:

Next Due Date:

1 of 1

2022-08-22

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Acoustical Calibrator

Manufacturer Model No.

: SVANTEK : SV30A

Serial No. Equipment No. : 24791 : N-09-04

#### Test conditions:

Room Temperatre

: 17-22 degree Celsius

Relative Humidity

: 40-70%

#### Methodology:

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

#### Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

#### TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 35909A Date of Issue: 2021-10-04 Date Received: 2021-10-02 Date Tested: 2021-10-02

Date Completed:

2021-10-04

Next Due Date:

2022-10-03

Page:

1 of 1

ATTN:

Ms. Meiling Tang

#### **Certificate of Calibration**

#### Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK : SV30A

Model No. Serial No.

: 24780

Equipment No.

: N-09-05

#### Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

#### Methodology:

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

#### Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

#### APPENDIX D ENVIRONMENTAL MONITORING SCHEDULES

#### Service Contract No. NDO 07/2019

#### Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Impact Air Quality, Noise and Ecological Monitoring Schedule (June 2022)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Jun	2-Jun	3-Jun	4-Jun
			1 hr TSP X3 AM2	1 hr TSP X3 AM1		
			<u>Noise</u> NM8 to NM9, NM11 to NM14	Noise NM1 to NM7, NM10		
5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun
	1 hr TSP X3 AM2		1 hr TSP X3 AM1		1 hr TSP X3 AM2	
			NM1 to NM7, NM10		Noise NM8 to NM9, NM11 to NM14	
12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun
		1 hr TSP X3 AM1 Noise NM1 to NM7, NM10		1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14	Monitoring of Flora Species of Conservation Interest	
19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun
	1 hr TSP X3 AMI		1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14		1 hr TSP X3 AM1 Noise NM1 to NM7, NM10	
26-Jun	27-Jun	28-Jun	NM11 to NM14 29-Jun	30-Jun		
20-3 011	27-3011	1 hr TSP X3 AM2  Noise NM8 to NM9, NM11 to NM14	25°-Jun	1 hr TSP X3 AM1  Noise NM1 to NM7, NM10		

#### Air Quality Monitoring Station(s)

AM1 - Village House, Kong Nga Po AM2 - Village House, Kong Nga Po

Noise Monitoring Station(s)
NM1 - Village House, Sha Ling NM8 - Village House, Sha Ling NM2 - Village House, Sha Ling NM9 - Village House, Kong Nga Po NM3 - Village House No. 248, Sha Ling NM10 - Village House, Kong Nga Po NM4 - Village House, Sha Ling NM11 - Village House, Kong Nga Po NM5 - Village House No. 270, Sha Ling NM12 - Village House, Kong Nga Po NM6 - Village House, Sha Ling NM7 - Village House, Sha Ling 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 Tentative Impact Air Quality, Noise and Ecological Monitoring Schedule (July 2022)

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

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 NM6 - Village House, Sha Ling NM12 - Village House, Kong Nga Po NM13 - Village House, Kong Nga Po NM7 - Village House, Sha Ling NM14 - Village House, near Man Kam To Road

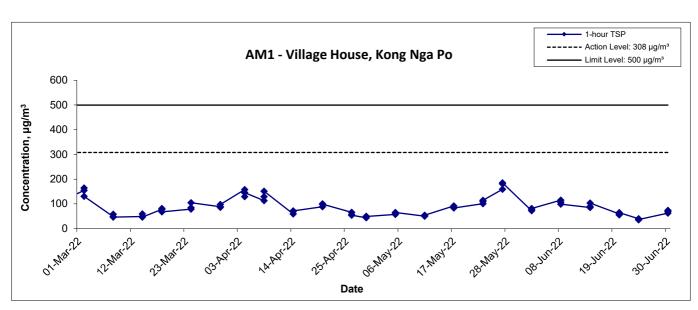
#### APPENDIX E AIR QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATION

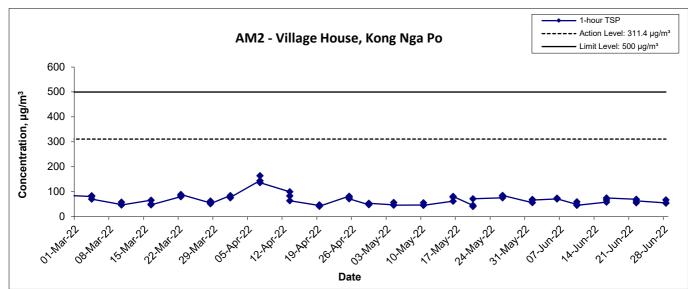
## **Appendix E - 1-hour TSP Monitoring Results**

Location AM1	Location AM1 - Village House, Kong Nga Po						
Date	Time	Weather	Particulate Concentration ( µg/m³)				
2-Jun-22	9:00	Cloudy	72.5				
2-Jun-22	10:00	Cloudy	76.3				
2-Jun-22	11:00	Cloudy	81.3				
8-Jun-22	13:00	Rainy	114.7				
8-Jun-22	14:00	Rainy	106.8				
8-Jun-22	15:00	Rainy	99.0				
14-Jun-22	9:00	Cloudy	85.4				
14-Jun-22	10:00	Cloudy	88.8				
14-Jun-22	11:00	Cloudy	103.6				
20-Jun-22	9:00	Cloudy	59.6				
20-Jun-22	10:00	Cloudy	55.6				
20-Jun-22	11:00	Cloudy	64.6				
24-Jun-22	9:00	Sunny	39.9				
24-Jun-22	10:00	Sunny	35.4				
24-Jun-22	11:00	Sunny	36.7				
30-Jun-22	13:00	Cloudy	62.4				
30-Jun-22	14:00	Cloudy	69.7				
30-Jun-22	15:00	Cloudy	73.3				
		Minimum	35.4				
		Maximum	114.7				
		Average	73.6				

Location AM2	? - Village F	louse, Kong Ng	ја Ро
Date	Time	Weather	Particulate Concentration ( μg/m³)
1-Jun-22	13:30	Cloudy	55.8
1-Jun-22	14:30	Cloudy	69.1
1-Jun-22	15:30	Cloudy	66.0
6-Jun-22	8:30	Fine	70.6
6-Jun-22	9:30	Fine	74.1
6-Jun-22	10:30	Fine	71.2
10-Jun-22	9:00	Cloudy	48.9
10-Jun-22	10:00	Cloudy	59.2
10-Jun-22	11:00	Cloudy	45.2
16-Jun-22	13:00	Fine	57.8
16-Jun-22	14:00	Fine	66.7
16-Jun-22	15:00	Fine	74.7
22-Jun-22	13:10	Sunny	69.3
22-Jun-22	14:10	Sunny	55.4
22-Jun-22	15:10	Sunny	63.2
28-Jun-22	9:00	Sunny	54.6
28-Jun-22	10:00	Sunny	66.8
28-Jun-22	11:00	Sunny	53.9
		Minimum	45.2
		Maximum	74.7
		Average	62.4

WMA20001/App E - 1hr TSP Wellab





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		Project No.
	N.T.S	WMA20001
Date		Appendix
	Jun 22	l E



APPENDIX F NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

#### Appendix F - Noise Monitoring Results

Location NM1 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Time Unit: dB (A) (5-min)		min)	Average	Baseline Level
	· ·	. , ,		L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			08:00	68.8	69.3	68.3		
			08:05	68.4	68.8	67.9		
2-Jun-22	Cloudy	0.0	08:10	68.5	69.1	67.3	68.6	
Z-Juli-22	Cloudy	0.0	08:15	68.8	69.3	67.9	00.0	
			08:20	68.8	69.4	67.5		
			08:25	68.5	69.7	67.3		
			08:00	58.4	59.7	56.9		
			08:05	58.4	59.0	57.1		
8-Jun-22	Cloudy	0.0	08:10	59.1	60.9	57.0	58.8	54.9
0-Juli-22	Cloudy	0.0	08:15	59.5	61.3	57.5	58.8	
			08:20	58.5	60.1	56.9		
			08:25	58.9	60.4	57.4		
			13:00	60.8	63.6	58.1		
			13:05	61.0	61.4	59.9		
14-Jun-22	Cloudy	0.0	13:10	59.9	61.3	58.3	59.5	
14-Juli-22	Cloudy	0.0	13:15	59.0	59.9	58.2	39.3	
			13:20	57.6	58.8	56.7		
			13:25	57.5	58.3	56.6		
			08:30	64.1	66.2	60.7		
			08:35	67.5	73.7	61.2		
24-Jun-22	Sunny	0.0	08:40	61.6	62.8	60.5	63.8	
24-Jun-22	Suring	0.0	08:45	62.0	64.2	60.5	63.8	
			08:50	62.1	63.1	60.8		
			08:55	61.9	63.0	60.9		
			13:40	57.9	55.6	52.8		
			13:45	54.9	56.0	53.6		
30-Jun-22	Claudy	0.0	13:50	56.2	56.9	53.4	59.2	
30-Jun-22	Cloudy	0.0	13:55	57.8	57.3	54.9		
			14:00	60.4	64.2	58.8		
			14:05	62.8	63.0	58.4		

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 90	L <sub>eq</sub>	L <sub>eq</sub>
2-Jun-22	Sunny	0.0	08:35	58.9	61.0	55.1	60.8	56.7
			08:40	58.7	60.7	56.2		
			08:45	59.6	61.5	57.1		
2-Jun-22			08:50	63.2	66.8	59.6		
			08:55	61.5	62.4	60.2		
			09:00	60.9	62.9	59.5		
		0.0	08:05	63.0	65.4	59.2		
			08:10	60.2	60.6	59.2	60.7	
8-Jun-22	Cloudy		08:15	60.0	60.5	59.0		
0-Juli-22			08:20	59.9	60.4	59.4		
			08:25	60.3	60.8	59.3		
			08:30	59.7	60.2	59.1		
	Cloudy	0.0	13:40	49.5	51.5	47.5	51.3	
			13:45	49.7	51.9	48.1		
14-Jun-22			13:50	50.9	53.2	48.5		
14-Jun-22			13:55	53.3	56.0	49.2		
			14:00	50.4	52.1	48.6		
			14:05	52.6	54.9	49.1		
	Sunny	0.0	08:35	61.4	63.4	59.0	61.3	
			08:40	60.8	62.2	59.1		
04 1 00			08:45	59.7	60.7	58.6		
24-Jun-22			08:50	62.0	62.6	59.9		
			08:55	62.8	66.4	60.2		
			09:00	60.1	61.0	58.9		
	Cloudy	0.3	13:35	62.1	63.5	60.7	61.5	
			13:40	59.9	61.5	58.0		
30-Jun-22			13:45	62.9	64.1	61.3		
			13:50	61.4	62.6	60.1		
			13:55	61.9	63.8	59.6		
			14:00	59.9	61.4	58.9		

WMA20001 - Noise Results Wellab

#### Appendix F - Noise Monitoring Results

Location NM3	- Village Hou	se No. 248, Sha Lin	g					
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
2-Jun-22	Cloudy	0.0	09:15	51.4	54.2	48.2	53.9	54.5
			09:20	53.1	56.3	48.7		
			09:25	52.5	55.6	48.5		
			09:30	56.5	56.5	49.3		
			09:35	52.0	55.8	48.5		
			09:40	55.3	58.1	48.7		
			08:40	50.7	54.0	46.7		
			08:45	54.0	56.9	48.4	56.9	
8-Jun-22	Cloudy	0.0	08:50	55.8	58.9	49.7		
			08:55	59.2	61.4	53.7		
			09:00	58.8	60.7	53.9		
			09:05	57.6	59.9	51.9		
14-Jun-22	Cloudy	0.0	14:15	59.1	61.5	57.1	58.6	
			14:20	57.6	58.2	57.1		
			14:25	58.9	60.8	57.4		
			14:30	59.9	60.6	57.3		
			14:35	57.9	58.8	57.1		
			14:40	57.9	59.0	57.0		
24-Jun-22	Sunny	0.0	09:15	57.3	61.4	48.4	55.4	
			09:20	52.2	56.2	48.2		
			09:25	54.8	57.8	48.7		
			09:30	58.3	62.5	49.4		
			09:35	52.5	55.6	48.6		
			09:40	53.2	57.1	48.0		
30-Jun-22	Cloudy	0.2	14:20	62.8	63.4	53.8	61.6	
			14:25	59.5	63.0	52.0		
			14:30	60.1	62.4	52.8		
			14:35	60.9	63.5	53.4		
			14:40	62.6	64.4	58.6		
			14:45	62.4	63.9	54.0		

Location NM4	- Village Hou	se, 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 90	L <sub>eq</sub>	L <sub>eq</sub>
2-Jun-22	Cloudy	0.0	10:45	58.3	60.0	56.0	59.4	58.7
			10:50	58.0	59.5	56.4		
			10:55	58.1	60.1	55.9		
			11:00	59.3	62.3	56.0		
			11:05	60.8	63.6	56.5		
			11:10	60.9	62.7	56.3		
		0.0	09:20	61.5	65.1	59.2		
			09:25	60.4	61.7	59.2	62.2	
0 Jun 22	Cloudy		09:30	61.0	62.4	59.3		
8-Jun-22			09:35	65.9	69.1	60.8		
			09:40	61.7	64.7	59.5		
			09:45	58.7	61.5	55.8		
	Cloudy	0.0	09:50	54.8	56.1	53.8	56.3	
			09:55	55.5	57.5	53.8		
14-Jun-22			10:00	55.0	56.0	53.7		
14-Jun-22			10:05	58.7	61.2	53.9		
			10:10	57.5	59.1	54.0		
			10:15	54.8	55.9	53.9		
	Sunny	0.0	10:00	66.8	69.0	63.7	64.8	
			10:05	64.6	65.8	64.1		
0.4 1 00			10:10	64.3	65.9	63.0		
24-Jun-22			10:15	64.2	65.2	63.1		
			10:20	64.2	65.7	62.6		
			10:25	64.0	65.5	61.7		
	Cloudy	0.2	14:55	65.7	66.1	59.1	64.1	
			15:00	69.7	74.2	57.6		
30-Jun-22			15:05	59.3	61.3	56.8		
			15:10	56.9	59.6	53.3		
			15:15	56.7	59.4	54.1		
			15:20	57.8	61.0	53.3		

WMA20001 - Noise Results Wellab

Location NM5	- Village Hou	ise No. 270, Sha Lin	g					
Date	Weather	Wind Speed (m/s)	Time	Uni	it: dB (A) (5-r	min)	Average	Baseline Level
		. , ,	L <sub>eq</sub> L <sub>10</sub> L <sub>90</sub> 09:55 57.8 62.3 52.5		L 90	L <sub>eq</sub>	L <sub>eq</sub>	
			09:55		62.3	52.5		
			10:00	57.9	59.4	51.6		
2-Jun-22	Cloudy	0.0	10:05	55.6	58.5	52.3	57.0	
2-Jun-22 Ci	Cloudy	0.0	10:10	56.3	59.4	51.3	37.0	
			10:15	57.7	62.1	50.7		
			10:20	56.4	59.8	51.4		
			09:25	52.9	57.4	46.7		
			09:30	51.6	53.8	48.8		
O lun OO	Claudy	0.0	09:35	57.8	61.4	53.0	57.1	
8-Jun-22 Cloud	Cloudy	0.0	09:40	59.7	62.7	55.7	57.1	57.0
			09:45	58.7	61.7	53.8		
			09:50	56.4	59.6	52.7		
			10:25	53.7	56.5	49.7	54.7	
	Cloudy	0.0	10:30	55.9	57.5	49.0		
14-Jun-22			10:35	53.7	56.2	49.2		
14-Jun-22	Cloudy		10:40	55.9	58.7	50.2		
			10:45 54.6 58.3 49.7		ĺ			
		ļ .	10:50	53.5	56.5	48.6		
			09:55	64.7	67.3	62.2		
			10:00	64.0	65.1	62.8		
04 1 00	C	0.0	10:05	64.2	65.6	62.8	CE 0	
24-Jun-22	Sunny	0.0	10:10	64.9	66.2	63.3	65.8	
			10:15	65.2	65.7	64.1		
			10:20	69.2	72.5	64.2		
			13:00	58.1	61.2	50.6		
			13:05	55.4	57.2	51.8		
00 1 00	01	0.0	13:10	60.1	58.5	52.7	50.0	
30-Jun-22	Cloudy	0.0	13:15	59.9	62.7	55.6	58.2	
			13:20	56.0	57.4	52.7		
			13:25	57.4	58.7	52.0		

Location NM6	- Village Hou	se, Sha Ling						
Date	Weather	Wind Speed (m/s)	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Level
		. , ,		L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			10:00	53.2	55.1	51.5		
	Cloudy	0.0	10:05	61.1	65.9	53.5		
2-Jun-22			10:10	57.2	59.6	54.3	F7 F	
2-Jun-22	Cloudy	0.0	10:15	56.5	59.7	53.3	57.5	
			10:20	57.0	59.9	52.5		
			10:25	55.7	57.9	52.4		
			10:00	58.6	59.8	56.1		
			10:05	59.3	61.6	56.7		
8-Jun-22	Claudy	0.0	10:10	64.1	65.8	58.0	61.7	
0-Juli-22	Cloudy	0.0	10:15	62.3	63.9	59.2	01.7	56.0
			10:20	62.3	62.8	61.0		
			10:25	61.5	62.6	60.4		
			11:05	51.6	53.3	49.8	54.8	
	Claudu	0.0	11:10	55.1	55.3	50.0		
14-Jun-22			11:15	52.8	53.9	50.0		
14-Juli-22	Cloudy		11:20	56.3	60.9	50.2		
			11:25	54.3	54.3 57.7 50.3			
			11:30	56.7	58.9	50.5		
			10:35	70.7	75.2	58.3		1
			10:40	69.1	73.1	60.5		
24-Jun-22	C	0.0	10:45	66.1	68.4	59.9	67.2	
24-Jun-22	Sunny	0.0	10:50	65.3	69.2	60.6	67.2	
			10:55	62.6	69.2	58.0		
			11:00	64.1	67.2	58.0		
			14:50	55.0	56.5	50.0		1
			14:55	53.2	54.6	48.5		
20 1 22	Ola wale	0.0	15:00	50.1	52.2	47.4	50.7	
30-Jun-22	Cloudy	0.2	15:05	50.9	53.8	47.1	52.7	
			15:10	49.3	50.2	47.2		
			15:15	54.6	57.5	48.3		

ocation NM7	- Village Hou	ıse, Sha Ling						
Date	Weather	Wind Speed (m/s)	Time	Uni	it: dB (A) (5-r	min)	Average	Baseline Lev
		. , ,		L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			10:35	51.1	53.6	47.4		
2 Jun 22			10:40	57.0	60.8	49.4		
2-Jun-22	Cloudy	0.0	10:45	52.0	54.8	48.8	56.9	
Z-Juli-22	Cloudy	0.0	10:50	61.9	64.8	54.8	50.9	
			10:55	54.5	56.8	51.3		
			11:00	55.0	57.8	50.5		
			10:05	59.4	59.7	58.5		
			10:10	59.7	60.3	58.8		
8-Jun-22	Claudy	0.0	10:15	59.7	60.6	58.8	58.8	
0-Juli-22	Cloudy	10:20 59.4	59.4	60.5	57.2	58.8		
			10:25	57.0	58.1	54.4		-
			10:30	56.0	57.6	53.7		
			15:00	55.5	56.3	51.7	1	
			15:05	54.3	55.7	52.7		
14-Jun-22	Cloudy	0.0	15:10	56.2	58.9	53.0	55.2	40.0
14-Jun-22	Cloudy	0.0	15:15	54.1	55.6	52.5	55.2	49.8
			15:20	55.3	56.7	53.5		
			15:25	55.2	56.3	53.0		
			10:45	59.4	60.0	58.2		1
			10:50	59.3	60.0	58.3		
04 1 00	C	0.0	10:55	58.0	59.1	56.5	50.7	
24-Jun-22	Sunny	0.0	11:00	61.9	66.7	57.0	59.7	
			11:05	59.4	60.4	58.6		
			11:10	59.2	60.1	58.1		
			14:15	58.0	59.6	51.6		1
			14:20	53.4	56.1	49.9		
00 1 00	QLt		14:25	53.1	54.3	49.2	54.4	
30-Jun-22	Cloudy	0.3	14:30	51.8	54.2	49.6	54.1	
			14:35	50.8	52.3	49.0		
			14:40	53.4	54.8	48.7		

Location NM8	- Village Hou	se, Sha Ling						
Date	Weather	Wind Speed (m/s)	Time	Uni	it: dB (A) (5-r	min)	Average	Baseline Level
		. , ,		L <sub>eq</sub>	L <sub>10</sub> L <sub>90</sub> 55.8 51.5		L <sub>eq</sub>	L <sub>eq</sub>
			16:00	53.7	55.8	51.5	-	
		16:05 55.5 56.9 53.8 16:10 53.6 55.2 52.0 54						
1-Jun-22	Cloudy		16:10	53.6	55.2	52.0	54.2	
1-Juli-22	Cloudy	0.0	16:15	52.8	53.5	52.0	54.2	
			16:20	54.3	56.1	53.0		
			16:25	54.7	56.4	53.1		
			09:45	66.9	72.0	51.3		1
			09:50	52.2	55.4	49.7		
10 Jun 22	Claudy	0.2	09:55	53.3	56.3	49.9	61.4	
10-Jun-22	10-Jun-22 Cloudy	0.2	10:00	57.1	60.9	50.7	61.4	-
			10:05	53.1	54.8	50.0		
			10:10	63.6	68.5	52.4		
			16:35	58.7	59.5	56.4	54.0	
		0.0	16:40	54.8	56.4	53.6		
40 1 00			16:45	53.2	55.4	49.5		
16-Jun-22	Cloudy	0.3	16:50	50.9	52.1	49.2	54.9	57.6
			16:55	52.4	54.7	49.8		
			17:00	54.8	55.1	54.3		
			11:30	53.0	53.7	45.7		1
			11:35	50.5	50.6	45.9		
00 1 00	C	0.0	11:40	54.1	57.2	45.9	50.0	
22-Jun-22	Sunny	0.0	11:45	54.5	57.3	45.1	52.9	
			11:50	48.8	51.0	45.1		
			11:55	53.9	53.8	45.2		
	Î		13:45	56.8	58.7	52.3		7
			13:50	58.3	59.5	51.9		
00 1 00	0	0.0	13:55	58.1	59.7	52.4	50.0	
28-Jun-22	Sunny	0.0	14:00	57.7	58.4	51.6	56.8	
			14:05	55.2	58.0	52.4		
			14:10	52.3	53.7	51.8		

Location NM9	- Village Hou	se, Kong Nga Po		ı				ı
Date	Weather	Wind Speed (m/s)	Time	Uni	it: dB (A) (5-r	min)	Average	Baseline Leve
		. , ,	L <sub>eq</sub> L <sub>10</sub>		L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			15:35	54.0	60.2	53.3		1
1-Jun-22			15:40	53.6	55.4	51.5		
	Cloudy	0.0	15:45	52.7	54.2	51.1	52.9	
	Cloudy		15:50	52.7	54.8	49.8	52.9	
			15:55	50.7	53.1	48.1		
			16:00	53.0	55.6	48.7		
			10:30	66.3	67.9	55.4		
			10:35	56.9	58.0	55.0		
40 1 00	Ola wales	0.2	10:40	63.7	67.5	55.0	04.0	
10-Jun-22 Clo	Cloudy	0.2	10:45	57.8	60.5	54.4	61.6	
			10:50	56.7	58.5	53.8		
			10:55	56.5	59.1	53.8		55.9
			15:55	61.3	62.0	60.6	61.7	
	Observation	0.3	16:00	62.3	62.7	60.9		
16-Jun-22			16:05	61.0	61.6	60.4		
16-Jun-22	Cloudy		16:10	62.3	64.6	61.0		
			16:15	61.7	63.1	60.5		
			16:20	61.3	62.2	60.2		
			14:20	59.0	60.6	55.2		1
			14:25	58.4	62.0	55.0		
00 1 00	0	0.0	14:30	55.9	56.7	55.0	57.0	
22-Jun-22	Sunny	0.0	14:35	56.5	57.4	54.9	57.8	
			14:40	57.5	59.4	54.7		
			14:45	58.4	62.1	54.9		
			09:55	64.1	64.3	57.4		1
			10:00	60.1	62.5	57.2		
00 1 00			10:05	58.7	60.2	57.2	00.0	
28-Jun-22	Sunny	0.0	10:10	59.0	61.3	57.3	60.8	
			10:15	60.9	62.7	58.1		
		j j	10:20	59.1	60.7	57.6		

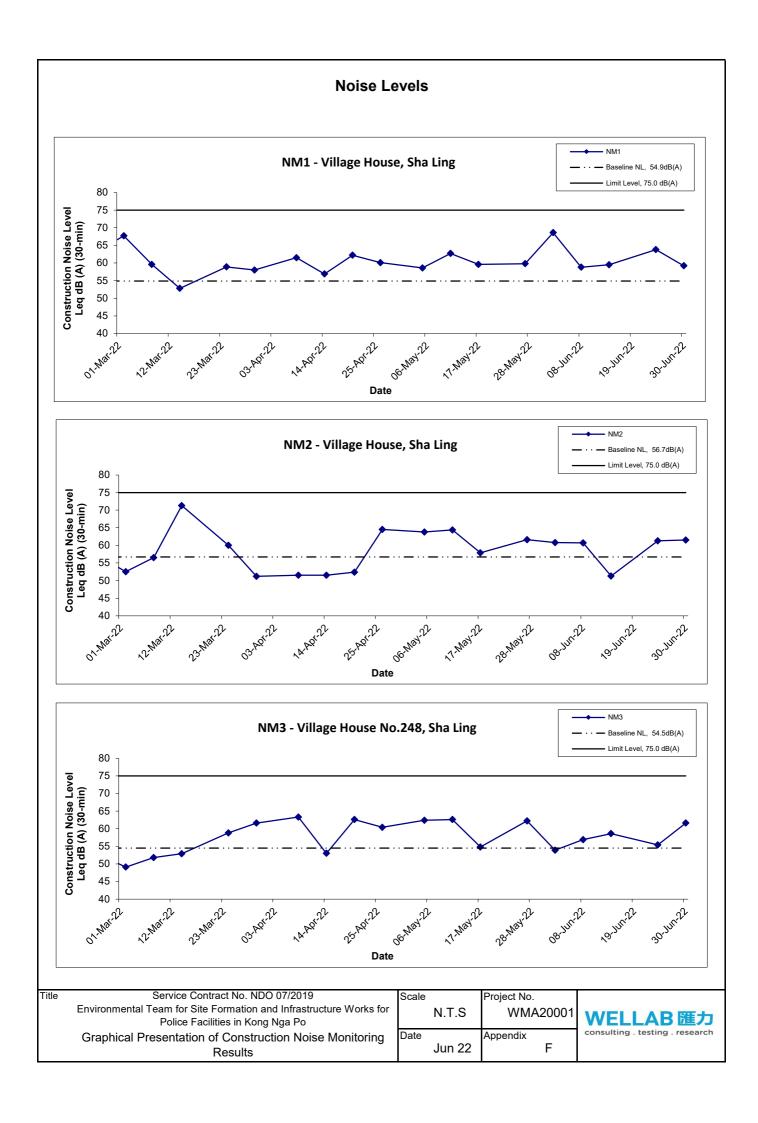
Location NM10	) - Village Ho	use, Kong Nga Po						
Date	Weather	Wind Speed (m/s)	Time	Uni	it: dB (A) (5-r	nin)	Average	Baseline Level
		. , ,		L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			11:30	55.4	57.8	52.5	·	
		11:35 56.6 59	59.0	53.5				
0. 1 00	Cloudy		11:40	58.7	61.1	54.4	57.0	
2-Jun-22	Cloudy	0.0	11:45	58.6	62.8	54.4	57.0	
			11:50	55.5	57.7	53.4		
			11:55	56.2	59.2	53.1		
			17:00	55.5	56.7	54.2		
			17:05	54.4	54.9	53.9		
8-Jun-22	Claudy	0.0	17:10	55.3	56.1	54.4	55.0	
8-Jun-22	Cloudy	0.0	17:15	55.1	56.1	54.2	55.0	52.0
			17:20	55.0	55.9	54.0		
			17:25	54.9	55.9	54.1		
			09:05	59.6	60.7	56.6	50.4	
	0	0.0 09:15 57.9 58.8 56.6 09:20 56.6 57.2 56.1 09:25 58.0 58.7 56.1	09:10	59.1	59.6	56.7		
44 1 00			09:15	57.9	58.8	56.6		
14-Jun-22	Cloudy		56.1	59.1	52.8			
			09:25	58.0	58.7	56.1		
					65.1	56.4		
			11:30	53.8	55.3	51.6		1
			11:35	56.5	58.6	52.4		
04 1 00	C	0.0	11:40	53.7	55.6	51.8	54.0	
24-Jun-22	Sunny	0.0	11:45	56.5	61.5	52.7	54.8	
			11:50	53.9	55.4	52.1		
			11:55	53.1	54.5	51.6		
			15:30	60.4	60.3	51.1		1
			15:35	53.6	56.3	51.1		
00 1 00	QLt		15:40	53.7	55.6	51.4	55.0	
30-Jun-22	Cloudy	0.0	15:45	54.7	58.3	51.2	55.6	
			15:50	52.3	53.2	51.3		
			15:55	52.1	53.1	51.2		

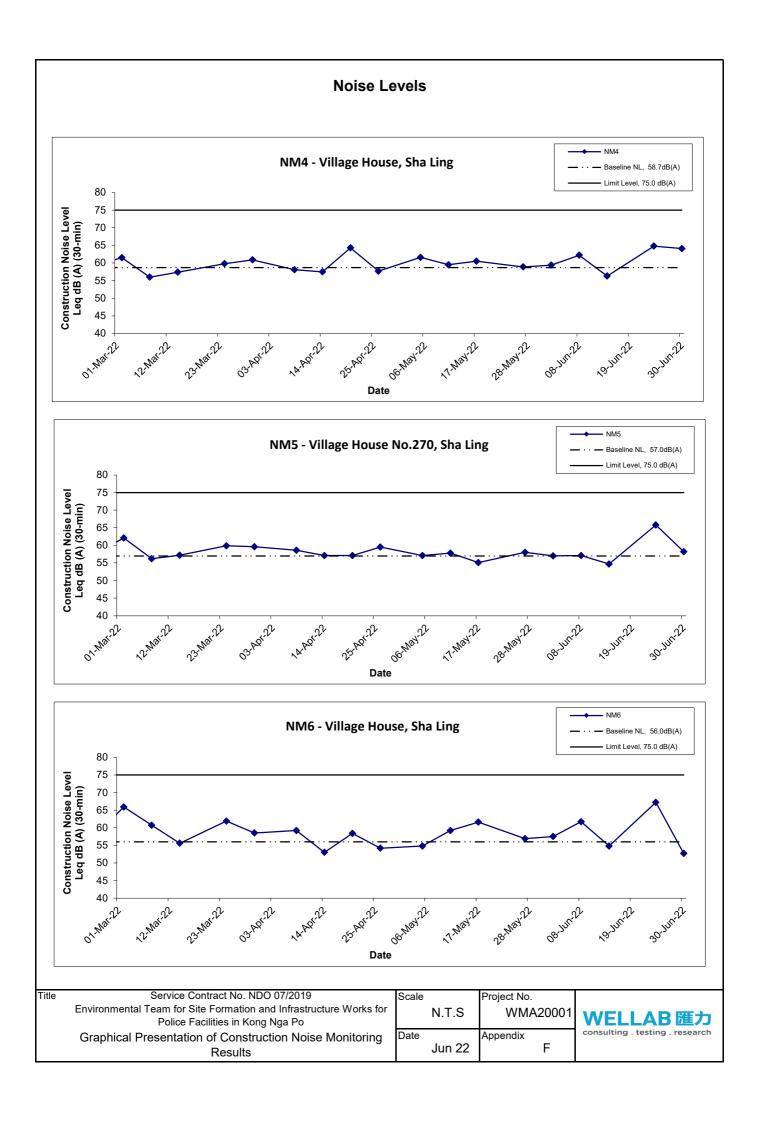
Location NM11	- Village Ho	use, Kong Nga Po						
Date	Weather	Wind Speed (m/s)	Time	Uni	it: dB (A) (5-r	min)	Average	Baseline Level
		. , ,		L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			15:05	56.6	58.0	52.5		
	Cloudy 0.0 15:10 51.5 52.3 50.8 15:15 51.6 52.3 50.9 15:20 51.7 52.1 51.3	0.0	15:10	51.5	52.3	50.8		
1-Jun-22			15:15	51.6	52.3	50.9	53.1	
1-Jun-22		51.3	33.1					
			15:25	52.7	53.2	52.1		
			15:30	51.8	52.2	51.0		
			11:00	61.5	63.1	54.1		
			11:05	57.1	59.0	55.2		
10-Jun-22	Cloudy	0.3	11:10	56.0	57.0	55.1	57.7	
10-3411-22	Cloudy	11:15 55.8 57.0 54. 11:20 55.9 57.2 54.	11:15	55.8	57.0	54.7	57.7	
			54.8					
			11:25	56.2	57.4	55.1		46.4
			15:10	54.1	55.3	52.7		
	Cloudy	0.5	15:15	53.3	53.8	51.9	- 52.2	
16-Jun-22			15:20	51.5	52.6	50.8		
10-3411-22			15:25	51.3	52.1	50.6		
			15:30	50.9	51.4	50.5		
			15:35	51.2	52.3	50.7		
			14:35	51.1	53.0	50.0		
			14:40	51.0	51.7	50.5		
22-Jun-22	Sunny	0.0	14:45	53.6	56.3	50.4	54.1	
22-JUII-22	Sullily	0.0	14:50	55.3	55.9	54.8	J <del>4</del> . I	
			14:55	55.6	56.1	55.0		
			15:00	55.5	56.0	55.1		
			10:35	54.3	54.9	53.6		
			10:40	54.3	54.7	53.8		
28-Jun-22	Sunny	0.0	10:45	53.9	54.6	53.3		
20-JUI1-22	Suring	0.0	10:50	53.9	54.3	53.5	54.1	
			10:55	54.7	55.5	53.6		
			11:00	53.6	54.2	53.0		

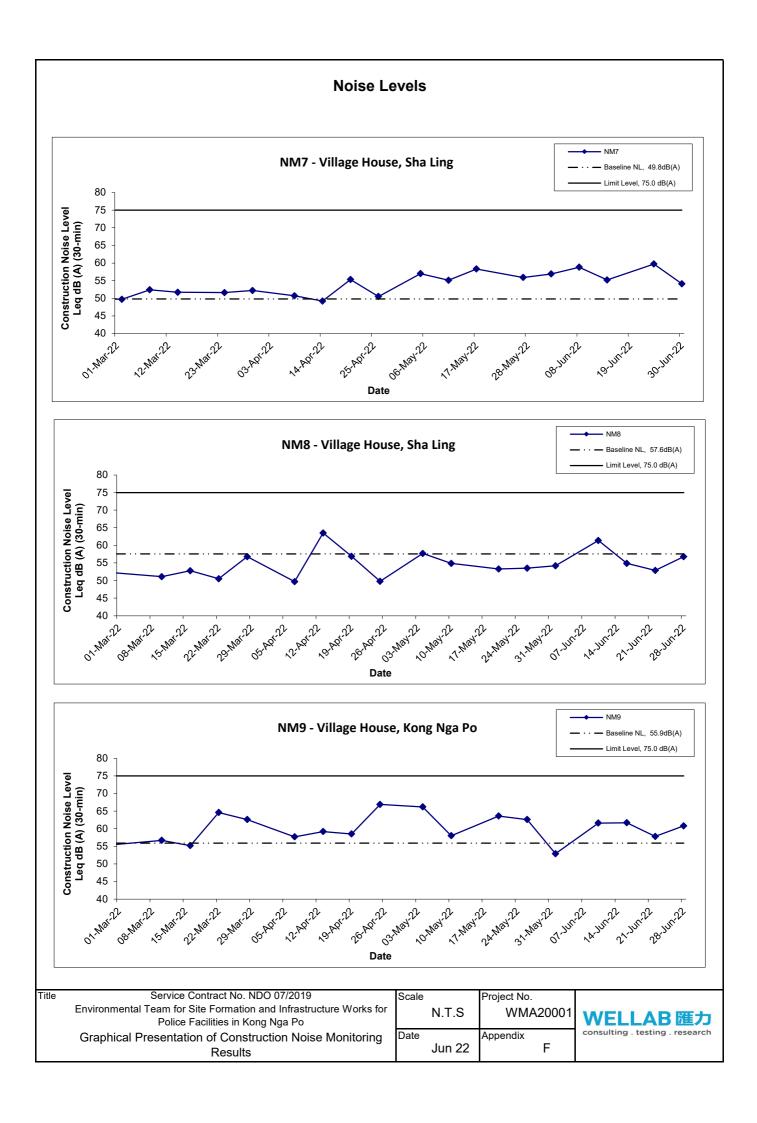
Location NM12	2 - Village Ho	use, Kong Nga Po						
Date	Weather	Wind Speed (m/s)	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Level
		. , ,		L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			13:30	60.8	61.1	60.6		
			13:35	61.6	62.9	60.7		
4 1 00	Ola wales	0.2	13:40	61.0	61.3	60.6	61.2	
1-Jun-22	Cloudy		13:45	61.2	61.5	60.6	01.2	
			13:50	61.2	61.7	60.8		
			13:55	61.4	62.3	60.6		
			09:15	57.3	61.1	50.9		
			09:20	58.5	59.4	53.4		
10-Jun-22	Ola wales	0.0	09:25	58.3	59.8	59.0	60.6	
10-Jun-22	Cloudy	0.3	09:30	66.7	69.7	59.9	62.6	54.7
			09:35	64.3	66.3	60.0		
			09:40	62.3	64.5	59.3		
			13:05	58.2	58.6	57.9	59.0	
	0	0.3	13:10	59.1	59.5	58.0		
40 1 00			13:15	58.4	59.0	58.0		
16-Jun-22	Cloudy		13:20	58.3	58.7	58.0		
				59.6	61.4			
			13:15	59.5	57.9	54.1		1
			13:20	53.9	54.7	53.0		
00 1 00	Ola wales	0.0	13:25	53.1	53.3	52.8	55.0	
22-Jun-22	Cloudy	0.0	13:30	52.9	53.1	52.6	55.3	
			13:35	55.1	53.0	52.2		
			13:40	52.1	52.5	51.6		
	Î		09:10	61.8	62.3	61.2		1
			09:15	61.5	62.1	61.1		
00 1 00	0		09:20	61.4	61.8	60.9	04.5	
28-Jun-22	Sunny	0.0	09:25	61.4	62.1	60.8	61.5	
			09:30	61.7	62.9	61.0		
			09:35	61.2	61.6	60.7		

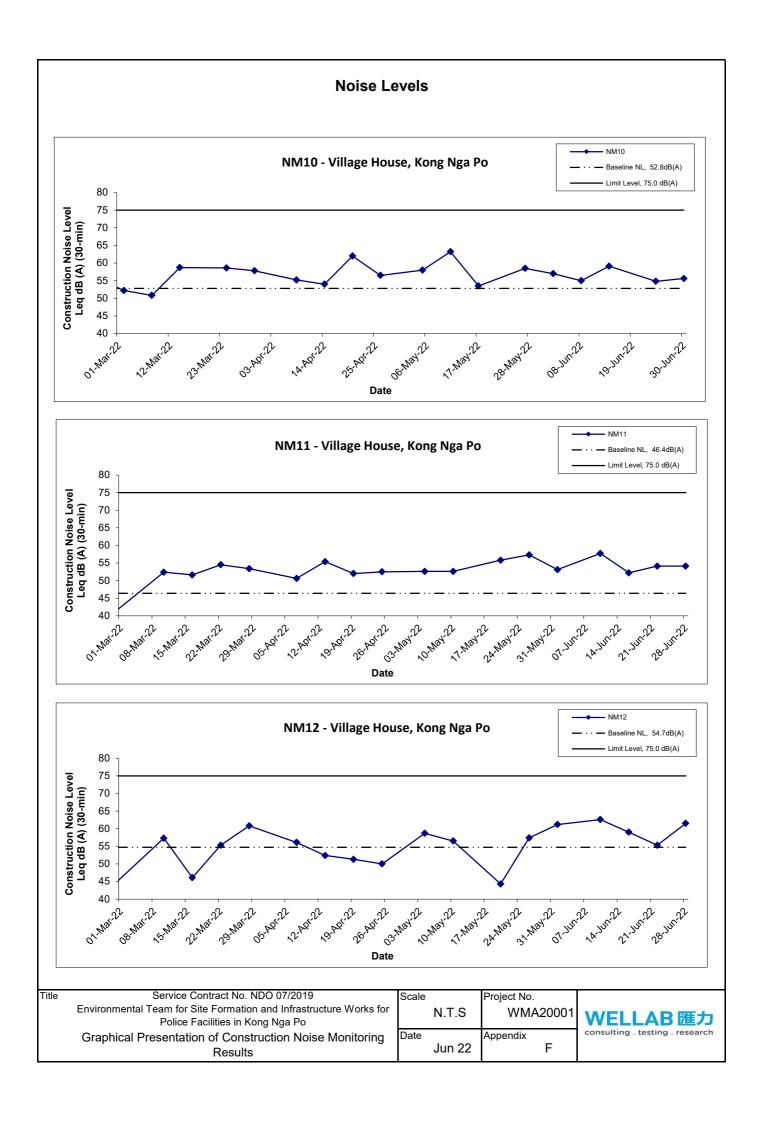
ocation NM13	- Village Ho	use, Kong Nga Po						_
Date	Weather	Wind Speed (m/s)	Time	Un	it: dB (A) (5-r	min)	Average	Baseline Lev
				L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
			14:55	59.1	59.6	58.5		
4.1.00			15:00	58.3	58.6	58.4		
1-Jun-22	Cloudy	0.0	15:05	60.6	61.8	59.2	60.3	
1-Juli-22	Cloudy	0.0	15:10	61.3	62.0	60.7	00.3	
		1	15:15	61.2	62.1	60.0		
			15:20	60.5	61.4	59.3		
			13:00	60.5	63.5	52.0		
			13:05	52.6	54.2	50.8		
10-Jun-22	Ola wales	0.2	13:10	53.0	54.9	51.0	55.3	61.3
10-Jun-22	Cloudy		13:15	52.2	53.7	50.3		
			13:20	51.7	53.4	49.9		
			13:25	53.1	54.4	51.5		
			14:30	51.7	54.4	48.4	1	
		1	14:35	53.1	53.4	47.6		
40 1 00	01 1	0.4	14:40	52.6	53.1	50.8	51.7	
16-Jun-22	Cloudy		14:45	51.0	51.9	49.4		
		1	14:50	48.3	49.7	46.6		
		1	14:55	51.9	53.5	48.9		
	ì	1	15:30	62.9	66.0	44.8		1
		1	15:35	50.5	53.2	46.9		
00 1 00			15:40	47.8	48.9	46.8	55.0	
22-Jun-22	Sunny	0.0	15:45	47.6	48.6	46.4	55.9	
		1	15:50	48.7	49.1	46.7		
		1	15:55	47.5	49.4	45.8		
			11:15	53.2	53.9	51.6		1
			11:20	52.1	52.8	50.9		
	l _		11:25	51.1	51.6	50.6		
28-Jun-22	Sunny	0.0	11:30	52.2	53.6	50.9	51.9	
			11:35	51.2	51.6	50.5		
		1	11:40	50.9	51.4	50.3		Ī

Location NM14	- Village Ho	use, near Man Kam	To Road					
Date	Weather	Wind Speed (m/s)	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Level
		, , ,		L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
	ì		14:15	63.8	64.5	63.0	·	<u> </u>
			14:20	65.3	67.8	62.6		
4 1 00	Ola wales	0.2	14:25	64.1	67.5	62.6	62.0	
1-Jun-22	Cloudy	0.2	14:30	64.1	64.8	63.1	63.0	
			14:35	58.6	60.1	54.5		
			14:40	56.2	58.8	54.2		
			14:00	63.2	65.4	53.5		
			14:05	62.8	65.1	59.0		
10 Jun 22	10-Jun-22 Cloudy	0.3	14:10	60.2	62.2	57.5	62.7	
10-3411-22		0.3	14:15	64.6	68.4	56.7	02.7	59.6
			14:20	58.5	59.6	56.8		
			14:25	64.1	69.2	57.5		
			13:50	56.2	58.2	54.3	- 58.2	
	Cloudy	0.0	13:55	61.4	63.3	58.0		
16-Jun-22			14:00	59.7	60.5	55.4		
10-3411-22	Cloudy		14:05	55.0	55.4	54.1		
			14:10	55.2	55.7	54.6		
			14:15	57.9	58.3	54.6		
			13:35	64.1	67.2	55.6		
			13:40	67.3	71.3	59.0		
22-Jun-22	Cloudy	0.0	13:45	67.4	71.7	58.0	67.0	
22-Juli-22	Cloudy	0.0	13:50	68.9	72.6	57.4	67.0	
			13:55	64.6	67.0	55.6		
			14:00	67.8	71.2	60.4		
			13:00	52.9	55.1	49.6		
			13:05	53.0	55.6	50.6		
28-Jun-22	Suppy	0.0	13:10	55.5	57.4	49.3	55.8	
20-Juli-22	Sunny	0.0	13:15	58.3	60.3	52.9	55.6	
			13:20	56.1	57.6	53.9		
			13:25	56.7	58.1	55.4		

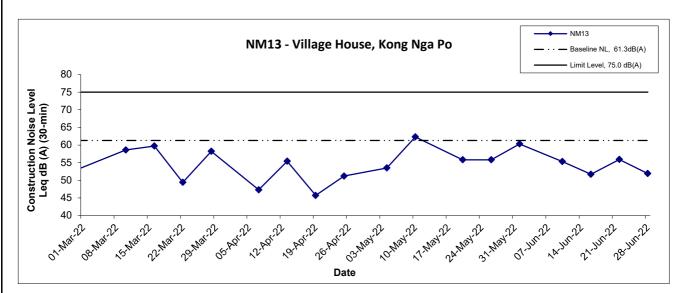


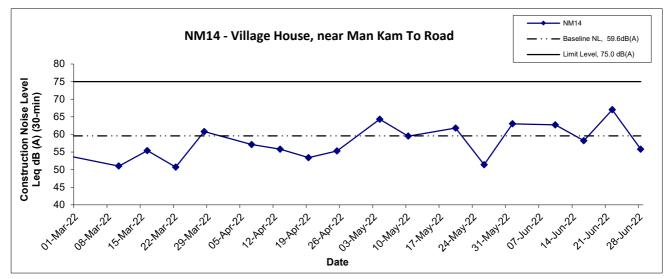






#### **Noise Levels**





	C			B : (1)	
,	Service Contract No. NDO 07/2019	Scale		Project No.	
	Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po		N.T.S	WMA20001	WELLAB匯力
	Graphical Presentation of Construction Noise Monitoring Results	Date	Jun 22	Appendix F	consulting . testing . research

Title

#### APPENDIX G WEATHER CONDITION

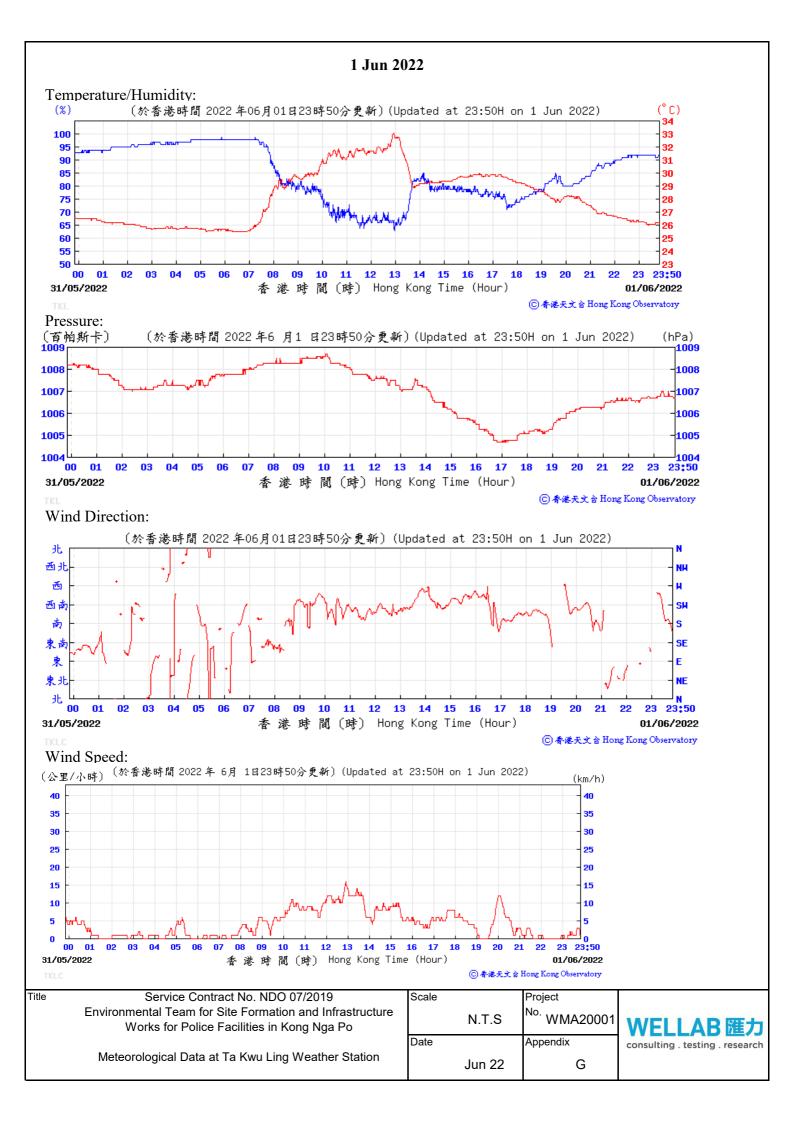
Appendix G – General Weather Conditions during the Monitoring Period (June 2022)

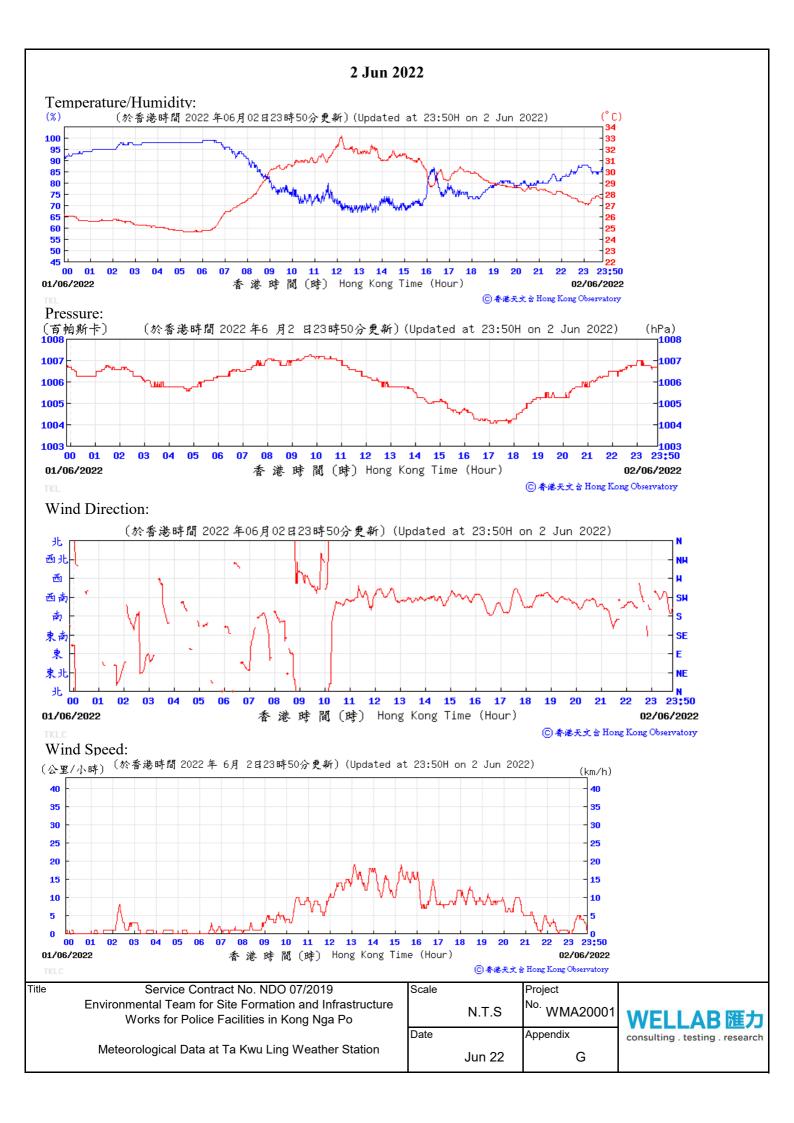
Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 Jun 22	28.7	81	1.2
2 Jun 22	28.8	80	11.9
3 Jun 22	29.2	81	1.6
4 Jun 22	29.6	78	Trace
5 Jun 22	29.6	78	Trace
6 Jun 22	28.9	83	2.5
7 Jun 22	27.4	86	33.8
8 Jun 22	25.8	93	66
9 Jun 22	26.3	90	28.7
10 Jun 22	26.1	92	25.8
11 Jun 22	26.8	89	47.5
12 Jun 22	28.4	84	2.6
13 Jun 22	28.9	80	0
14 Jun 22	27.4	87	42.8
15 Jun 22	26.7	88	11
16 Jun 22	27.6	84	2.6
17 Jun 22	29	79	1

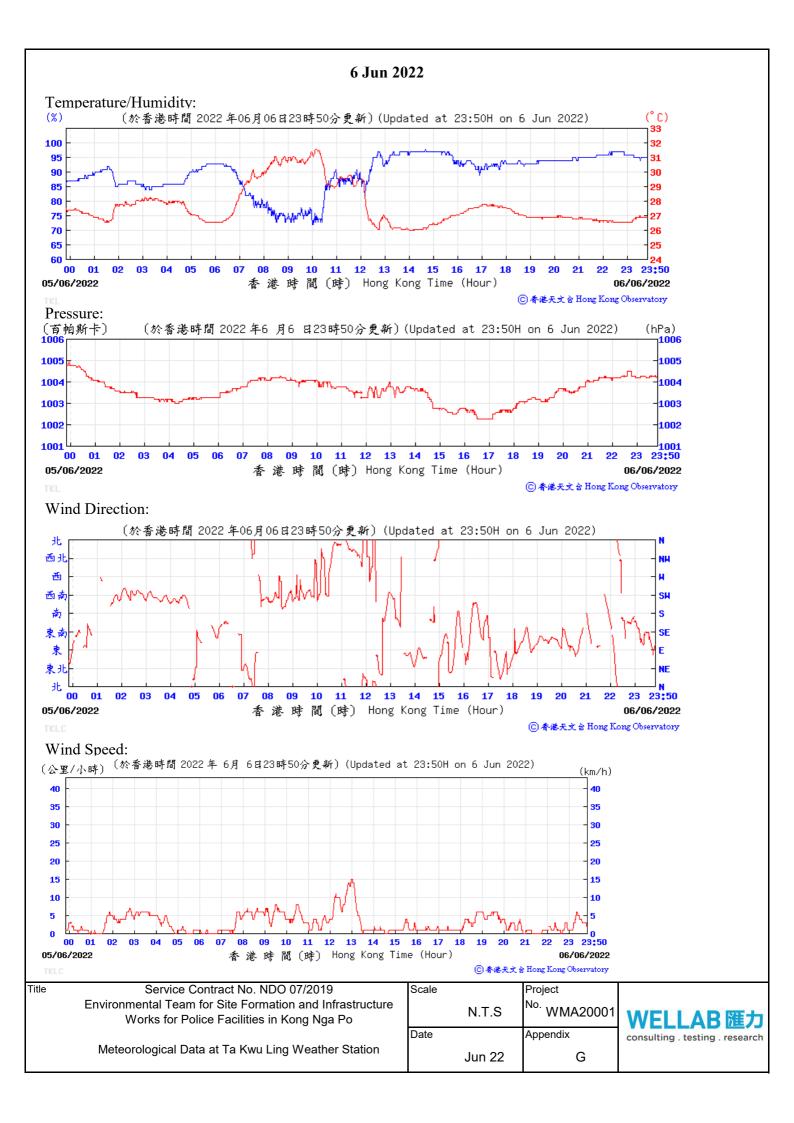
Service Contract No. NDO 07/2019
Environmental Team
for Site Formation and Infrastructure Works
for Police Facilities in Kong Nga Po
Monthly EM&A Report

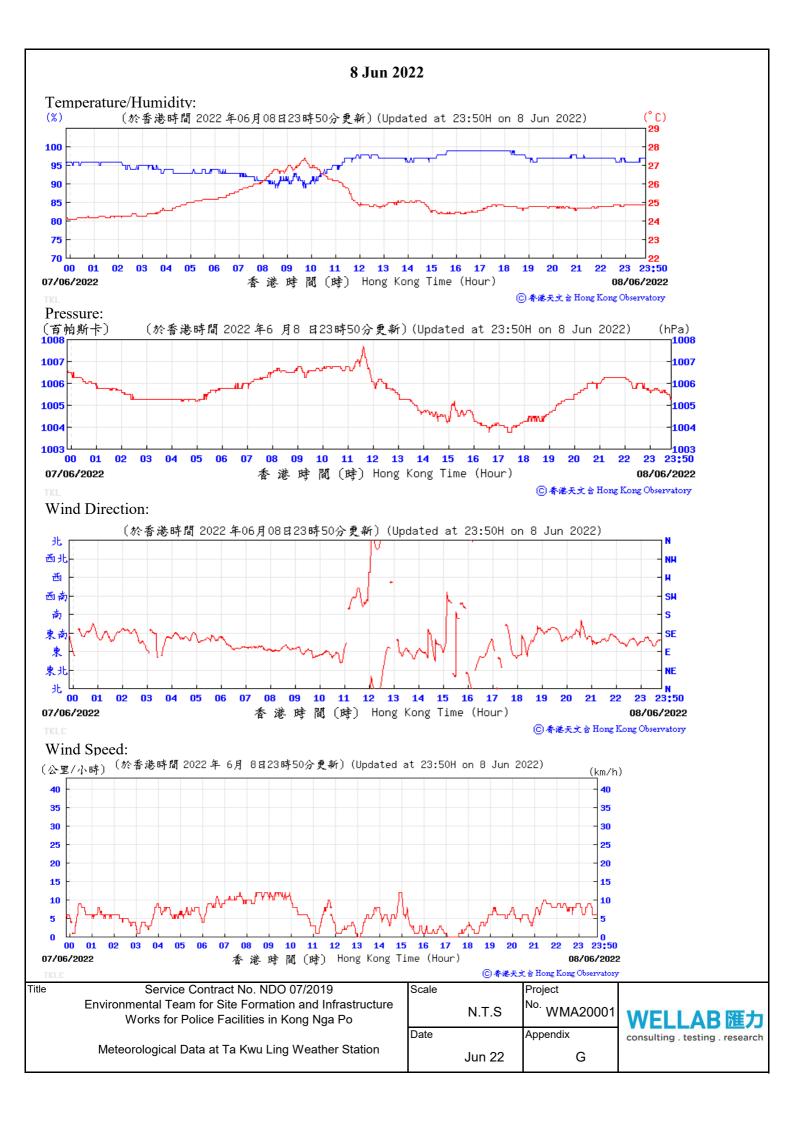
Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)		
18 Jun 22	28.8	81	1.3		
19 Jun 22	29.3	81	0.1		
20 Jun 22	29.2	29.2 80			
21 Jun 22	29.4	80	Trace		
22 Jun 22	29.5	78			
23 Jun 22	30	74	0		
24 Jun 22	30	73	0		
25 Jun 22	29.6	74	0		
26 Jun 22	30	74	0.3		
27 Jun 22	30.1	73	0.1		
28 Jun 22	30.6	71	0		
29 Jun 22	30.2	78	0.7		
30 Jun 22	27.5	89	64.9		

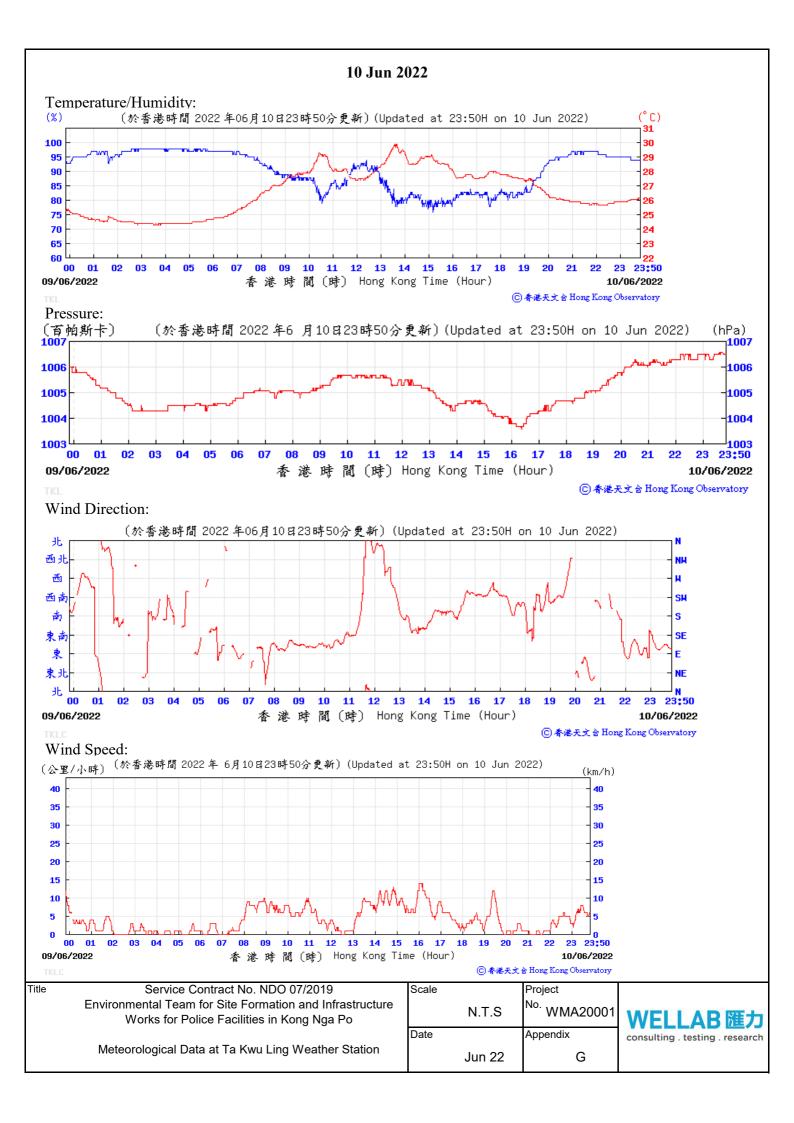
<sup>\*</sup> The above information was extracted from the daily weather summary by Hong Kong Observatory.

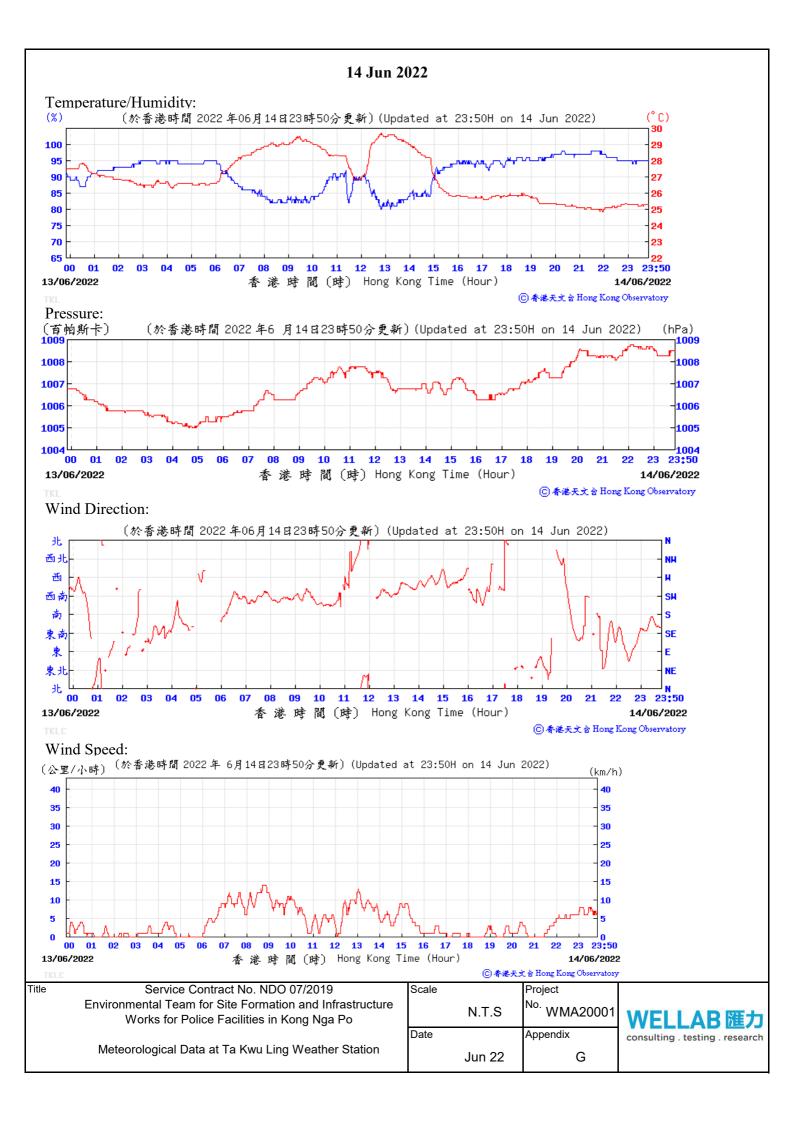


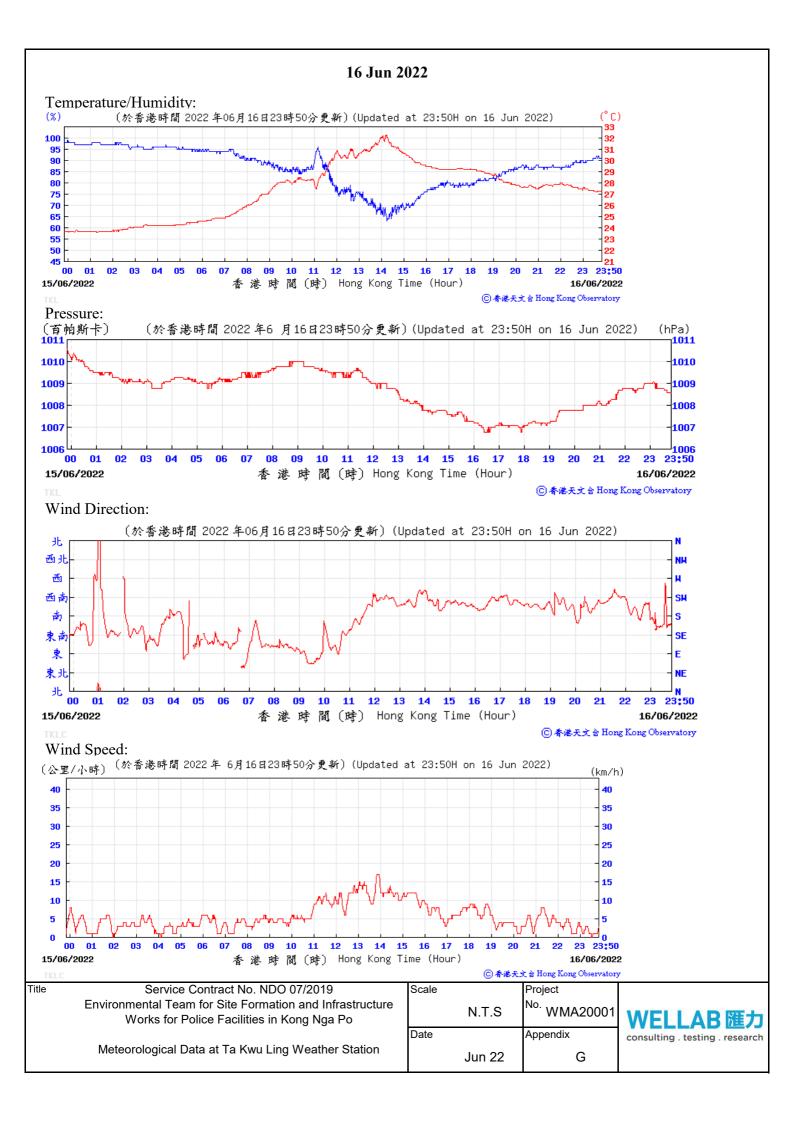


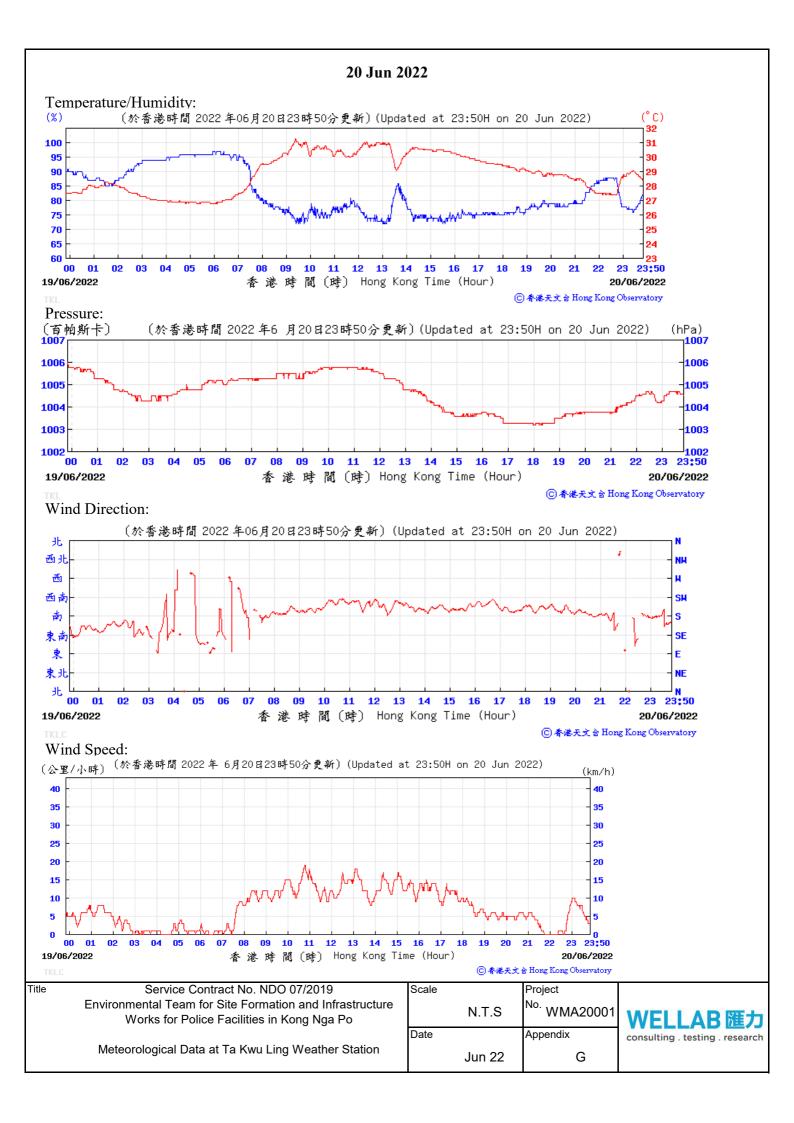


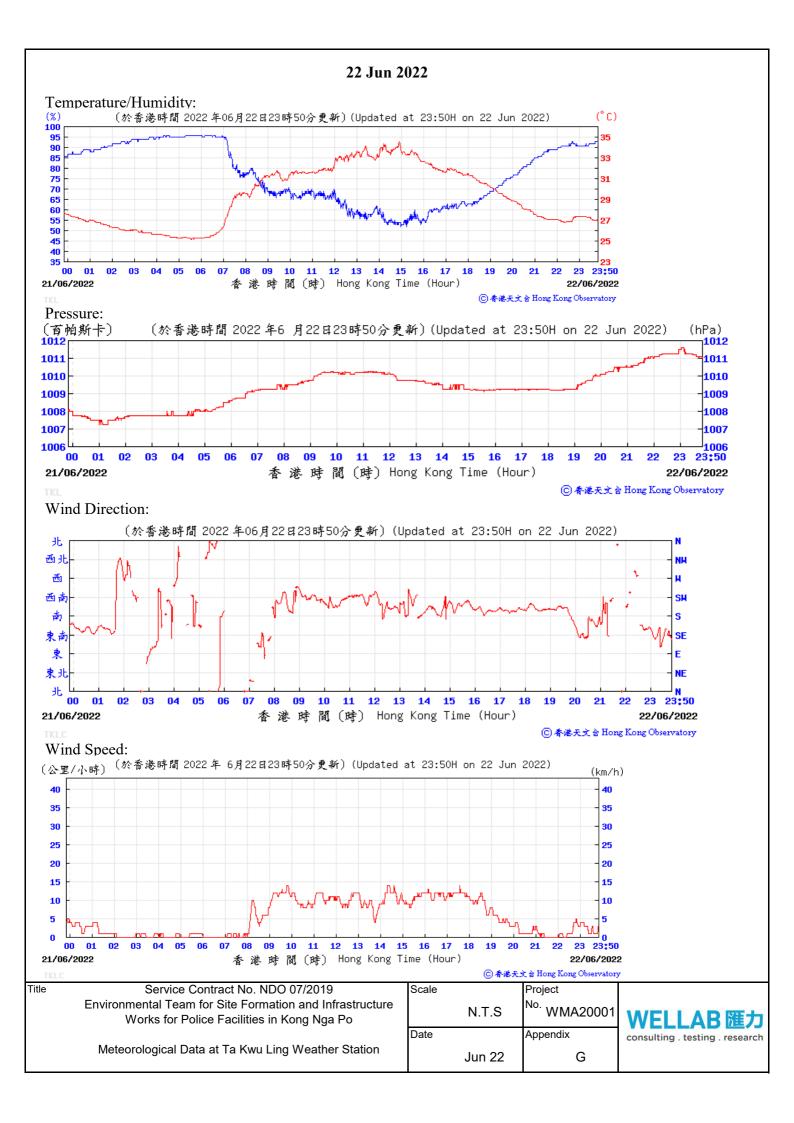


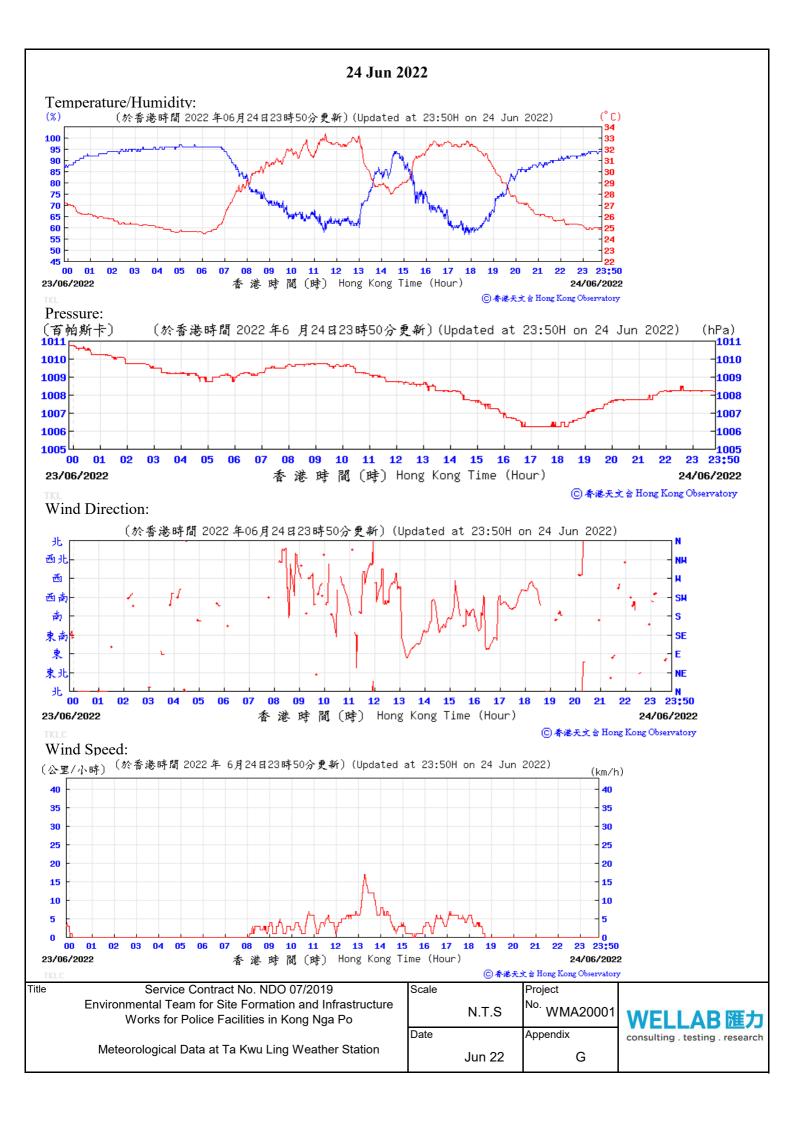


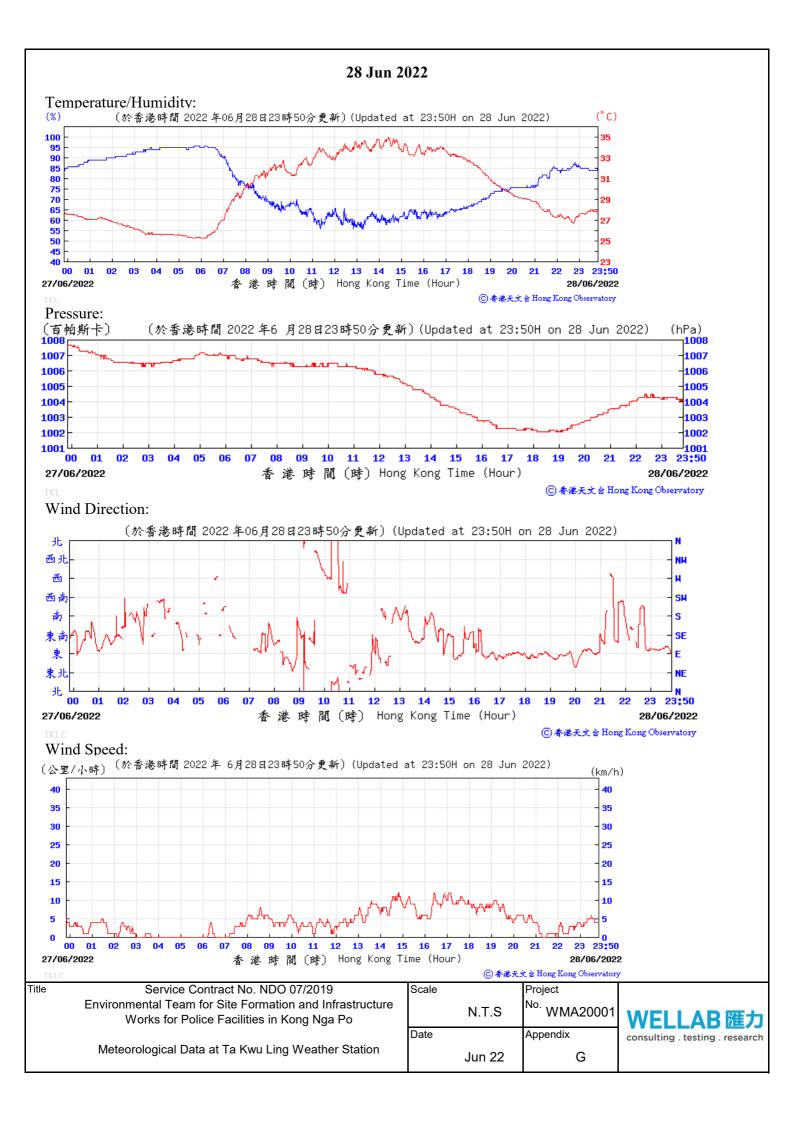


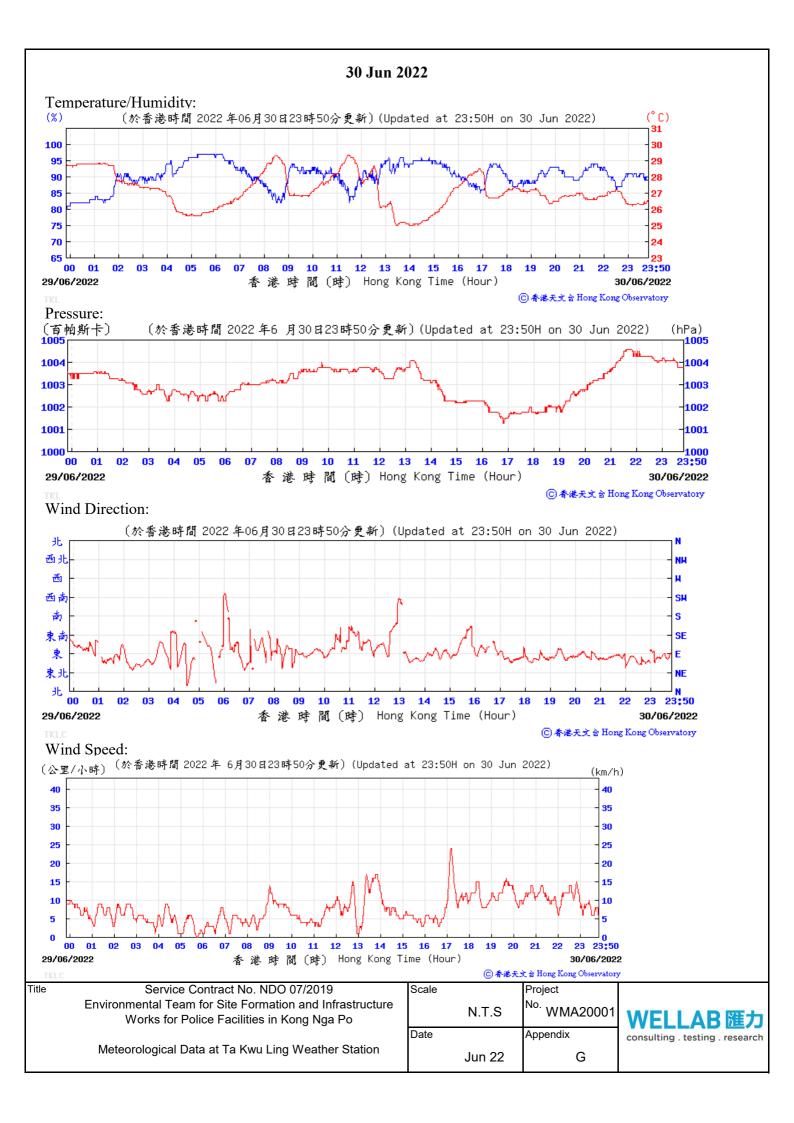












# APPENDIX H ECOLOGICAL MONITORING RESULTS

## 1. Brainea insignis

Photo 1



Description: Protective fence for transplanted *Brainea insignis* are properly erected with warning flags for bushfire prevention.

Photo 2



Description: Protective fence for transplanted Brainea insignis are properly erected.

Photo 3



Description: General view of transplanted Brainea insignis.

Photo 4



Description: General view of transplanted Brainea insignis.

## 2. Spiranthes sinensis

Photo 5



Description: General view of transplanted Spiranthes sinensis.

Photo 7



Photo 6



Description: General view of transplanted Spiranthes sinensis.

Photo 8



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

## 3. Keteleeria fortunei

Photo 9



Description: Protective fence for Keteleeria fortunei are properly erected.

Photo 11



Description: Protective fence for Keteleeria fortunei are properly erected.

Photo 10



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.





Description: An undersized seedling of *Keteleeria fortunei* (F-0051) was found uprooted by the nearby fallen tree.

## 4. Aquilaria sinensis

Photo 14



Description: General view of transplanted *Aquilaria sinensis* and protective fence for *Aquilaria sinensis* are properly erected.

Photo 15



Description: Poor health condition of *Aquilaria sinensis* A-008 (dead branches, dieback twigs, algae on branches etc.) was found. The Contractor was reminded to urge their landscape specialist to closely monitor and take appropriate and prompt action to rescue the plants without further delay especially during the spring season.

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

Photo 16



Description: Poor health condition of *Aquilaria sinensis* A-0010 (dead branches, dieback twigs, algae on branches etc.) was found. The Contractor was reminded to urge their landscape specialist to closely monitor and take appropriate and prompt action to rescue the plants without further delay especially during the spring season.

Photo 17



Description: Poor health condition of *Aquilaria sinensis* A-0009 (dead branches, dieback twigs, algae on branches etc.) was found. The Contractor was reminded to urge their landscape specialist to closely monitor and take appropriate and prompt action to rescue the plants without further delay especially during the spring season.

# 5. Undersized seedling of Aquilaria sinensis

Photo 18



Description: General view of undersized seedling of Aquilaria sinensis

Photo 19



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. 2206 17 Service Contract No. NDO 07/2019 Env. Team Wellab Limited Contract Environmental Team for Site Formation and Supervisor's Rep. **AECOM** Infrastructure Works for Police Facilities in IEC Acuity Sustainability Consulting Limited Kong Nga Po Inspection Date Inspected By ET Auditor: Supervisor's Rep. Time Period IEC Weather Part A Drizzle Rain Condition Sunny Overcast Temperature High (RH>90%) Moderate (90%>RH>50%) Low (RH<50%) Humidity Calm Wind Light Breeze Strong N/A or not observed Yes Follow-up N/C Remarks Part B 1. Brainea insignis 1.1 Are the plants' health conditions satisfactory? 1.2 Are transplanted plants on site protected carefully? 1.3 Are the temporary protective fence properly erected and maintained? Are the plant protection zone set 1m from the plants? Are all grassed and planted area kept free from weeds/unwanted plants? Is compaction of the soil avoided for the plants? 1.6 Are litter/ unwanted material removed within the planting area? 1.7 Are equipment or stockpile placed outside the protection zone? Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided? 1.10 Are fixings driven into plants avoided? 1.11 Are the plants used for anchoring or winching purposes or for the display of signs avoided? 1.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided? 1.13 Are all plants kept free from pest, disease or fungal infection? 1.14 Are there enough area for growth and development of plant roots? 1.15a Is exposure of plant roots avoided? 1.15b If not, were broken off or rotting of roots avoided?

#### 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	
2.	Spiranthes sinensis  Are the plants' health conditions satisfactory?						Ast in blooming see	Son
2.1	Are transplanted plants on site protected carefully?						loof ac illustration	
2.2			X					
2.3	Are the temporary protective fence properly erected and maintained?							
2.4	Are the plant protection zone set 1m from the plants?							
2.5	Are all grassed and planted area kept free from weeds/unwanted plants?		1					
2.6	ls compaction of the soil avoided for the plants?							
2.7	Are litter/ unwanted material removed within the planting area?							
2.8	Are equipment or stockpile placed outside the protection zone?							
2.9	Are soil, debris or construction materials deposited around and against the of a plant as this causes bank damage avoided?	e trunk						
2.10	Are fixings driven into plants avoided?							
2 11	Are the plants used for anchoring or winching purposes or for the display signs avoided?	of						
2.12	Are the fire lit below the branches and petrol, oil or caustic substances stonear the plants avoided?	ored						
2.13	Are all plants kept free from pest, disease or fungal infection?							
2.14	Are there enough area for growth and development of plant roots?							
2.15a	Is exposure of plant roots avoided?							
2.15b	If not, were broken off or rotting of roots avoided?							
3.	<u>Keteleeria fortunei</u>						Except F-of 1 Conterns	Jec
3.1	Are the trees' health conditions satisfactory?						F-OKI (upworld by	ne a true
3.2	Are existing trees to be retained on site protected carefully?							
3.3	Are the temporary protective fence properly erected and maintained?							
3.4	Are the trees protection zone set 1m from the trees?		V					
3.5	Are all grassed and planted area kept free from weeds/unwanted plants?							
3.6	Is compaction of the soil avoided for the trees?							
3.7	Are litter/ unwanted material removed within the planting area?							
3.8	Are equipment or stockpile placed outside the protection zone?		0					
3.9	Are soil, debris or construction materials deposited around and against th of a trees as this causes bark damage avoided?	e trunk					***************************************	
3.10	Are fixings driven into trees avoided?							
3.11	Are the trees used for anchoring or winching purposes or for the display or signs avoided?	of						
3 12	Are the fire lit below the branches and petrol, oil or caustic substances stonear the trees avoided?	ored	$\checkmark$					
3.13	Are all trees kept free from pest, disease or fungal infection?		1				Exapt F-of 1	
3.14	Are there enough area for growth and development of tree roots?						( act of	
3 15a								
	If not, were broken off or rotting of roots avoided?						And the second second second second	
3.16	Are wounds/mechanical injuries avoided on tree trunk?							
3.17	Are leaning of trees avoided?							
3.18	Are dead/detached branches avoided?							
3.19	Are decay/cavity avoided on tree trunks?							

#### 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.	Aquilaria sinensis				$\Gamma$		(3)
4.1	Are the trees' health conditions satisfactory?				V		
4.2	Are existing trees to be retained on site protected carefully?						
4.3	Are the temporary protective fence properly erected and maintained?						
4.4	Are the trees protection zone set 1m from the trees?						
4.5	Are all grassed and planted area kept free from weeds/unwanted plants?						
4.6	Is compaction of the soil avoided for the trees?						
4.7	Are litter/ unwanted material removed within the planting area?						
4.8	Are equipment or stockpile placed outside the protection zone?						
4.9	Are soil, debris or construction materials deposited around and against the of a trees as this causes bark damage avoided?	e trunk					
4.10	Are fixings driven into trees avoided?						
4.11	Are the trees used for anchoring or winching purposes or for the display or signs avoided?	of	Ø				
4.12	Are the fire lit below the branches and petrol, oil or caustic substances stonear the trees avoided?	red					
4.13	Are all trees kept free from pest, disease or fungal infection?						(3)
4.14	Are there enough area for growth and development of tree roots?						
4.15a	Is exposure of tree roots avoided?						
4.15b	If not, were broken off or rotting of roots avoided?	₩ Z					
4.16	Are wounds/mechanical injuries avoided on tree trunk?						
4.17	Are leaning of trees avoided?						
4.18	Are dead/detached branches avoided?						(5)
4.19	Are decay/cavity avoided on tree trunks?						

# 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 6  1. 2. 3. 4. 5. 6. 7 8. 9.	Is the situation in item  Is the situation in item	improved/rectified?	N/A or not o		Yes	No	Follow-up N/	C Remarks
Remar	ks/Observations							
0	Protection fine in	is observed	properly	mete	d an	n be	nouthine	d summerting
·	the trees plants	exapt the f	)quilasia si	nensis.				
()	An construction are Conservation interes	Twilles has a			localh	~ (	of th	flow specks of
(y)	Pour health audition observed at the to was their land prompt action the growing see the growing see at in any proposed.	hove transplan indicape specil to rescue son.	oted Agund on dist to a the plants	locally without	monit	tor i	and the	e appropriate especially dur
S	Signatures:							
() ()	Name: Who Su	(Name: Winst	on Worg	)	(Nam (Date	ie:	Representative  Alon 17a  16/22	)

# 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 F	Ref. No	
Contr	act <u>ND/2018/0</u> /	,					
Inspec	ted By Kenny Lour	Inspection Date	29 June 2022				2
Part A	Weather		*********				
Condi	ion Sunny Fine Overcast Drizzle	Rain	St	om [	Hazy		
Tempe							
Humic Wind	lity High (RH>90%) Moderate (90%>RH>50%)  Calm Light Breeze Strong	Low (F	UH<50%)				
		or not observed	Yes	No	Follow-up	N/C	Remarks
Part B							
	Cycadfern Brainea insignis	[ <del></del> ]	/		r	r	
1.1	Are the plants' health conditions satisfactory?						
1.2	Are transplanted plants on site protected carefully?			$\Box$			
1.3	Are the temporary protective fence properly erected and maintained?				Ш		
1.4	Are the plant protection zone set 1m from the plants?		کنا	Ш	Ш		
1.5	Are all grassed and planted area kept free from weeds/unwanted plants?						
1.6	Is compaction of the soil avoided for the plants?						
1.7	Are litter/ unwanted material removed within the planting area?						
1.8	Are equipment or stockpile placed outside the protection zone?						
1,9	Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?						
1.10	Are fixings driven into plants avoided?		V				
1.11	Are the plants used for anchoring or winching purposes or for the display of signs avoided?						•
1,12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?						
1.13	Are all plants kept free from pest, disease or fungal infection?						
1.14	Are there enough area for growth and development of plant roots?		$\square$				
1.15a	Is exposure of plant roots avoided?		d				
1.15b	If not, were broken off or rotting of roots avoided?						
2.	N/A Ladies Tresses Spiranthes sinensis	or not observed	Yes	No	Follow-up	N/C	Remarks
2.1	Are the plants' health conditions satisfactory?						
2.2	Are transplanted plants on site protected carefully?						
2.3	Are the temporary protective fence properly erected and maintained?						
2.4	Are the plant protection zone set 1m from the plants?						
2.5	Are all grassed and planted area kept free from weeds/unwanted plants?					$\overline{\Box}$	
2.6	Is compaction of the soil avoided for the plants?						B-1
2.7	Are litter/ unwanted material removed within the planting area?						

# 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?						
2.9	Are soil, debris or construction materials deposited around and against trunk of a plant as this causes bark damage avoided?	the					
2.10	Are fixings driven into plants avoided?		W				
2,11	Are the plants used for anchoring or winching purposes or for the displasigns avoided?	ay of					
2.12	Are the fire lit below the branches and petrol, oil or caustic substances near the plants avoided?	stored					
2.13	Are all plants kept free from pest, disease or fungal infection?						
2.14	Are those enough area for growth and development of plant roots?						
2.15a	Is exposure of plant roots avoided?						
2.15b	If not, were broken off or rotting of roots avoided?						
3.	Incense Trees Aquilaria sinesis	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
3.1	Are the trees's health conditions satisfactory?						
3.2	Are transplanted trees on site protected carefully?						
3,3	Are the temporary protective fence properly erected and maintained?						
3.4	Are the tree protection zone set 1m from the trees?						
3.5	Are all grassed and planted area kept free from weeds/unwanted plants	7					
3.6	Is compaction of the soil avoided for the trees						
3.7	Are litter/ unwanted material removed within the planting area?						
3.8	Are equipment or stockpile placed outside the protection zone?						
3.9	Are soil, debris or construction materials deposited around and against trunk of a tree as this causes bark damage avoided?	the					
3.10	Are fixings driven into trees avoided?						
3.11	Are the trees used for anchoring or winching purposes or for the displasigns avoided?	y of					
3.12	Are the fire lit below the branches and petrol, oil or caustic substances near the trees avoided?	stored					
3.13	Are all trees kept free from pest, disease or fungal infection?						
3.14	Are there enough area for growth and development of tree roots?						
3.15a	Is exposure of tree roots avoided?						
3.15b	If not, were broken off or rotting of roots avoided?						
3.16	Are wounds/mechanical injuries avoided on tree trunk?						
3.17	Are leaning of trees avoided?						
3,18	Are dead/detached branches avoided?						
3.19	Are decay/cavity avoided on tree trunks?						

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

	Follow-un fou the D	sue Sita Audit on Data.	(Def M.		`			
Part C	ronow-up for the Previo	ous Site Audit on Date:	(Ref. No	Yes	) No	Follow-up	N/C	Remarks
1.	Is the situation in item							
2.	Is the situation in item	improved/rectified?						
3.	Is the situation in item							
4.	Is the situation in item							
5.	Is the situation in item	improved/rectified?						
5.	Is the situation in item							
7.	Is the situation in item	improved/rectified?						
8.	Is the situation in item							
9.	Is the situation in item							
10.	Is the situation in item	improved/rectified?						-
Remai	rks/Observations			•••••				-W
	Signatures:							
	Contractor's Representative		g	uluant- D	_			
	Contractor Representative		Super	visor's Rep	<b>)</b> .			
	(Name: Reflux Louis	<del></del>	(Name				<b>-</b> .	
							)	

# **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	Form (G/F/P)	Health (G/F/P)	Remark
	01	Brainea insignis	F	F	
	02	Brainea insignis	F	F	
	03	Brainea insignis	F	F	
C-0001	04	Brainea insignis	F	F	
C-0001	05	Brainea insignis	F	F	
	06	Brainea insignis	F	F	
	07	Brainea insignis	F	F	
	08	Brainea insignis	F	F	
	01	Brainea insignis	F	F	
	02	Brainea insignis	F	F	
	03	Brainea insignis	F	F	
C 0003	04	Brainea insignis	F	F	
C-0002	05	Brainea insignis	F	F	
	06	Brainea insignis	F	F	
	07	Brainea insignis	F	F	
	08	Brainea insignis	F	F	
C-0003	01	Brainea insignis	F	F	
	01	Brainea insignis	Р	Р	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	02	Brainea insignis	F	F	
	03	Brainea insignis	F	F	
	04	Brainea insignis	F	F	
	05	Brainea insignis	F	F	
	06	Brainea insignis	F	F	
	07	Brainea insignis	F	F	
	08	Brainea insignis	F	F	
	09	Brainea insignis	Р	Р	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	10	Brainea insignis	Р	Р	
C-0004	11	Brainea insignis	F	F	
	12	Brainea insignis	F	F	
	13	Brainea insignis	Р	Р	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	14	Brainea insignis	F	F	
	15	Brainea insignis	Р	Р	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	16	Brainea insignis	Р	Р	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	17	Brainea insignis	Р	F	
	18	Brainea insignis	Р	Р	Burned by bushfire initially outside site boundary 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	Form (G/F/P)	Health (G/F/P)	Remark
	19	Brainea insignis	F	F	
	20	Brainea insignis	F	F	
	01	Brainea insignis	F	F	
	02	Brainea insignis	F	F	
	03	Brainea insignis	F	F	
C-0005	04	Brainea insignis	F	F	
	05	Brainea insignis	F	F	
	06	Brainea insignis	F	F	
	07	Brainea insignis	F	F	
C-0006	01	Brainea insignis	F	F	
C 0007	01	Brainea insignis	F	F	
C-0007	02	Brainea insignis	F	F	
	01	Brainea insignis	F	F	
	02	Brainea insignis	F	F	
	03	Brainea insignis	Р	Р	
C-0008	04	Brainea insignis	F	F	
	05	Brainea insignis	Р	Р	
	06	Brainea insignis	Р	F	
	07	Brainea insignis	F	F	
C-0009	01	Brainea insignis	F	F	
	01	Brainea insignis	F	F	
C-0010	02	Brainea insignis	F	F	
	03	Brainea insignis	F	F	
	01	Brainea insignis	Р	Р	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	02	Brainea insignis	F	F	
	03	Brainea insignis	Р	Р	
	04	Brainea insignis	F	F	
	05	Brainea insignis	Р	F	
C-0011	06	Brainea insignis	F	F	
	07	Brainea insignis	Р	Р	
	08	Brainea insignis	F	F	
	09	Brainea insignis	F	F	
	10	Brainea insignis	F	F	
	11	Brainea insignis	F	F	
	12	Brainea insignis	Р	Р	
	13	Brainea insignis	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 : 29 June 2022

Photographic Record (Post-Transplantation Monitoring)



C-0001(Patch)\_01



C-0001(Patch)\_02

Photographic Record (Post-Transplantation Monitoring)



C-0001(Patch)\_03



C-0001(Patch)\_04

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

Photographic Record (Post-Transplantation Monitoring)



C-0001(Patch)\_05



C-0001(Patch)\_06

Photographic Record (Post-Transplantation Monitoring)



C-0001(Patch)\_07



C-0001(Patch)\_08

Photographic Record (Post-Transplantation Monitoring)



C-0002(Patch)\_01



C-0002(Patch)\_02

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

Photographic Record (Post-Transplantation Monitoring)



C-0002(Patch)\_03



C-0002(Patch)\_04

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

Photographic Record (Post-Transplantation Monitoring)



C-0002(Patch)\_05



C-0002(Patch)\_06

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

Photographic Record (Post-Transplantation Monitoring)



C-0002(Patch)\_07



C-0002(Patch)\_08

Photographic Record (Post-Transplantation Monitoring)



C-0003



C-0004(Patch)\_01

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_02



C-0004(Patch)\_03

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_04



C-0004(Patch)\_05

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

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_06



C-0004(Patch)\_07

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_08



C-0004(Patch)\_09

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

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_10



C-0004(Patch)\_11

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

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_12



C-0004(Patch)\_13

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

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_14



C-0004(Patch)\_15

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_16



C-0004(Patch)\_17

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_18



C-0004(Patch)\_19

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

Photographic Record (Post-Transplantation Monitoring)



C-0004(Patch)\_20



C-0005(Patch)\_01

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

Photographic Record (Post-Transplantation Monitoring)



C-0005(Patch)\_02



C-0005(Patch)\_03

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

Photographic Record (Post-Transplantation Monitoring)



C-0005(Patch)\_04



C-0005(Patch)\_05

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

Photographic Record (Post-Transplantation Monitoring)



C-0005(Patch)\_06



C-0005(Patch)\_07

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

Photographic Record (Post-Transplantation Monitoring)



C-0006



C-0007(Patch)\_01

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

Photographic Record (Post-Transplantation Monitoring)



C-0007(Patch)\_02



C-0008(Patch)\_01

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

Photographic Record (Post-Transplantation Monitoring)



C-0008(Patch)\_02



C-0008(Patch)\_03

Photographic Record (Post-Transplantation Monitoring)



C-0008(Patch)\_04



C-0008(Patch)\_05

Photographic Record (Post-Transplantation Monitoring)



C-0008(Patch)\_06



C-0008(Patch)\_07

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

Photographic Record (Post-Transplantation Monitoring)



C-0009



C-0010(Patch)\_01

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

Photographic Record (Post-Transplantation Monitoring)



C-0010(Patch)\_02



C-0010(Patch)\_03

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

Photographic Record (Post-Transplantation Monitoring)



C-0011(Patch)\_01



C-0011(Patch)\_02

Photographic Record (Post-Transplantation Monitoring)



C-0011(Patch)\_03



C-0011(Patch)\_04

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

Photographic Record (Post-Transplantation Monitoring)



C-0011(Patch)\_05



C-0011(Patch)\_06

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

Photographic Record (Post-Transplantation Monitoring)



C-0011(Patch)\_07



C-0011(Patch)\_08

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

Photographic Record (Post-Transplantation Monitoring)



C-0011(Patch)\_09



C-0011(Patch)\_10

Photographic Record (Post-Transplantation Monitoring)



C-0011(Patch)\_11



C-0011(Patch)\_12

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

Photographic Record (Post-Transplantation Monitoring)



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	Spiranthes sinensis	-	-	No sprout observed
L-0002	Spiranthes sinensis	F	F	
L-0003	Spiranthes sinensis	F	F	
L-0004	Spiranthes sinensis	F	F	
L-0005	Spiranthes sinensis	-	-	No sprout observed
L-0006	Spiranthes sinensis	-	-	No sprout observed
L-0007	Spiranthes sinensis	ı	-	No sprout observed
L-0008	Spiranthes sinensis	F	F	
L-0009	Spiranthes sinensis	ı	-	No sprout observed
L-00010	Spiranthes sinensis	ı	-	No sprout observed
L-00011	Spiranthes sinensis	ı	-	No sprout observed
L-00012	Spiranthes sinensis	ı	-	No sprout observed
L-00013	Spiranthes sinensis	-	-	No sprout observed
L-00014	Spiranthes sinensis	F	F	
L-00015	Spiranthes sinensis	F	F	
L-00016	Spiranthes sinensis	-	-	No sprout observed
L-00018	Spiranthes sinensis	ı	-	No sprout observed
L-00019	Spiranthes sinensis	ı	-	No sprout observed
L-00020	Spiranthes sinensis	ı	-	No sprout observed
L-00021	Spiranthes sinensis	ı	-	No sprout observed
L-00022	Spiranthes sinensis	-	-	No sprout observed
L-00023	Spiranthes sinensis	F	F	
L-00024	Spiranthes sinensis	F	F	
L-00025	Spiranthes sinensis	-	-	No sprout observed
L-00026	Spiranthes sinensis	-	-	No sprout observed
L-00027	Spiranthes sinensis	-	-	No sprout observed
L-00028	Spiranthes sinensis	-	-	No sprout observed
L-00029	Spiranthes sinensis	ı	-	No sprout observed
L-00030	Spiranthes sinensis	ı	-	No sprout observed
L-00031	Spiranthes sinensis	F	F	
L-00032	Spiranthes sinensis	-	-	No sprout observed
L-00033	Spiranthes sinensis	-	-	No sprout observed
L-00034	Spiranthes sinensis	-	-	No sprout observed
L-00035	Spiranthes sinensis	-	-	No sprout observed
L-00036	Spiranthes sinensis	-		No sprout observed
L-00037	Spiranthes sinensis	F	F	
L-00038	Spiranthes sinensis	1	-	No sprout observed
L-00039	Spiranthes sinensis	-	-	No sprout observed
L-00040	Spiranthes sinensis	-	-	No sprout observed
L-00041	Spiranthes sinensis	1	_	No sprout observed
L-00042	Spiranthes sinensis	_	-	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 : 29 June 2022

Photographic Record (Post-Transplantation Monitoring)

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



L-0001



Photographic Record (Post-Transplantation Monitoring)

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



L-0003



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

Photographic Record (Post-Transplantation Monitoring)

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



L-0005



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

Photographic Record (Post-Transplantation Monitoring)

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



L-0007



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

Photographic Record (Post-Transplantation Monitoring)



L-0009



L-0010

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

Photographic Record (Post-Transplantation Monitoring)

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



L-0011



Photographic Record (Post-Transplantation Monitoring)

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



L-0013



Photographic Record (Post-Transplantation Monitoring)



L-0015



L-0016

Photographic Record (Post-Transplantation Monitoring)

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





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

Photographic Record (Post-Transplantation Monitoring)

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



L-0020



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

Photographic Record (Post-Transplantation Monitoring)

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



L-0022



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

Photographic Record (Post-Transplantation Monitoring)



L-0024



L-0025

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

Photographic Record (Post-Transplantation Monitoring)

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



L-0026



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

Photographic Record (Post-Transplantation Monitoring)

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



L-0028



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

Photographic Record (Post-Transplantation Monitoring)

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



L-0030



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

Photographic Record (Post-Transplantation Monitoring)

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



L-0032



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

Photographic Record (Post-Transplantation Monitoring)

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





L-0035

Photographic Record (Post-Transplantation Monitoring)

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





L-0037

Photographic Record (Post-Transplantation Monitoring)



L-0038



L-0039

Photographic Record (Post-Transplantation Monitoring)



L-0040



L-0041

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

Photographic Record (Post-Transplantation Monitoring)



Contract No.: ND/2018/01

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

**Post-Transplantation Monitoring** 

#### **HONG KONG LANDSCAPING CO., LTD.**

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

#### **LANDSCAPING WORKS**

#### POST-TRANSPLANTATION RECORD OF CYCAD FERN AND LADIES TRESSES FOR THE MONTH OF (JUNE 2022)

Works	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Watering	澆水																														
Fertilizing	施肥																														
Pruning	修剪																														
Weeding	除雜草																														
Litter Clearing	清垃圾																														
Pest Control	殺蟲																														i
Disease Control	殺菌																														
Replacement	更換樹苗																														
Firming UP	扶樹																														
Remark		•	•	0	0	0	0	•	•	0	•	0	0		•	•	•	0	0	0	0	0					0	0		0	•

O Drizzling

• Rainy

Prepared by

Kenny LAU

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

						Audit 1	Ref. No			
Conti	ract	ND/2018/01				***************************************	<u> </u>			
Inspected By		Then Tool Non (Independent Tree Sporoalist)	Inspection Date Time Period	30 June 2022						
Part A Condi Tempo	tion erature	Sunny Fine Overcast Drizzle    Sunny Fine   Overcast   Drizzle   32.5	Rain Low (F	S RH<50%)	torm [	Hazy				
Wind		Calm Light Breeze Strong	-1							
Part B	1	N/A	or not observed	Yes	No	Follow-up	N/C	Remarks		
1.	Cycadfe	r <u>n Brainea insignis</u>								
1.1	Are the p	plants' health conditions satisfactory?								
1.2	Are trans	planted plants on site protected carefully?								
1.3	Are the to	emporary protective fence properly erected and maintained?								
1.4	Are the p	lant protection zone set 1m from the plants?								
1.5	Are all gr	rassed and planted area kept free from weeds/unwanted plants?								
1.6	Is compa	ction of the soil avoided for the plants?								
1.7	Are litter	/ unwanted material removed within the planting area?								
1.8	Are equip	oment or stockpile placed outside the protection zone?								
1.9		debris or construction materials deposited around and against the plant as this causes bark damage avoided?								
1.10	Are fixing	gs driven into plants avoided?								
1.11	Are the p signs avo	lants used for anchoring or winching purposes or for the display of ided?								
1.12		re lit below the branches and petrol, oil or caustic substances stored plants avoided?								
1.13	Are all pl	ants kept free from post, disease or fungal infection?								
1.14	Are there	enough area for growth and development of plant roots?								
1.15a	Is exposu	re of plant roots avoided?								
1.15b	If not, we	re broken off or rotting of roots avoided?								
2.	I adias T		r not observed	Yes	No	Follow-up	N/C	Remarks		
2.1		resses Spiranthes sinensis  lants' health conditions satisfactory?								
2.2		planted plants on site protected carefully?						***************************************		
2.3	Are the te	mporary protective fence properly erected and maintained?								
2.4	Are the pl	ant protection zone set 1m from the plants?								
2.5	_	assed and planted area kept free from weeds/unwanted plants?								
2,6		stion of the soil avoided for the plants?								
2.7	-	unwanted material removed within the planting area?								

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

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

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

Is the situation in item improved/rectified?	art C	Follow-up for the Previou	s Site Audit on Date:	(Ref. No		)			
Is the situation in item improved/rectified?		* 4 . 5 . 4 . 1 . 5			Yes	No	Follow-up N	C Re	marks
Is the situation in item improved/rectified?  Semanticl/Observations				<u></u>		닏			
Is the situation in item improved/rectified?  Semantics/Observations						Щ			
Is the situation in item   improved/rectified?						빌			
Is the situation in iteminappoved/rectified?				닏		닐		ᆜ	
Is the situation in itemimproved/rectified?								Ⅎ	
Is the situation in itemimproved/rectified?				닏	닏				
Is the situation in itemimproved/rectified?								╛ —	
. Is the situation in itemimproved/rectified? comarks/Observations  Signatures:				님		닐		╡	
Signatures:							$\vdash$	Ⅎ —	
Signatures:	<i>)</i> .	is the situation in item	improved/rectified?		L_J	Ш			
Signatures:	marl	(s/Observations				•		VV	
	шин	Rs/Observations							
Contractor's Representative Supervisor's Rep.									
The state of the s	(	Contractor's Representative		Supervi	sor's Rep				
		· · ·		•	•				
(Name: Your Text Mon ) (Name:	7	Name:	1						

TREE SURVEY SCHEDULE

ENVIRONMETNAL 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

**INSPECTION DATE** 30-Jun-22

Tree / Plant / Colony No.	Botanical Name	DBH (mm)	Height (mm)	Spread (mm)	Structural Condition (Good/Fair/Poor)	Form (Good/Fair/Poor)	<b>Health</b> (Good/Fair/Poor)	Remarks
A-0010 (T1700)	Aquilaria sinensis	132	5000	3000	Fair	Poor	Poor	
A-0009 (T2298)	Aquilaria sinensis	96	6000	3000	Fair	Poor	Poor	
A-0008 (T5153)	Aquilaria sinensis	312	6000	4000	Fair	Poor	Poor	

# **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 : 30 June 2022

Contract No.: ND/2018/01 Inspection Date: 30 June 2022

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

Photographic Record (Post-Transplantation Monitoring)



A-0010 (T1700)

Contract No.: ND/2018/01 Inspection Date: 30 June 2022

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

Photographic Record (Post-Transplantation Monitoring)



A-0009 (T2298)

Contract No.: ND/2018/01 Inspection Date: 30 June 2022

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

Photographic Record (Post-Transplantation Monitoring)



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

**Post-Transplantation Monitoring** 

#### **HONG KONG LANDSCAPING CO., LTD.**

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

#### **LANDSCAPING WORKS**

POST-TRANSPLANTATION RECORD OF AQUILARIA SINENSIS FOR THE MONTH OF (JUNE 2022)

Works	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Watering	澆水																														
Fertilizing	施肥																													✓	
Pruning	修剪																														
Weeding	除雜草																														
Litter	清垃圾																														
Clearing	<b>海</b>																														
Pest Control	殺蟲																														
Disease	殺菌																														
Control	<b>权</b> 困																														
Replacement	更換樹苗																														
Firming UP	扶樹																														
Remark		0	•	0	0	0	•	•	•	•	•	•	•		•	•	•	0	0	0	0	0					0	0		0	•
Remark		$\triangle$	Δ	$\triangle$	Δ	$\triangle$	Δ	$\triangle$	$\triangle$	$\triangle$	$\triangle$	$\triangle$	$\triangle$		$\triangle$	Δ					$\triangle$	$\triangle$		$\triangle$	$\triangle$						

O Drizzling

Rainy

 $\triangle$  Dewatering at transplanted area

Prepared by

Kenny LAU

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

**Post-Transplantation Monitoring** 



Formation of ditch to divert the surface runoff into water collection point



Submersible pump in place and dewatering was carrying out to drain away the collected surface runoff when it was raining

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

**Post-Transplantation Monitoring** 





Fertilizing has been applied on Aquilaria sinensis A-0010 (T1700)



Fertilizing has been applied on Aquilaria sinensis A-0009 (T2298)

					Audit I	Ref. No		
Contr	act ND/2018/01							
Inspec	ted By July Tool Man (Indepedent Tree Sporralist)	Inspection Date Time Period			Jine	70)	-2	
Part A Condit Tempe Humid Wind	tion Sunny Fine Overcast Drizzle	Rain Low (R	St	orm [	Hazy			
Part B		or not observed	Yes	No	Follow-up	N/C	Remarks	
1,	Cycadfern Brainea insignis							
1.1	Are the plants' health conditions satisfactory?							
1.2	Are transplanted plants on site protected carefully?							
1.3	Are the temporary protective fence properly erected and maintained?							
1,4	Are the plant protection zone set 1m from the plants?							
1.5	Are all grassed and planted area kept free from weeds/unwanted plants?							
1.6	Is compaction of the soil avoided for the plants?							
1.7	Are litter/ unwanted material removed within the planting area?							
1.8	Are equipment or stockpile placed outside the protection zone?							
1.9	Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?							
1.10	Are fixings driven into plants avoided?							
1,11	Are the plants used for anchoring or winching purposes or for the display of signs avoided?							
1.12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?							
1.13	Are all plants kept free from pest, disease or fungal infection?							
1.14	Are there enough area for growth and development of plant roots?							
1.15a	Is exposure of plant roots avoided?							
1,15b	If not, were broken off or rotting of roots avoided?							
		or not observed	Yes	No	Follow-up	N/C	Remarks	_
2. 2.1	Ladies Tresses Spiranthes sinensis  Are the plants' health conditions satisfactory?	<del></del>	$\Box$	$\Box$		$\overline{}$		
2.2	Are transplanted plants on site protected carefully?							_
2.3	Are the temporary protective fence properly erected and maintained?							_
2,4	Are the plant protection zone set Im from the plants?							
2.5	Are all grassed and planted area kept free from weeds/unwanted plants?							
2.6	Is compaction of the soil avoided for the plants?	<u> </u>						
2.7	Are litter/ unwanted material removed within the planting area?							

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2.8	Are equipment or stockpile placed outside the protection zone?						
2,9	Are soil, debris or construction materials deposited around and against trunk of a plant as this causes bark damage avoided?	the	Ll	Ш		ш	
2.10	Are fixings driven into plants avoided?						<del></del>
2.11	Are the plants used for anchoring or winching purposes or for the dispisigns avoided?	ay of					
2.12	Are the fire lit below the branches and petrol, oil or caustic substances near the plants avoided?	stored					
2.13	Are all plants kept free from pest, disease or fungal infection?						
2.14	Are there enough area for growth and development of plant roots?						
2.15a	Is exposure of plant roots avoided?						
2.15b	If not, were broken off or rotting of roots avoided?						
3,	Incense Trees Aquilaria sinesis	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
3.1	Are the trees's health conditions satisfactory?						
3.2	Are transplanted trees on site protected carefully?		$\square$				
3.3	Are the temporary protective fence properly erected and maintained?						
3.4	Are the tree protection zone set Im from the trees?		$\square$				
3.5	Are all grassed and planted area kept free from weeds/unwanted plants	?	$\square$				
3.6	Is compaction of the soil avoided for the trees		囡				
3.7	Are litter/ unwanted material removed within the planting area?		Ø,				
3,8	Are equipment or stockpile placed outside the protection zone?		\(\next{\sqrt}\)				
3.9	Are soil, debris or construction materials deposited around and against trunk of a tree as this causes bark damage avoided?	the					
3.10	Are fixings driven into trees avoided?		$\nabla$				
3.11	Are the trees used for anchoring or winching purposes or for the displasigns avoided?	y of	$\square$				
3.12	Are the fire lit below the branches and petrol, oil or caustic substances near the trees avoided?	stored	abla				
3,13	Are all trees kept free from pest, disease or fungal infection?				$\square$		
3.14	Are there enough area for growth and development of tree roots?						
3.15a	Is exposure of tree roots avoided?		$   \sqrt{} $				
3.15b	If not, were broken off or rotting of roots avoided?						
3,16	Are wounds/mechanical injuries avoided on tree trunk?		M				
3.17	Are leaning of trees avoided?		$   \sqrt{} $				
3.18	Are dead/detached branches avoided?				$\nabla$		
3.19	Are decay/cavity avoided on tree trunks?		$\nabla$				

art C									***
	Follow-up for the Previo	ous Site Audit on Date:	(Ref. No		)		20.11	. 11/0	D
	Is the situation in item	improved/rectified?	N/A or not obse	rvea	Yes	No	Follow-up	p N/C	Remarks
	Is the situation in item			$\vdash$	<u></u>	$\forall$		님	
	Is the situation in item			=	H	H	님	님	
	Is the situation in item			$\vdash$		$\forall$	<u> </u>	님	
	Is the situation in item			$\exists$	님	님	<u></u>	님	-
	Is the situation in item			$\exists$	$\vdash$	님		H	
	Is the situation in item			H	님	범		H	
	Is the situation in item			$\exists$	$\exists$	=		H	
	Is the situation in item	=		=	님	=		$\vdash$	
0,	Is the situation in item			$\vdash$	Η	$\vdash$	님	$\vdash$	
				ш	I	Ш.	II	ш	
				// q					
.emai	ks/Observations								
	Signatures:								
				Supervi	or's Rev				
	Contractor's Representative			Supervi	or's Rep	<b>.</b>			
		dona )		Supervi:	or's Rep	).			

TREE SURVEY SCHEDULE

ENVIRONMETNAL 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

**INSPECTION DATE** 11-Jun-22

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)	Remarks
A-0010 (T1700)	Aquilaria sinensis	132	5000	3000	Fair	Poor	Poor	
A-0009 (T2298)	Aquilaria sinensis	96	6000	3000	Fair	Poor	Poor	
A-0008 (T5153)	Aquilaria sinensis	312	6000	4000	Fair	Poor	Poor	

# **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 : 11 June 2022

Contract No.: ND/2018/01 Inspection Date: 11 June 2022

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

Photographic Record (Post-Transplantation Monitoring)



A-0010 (T1700)

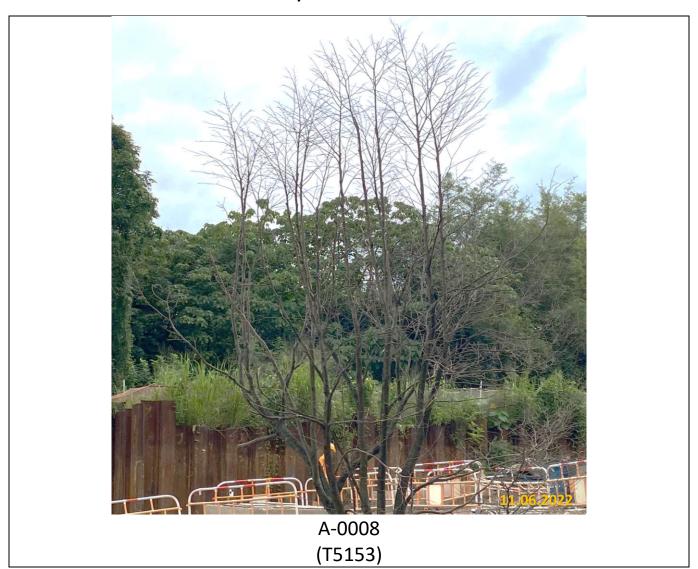
#### Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Photographic Record (Post-Transplantation Monitoring)



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

Photographic Record (Post-Transplantation Monitoring)



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

**Post-Transplantation Monitoring** 

#### **HONG KONG LANDSCAPING CO., LTD.**

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

#### LANDSCAPING WORKS

#### POST-TRANSPLANTATION RECORD OF AQUILARIA SINENSIS FOR ( 1 JUNE 2022 – 11 JUNE 2022 )

Works	Date	1	2	3	4	5	6	7	8	9	10	11
Watering	澆水											
Fertilizing	施肥											
Pruning	修剪											
Weeding	除雜草											
Litter Clearing	清垃圾											
Pest Control	殺蟲											
Disease Control	殺菌											
Replacement	更換樹苗											
Firming UP	扶樹											
Remark		<b>⊙</b> △	<b>⊙</b> △	<b>⊙</b> △	О Д	О Д	<b>⊙</b> △					

O Drizzli	ng
-----------	----

• Rainy

 $\triangle$  Dewatering at transplanted area

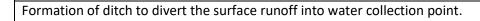
Prepared by

Kenny LAU

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

Post-Transplantation Monitoring







Submersible pump in place and dewatering was carrying out to drain away the collected surface runoff.

in the second second					Audi	Ref. No.	
Con	tract						
Insp	ected By Yven Tool Mom (Independent Tree Spendent)	Inspection Date	·	26	Tim	<u>e 70</u>	<u> </u>
	Sunny	Rain Low (	s (RH<50%)	itorm [	Hazy		MANAGER POLICIA MENTAL PROPERTY AND ANGEL PARTY.
Part	B N/A	or not observed	Yes	No	Follow-u	p N/C	Remarks
1.	Cycadfern Brainea insignis						
1.1	Are the plants' health conditions satisfactory?	Г		г—-	П	_	
1.2	Are transplanted plants on site protected carefully?	<u></u>					
1.3	Are the temporary protective fence properly erected and maintained?					<u> </u>	
1.4	Are the plant protection zone set 1m from the plants?						
1.5	Are all grassed and planted area kept free from weeds/unwanted plants?	<u></u>					
1.6	Is compaction of the soil avoided for the plants?						
1.7	Are litter/ unwanted material removed within the planting area?						<del></del>
1.8	Are equipment or stockpile placed outside the protection zone?		<u> </u>				· · · · · · · · · · · · · · · · · · ·
1.9	Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?						
1.10	Are fixings driven into plants avoided?						
1.11	Are the plants used for anchoring or winching purposes or for the display of signs avoided?						
1.12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?						
1.13	Are all plants kept free from pest, disease or fungal infection?						
1.14	Are there enough area for growth and development of plant roots?						
1.15a	Is exposure of plant roots avoided?						
1.15b	If not, were broken off or rotting of roots avoided?						
2.		r not observed	Yes	No	Follow-up	N/C	Remarks
2.1	Ladies Tresses Spiranthes sinensis  Are the plants' health conditions satisfactory?	<del>  </del>			[ <del></del>		
2.2	Are transplanted plants on site protected carefully?						
2.3	Are the temporary protective fence properly erected and maintained?						
2,4	Are the plant protection zone set Im from the plants?						
2.5	Are all grassed and planted area kept free from weeds/unwanted plants?	<u></u>					,
2.6	Is compaction of the soil avoided for the plants?	 				<u></u>	
2.7	Are litter/ unwanted material removed within the planting area?						

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2.8	Are equipment or stockpile placed outside the protection zone?						
2.9	Are soil, debris or construction materials deposited around and against trunk of a plant as this causes bark damage avoided?	the					-
2.10	Are fixings driven into plants avoided?						
2.11	Are the plants used for anchoring or winching purposes or for the displaigns avoided?	lay of					
2.12	Are the fire lit below the branches and petrol, oil or caustic substances near the plants avoided?	stored					
2.13	Are all plants kept free from pest, disease or fungal infection?						
2.14	Are there enough area for growth and development of plant roots?						
2.15a	Is exposure of plant roots avoided?						
2.15b	If not, were broken off or rotting of roots avoided?						
3.	Incense Trees Aquilaria sinesis	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
3.1	Are the trees's health conditions satisfactory?						
3.2	Are transplanted trees on site protected carefully?						
3.3	Are the temporary protective fence properly erected and maintained? $ \\$						
3.4	Are the tree protection zone set 1m from the trees?		V				
3.5	Are all grassed and planted area kept free from weeds/unwanted plants	?	V				
3.6	Is compaction of the soil avoided for the trees		V				
3.7	Are litter/ unwanted material removed within the planting area?						
3.8	Are equipment or stockpile placed outside the protection zone?						
3.9	Are soil, debris or construction materials deposited around and against trunk of a tree as this causes bark damage avoided?	the					
3.10	Are fixings driven into trees avoided?						
3.11	Are the trees used for anchoring or winching purposes or for the display signs avoided?	y of					
3.12	Are the fire lit below the branches and petrol, oil or caustic substances near the trees avoided?	stored					
3,13	Are all trees kept free from pest, disease or fungal infection?						
3.14	Are there enough area for growth and development of tree roots?						
3.15a	Is exposure of tree roots avoided?						
3.15b	If not, were broken off or rotting of roots avoided?						
3.16	Are wounds/mechanical injuries avoided on tree trunk?						
3.17	Are leaning of trees avoided?						
3.18	Are dead/detached branches avoided?						
3.19	Am decay/cavity avoided on tree trunks?		ГZ	$\Box$		$\Box$	

Is the situation in item improved/rectified?		377-477-487-487-487-487-487-487-487-487-4	A STATE OF THE STA			
Is the situation in item improved/rectified?  Is the situation in item improved/rectified?	Part C	Follow-up for the Previous Site Audit on Date:			Follow up N/C	Domovko
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Is the situation in item improved/rectified?	<u>!</u> .		Ħ Ħ			
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		Is the situation in itemimproved/rectified?			<b>一</b>	
emarks/Observations	0.	Is the situation in item improved/rectified?				
	emari	ss/Observations				
			Supervisor	's Rep.	O MENONE WAS SHIRMAND AND AND AND AND AND AND AND AND AND	
Signatures:  Contractor's Representative Supervisor's Rep.			(Name:		)	
Contractor's Representative Supervisor's Rep.		Date: To June 2012	(Date:		)	

TREE SURVEY SCHEDULE

ENVIRONMETNAL 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

**INSPECTION DATE** 25-Jun-22

Tree / Plant / Colony No.	Botanical Name	DBH (mm)	Height (mm)	Spread (mm)	Structural Condition (Good/Fair/Poor)	Form (Good/Fair/Poor)	<b>Health</b> (Good/Fair/Poor)	Remarks
A-0010 (T1700)	Aquilaria sinensis	132	5000	3000	Fair	Poor	Poor	
A-0009 (T2298)	Aquilaria sinensis	96	6000	3000	Fair	Poor	Poor	
A-0008 (T5153)	Aquilaria sinensis	312	6000	4000	Fair	Poor	Poor	

# **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 : 25 June 2022

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

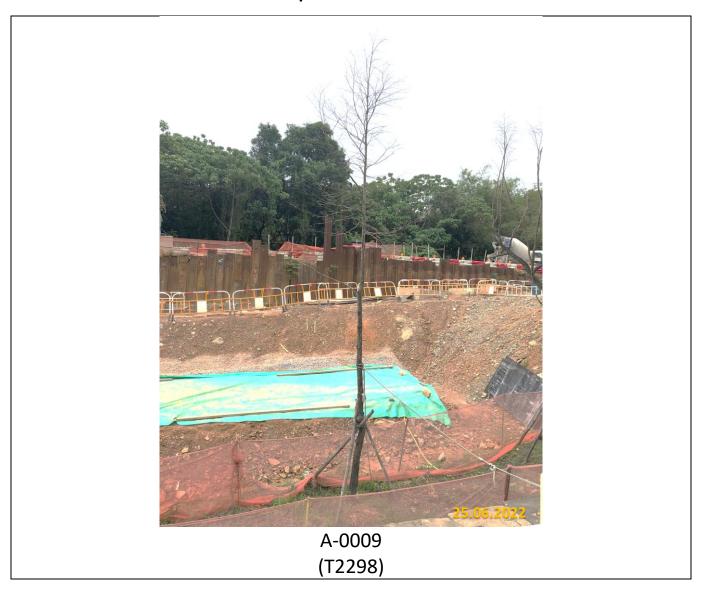
Photographic Record (Post-Transplantation Monitoring)



Contract No.: ND/2018/01 Inspection Date: 25 June 2022

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

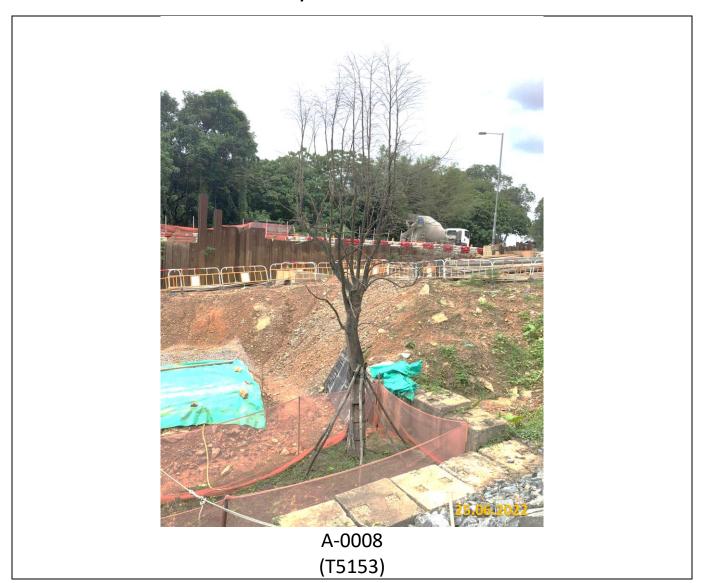
Photographic Record (Post-Transplantation Monitoring)



Contract No.: ND/2018/01 Inspection Date: 25 June 2022

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

Photographic Record (Post-Transplantation Monitoring)



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

**Post-Transplantation Monitoring** 

#### **HONG KONG LANDSCAPING CO., LTD.**

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

#### **LANDSCAPING WORKS**

POST-TRANSPLANTATION RECORD OF AQUILARIA SINENSIS FOR THE MONTH OF (JUNE 2022)

Works	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Watering	澆水																									
Fertilizing	施肥																									
Pruning	修剪																									
Weeding	除雜草																									
Litter	清垃圾																									
Clearing	/月址拟																									
Pest Control	殺蟲																									
Disease	殺菌																									
Control	双																									
Replacement	更換樹苗																									
Firming UP	扶樹																									
Remark		<b>⊙</b> △	<b>⊙</b> △	<b>⊙</b> △	О 	0	<b>⊙</b> △	<b>⊙</b> △	<b>⊙</b>	<b>⊙</b>	<b>⊙</b>	<b>⊙</b>	<b>⊙</b> △		<b>⊙</b> △	<b>⊙</b> △	<b>⊙</b> △	O △	О 	0	О 	О 				

O Drizzling

• Rainy

△ Dewatering at transplanted area

Prepared by

Kenny LAU

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

Post-Transplantation Monitoring



Formation of ditch to divert the surface runoff into water collection point



Submersible pump in place and dewatering was carrying out to drain away the collected surface runoff when it was raining

#### APPENDIX I EVENT ACTION PLANS

### Appendix I:

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

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

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

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

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

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

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

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

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

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

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

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

#### APPENDIX J SUMMARY OF EXCEEDANCE

#### Appendix J: Exceedance Report

### (A) Exceedance Report for Air Quality

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract		Cumulative No. of Exceedance
	•	Action Level	Limit Level	Action Level	Limit Level	recorded
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
8		Action Level	Limit Level	Action Level	Limit Level	recorded
Noise	L <sub>eq(30 min.)</sub> dB(A)	0	0	0	0	6

APPENDIX K ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

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

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		vinyl, bitumen within six months after the last					
		construction activity on the site or part of the site where					
		the exposed earth lies.					
		Loading, Unloading or Transfer of Dusty Materials					
		All dusty materials should be sprayed with water					^
		immediately prior to any loading or transfer operation so					
		as to keep the dusty material wet.					
		Debris Handing					
		Any debris should be covered entirely by impervious					*
		sheeting or stored in a debris collection area sheltered on					
		the top and the three sides.					
		Before debris is dumped into a chute, water should be					^
		sprayed onto the debris so that it remains wet when it is					
		dumped.					
		Transport of Dusty Materials					
		Vehicles used for transporting dusty materials/spoils					^
		should be covered with tarpaulin or similar material. The					
		cover should extend over the edges of the sides and					
		tailboards.					
		Wheel Washing					
		Vehicle wheel washing facilities should be provided at					^
		each construction site exit. Immediately before leaving the			_		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		construction site, every vehicle should be washed to					
		remove any dusty materials from its body and wheels.					
		Use of Vehicles					
		The speed of the trucks within the site should be					^
		controlled to about 10 km/hour in order to reduce adverse					
		dust impacts and secure the safe movement around the					
		site					
		Immediately before leaving the construction site, every					^
		vehicle should be washed to remove any dusty materials					
		from its body and wheels.					
		Where a vehicle leaving the construction site is carrying a					^
		load of dusty materials, the load should be covered					
		entirely by clean impervious sheeting to ensure that the					
		entirely by clean impervious sheeting to ensure that the					
		dusty materials do not leak from the vehicle.					
		Site hoarding					
		Where a site boundary adjoins a road, street, service lane					^
		or other area accessible to the public, hoarding of not less					
		than 2.4m high from ground level should be provided					
		along the entire length of that portion of the site boundary					
		except for a site entrance or exit.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
Noise Impact -	– Constructio	on Phase					
4.4.6	3.2	Good Site Practice	Maintain good site practice	Contractor	Within the	Construction Phase	
		Good site practice and noise management can significantly	to minimise / avoid		Project site /		
		reduce the impact of construction site activities on nearby NSRs.	construction noise impact		During		
		The following package of measures should be followed during			construction		
		each phase of construction:			phase / Prior to		
		Only well-maintained plant to be operated onsite and			commencement		^
		plant should be serviced regularly during the construction			of operation.		
		works;					
		Machines and plant that may be in intermittent use to be					^
		shut down between work periods or should be throttled					
		down to a minimum;					
		Plant known to emit noise strongly in one direction,					^
		should, where possible, be orientated to direct noise away					
		from the NSRs;					
		Mobile plant should be sited as far away from NSRs as					^
		possible; and					
		Material stockpiles and other structures to be effectively					,
		utilised, where practicable, to screen noise from on-site					
		construction activities.					
4.4.6	3.2	Adoption of QPME	Minimise/ avoid	Contractor	Within the	Construction Phase	
		QPME should be adopted as far as applicable.	construction noise				^

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

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		rainstorms are forecast.					
		Final surface levels should be compacted and final surface					^
		protections installed to prevent erosion caused by					
		rainstorms.					
		Open stockpiles of material should be covered on site					^
		with waterproof layers such as tarpaulin to reduce the					
		potential for sediment laden runoff entering the drainage					
		system.					
		The wheels of all vehicles and plant should be cleaned					^
		before leaving the works areas to remove sediment, soil					
		and debris from the tracks. The washwater should be					
		treated to remove any suspended sediment.					
		Surface water from concrete batching areas and the rest of					^
		the site should be separated as far as possible. Wastewater					
		from any concrete batching plant (if required) shall be					
		treated to the required standards including pH adjustment					
		and settlement of suspended sediments before discharging					
		to stormwater drains					
		Manholes (including those constructed as part of the					^
		Project) should be adequately covered and temporarily					
		sealed at all times to prevent silt, construction materials or					
		debris from entering the drainage system, and to prevent					

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

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		Site Drainage and ETWB TC (Works) No. 5/2005 Protection of					
		Natural Streams/rivers from Adverse Impacts Arising from					
		Construction Works. Measures include the following:					
		Stockpiling of construction materials and spoil, should be					N/A
		properly covered and located away from any natural					
		stream/river.					
		Construction works close to the inland waters should be					N/A
		carried out in dry season as far as practicable where the					
		flow in the surface channel or stream is low.					
		Removal of existing vegetation alongside the riverbanks					N/A
		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.					
Waste Manage	ment Implica	ations - Construction Phase					
7.5.1.1	6.2	Good Site Practice	Implement good site	Contractor	Project	Construction phase	
		Recommendations for good site practices during the construction	practices to minimize waste		construction site /		
		activities include:	generation		Throughout		
		Nomination of an approved person, such as a site			construction stage		^
		manager, to be responsible for good site practices,			/ Until completion		
		arrangements for collection and effective disposal to an			of all construction		

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

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

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

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
7.5.1.5	6.2	General Refuse	Implement good practices to	Contractor	Project	Construction phase	
		General refuse should be stored in enclosed bins or compaction	avoid odour nuisance or		construction site /		^
		units separated from inert C&D materials. A reputable waste	pest/vermin problem and		Throughout		
		collector should be employed by the Contractor to remove	waste impact.		construction stage		
		general refuse from the site, separately from inert C&D			/ Until completion		
		materials. Preferably an enclosed and covered area should be			of all construction		
		provided to reduce the occurrence of 'windblown' light material.			activities		
Land Contam	ination – Con	nstruction Phase					
8.6.1	7.2	In any case where contaminated soil is identified after the	Assessment is required for	Contractor	Project	Design phase	N/A
		commencement of works, a Contamination Assessment Plan	EPD approval in any case		construction site /		
		(CAP) is required to be prepared for EPD's endorsement prior to	where contaminated soil is		Before		
		the site investigation. The Contamination Assessment Report	identified		construction stage		
		(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.					
8.6.1	7.2	The following mitigation measures are proposed for	Minimise impacts resulting	Contractor	Project	Construction phase	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		contaminated material excavation and transportation of	from excavation and		construction site /		
		contaminated materials (if any), in order to minimise the	transportation in the of		Throughout		
		potentially adverse effects health and safety of construction	contaminated materials		construction stage		
		workers and impacts arising from the disposal of potentially			/ Until completion		
		contaminated materials:			of all construction		N/A
		To minimise the chance for construction workers to come			activities		
		into contact with any contaminated materials, bulk					
		earth-moving excavation equipment should be employed;					N/A
		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;					N/A
		Stockpiling of contaminated excavated materials on site					
		should be avoided as far as possible;					N/A
		The use of any contaminated soil for landscaping purpose					
		should be avoided unless pre-treatment was carried out;					N/A
		Vehicles containing any excavated materials should be					
		suitably covered to reduce dust emissions and / or release					
		of contaminated wastewater;					N/A
		Truck bodies and tailgates should be sealed to stop any					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		discharge;					N/A
		Only licensed waste haulers should be used to collect and					
		transport contaminated material to treatment/disposal site					
		and should be equipped with tracking system to avoid fly					
		tipping;					N/A
		Speed control for trucks carrying contaminated materials					
		should be exercised;					N/A
		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					N/A
		Maintain records of waste generation, disposal quantities					
		and disposal arrangements.					
Ecological Imp	act						
9.7.1	8.3	Temporary Protective Fence for Flora Species of	To avoid potential impact on	Contractor	Project	Construction phase	
		Conservation Interest	flora species of conservation		construction site /		
		During construction phase, erection and maintenance of a	interest from construction		Throughout		^
		temporary protective fence enclosing the flora species of	activities such as materials		construction stage		
		conservation interest identified under the detailed vegetation	storage;		/ Until completion		
		survey is recommended.	To make sure that the flora		of all construction		
		Monthly monitoring of any other flora species of conservation	species of conservation		activities		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		interest identified in the detailed vegetation survey should be	interest are not affected by				
		conducted during the construction phase.	the construction activities of				
			the project.				
Golden-headed	d Cisticola (F	Recommended Mitigation Measures from Baseline Survey	Report of Golden-headed	Cisticola)			
-	-	The following mitigation measures are proposed for minimizing	Construction noise	Contractor	Project area –	Construction phase	
		noise impacts induced by construction works:			areas adjacent to		
		Silencers or mufflers on well-maintained construction			sensitive receivers		N/A
		equipment should be utilized and properly maintained			/ During		
		during the construction program			construction phase		
		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					
-	-	The following mitigation measures are proposed for minimizing	To minimize the light	Contractor	Project area –	Construction phase	
		light impacts:	disturbance to avifauna		areas adjacent to		
		Adjusting the outdoor lighting to lower intensity			sensitive receivers		^
		Use of directional lighting to avoid light spill into			/ During		^
		sensitive areas			construction phase		
		Control/timing of lighting periods of some facilities,					^
		particularly those close to the ecological sensitive					
		receivers					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
-	-	Drainage system	Prevent discharge of	Contractor	Project area –	Construction phase	
		Proper drainage system should be installed to collect and	pollutant into the		areas adjacent to		^
		dispose rainwater	surrounding environment		sensitive receivers		
		Installation of sediment/rubbish trapping facilities (e.g.			/ During		^
		catch pits or sand/silt traps to contain the increase in			construction phase		
		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	To avoid potential impact on	Contractor	Project area –	Construction phase	
		Placement of stockpiling into designated area should be	Golden-headed Cisticola		areas adjacent to		^
		selected at disturbed area in order to minimize the			sensitive receivers		
		disturbance to wildlife			/ During		
		Open fire should be strictly prohibited			construction phase		^
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
Landscape and	Visual Impo	acts - Construction Phase					
Table 10.11	Table	CM01: Trees / woodland within the Project Site which are	Preserve and protect	Contractor	Project area /	Design and	^
	9.1	unaffected by the works shall be protected and preserved during	existing trees		During design	construction phase	
		the detailed design stage and construction phase. The tree			stage /		
		preservation proposals shall be coordinated with the layout and			construction phase		
		design of the engineering and architectural works at detailed			/ Establishment		
		design stage for further retention of individual trees. The			Period		
		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.					
Table 10.11	Table	CM02: If removal of trees unavoidable due to construction	Preserve and protect	Contractor	Project area /	Design and	^
	9.1	impacts, trees will be transplanted where technically feasible in	existing trees		During design	construction phase	
		accordance with "Guidelines on Tree Transplanting" by DEVB			stage /		
		and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for			construction phase		
		Tree Transplanting Works under Highways Department's			/ Establishment		
		Vegetation Maintenance Ambit where applicable.			Period		
Table 10.11	Table	CM03: Construction area control, where possible, to ensure that	Minimise landscape and	Contractor	Project area /	Construction phase	^

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
	9.1	the landscape and visual impacts arising from the construction	visual impacts.		During design		
		activities are minimised. This includes the reduction of the extent			stage /		
		and location of working areas to avoid sensitive LRs, siting of			construction phase.		
		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.					
Table 10.11	Table	CM04: Replanting of existing / disturbed vegetation shall be	Maximise the mitigation	Contractor	Project area /	Construction phase	N/A
	9.1	undertaken as soon as technically feasible during the	effect of the planting to		During design		
		construction phase. The priority shall be areas at the periphery of	minimise landscape and		stage /		
		the site to ensure that proposed planting fulfils its role in	visual impacts.		construction phase		
		mitigating the predicted impacts including screening views of the			/ Establishment		
		proposals as early as possible during the operation phase.			Period		
Table 10.11	Table	CM05: Decorative screen hoarding will be erected along areas of	Minimise landscape and	Contractor	Project area –	Construction phase	N/A
	9.1	the construction works site boundary where the works site	visual impacts.		areas adjacent to		
		borders publically accessible routes and/or is close to visually			sensitive receivers		
		sensitive receivers (VSRs) to screen undesirable views of the			/ During		
		works site. It is proposed that the screening be compatible with			construction phase.		
		the surrounding environment and where possible, non-reflective,					
		recessive colours be used.					

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

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

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

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

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

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

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		a. Green paving approach such as grass-crete or grass-grid to	hard paving		Police Facilitate	of ArchSD's	
		maximise the area of planting and reduce the area of hard paving			Site	Contracts	
		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.					
-	-	Light control (operation)	To minimize glare impact to	HKPF and HyD	HKPF: Within	Operation Stage	N/A
		a. Street and night time lighting glare will be controlled	adjacent VSRs during the		KNP Police		
			operation stage.		Facilitate Site		
					HyD: Along Kong		
					Nga Po Road		

## Implementation status: ^

- Mitigation measure was fully implemented
- \* Observation/reminder was made during site audit but improved/rectified by the contractor
- # Observation/reminder was made during site audit but not yet improved/rectified by the contractor
- X Non-compliance of mitigation measure
- Non-compliance but rectified by the contractor

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

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts		,
	Method		3 1		
EIA 5.6.1.2; EM&A Log 4.2	Pre-bored Piling Works	Kong Nga Po Road	Water Pollution	<ul> <li>Re-circulation of water for dust suppression to minimize wastewater generation if possible</li> <li>Enclosure will be provided to drill rods to minimize the risk of water spillage</li> </ul>	
EIA 4.4.6; EM&A Log 3.2			Noise	<ul> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> <li>Use of proprietary noise barrier for noisy works near sensitive receiver</li> <li>Deploy quality powered mechanical equipment if possible</li> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> </ul>	

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction	Period	Major Impacts	Measures	
	Method				
EIA	(Cont')	(Cont')	Ecology	• Provide training to frontline	
10.11,	Pre-bored	Kong Nga Po Road	Concern	workers for conservative species	
EM&A	Piling Works			• Use of noise barrier for noise works	
Log 9.4				to minimize impact to nearby	
				species	
				Deploy quality powered mechanical	
				equipment if possible	
				• Regular inspection and	
				maintenance of plant & equipment	16.06.2022
				in good condition	By main contractor at KNP Road
EIA			Landscape and	• Construction area had been	
Table			visual impact	controlled with proper fencing to	
10.11				minimize the landscape and visual	
EM&A				impacts arising from construction	
Table 9.1				activities	
					15.06.2022
					By main contractor at KNP Road

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction	Period	Major Impacts	Measures	
	Method				
EIA	Site	Kong Nga Po Main	Air Pollution	• Deploy water bowser for regular	a day
3.91;	Formation	Site		water spraying to enhance dust	
EM&A				suppression	A STATE OF THE PARTY OF THE PAR
Log 2.2				• Manual water spraying for dusty	
				operation where inaccessible by	
				water bowser	
				• Speed control of site transportation	The second secon
				• Stockpile of dusty materials will be	The same of the sa
				covered by tarpaulin to avoid wind-	2.5 (16×20×2)
				blown dust	By main contractor at KNP Main Site
				• Vehicles used for transporting dusty	
				materials/spoils will be covered by	
				mechanical cover before leaving the	
				site	
				• Wheel washing facilities had been	
				provided and cleaning the wheel of	
				all vehicles before leaving the site	
					20 05 2022
					28.06.2022
					By main contractor at KNP Main Site

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
	(Cont')	(Cont')			
	Site	Kong Nga Po Main			
	Formation	Site			By main contractor at KNP Main Site  By main contractor at KNP Main Site

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts		
	Method				
	(Cont')	(Cont')			
	Site	Kong Nga Po Main			
	Formation	Site			By main contractor at KNP Main Site  30.06.2022  By sub-contractor at KNP Main Site

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts		
	Method		<b>j</b>		
EIA 5.6.1.2; EM&A Log 4.2		(Cont') Kong Nga Po Main Site	Water	Appropriate and sufficient wastewater treatment according to Temporary Drainage Management Plan before discharging of wastewater     Regular inspection and maintenance of wastewater treatment facilities     Provision of soil berms, rock check dam and retention pit near excavation area/low-lying region     Cover the stockpiling with appropriate materials     Hard paving or well-compact of main haul road to minimize	241/06, 2022  By sub-contractor at KNP Main Site
				washout of soil  Slope stabilization such as hydroseeding and shotcrete	
				provision	By sub-contractor at KNP Main Site

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts		, , ,
	Method				
	(Cont')	(Cont')		• Wheels of all vehicles and plants	
	Site	Kong Nga Po Main		should be cleaned before leaving the	
	Formation	Site		site. The wastewater generated from	
				wheel washing activities will be	
				treated and reused on site	
					D. A. A. A. W. M. M. C. C.
ELA			<b>3.</b> 1	. D. 1	By main contractor at KNP Main Site
EIA			Noise	• Regular inspection and	
4.4.6;				maintenance of plant & equipment	
EM&A				in good condition	The Control of Control
Log 3.2				• Deploy quality powered mechanical	Market   M
				equipment if possible	102   104   103   104   103   104   103   104   103   104
					E manual actività (1977)  Lorgo Dan Orgo y fine a latier (1970)  Rei Call als is is in in information (1970)  Rei Call als is in information (1970)  Rei Call als information
					21.05.2022
			_		By sub-contractor at KNP Main Site

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts		
	Method				
EIA	(Cont')	(Cont')	Waste	• Training of site personnel in proper	
7.5.1.1	Site	Kong Nga Po Main	Generation	waste management and chemical	
&	Formation	Site		handling procedures	<b>A</b>
7.5.1.2;				• Proper storage and sorting of	
EM&A				excavated inert materials to	
Log 6.2				maximize on site reuse for	
				backfilling	
					28.06.2022
					By sub-contractor at KNP Main Site
EIA			Ecology	• Provide training to frontline	
10.11,			Concern	workers for the conservative species	
EM&A				• Provision of protective fence for the	
Log 9.4				conservative species	
				Regular inspection for concerned	
				vegetation and conservative species	
				• Adopted low intensity lighting to	
				minimize the light impact to	
				surrounding species	23.06.2022
					By main contractor at KNP Main Site

Ref*	Duonagad	Location/World-	Anticipated	December and ad Mitigation	Photo Docowda (Dantial)
Kei"	Proposed	Location/Working		Recommended Mitigation	Photo Records (Partial)
	Construction	Period	Major Impacts	Measures	
	Method				
EIA	(Cont')	(Cont')	Landscape and	• Preservation of existing trees will	
Table	Site	Kong Nga Po Main	visual impact	be undertaken in accordance with	
10.11	Formation	Site		DEVB TC(W) 7/2015 and	
EM&A				Guidelines for Tree Risk	A TEMPORAL TO THE SECOND
Table				Assessment and Management	
9.1				Arrangement	
				• Restrict construction area to	
				minimize the impact on existing	
				retained trees	25.05.2022
					By main contractor at KNP Main Site
					-

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts	o a constant of the constant o	
	Method		3 1		
EIA 3.91; EM&A Log 2.2	Reinforced Concrete Structure Construction	Kong Nga Po Main Site Kong Nga Po Road	Air	Dusty materials that exceeded 20 bags will be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.	20.05.2023
					By sub-contractor at KNP Road
EIA 5.6.1.2; EM&A Log 4.2			Water pollution control	<ul> <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>	23.06.2022  By main contractor at KNP Road

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts		, , ,
	Method				
EIA 4.4.6; EM&A Log 3.2	(Cont') Reinforced Concrete Structure Construction	(Cont') Kong Nga Po Main Site Kong Nga Po Road	Working in Restricted Hours	<ul> <li>Valid construction noise permit should be obtained and displayed on site</li> <li>In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out</li> </ul>	D2.06.2022  By main contractor at KNP Main Site
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> <li>Three side enclosure with top shelter for cement mixing works</li> <li>Water spraying on soil nailing works</li> <li>Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting</li> </ul>	

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 5.6.1.2; EM&A Log 4.2	(Cont') Slope Upgrading Works	(Cont') Kong Nga Po Main Site Kong Nga Po Road	Water	<ul> <li>Deploy desilting/sedimentation devices for wastewater treatment prior to discharge</li> <li>Establish soil berm with retention pit to control water outflow.</li> </ul>	21.86.2022  By sub-contractor at KNP Main Site
EIA 10.11, EM&A Log 9.4			Ecology Concern	<ul> <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>	By main contractor at KNP Main Site

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction	Period	Major Impacts	Measures	
	Method				
EIA 3.91; EM&A Log 2.2	Trenchless Works	Kong Nga Po Road Man Kam To Road	Air Pollution	<ul> <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 exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered</li> </ul>	
				entirely by impervious sheeting.	By sub-contractor at KNP Road
EIA 5.6.1.2; EM&A Log 4.2			Water Pollution	Provide desilting/sedimentation devices for wastewater treatment before discharge	By main contractor at KNP Road

Photo Records (Partial)				
21.16.70.22				
o-contractor at KNP Road				
All the state of t				
o-contractor at KNP Road				

Ref*	Proposed	Location/Working	Anticipated	Recommended Mitigation	Photo Records (Partial)
	Construction		Major Impacts		
	Method				
EIA 5.6.1.2; EM&A Log 4.2	(Cont') Road and Associated Works	(Cont') Kong Nga Po Main Site Kong Nga Po Road	Water Pollution	Provide desilting/sedimentation devices for wastewater treatment before discharge	By main contractor at KNP Road
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul> <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>	O1.05.2022  By main contractor at KNP Road

<sup>\*</sup>EIA Ref/EM&A Log Ref/Design Document Ref

APPENDIX L WASTE GENERATION IN THE REPORTING MONTH

#### Contracto No.: ND/2018/01

### Environmental Permit No.: EP-510/2016

# Monthly Summary Waste Flow Table for 2020

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

#### Contracto No.: ND/2018/01

## Environmental Permit No.: EP-510/2016

# Monthly Summary Waste Flow Table for 2021

		Actual	Quantities of I	nert C&D Waste	Generated Mon	nthly		Actual Quantitie	es of C&D Waste	Generated Month	nly
Month	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 '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Cumulative in 2020	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056
Jan	44.91877	0.00000	0.00000	20.33601	24.31886	0.00000	0.00000	0.00000	0.00000	0.00000	0.26389
Feb	13.08831	N/A	N/A	9.64034	3.40955	N/A	N/A	N/A	N/A	N/A	0.03841
Mar	35.52359	N/A	N/A	19.92956	15.50902	N/A	N/A	N/A	N/A	N/A	0.08501
Apr	42.22569	N/A	11.95500	7.21197	22.96688	N/A	N/A	N/A	N/A	N/A	0.09183
May	9.09491	N/A	4.13844	4.47821	0.43554	N/A	N/A	N/A	N/A	N/A	0.04272
Jun	40.50170	N/A	22.95720	16.78316	0.68899	N/A	N/A	N/A	N/A	N/A	0.07235
Sub-Total	462.42797	0.00000	39.05064	341.84492	77.25764	0.00000	0.00000	0.00000	0.00000	0.00000	4.27477
Jul	38.56656	N/A	2.04766	34.19166	2.26520	N/A	N/A	N/A	N/A	N/A	0.06204
Aug	32.57509	N/A	3.80440	23.63834	4.94379	N/A	N/A	N/A	N/A	N/A	0.18856
Sep	14.56695	N/A	13.46440	0.00000	0.99677	N/A	N/A	N/A	N/A	N/A	0.10578
Oct	6.10194	N/A	5.02740	0.00000	0.96228	N/A	N/A	N/A	N/A	N/A	0.11225
Nov	15.41373	N/A	14.04710	0.00000	1.25681	N/A	N/A	N/A	N/A	N/A	0.10982
Dec	16.44356	N/A	15.59920	0.00000	0.73992	N/A	N/A	N/A	N/A	N/A	0.10444
Total	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767

#### Contracto No.: ND/2018/01

## Environmental Permit No.: EP-510/2016

# Monthly Summary Waste Flow Table for <u>2022</u>

		Actual	Quantities of In	nert C&D Waste	Generated Mon	nthly		Actual Quantitie	es of C&D Waste	Generated Montl	nly
Month	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 '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Cumulative up to 2021	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767
Jan	15.52131	N/A	14.62310	0.00000	0.75883	0.00000	0.00000	0.00000	0.00000	0.00000	0.13939
Feb	0.75965	N/A	0.00000#	0.00000	0.68681	0.00000	0.00000	0.00000	0.00000	0.00000	0.07283
Mar	11.42694	N/A	11.19380	0.00000	0.13435	0.00000	0.00000	0.00000	0.00000	0.00000	0.09879
Apr	21.11792	N/A	20.93220	0.00000	0.03174	0.00000	0.00000	0.00000	0.00000	0.00000	0.15399
May	23.62989	N/A	22.75850	0.00000	0.78923	0.00000	0.00000	0.00000	0.00000	0.00000	0.08216
Jun	27.64846	N/A	27.17300	0.00000	0.38282	0.00000	0.00000	0.00000	0.00000	0.00000	0.09264
Sub-Total	686.19997	0.00000	189.72140	399.67493	91.20618	0.00000	0.00000	0.00000	0.00000	0.00000	5.59747
Jul	0.00000										
Aug	0.00000										
Sep	0.00000										
Oct	0.00000										
Nov	0.00000										
Dec	0.00000										
Total	686.19997	0.00000	189.72140	399.67493	91.20618	0.00000	0.00000	0.00000	0.00000	0.00000	5.59747

#### 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	

Contracto No.: ND/2018/01

#### 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

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

## APPENDIX M COMPLAINT LOG

## Appendix M - Complaint Log

Reporting month: May 2022

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.	According to the results from regular noise monitoring, no Limit Level Exceedance was recorded at sensitive receivers since the commencement of the construction of the Project. In addition, there was no environmental deficiency regarding construction noise impact recorded during site inspection. It is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works in July and August 2020.  Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:  • Erect noise isolating mat at Portion B1 to reduce noise nuisance arising from the site  Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site, such as:  • Selection of quieter plant;  • Provision of sufficient noise mitigation measures (e.g. movable noise barrier, noise enclosure. acoustic shed, noise insulating fabric etc.) for the site activities on nearby NSRs where appropriate.  • To strengthen site supervision and provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					to the nearby residents during working hours as well as restricted hours.	
C-002	EP3/N07/RN/ 21538-20	Kong Nga Po Road	22 <sup>nd</sup> September 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and pollution problem.		Closed
					minimize the water quality impact arising from the construction works as follow:  • Provision of soil berm at edge near retaining wall DAM Bay 43-46  • Setting up of wastewater treatment facilities near wheel washing bay	

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<ul> <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>	
					Nevertheless, the Contractor was reminded to ensure the wastewater generated from construction works must comply with the condition stated in the Effluent Discharge license and enhance sediment control measure regarding storm water management to assure no muddy water is being discharged from the construction site. The environmental conditions of the site and the control of works will be continuously reviewed and monitored by the Supervisor, ET and IEC.	
C-003	N/A	Kong Nga Po Road	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 outflew 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
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.	control measure at Project site;	
					by the Supervisor, ET and IEC.	

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.	According to the results from regular noise monitoring, no Limit Level exceedance was recorded at sensitive receivers during the time of complaint. In addition, there was no environmental deficiency regarding construction noise impact was recorded during site inspection. In view of the above, it is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works.  Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:  Setting up of double layers of noise barrier to block the transmission of noise from breaking point to Noise Sensitive Receivers;  Conducting internal noise monitoring to ensure the noise mitigation measures are properly implemented; and  To check and maintain the noise insulating fabric enclosed the noisy part of the breaker.  Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site, such as  To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers;  To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary;  To provide regular training to the workers to	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<ul> <li>increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours;</li> <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.	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.  Existing U-channel near slope toe had been covered and	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					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.	
					<ul> <li>Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:</li> <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>	
C-009	N/A	Kong Nga Po Road (Feature A)	22 <sup>nd</sup> October 2021	The complainant complained about noise generated from rock breaking activities at Construction Site caused nuisance to his family and the village.	In addition, Contractor has also undertaken the follow up action as follow:  The hammer of excavator had been wrapped with	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<ul> <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>o provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours; and</li> <li>To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area.</li> </ul>	
C-010	N/A	Kong Nga Po Road	18 <sup>th</sup> November 2021	The complainant complained about noise and vibration generated from sheet-piling works and rock breaking works for pipe laying works at Kong Nga Po Road	<ul> <li>Noise mitigation measures have been implemented for sheet-piling works as below:</li> <li>noisy part of sheet-piling plant has been enclosed by sound insulation materials;</li> <li>proactive environmental protection proforma has been prepared to identify the potential noise impact to NSRs and corresponding mitigation measures has been implemented;</li> <li>toolbox talk training for site engineers and frontline workers on construction noise suppression has been conducted.</li> <li>In addition, noise mitigation measures have been implemented for rock breaking activities as below:</li> <li>hammer of the excavator has been wrapped by</li> </ul>	Closed

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

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

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-012	N/A	Works Area Near Lamp Post GD0460 at Kong Nga Po Road	3 <sup>rd</sup> May 2022	The complainant complained about the following issues:  - Noise from construction activities that caused nuisance to public  - Vibration may cause damage to nearby structure  - Suspected muddy water discharged into private drainage	The main construction works near the complaint location as stated by the complainant was the pre-boring works at works area "S0131" from 21 April 2022 to 30 April 2022. Observations have been spotted during the investigation as below:  Noise & Vibration  - Additional noise barrier has been erected for the pre-boring works to minimize the noise transmitted to the noise sensitive receiver (NSR) even the line of sight between the noise source point and the NSR was blocked by the natural barrier.  Muddy Water Discharge  - Wastewater Treatment Facilities has been in place and functioning to treat the wastewater generated from the pre-boring works.  - discharged effluent from the wastewater treatment system for the works area "S0131" has been sampled on 25 April 2022 and the test report showed a result of Total Suspended Solid of < 1 mg/L which complied with the requirement of < 30 mg/L as stipulated in Discharge Licence.  - no muddy water along the drainage near the complaint location was observed, the water flowing in the drainage was clean even after the heavy rainstorm on 12 May 2022.  - no chemical along the drainage near the complaint location was observed.  The following additional measures were implemented by the Contractor:	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				Noise & Vibration (26/4/2022)  - self-monitoring on noise at the NSR has been conducted and the result showed a noise level of Leq, T = 58.7dB(A) that no exceedance of noise level from the pre-boring works.  - self-monitoring on vibration at the NSR has been conducted and the result showed a vibration level of 2.977mm/s that was far lower than the Peak Partice Velocity Limits of 15mm/s.  Muddy Water Discharge  - additional clearance works for the existing draining to help to clear the soil accumulated in the draining brought from nearby existing earth and to ensure the blockage of the drainage.		
C-013	N/A	Works Area Near Lamp Post BD2355 at Kong Nga Po Road	23 <sup>rd</sup> June 2022	The complainant complained about vibration from construction activities that caused nuisance to a nearby Sensitive Receiver of the Police Dog Unit and Force Search Unit Training School (HKPDU)	The main construction works near the HKPDU mentioned by the complainant was the pre-boring works at Works Area "RD-A". The works were commenced on 11 June 2022 and completed on 21 June 2022. The following observations were made during the investigation:  - no vibration was noticed during the site inspection at Works Area "RD-A" for the pre-boring works on 15 June 2022  - a difference in elevation (at least 3m) between the Works Area "RD-A" and the nearby Sensitive Receiver was formed after the completion of backfilling for the retaining wall system and might has already reduced the vibration transmission to the Sensitive Receiver	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					The following additional measures were implemented by the Contractor:  - self-monitoring on vibration at the nearby Sensitive Receiver was conducted on 21 June 2022 and the result showed a vibration level of 0.348 mm/s that was far lower than the Peak Particle Velocity Limits of 15mm/s  - feasibility of alternative working methods to further minimize the vibration to nearby Sensitive Receivers for upcoming pre-boring works at other works area will be considered by the Contractor	

**Cumulative Complaint Log** 

Reporting Period	Total no. of Complaint Received
This reporting month	1
From 3 <sup>rd</sup> July 2020 to end of the reporting month	13

APPENDIX N SUMMARY OF SUCCESSFUL PROSECUTION

## Appendix N - Summary of Successful Prosecution

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