



Date: 15 June 2023

Your ref:

Our ref: PL-202306019

**Architectural Services Department** 40/F, Queensway Government offices 66 Queensway, Hong Kong

Attn: Mr. Vincent Kwok

Dear Mr. Kwok,

Re: Contract No. SS K/509

Provision of Independent Environmental Checker Consultancy for Design and Construction of Kong Nga Po Police Training Facilities **Verification of Monthly EM&A Report (April 2023)** 

Reference is made to the Monthly EM&A report provided by ET via email on 15 May 2023 and subsequent revision submitted on 15 June 2023, Version 5.0.

Please be informed that we have no adverse comments on the Monthly EM&A report (April 2023), Version 5.0. We hereby verify the submission is in accordance with Condition 3.4 of Environmental Permit No. FEP-01/510/2016.

Thank you for your attention.

Yours sincerely, For and on behalf of Acuity Sustainability Consulting Limited

Ir Y.H .LAW

Independent Environmental Checker

c.c. Ka Shing Management Consultancy Ltd.

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# Provision of Environmental Team consultancy for Design and Construction of Kong Nga Po Police Training Facilities (Programme No. 279LP)

# Monthly Environmental Monitoring and Audit Report for April 2023 (Version 5.0)

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

Mr. Lee (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.

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

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#### **EXECUTIVE SUMMARY**

#### Introduction

- 1. This is the 1st monthly Environmental Monitoring and Audit (EM&A) Report for the Project of Police Facilities in Kong Nga Po under Environmental Permit No. FEP-01/510/2016. This report was prepared by Ka Shing Management Consultancy Ltd. (Ka Shing) under "Service Contract Quotation No. PMB202/8480/2022/A01/A Provision of Environmental Team consultancy for Design and Construction of Kong Nga Po Police Training Facilities" (hereinafter called the "Service Contract"). This report documents the findings of Environmental Monitoring and Audit (EM&A) work conducted from 1st to 30th April 2023.
- 2. Part of the construction site was handed over to Architectural Services Department (ArchSD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase.
- During the reporting month, the following Works Contracts were undertaken for the Project of Police Facilities in Kong Nga Po under Environmental Permit No. FEP-01/510/2016: Contract No. SSK509 - Design and Construction of Kong Nga Po Police Training Facilities

# **Environmental Monitoring and Audit Progress**

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

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

EM&A Activities	Date
Air Quality Monitoring	4,10, 14, 20, 26April 2023
Noise Monitoring	4,10, 20,26April 2023
Ecological Monitoring	29April 2023
Environmental Site Inspection	4, 11, 19, 25April 2023
landscape & visual inspection and the ecological monitoring	11, 25 April 2023

# **Breaches of Action and Limit Levels**

- Summary of the environmental exceedances of the reporting month is tabulated in Table II.
   Air Quality
- 6. All construction air quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

# **Construction Noise**

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

Table II Summary Table for Events Recorded in the Reporting Month

Environmental Monitoring	Parameter	No. of Non-Project related Exceedances		No. of Exceedance related to the Construction Works of the Contract		Action Taken
		Action Level	Limit Level	Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	N/A
Noise	L <sub>eq(30min)</sub>	0	0	0	0	N/A

# **Ecological Monitoring**

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

# **Environmental Non-Compliance**

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

# **Environmental Complaint**

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

# **Notification of Summons and Successful Prosecutions**

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

# **Reporting Changes**

12. Part of the construction site was handed over to Architectural Services Department (ArchSD) on 23rd December 2022 whom took over responsibility for the construction of building works. So, the site activities and implementation status of environmental mitigation measures related to ArchSD Contract are presented in this Monthly EM&A Report.

# **Future Key Issues**

- 13. The major site activities for the coming three months include:
  - Setting up of site office
  - Plate load test
  - Open cut excavation
  - Removal of soil
  - Construction of footings
  - Trial Pile
  - U.U. lead in and pipe duct connection
- 14. Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality and waste management. For the details, please refer to **Appendix A** regarding the anticipated major impacts from the construction works and corresponding recommended mitigation measures.

# 1 INTRODUCTION

- 1.1 Ka Shing Management Consultancy Ltd. (Ka Shing) was commissioned by the Architectural Services Department (ASD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) works for the Project of Police Facilities in Kong Nga Po under Environmental Permit No. FEP-01/510/2016 to ensure that the environmental performance of the Works Contracts comply with the requirements specified in the Environmental Permits (EPs), Environmental Impact Assessment (EIA) Report and Environmental Monitoring & Audit (EM&A) Manual of the Police Facilities in Kong Nga Po Project and other relevant statutory requirements.
- 1.2 The major construction works for the Project commenced on 3rd July 2020 and the main site in Kong Nga Po was handed over to Architectural Services Department (ASD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase.

# **Purpose of the report**

1.3 This is the 1st EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 1st to 30thApril 2023.

# **Structure of the report**

- 1.4 The structure of the report is as follows:
  - Section 1: Introduction purpose and structure of the report.
  - Section 2: Project Information summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.
  - Section 3: Air Quality Monitoring summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event /Action Plans.
  - Section 4: Noise Monitoring summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event/Action Plans.
  - Section 5: Ecological Monitoring summarises the monitoring results of the monthly ecological monitoring undertaken within the reporting month.
  - Section 6: Landscape and Visual Monitoring summarises the audit results of the site inspection undertaken within the reporting month.
  - Section 7: Environmental Site Inspection summarises the audit findings of the weekly site inspections undertaken within the reporting month.
  - Section 8: Environmental Non-conformance summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.

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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 mainly includes construction and operation of various police facilities. The police facilities include:
  - (i) a helipad;
  - (ii) two firing ranges; and
  - (iii) other facilities, associated infrastructure & utilities, etc.
- 2.2 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.: FEP-01/510/2016) by the Director of Environmental Protection (DEP).
- 2.3 According to approved Environmental Monitoring and Audit (EM&A) Manual, an air quality and noise monitoring programme is recommended during the construction phases of the Project to monitor the expected dust and noise nuisances. Baseline air quality and noise monitoring were conducted by previous ET (Wellab Limited) from 14th March 2020 to 2nd April 2020 to establish the background conditions of the designated sensitive receivers prior to the commencement of the Project's construction works.
- 2.4 The site layout plan for the Project is shown in **Figure 1**.

# **Project Organization**

2.5 Different parties with different levels of involvement in the Project organization under EP no.: FEP-01/510/2016 include:

Project Proponent – Architectural Services Department (ArchSD)

Contractor- China State JV

Environmental Team (ET) – Ka Shing Management Consultancy Ltd.

Independent Environmental Checker (IEC) – Acuity Sustainability Consulting Limited

2.6 The key personnel contact names and numbers under Quotation No. PMB202/8480/2022/A01/A and the other contact names and numbers under ArchSD Contract No. SSK509 are summarised in Table 2.1.

Table 2.1 Key Contacts of the Project

Party	Role	<b>Contact Person</b>	Phone No.	Fax No.
Contract No. SSK509				

Architectural Services Department	Project Proponent	Mr. Vincent Kwok	2867 3939	3542 5223
Cantonatan	Site Agent	Mr. Kelvin Chan	6272 8828	2866 6325
Contractor (China State JV)	Senior Environmental Officer	Ms. Marian Kong	6174 9735	2866 6325
Ka Shing Management Consultancy Ltd.	ETL	Mr. Lee	2618 2166	2120 7752
Acuity Sustainability Consulting Limited  IEC		Ir. Y.H. Law	2698 6833	2698 9383

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

- 2.7 The major site activities undertaken in the reporting month included:
  - Ground investigation
  - Plate load test

# **Construction Programme**

- 2.8 A copy of Contractors' construction programmes is provided in Appendix A.
  Status of Environmental Licences, Notifications and Permits
- 2.9 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** 

D N.	Valid	Period	G			
Permit / Licence No.	From	To	Status			
<b>Environmental Permit (EP)</b>	Environmental Permit (EP)					
FEP-01/510/2016	N/A	N/A	Valid			
<b>Construction Noise Permit (</b>	(CNP)					
GW-RN0132-23	07-02-2023	06-05-2023	Valid			
Notification pursuant to Air	Pollution Co	ntrol (Constru	uction Dust) Regulation			
EPD Ref no.: 487864	N/A	N/A	N/A			
Billing Account for Constru	ction Waste I	Disposal				
Account No. 7046289	18-01-2023	N/A	Valid			
Registration of Chemical W	aste Producei	•				
WPN5213-641-C4770-01	18-01-2023	N/A	Valid			
Effluent Discharge Licence under Water Pollution Control Ordinance						
WT00043663-2023	21-04-2023	30-04-2028	Valid			

**Summary of EM&A Requirement** 

- 2.10 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**

2.11 The status of compliance with Environmental Permit (EP) No. FEP-01/510/2016 and required submission related to this Project under the EP is summarized in **Table 2.3**:

Table 2.3 Summary Table for Status of Compliance / Required Submission under FEP No. FEP-01/510/2016

EP Conditions	Submission	Submission Date	Approval Status
1.12	Notification of Commencement Date of Construction	30/3/2023	*
2.7	Proposal on the Reporting Mechanism and Curriculum Vitae of the IEC	20/3/2023	*
2.10	The date of setting up the Community Liaison Hotline and the contact details	27/2/2023	*
2.11	Management Organizations	10/3/2023	*
2.12	Construction Works Schedule and Location Plans	10/3/2023	*
2.13	Layout plan for permeable pavings	29/3/2023	For approval
2.14	Landscape and visual mitigation plan	1 month before landscaping work (mid May)	For approval
2.16	Plan for perimeter walls/ boundary wall sat project site and sidewalls of firing range	1 month before fence wall works	For approval
2.19	Submission of Helicopter Flight Plan	1 month before commencement of operation of Helipad	Notification
3.3	Baseline Air Quality and Noise Monitoring Report	30/3/2023	Deposit
4.2	Internet address of a dedicated web site	13/4/2023	Notification

Remarks: \* Approval not required in FEP-01/510/2016

# 3 AIR QUALITY MONITORING

# **Monitoring Requirements**

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

#### **Monitoring Location**

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

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

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

# **Monitoring Equipment**

- 3.4 As the setup of HVS for 1-hour TSP monitoring at the designated locations and request for secured supply of electricity for HVS were not allowed by the villager, direct reading dust meters was therefore used to carry out the 1-hour TSP monitoring. Dust meter has been commonly used for measuring 1-hour TSP levels in a number of designated projects of major infrastructure works. The proposed use of direct reading dust meter was submitted to IEC and agreed by the IEC. With the use of direct reading dust meter, it can allow prompt and direct results for the EM&A reporting and the implementation of the event and action plan. The 1-hour sampling was determined on bi-monthly basis by the HVS to check the validity and accuracy of the results measured by direct reading method.
- 3.5 **Table 3.2** summarises the equipment used in the impact air quality monitoring programme. Copies of calibration certificates are attached in **Appendix C**.

Table 3.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Dust Monitor	SIBATA (LD-3B)	1

- 3.6 Meteorological information was extracted from "Hong Kong Observatory General Weather Conditions during the Monitoring Period (April 2023)" in **Appendix G** as the alternative method to obtain representative wind data.
- 3.7 The weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staffs as well during the monitoring days.

# 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)

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

#### Maintenance/Calibration

- 3.11 The following maintenance/calibration was required for the direct dust meters:
  - Check and calibrate the dust meter by high volume sampler (HVS) to check the validity
    and accuracy of the results measured by direct reading method. Calibration of dust meter
    should be carried out on a bi-monthly basis throughout all stages of the air quality
    monitoring.
  - The correlation of dust meter and HVS in TSP measurement was obtained by direct comparison of the weight of dust particle trapped in a filter paper using HVS with the reading of the dust meter. Calibration of the dust meter with HVS should be powered on and off at the same location and the same time.
  - The correlation coefficient was checked to establish the correlation relationship between the dust meter and HVS. The correlation factor was determined by comparing the results of HVS and dust meter.
  - Checking is made prior to dust monitoring commencing to ensure all equipment is in good working condition with necessary power supply. Zero count test were conducted before and after each monitoring event.

#### **Results and Observations**

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

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

Monitoring Station	Concentration (μg/m³)		Action Level,	Limit Level, μg/m³	
	Average	Range	μg/III		
AM1	55	45 – 61	308	500	
AM2	59	55–63	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

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	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. With reference to the principle of EIA report of the Project, noise monitoring station within 300 m from the boundary of this Project are considered. In such regard, six noise monitoring stations as shown in **Figure 3** as relevant monitoring locations. Table 4.1 describes the locations of the noise monitoring stations.

**Table 4.1 Location of Noise Monitoring Stations** 

Monitoring Station	Location of Measurement
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

# **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
Sound Level Meter	RION NL-52	1
Sound Calibrator	RION NC-73	1

# **Monitoring Parameters, Frequency and Duration**

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

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

Monitoring Stations	Parameter	Duration	Frequency	Measurement
NM9	L10(30 min.)			Free field <sup>[1]</sup>
NM10	$dB(A)^{[2]}$			Free field <sup>[1]</sup>
NM11	L90(30 min.)			Façade
NM12	$dB(A)^{[2]}$	0700-1900 hrs on	Once per	Façade
NM13	Leq(30 min.)	normal weekdays	week	Free field <sup>[1]</sup>
NM14	dB(A) <sup>[2]</sup> (as six consecutive Leq, 5min readings)			Free field <sup>[1]</sup>

#### Remarks:

[2]: A-weighted equivalent continuous sound pressure level (Leq). 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.

L10 is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L10.

L90 is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

# Monitoring Methodology and QA/QC Procedures

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

— frequency weighting : A

— time weighting : Fast

— time measurement : Leq(30 min.) dB(A)

(as six consecutive Leq, 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

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

- 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 Leq, L90 and L10 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

Manitanina Station	Average	Range	Baseline Level	Limit Level
Monitoring Station	Leq (30 min) dB(A)	Leq (30 min) dB(A)	dB(A)	dB(A)
NM9 <sup>[1]</sup>	60.0	55.1- 63.8	55.9	
NM10 <sup>[1]</sup>	55.5	53.8- 56.4	52.8	
NM11	48.3	42.9- 51.4	46.4	75
NM12	48.7	43.8- 55.9	54.7	75
NM13 <sup>[1]</sup>	56.9	49.2- 63.1	61.3	
NM14 <sup>[1]</sup>	50.4	48.2- 54.5	59.6	

Remarks:

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

- 4.10 Construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. The summary of exceedance record in reporting month is shown in **Appendix J**.
- 4.11 According to our field observations, the major noise sources identified at the designated noise monitoring stations in the reporting month are as follows:

**Table 4.5 Observation at Noise Monitoring Stations** 

Monitoring Station	Major Noise Source	
NM9	Road traffic, excavation works, loading & unloading	
NM10	Road traffic, excavation works, loading & unloading	
NM11	Road traffic	
NM12	Road traffic, loading & unloading	
NM13	Road traffic, loading & unloading	
NM14	Road traffic, dog barking	

# **Event and Action Plan**

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

# 5 ECOLOGICAL MONITORING

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

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

# **Post-Transplantation Monitoring and Maintenance Programme**

- 5.4 According to approved transplantation proposal, post-transplantation monitoring should be conducted by the Contractor once per week in the first three months and once per month afterwards during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. Regular monitoring allows early detection of the growth status of transplanted species, sign of construction activity within and nearby the receptor site, and any environmental change of the receptor site.
- 5.5 Maintenance works were recommended for the first year of establishment to allow health growth of the transplanted species. In view of the condition of transplanted individuals after the 12-month establishment period, maintenance works were recommended to extend during the Post-establishment Period until the end of Construction Phase. Watering was recommended in daily practice during the first three months after the transplantation and

during dry season. Watering frequency may be reduced to at least twice a week and adjusted based on the plant condition to keep the soil moist. Other maintenance works like use of mulch and weeding shall be conducted if required.

# **Results and Observations**

- 5.6 Monthly monitoring of flora species of conservation interest was conducted by the Contractor on 29th April 2023 during the reporting month. The implementation status of protection measures as stated in the 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**. The health conditions of the transplanted / retained species are generally in fair to poor condition. The Contractor was reminded to closely monitor the transplanted species and implement the protection measures according to the approved transplantation proposal to protect the transplanted / retained species. In addition, the Contractor was also reminded of the following:
  - 1) To arrange the new tags for those Brainea insignis with missing tags;
  - 2) To replace the faded plant labels identified in the receptor site.

# 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 21st to 26th May 2020. Transplantation Report recording the process of transplantation have been submitted to ET(Wellab), IEC(Acuity)and the Supervisor (AECOM) 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 29th April 2023 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 2nd February 2021was 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.

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

interest	
Recommended Mitigation Measures	Implementation Status
Brainea insignis	
Identification of Plant Species of Conservation Importance to be Retained / Transplanted	۸
To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	
<b>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</b>	
a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed.	N/A
b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	N/A
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree	
a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.	۸
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.	۸
<b>Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree</b>	
a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted.	۸
b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	۸
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.	^
b) To apply mulches on the soil surface over the plant root system, if required.	^
c) To remove unwanted weeds found in receptor sites.	^
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas	
a) All works should be confined within the site boundary.	^
b) Access of site staff should be controlled.	^
c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works.	۸
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.	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.	^

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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.	^
Spiranthes sinensis	
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.	۸
<b>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</b>	
a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed.	N/A
b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	N/A
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree	
a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.	^
b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	^
Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree	
a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted.	^
b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	۸
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.	^
b) To apply mulches on the soil surface over the plant root system, if required.	^
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.	^
b) Access of site staff should be controlled.	^
c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works.	٨
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.	۸

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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.	۸
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 of signs.	۸
j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.	۸

	۸	Mitigation measure was fully implemented
	*	Observation/reminder was made during monitoring but improved/rectified by the contractor
Implementation	#	Observation/reminder was made during monitoring but not yet improved/rectified by the contractor
status: X	Non-compliance of mitigation measure	
Non-compliance but rectified by the contractor		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

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

- 5.9 According to FEP Condition 2.17, with consideration of minimizing impact on butterfly species of conservation interest, the re-establishment of the new grassland areas in the Project site shall be enhanced, through planting of appropriate plant species which are the larval food plants of butterfly species of conservation interest such as Small Three-Ring, in order to benefit these species.
- 5.10 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

5.11 In accordance with Section 9.7.3 of EIA Report, mitigation measures for air, noise, water, waste and landscape aspects could act as precautionary measures to prevent and minimize any indirect disturbance impact or pollution arisen from the construction activities on the local ecology and offsite habitats. Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Project site and the observations are summarised in Section 7.3.

# 6 LANDSCAPE AND VISUAL MONITORING

#### **Monitoring Requirements**

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

# 7 ENVIRONMENTAL SITE INSPECTION

# **Site Audits**

- 7.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site.
- 7.2 Site audits were conducted by ET with the representative of the Engineer's Representative and the Contractor on 4, 11, 19, 25 April 2023 in the reporting month. Joint site audits with the representative of the Engineer's Representative, the Contractor and IEC were carried out on 19th April 2023.
- 7.3 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table** 7.1.

Table 7.1 Observations and Recommendations of Site Audit

Parameters	Date	Observations	Follow Up Action
Air Quality	19/4/2023	Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	Stockpiles have been removed
Construction Noise Impact		No environmental deficiency was identified during the reporting month.	
Water Quality	4/4/2023	The labelling of chemicals missed	The labelling of chemicals has been displayed
Waste/ Chemical Management		No environmental deficiency was identified during the reporting month.	
Landscape and Visual		No environmental deficiency was identified during the reporting month.	
Ecology		No environmental deficiency was identified during the reporting month.	
Permit /Licences		No environmental deficiency was identified during the reporting month.	
Others	11/4/2023	Construction waste shall be removed timely	Construction waste has been removed

25/4/2023 Secondary container shall be provided for the chemicals to prevent soil contamination	The chemicals has been removed
---	--------------------------------

# **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 dry season against dust emission was found generally satisfactory despite some observations/recommendations as detailed above were raised. The mitigation measures implemented in April 2023 are shown in the summary table in **Appendix K**.

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

- 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**

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

# Summary of Environmental Summon and Successful Prosecution

8.7 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 programmes for the Project are provided in **Appendix A**. The major construction activities undertaken in the coming three months will include:
  - Ground investigation
  - Plate load test
- 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 Engineers through Email, during site audit and SSEMC meeting. The Proactive Environmental Protection Proforma summarizing the major site activities, potential environmental impacts and recommended mitigation measures was reviewed and endorsed by the Engineers, ET and IEC and was shown in **Appendix A**.
- 9.4 Dust can be generated during construction works and exposed site area during dry weather. To prevent high dust concentrations during the dry weather, the Contractor should pay attention on the air quality mitigation measures as far as practicable to minimise the dust impact to the villages which are located adjacent to the Project works (refer to the layout plan in Appendix A). The Contractor was also reminded to follow the Project Implementation Schedule in approved EIA report / EM&A Manual to implement appropriate dust control measure including "Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather and covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handling at the stockpile areas" as well as the relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation so that no adverse dust impact arising from the Project works site.

- 9.5 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.
- 9.6 The Contractor is also recommended to maintain water quality mitigation measures during construction works. 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.

# Monitoring Schedule for the Next Month

9.7 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 April 2023 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 4, 11, 18, 25 April 2023and landscape & visual inspection and the ecological monitoring on 11, 25 April 2023by ET in the reporting month. No environmental non-compliance was recorded in the reporting month.
- 10.5 No environmental complaint, 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 maintain the cover for stockpile of dusty materials and exposed slope for dust suppression;
- To enhance the dust suppression measures including watering for the dust generation works, exposed site area and haul road;
- To regular check the valid NRMM labels are properly displayed on the regulated machines and non-road vehicles; and
- To maintain the wheel washing facilities provided at every construction site exit where practicable are functioning properly.

#### 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 maintain the cover for open stockpile of and exposed slope;
- To keep reviewing and updating temporary drainage system;
- To maintain the earth bunds or sand bag barriers on site to direct stormwater to silt removal facilities;
- To maintain and ensure the silt removal facilities are functioning properly;
- To maintain the wheel washing facilities provided at every construction site exit where practicable are functioning properly; and
- To divert the muddy water at the retention pond to the wetsep for treatment before discharging out.

# Waste/Chemical Management

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

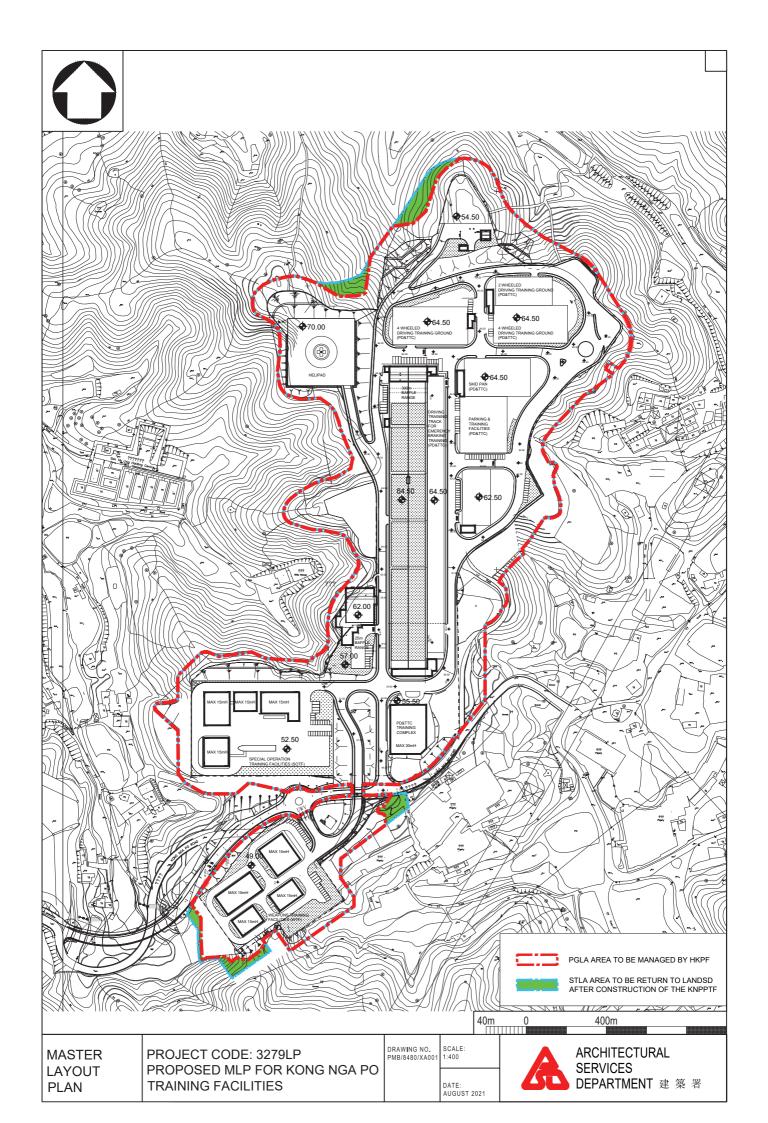
# Ecology

- To erect and maintain the protection fence around the retained trees / conservation species;
- To keep the tree protection zone large enough to protect the tress; and
- To remove the construction materials within the tree protection zone.

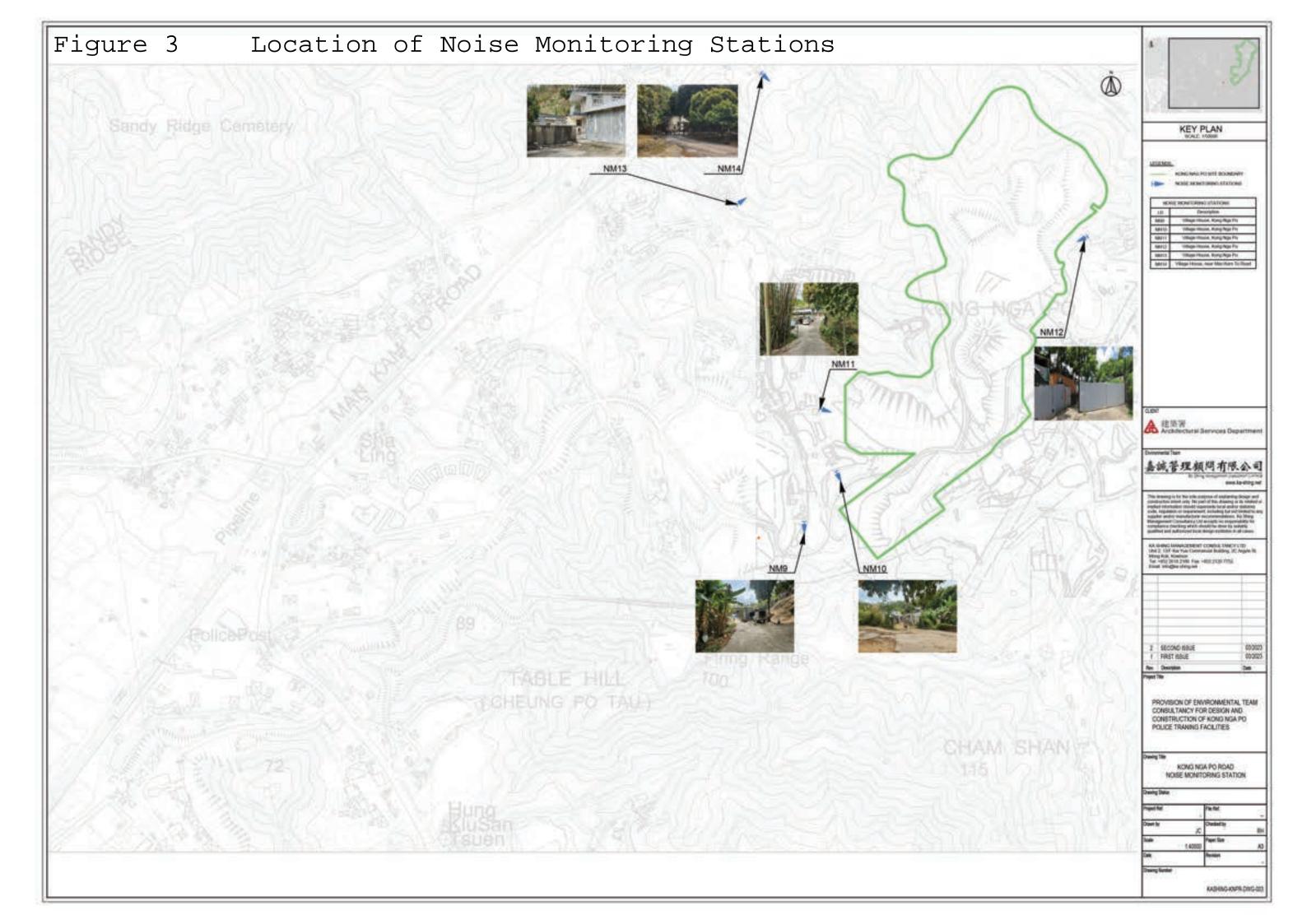
# Landscape and Visual

- To erect and maintain the protection fencing and tree protection zone around the preserved trees:
- To remove the construction materials within the tree protection zone; and
- To keep the tree protection zone large enough to protect the tress.

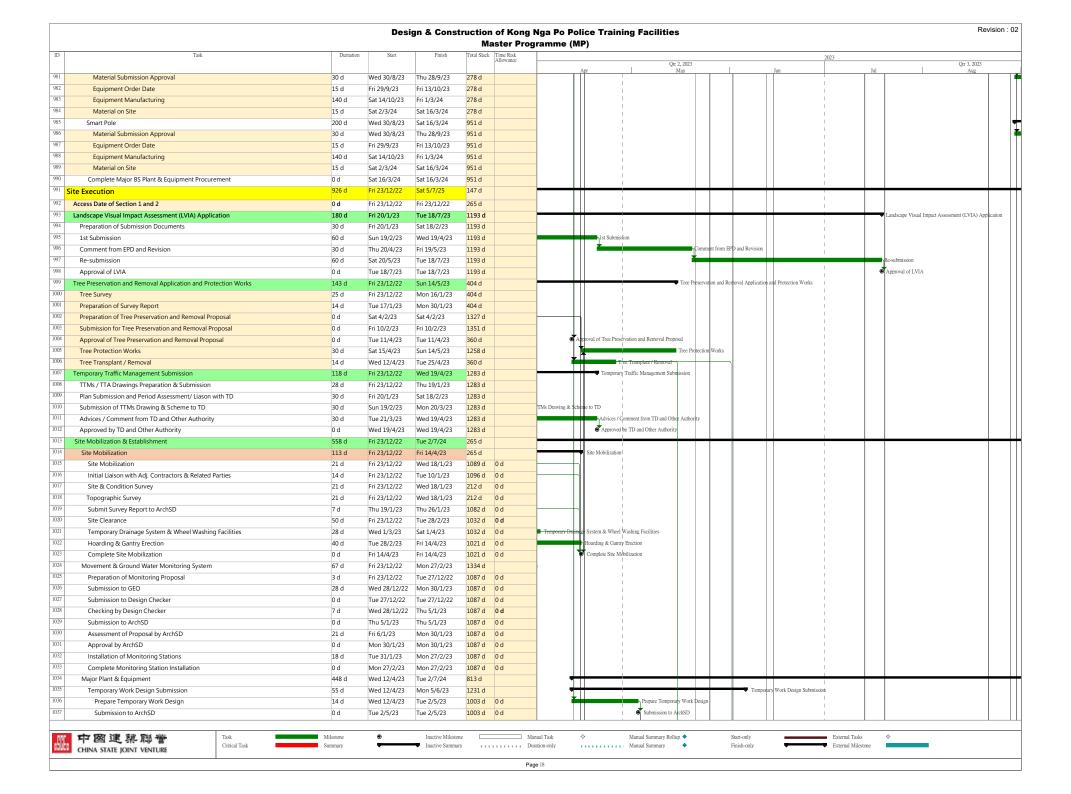
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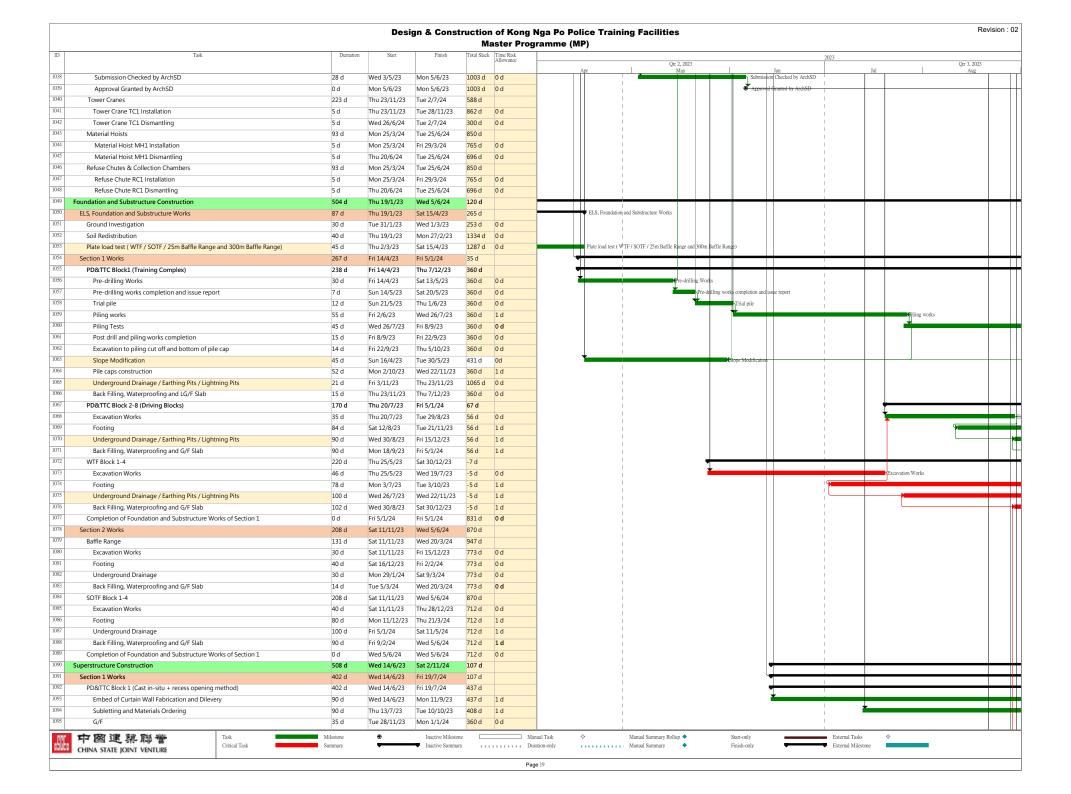




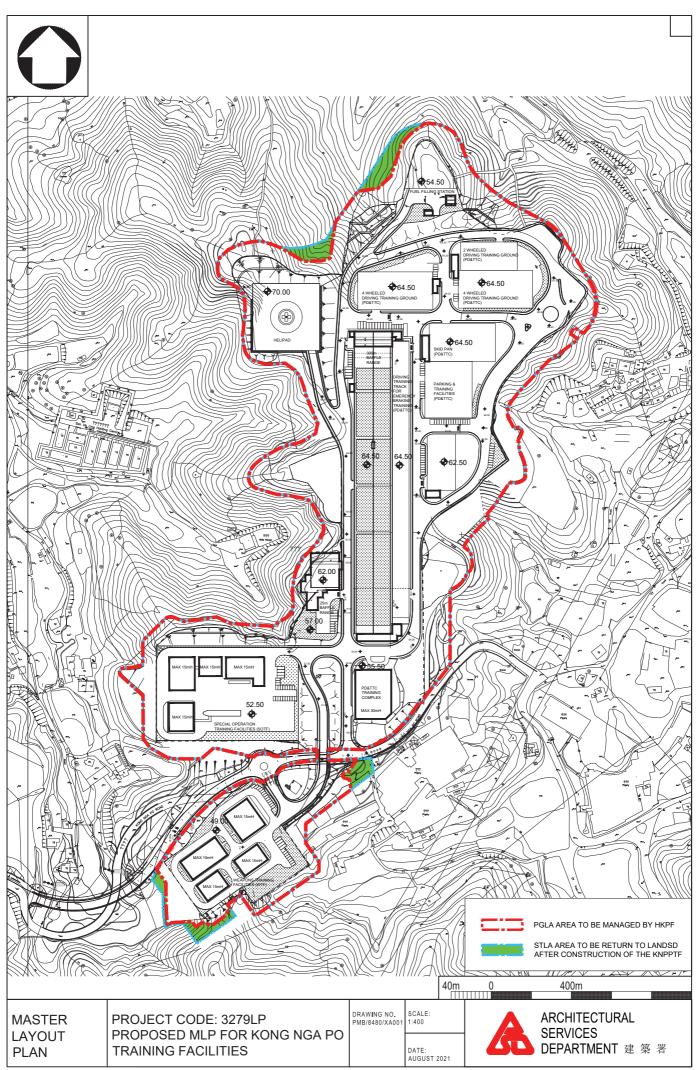


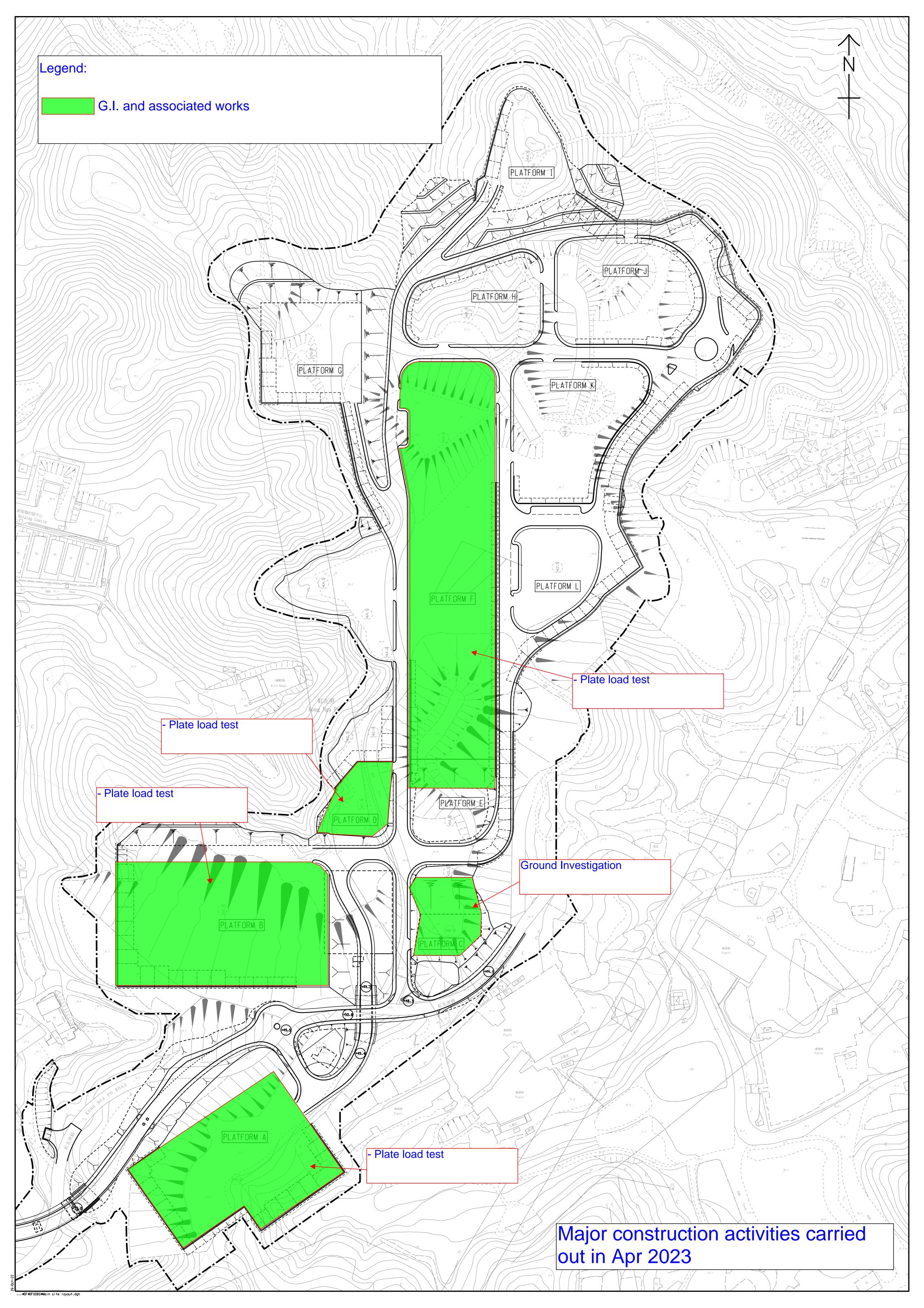
# APPENDIX A CONSTRUCTION PROGRAMME AND PROACTIVE ENVIRONMENTAL PROTECTION PROFORMA

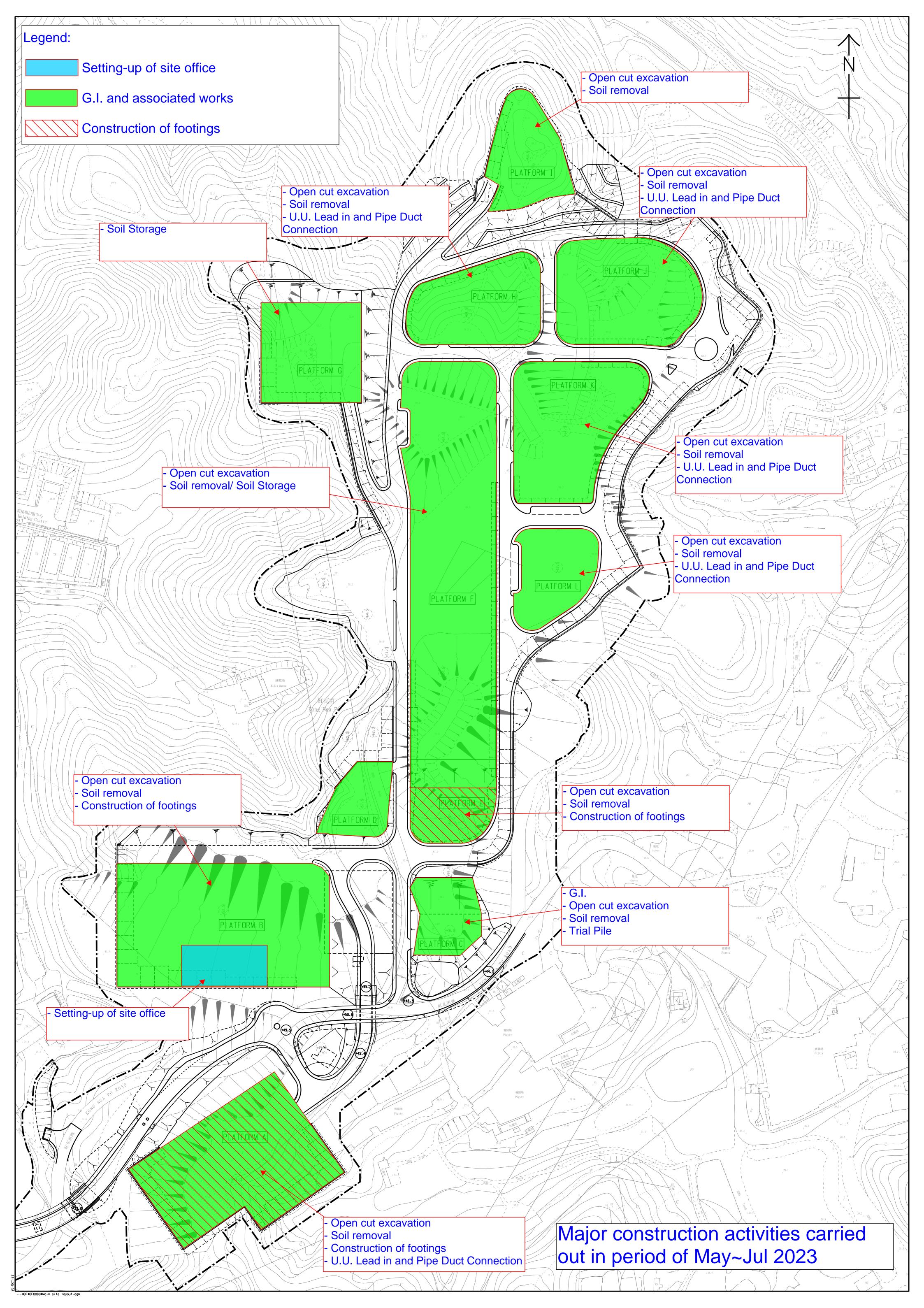




# Layout Plan with major construction activities







# Proactive Environmental Protection Proforma

# Design and Construction of Kong Nga Po Police Training Facilities <u>Proactive Environmental Protection Proforma</u>

Ref*	Proposed	Location/Working	Anticipated Major	Recommended Mitigation Measures
	Construction	Period	Impacts	
	Method			
EIA 3.9.1; EM&A Log 2.2	Open cut excavation	Kong Nga Po Site	Dust impact from excavation activities and earth moving	<ul> <li>times per day) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather</li> <li>Deploy water bowser for regular water spraying to enhance dust suppression</li> <li>Manual water spraying for dusty operation where inaccessible by water bowser</li> </ul>
				<ul> <li>Speed control of site transportation</li> <li>Stockpile of dusty materials will be covered by tarpaulin sheets to avoid wind-blown dust</li> <li>Vehicles used for transporting dusty materials/spoils will be covered by mechanical cover before leaving the site</li> <li>Wheel washing facilities will be provided and cleaning the wheel of all vehicles before leaving the site</li> </ul>
EIA 4.4.6;			Noise Control	Regular inspection and maintenance of plant & equipment in
EM&A Log 3.2				good condition

Working Period: May to July 2023

	Working ir Restricted Hours	<ul> <li>Enclose the noisy part of machineries with noise enclosure</li> <li>Adopt of Quality Powered Mechanical Equipment (QPME) if possible</li> <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>
EIA 5.6.1.2;	Water Pollution	Cover the stockpiles of construction materials to reduce the
EM&A Log 4.2	Control	potential for water pollution
		Provide wastewater treatment facilities prior to discharge of wastewater
		Regular inspection and maintenance of wastewater treatment facilities
		Wastewater pumped out of the excavation areas will be treated to remove suspended solids prior to discharge
		Hard paving or well-compact of main haul road to minimize washout of soil
		Wheels of all vehicles and plants will be cleaned before    Serving the week group to remove additionable soil and debries
		leaving the work areas to remove sediment, soil and debris from the tracked. The wastewater will be treated and reused on site or discharged.
EIA 7.5.1.1 &	Waste Generation	Training of site personnel in proper waste management and

7.5.1.2;				chemical handling procedures
EM&A Log 6.2				Proper storage and sorting of excavated inert materials to
				maximize on site reuse for backfilling
				Surplus inert C&D materials will be disposed of at designated
				Government's PFRF.
EIA 7.5.1.4;			Chemical Waste	Chemical waste should be stored at chemical waste container
EM&A Log 6.2				and collected by a licensed collector to transport and dispose
				of at the approved Chemical Waste Treatment Centre
				Drip tray and chemical spillage kit will be provided on site
EIA 9.7.1 and			Ecology Concern	Provide training to frontline workers for the conservative
EM&A Log 8.3				species
				Provision of protective fence for the conservative species
				Regular inspection for concerned vegetation and conservative
				species
EIA Table 10.11;			Landscape and	Preservation of existing trees will be undertaken in
EM&A Table 9.1			Visual Impact	accordance with DEVB TC(W) 7/2015 and Guidelines for Tree
				Risk Assessment and Management Arrangement
				Restrict construction area to minimize the impact on existing
				retained trees
EIA 3.9.1;	Soil Removal	Kong Nga Po Site	Dust impact from	Use of regular water spraying (once every 1.25 hours or 8
EM&A Log 2.2			excavation	times per day) at all active works area exposed site surfaces
			activities and earth	and unpaved roads, particularly during dry weather

EIA 4.4.6; EM&A Log 3.2	Moise Control	<ul> <li>Water spraying during loading and unloading of excavated materials</li> <li>Vehicles used for transporting dusty materials/spoils will be covered by mechanical cover before leaving the site</li> <li>Deploy water bowser for regular water spraying to enhance dust suppression</li> <li>Speed control of site transportation</li> <li>Stockpile of dusty materials will be covered by tarpaulin sheets to avoid wind-blown dust</li> <li>Wheel washing facilities will be provided and cleaning the wheel of all vehicles before leaving the site</li> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> </ul>
LIVIGA LOG 3.2		<ul> <li>Enclose the noisy part of machineries with noise enclosure</li> <li>Adopt of Quality Powered Mechanical Equipment (QPME) if possible</li> </ul>
	Working in Restricted Hours	Valid construction noise permit should be obtained and displayed on site
	1133113334 118413	<ul> <li>In case of non-compliance with the construction noise criteria,</li> <li>more frequent monitoring and action should be carried out</li> </ul>
EIA 5.6.1.2;	Water Pollution	Cover the stockpiles of excavated materials to reduce the
EM&A Log 4.2	Control	potential for water pollution

EIA 7.5.1.1 & 7.5.1.2; EM&A Log 6.2	Waste Generation	<ul> <li>Provide wastewater treatment facilities prior to discharge of wastewater</li> <li>Regular inspection and maintenance of wastewater treatment facilities</li> <li>Wheels of all vehicles and plants will be cleaned before leaving the work areas to remove sediment, soil and debris from the tracked. The wastewater will be treated and reused on site or discharged.</li> <li>Training of site personnel in proper waste management and chemical handling procedures</li> <li>Proper storage and sorting of excavated inert materials to maximize on site reuse for backfilling</li> <li>Surplus inert C&amp;D materials will be disposed of at designated</li> </ul>
		Government's PFRF.
EIA 7.5.1.4;	Chemical Waste	Chemical waste should be stored at chemical waste container
EM&A Log 6.2		and collected by a licensed collector to transport and dispose
		of at the approved Chemical Waste Treatment Centre
		Drip tray and chemical spillage kit will be provided on site
EIA 9.7.1 and	Ecology Concern	Provide training to frontline workers for the conservative
EM&A Log 8.3		species
		Provision of protective fence for the conservative species
		Regular inspection for concerned vegetation and conservative

				species
EIA Table 10.11; EM&A Table 9.1			Landscape and Visual Impact	<ul> <li>Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement</li> <li>Restrict construction area to minimize the impact on existing retained trees</li> </ul>
EIA 3.9.1; EM&A Log 2.2	Construction of footings	Kong Nga Po Site	Air	<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 entirely by impervious sheeting.</li> </ul>
EIA 4.4.6; EM&A Log 3.2			Noise Control	<ul> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> <li>Enclose the noisy part of machineries with noise enclosure</li> <li>Adopt of Quality Powered Mechanical Equipment (QPME) if possible</li> </ul>
			Working i 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>

EIA 5.6.1.2;			Water Pollution	Wheels of all vehicles and plants will be cleaned before
EM&A Log 4.2			Control	<ul> <li>leaving the work areas to remove sediment, soil and debris from the tracked. The wastewater will be treated and reused on site or discharged.</li> <li>Designated location for residual concrete washout</li> <li>Provide wastewater treatment facilities prior to discharge of wastewater</li> </ul>
EIA 7.5.1.4; EM&A Log			Chemical Waste	Drip tray and chemical spillage kit shall be provided on site
EIA 9.7.1 and EM&A Log 8.3			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 and conservative species</li> </ul>
EIA Table 10.11;			Landscape and	Preservation of existing trees will be undertaken in
EM&A Table 9.1			Visual Impact	<ul> <li>accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement</li> <li>Implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts</li> </ul>
EIA 3.9.1; EM&A Log 2.2	Trial pile	Kong Nga Po Site	Air	<ul> <li>Regular inspection and maintenance of plant and equipment in good condition</li> <li>Regularly clean up stockpiles and debris to avoid</li> </ul>

EIA 4.4.6; EM&A Log 3.2	Noise Control	<ul> <li>accumulation of materials</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> <li>Regular inspection and maintenance of plant &amp; equipment in good condition</li> <li>Enclose the noisy part of machineries with noise enclosure</li> </ul>
		<ul> <li>Adopt of Quality Powered Mechanical Equipment (QPME) if possible</li> </ul>
	Working in	Valid construction noise permit should be obtained and
	Restricted Hours	displayed on site
		• In case of non-compliance with the construction noise criteria,
		more frequent monitoring and action should be carried out
EIA 5.6.1.2;	Water Pollution	Cover the stockpiles of construction materials to reduce the
EM&A Log 4.2	Control	potential for water pollution
		<ul> <li>Provide wastewater treatment facilities prior to discharge of wastewater</li> </ul>
		Wastewater generated from piling or surface runoff shall be
		treated prior to discharge
EIA 7.5.1.1;	Waste	Cover stockpiles of C&D materials by impervious sheets to
EM&A Log 6.2	Management	avoid wind-blown dust.
		Spray water on all dusty materials including C&D materials

		immediately prior to any loading transfer operation
EIA 7.5.1.4;	Chemical Waste	Drip tray and chemical spillage kit shall be provided on site
EM&A Log 6.2		
EIA 9.7.1 and	Ecology Concern	Provide training to frontline workers for the conservative
EM&A Log 8.3		species
		Provision of protective fence for the conservative species
		Regular inspection for concerned vegetation and conservative
		species
EIA Table 10.11;	Landscape and	Preservation of existing trees will be undertaken in
EM&A Table 9.1	Visual Impact	accordance with DEVB TC(W) 7/2015 and Guidelines for Tree
		Risk Assessment and Management Arrangement
		Implement temporary traffic arrangement which control
		construction area to minimize landscape and visual impacts

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

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

# Design and Construction of Kong Nga Po Police Training Facilities <u>Proactive Environmental Protection Proforma</u>

Ref*	Proposed	Location/Working	Anticipated Major	Recommended Mitigation	Photo Records (Partial)
	Construction	Period	Impacts	Measures	
	Method				
EIA 3.9.1;	Ground	Kong Nga Po Site	Dust impact	• Deploy water bowser for	
EM&A Log 2.2	Investigation			regular water spraying to	
				enhance dust suppression	
				Manual water spraying for	
				dust suppression	No.
				• Regular inspection and	A Maria
				maintenance of plant and	The state of the s
				equipment in good	06.04.2023
				condition	By main contractor at KNP site
				Cover dusty materials with	
				impervious sheets	

Working Period: April 2023

	28.04.2023  By main contractor at KNP site
	By main contractor at KNP site

				03.04.2021  By subcontractor at KNP site
EIA 4.4.6;	Noise	•	Regular inspection and	and the standing
EM&A Log 3.2			maintenance of plant &	
			equipment in good condition	
		•	Deploy Quality Powered	The state   The
			Mechanical Equipment	EPD-A-003460-2017
			(QPME) if possible	20.04.2022
		•	Noise enclosure or acoustic	28.04.2023
			shed should be used to	By main contractor at KNP site
			cover stationary PME such	
			as air compressor or	
			generator.	

					04.04.2023
					By main contractor at KNP site
EIA 9.7.1 and		Ecology Concern	•	Provide training to workers	Mass.
EM&A Log 8.3				about the conservative	
				species	
			•	Provision of protective	
				fence for the conservative	
				species	I III
			•	Regular inspection for	
				concerned vegetation and	5.04.2023
				conservative species	By main contractor at KNP site

By sub-contractor at KNP site
-------------------------------

#### 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	500

#### 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



8/F Block B. Veristrong Industrial Centre, 34-36 Au Pui Wan Street. Fo Tan, Hong Kong

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Form Q/AS/C/02 Issue 1(1/4) [02/22]

#### **Calibration Certificate**

Certificate No.

CSA27669

Page

of

2

#### Information Provided by Customer

Customer

: ETS - Testconsult Limited

Address

: 8/F., Block B, Veristrong Industrial Centre, 34 - 36 Au Pui Wan Street, Fotan, Shatin, Hong Kong

#### Information of Unit-under-test (UUT)

Description

Sound Level Calibrator

Manufacturer

RION

Equipment I.D.

ET/EN/002/01

Type

NC-73

Serial No.

10196943

#### Laboratory Information

Lab. Ref. No.

Q/CAL/22/9442/I

Procedure

: CQS/002/A

Date of Calibration

7-Nov-2022

Date of Receipt

1-Nov-2022

Date of Issue

10-Nov-2022

Calibration Location

Calibration Laboratory

**Calibration Condition** 

Ambient Temperature : (20±3) °C

Relative Humidity

(50±20) %

Stabilizing Time

: 30 minutes

Sampling

As received

Ambient Pressure

: (1000±5) hPa

#### Reference equipment

- Multi-function sound calibrator, ET/2801/01
- Measuring Amplifier, ET/2702/01/01
- Signal generator, ET/2503/01
- Reference Oscilloscope, ET/2502/01

#### Calibration specification

- To perform the calibration of sound level calibrator

#### Calibration result

- The results are detailed on the subsequent pages.

#### Remarks

- The calibration results apply to the particular unit-under-test only.

- The values given in this calibration certificate only to the values measureed at the time of test & any underlanded quoted will not include allowance for the equipment long term drift, varifications with environmental changes, wheatland and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement

Calibrated By:

Tommy TAM & **Tony MA** 

(Technician)

Approved By:

CHAN Chi Wai



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#### **Calibration Certificate**

Certificate No. CSA27669

Page 2 of 2

#### Calibration Result:

1 Measured Sound Pressure Level:

Nominal Frequency (Hz)	Nominal Output Sound Pressure (dB)	Measured Output (dB)	Expanded Uncertatiny (dB)	Coverage Factor
1000	94.0	94 0	0.13	20

2 Actual Output Frequency:

Nominal Frequency Nominal Output (Hz) Sound Pressure (dB)		Measured Output (Hz)	Expanded Uncertatiny (Hz)	Coverage Factor	
1000	94.0	981.906	0 13	2.0	

#### Remark:

- The uncertainty quoted is based on 95 % confidence level.
- Measured output are mean of three measurements

\*\*\*End of certificate\*\*\*



# 東業德勤測試顧問有限公司

## **ETS-TESTCONSULT LTD.**

Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fo Tan, Hong Kong

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Form Q/AS/C/01 Issue 1(1/7) [09/21]

#### Calibration Certificate

Certificate No.

: CSA23783

1 1 of

3

#### Information Provided by Customer

Customer

: ETS - TESTCONSULT LIMITED

Address

8/F., Block B, Veristrong Industrial Centre, 34 - 36 Au Pul Wan Street, Fotan, Shatin, Hong Kong

#### Information of Unit-under-test (UUT)

Samuel Control	Sound Level Meter	Microphone	Pre-amplifier
Manufacturer	RION	RION	RION
Туре	NL-52	UC-59	NH-25
Equipment I.D. no.	ET/EN/003/17		
Serial No.	00264519	03558	64644
Adaptors used			
Resolution	0.1 dB		

#### Laboratory Information

Lab. Ref. No.

: Q/CAL/22/4437/I

Procedure

: CQS/001/A

Date of Calibration

: 22-Jun-2022

Date of Receipt

: 8-Jun-2022

Date of Issue

23-Jun-2022

Calibration Location

: Calibration Laboratory

#### Calibration Condition

Ambient Temperature : (20±3) °C

Relative Humidity

: (50±20) %

Stabilizing Time

: 30 minutes

#### Reference equipment

- Multi-function sound calibrator, ET/2801/01
- Signal generator, ET/2503/01

#### Calibration specification

To perform the calibration of linearity and frequecny response by multi-function sound calibrator.

#### Calibration result

- The results are detailed on the subsequent pages.

#### Remarks

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement

Calibrated By:

Tommy TAM (Technician) Approved By:

CHAN Chi Wai



# 東業德勤測試顧問有限公司 Weststong Industrial Certife, 34-36 Au Plul Wan Street, Fo Tan, Hong Kong ETS-TESTCONSULT LTD. 1: e852 2809 3318 E: e862 2809 3044

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#### **Calibration Certificate**

Certificate No. | CSA23783

Page: 2 of 3

#### Calibration Result:

Reference Sound Pressure Level : (Unit in: dB)

Ra	nge / Mode		Reference Level	REF Frequency (kHz)	UUT Reading	Deviation	Expanded Uncertainy	Coverage Factor
	Self-cal	14	94.0		94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
A-Weighting S	Mode	Fast	114.0		114.1	0.1	0.13	2.0
	Self-cal	+	94.0		94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
	Mode	Slow	114.0		114.1	0.1	0.13	2.0
A-Weighting —  C-Weighting —  Z-Weighting —	Self-cal		94.0	1	94.0	0.0	0.13	2.0
	Range	30-130	104.0		104.1	0.1	0.13	2.0
	Mode	Fast	114.0		114.0	0.0	0.13	2.0
	Self-cal		94.0		94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
	Mode	Slow	114.0		114.0	0.0	0.13	2.0
	Self-cal	( )	94.0		94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
Z-Weighting	Mode	Fast	114.0		114.0	0.0	0.13	2.0
	Self-cal		94.0		94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
Z-Weighting	Mode	Slow	114.0		114.0	0.0	0.13	2.0

#### Remark:

- The uncertainty quoted is based on 95 % confidence level.
- UUT reading are mean of three measurements.
- Deviation = UUT Reading Reference Level



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#### Calibration Certificate

Certificate No.

CSA23783

Page

: 3 of 3

#### Calibration Result:

Acoustic Sensitivity and Frequency Response:

3 Frequency Response A-Weighting (Unit in: dB)

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor	
			31.5	54.6	45.6	-9.0	0.15	2.0	
			63	67.8	62.3	-5.5	0.13	2.0	
			125	77.9	76.5	-1.4	0.13	2.0	
	Fast		250	85.4	86.4	1.0	0.12	2,0	
			500	90.8	92.1	1.3	0.12	2.0	
30-130		94	1000 (Ref.)	94.0	94.0	0.0	0.13	2.0	
			2000	95.1	93.4	-1.7	0.13	2.0	
				4000	94.9	91.3	-3.6	0.13	2.0
			8000	92.9	84.6	-8.3	0.14	2.0	
			12500	89.7	78.0	-11.7	0.14	2.0	
			16000	87.5	72.4	+15.1	0.14	2.0	

4 Frequency Response C-Weighting (Unit in: dB)

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
			31.5	91.0	80.2	-10.8	0.22	2.3
			63	93.2	87.6	-5.6	0.13	2.0
			125	93.8	92.4	-1.4	0.13	2.0
			250	94.0	95.0	1.0	0.12	2.0
	Fast		500	94.0	95.3	1.3	0.12	2.0
30-130		94	1000 (Ref.)	94.0	94.0	0.0	0.13	2.0
			2000	93.7	92.0	-1.7	0.13	2.0
			4000	93.1	89.6	-3.5	0.13	2.0
			8000	91.0	82.7	-8.3	0.14	2.0
			12500	87.8	76.2	-11,6	0.14	2.0
			16000	85.6	70.6	-15.0	0.14	2.0

5 Frequency Response Z-Weighting (Unit in: dB)

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor	
			31.5	94.0	83.2	-10.8	0.14	2.0	
		1	63	94.0	88.5	-5.5	0.29	2.6	
			125	94.0	92.6	-1.4	0.15	2.0	
			250	94.0	95.0	1.0	0.12	2.0	
0.035.03	Fast	1	500	94.0	95.3	1.3	0.12	2.0	
30-130		94	1000 (Ref.)	94.0	94.0	0.0	0.13	2.0	
			2000	94.0	92.2	-1.8	0.13	2.0	
			4000	94.0	90.3	-3.7	0.13	2.0	
				8000	94.0	85.6	-8.4	0.14	2.0
			12500	94.0	82.7	-11.3	0.14	2.0	
			16000	94.0	80.2	-13.8	0.14	2.0	

Remark:

- Signal level at 1000 Hz is set as indication of reference sound pressure level.
- The uncertainty quoted is based on 95 % confidence level with coverage factor k=2.0.
- UUT reading are mean of three measurements.
- Deviation = UUT Reading Reference Level



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#### TEST REPORT

#### **Calibration Report**

of

#### High Volume Air Sampler

Manufacturer

Graseby GMW

Date of Calibration

28 February 2023

Serial No.

1180 (ET/EA/003/04)

Calibration Due Date

27 April 2023

Method

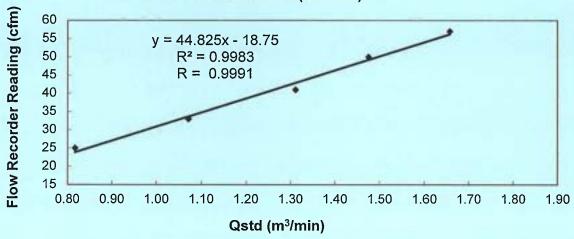
Based on Operations Manual for the 5-point calibration using standard calibration kit

manufactured by Tisch TE-5025 A

Results

Flow recorder rea	ding (cfm)		56	50	41	33	21
Qstd (Actual flow	rate, m³/min)	- 5	1.66	1.52	1.35	1.15	0.88
Pressure:	768.06	mm Hg		Temp.:	291	K	

#### Sampler 1180 Calibration Curve Site: Tuen Mun (TM-RA2)



Acceptance Criteria: Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\* / unacceptable \* for use.

Calibrated by

MAK, Kei Wai

(Assistant Supervisor)

Checked by

LAU, Chi Leung

(Environmental Team Leader)

- END OF REPORT -



### RECALIBRATION DUE DATE:

January 17, 2024

# Certificate of Calibration

**Calibration Certification Information** 

Rootsmeter S/N: 438320

Ta: 294

°K

Operator: Jim Tisch

iootsineter of the foods

Pa: 741.4

mm Hg

Calibration Model #:

Cal. Date:

TE-5025A

January 17, 2023

Calibrator S/N: 4128

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4370	3.2	2.00
2	3	4	1	1.0170	6.4	4.00
3	5	6	1	0.9140	8.0	5.00
4	7	8	1	0.8640	8.8	5.50
5	9	10	1	0.7170	12.8	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)	
0.9846	0.6852	1.4063	0.9957	0.6929	0.8905	
0.9803	0.9639	1.9888	0.9914	0.9748	1.2594	
0.9782	1.0702	2.2235	0.9892	1.0823	1.4081	
0.9771	1.1309	2.3321	0.9881	1.1437	1.4768	
0.9718	1.3553	2.8126	0.9827	1.3706	1.7811	
QSTD	m=	2.09676		m=	1.31296	
	b= -0.03027		QA	b=	-0.01917	
	r=	0.99991		r=	0.99991	

	Calculation	ons	
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/∆Time	Qa=	Va/∆Time
	For subsequent flow r	ate calculatio	ns:
Qstd=	$1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$	Qa=	$1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b$

	Standard Conditions
Tstd:	298.15 °K
Pstd:	760 mm Hg
	Key
ΔH: calibrato	r manometer reading (in H2O)
ΔP: rootsmet	er manometer reading (mm Hg)
Ta: actual ab:	solute temperature (*K)
Pa: actual ba	rometric pressure (mm Hg)
b: intercept	
m: slope	

#### RECALIBRATION

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

Tisch Environmental, Inc. 145 South Miami Avenue Village of Cleves, OH 45002 www.tisch-env.com

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



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#### TEST REPORT

#### Internal Calibration Report

#### of Dust Monitor

Manufacturer :

SIBATA (LD-3B)

Date of Calibration:

06 April 2023

Serial No.

155331 (ET/EA/001/09)

Calibration Due Date:

05 June 2023

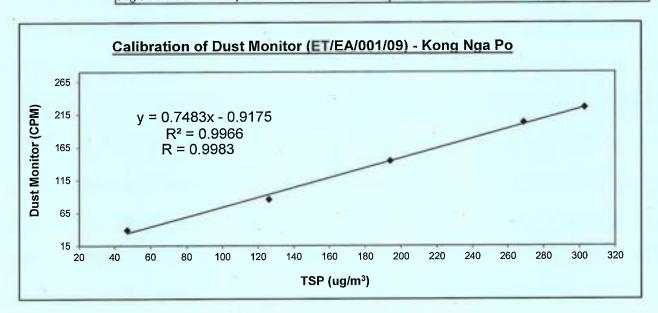
Method

Parallel measurement (Five-point calibration) by placing the Dust Monitor

and High Volume Air Samper together under the same environmental condition

Results

Dust Monitor (CPM)		86	144	203	226
TSP (ug/m <sup>3</sup> )	47	126	194	269	303
High Volume Air Sampler Serail No.: 1180	Calibration Due Date: 27 April 2023				



Acceptance Criteria

Correlation coefficient (R) of the calibration curve greater than 0.990 after a five-point

calibration

The Dust Trak Monitor complies \* / does not comply \* with the internal calibration procedures and is deemed acceptable \*/ unacceptable \* for use.

Calibrated by

CHENG, Hei Man (Technician) Checked by

LAU, Chi Leung

(Environmental Team Leader)

- END OF REPORT -



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#### Internal Calibration Report

of **Dust Monitor** 

Manufacturer : SIBATA (LD-3B)

Date of Calibration:

10 February 2023

Serial No.

155331 (ET/EA/001/09)

Calibration Due Date:

09 April 2023

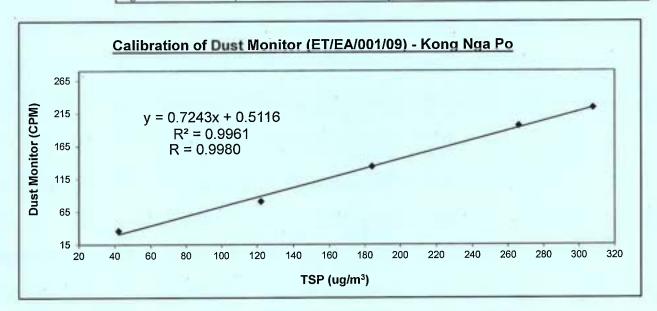
Method

Parallel measurement (Five-point calibration) by placing the Dust Monitor

and High Volume Air Samper together under the same environmental condition

Results

Dust Monitor (CPM)	36	81	134	196	224	
TSP (ug/m³)	42	122	184	266	308	
High Volume Air Sampler Serail No.: 1180	Calibration Due Date: 28 February 2023					



Acceptance Criteria

Correlation coefficient (R) of the calibration curve greater than 0.990 after a five-point

calibration

The Dust Trak Monitor complies \* / does not comply \* with the internal calibration procedures and is deemed acceptable \*/ unacceptable \* for use.

Calibrated by

CHENG, Hei Mar

(Technician)

Checked by

LAU, Chi Leung

(Environmental Team Leader)

- END OF REPORT -

APPENDIX D ENVIRONMENTAL MONITORING SCHEDULES

# Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Impact Air Quality and Noise Monitoring Schedule April-2023

Considere	Manday	Tuesday	18/a du a a da c	Thursday	Friday	Caturday
Sunday 26-Mar	Monday 27-Mar	Tuesday 28-Mar	Wednesday 29-Mar	Thursday 30-Mar	Friday 31-Mar	Saturday 1-Apr
20-ividi	21-ividi	ZO-IVIGI	23-ividi	1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)	3 I-rvidi	1-Арт
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
		1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14) Site inspection & audit				
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
	1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)	Site inspection & audit			<b>1-hr TSP x3</b> (AM1, AM2)	
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
10.14.		Site inspection & audit	10.14	1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)		
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
		Site inspection & audit Ecological Monitoring	1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)			
30-Apr	1-May	2-May	3-May	4-May	5-May	6-May
		Site inspection & audit 1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)				

## Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Impact Air Quality and Noise Monitoring Schedule May-2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30-Apr	1-May	2-May	3-May	4-May	5-May	6-May
		1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14) Site audit				
7-May	8-May	9-May	10-May	11-May	12-May	13-May
	1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)	Site audit			1-hr TSP x3 (AM1, AM2)	
14-May	15-May	16-May	17-May	18-May	19-May	20-May
		Site audit		1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)		
21-May	22-May	23-May	24-May	25-May	26-May	27-May
		Site audit & Ecological Monitoring	1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)			
28-May	29-May	30-May	31-May	1-Jun	2-Jun	3-Jun
		Site audit  1-hr TSP x3 (AM1, AM2)  NM (NM9 to NM14)				

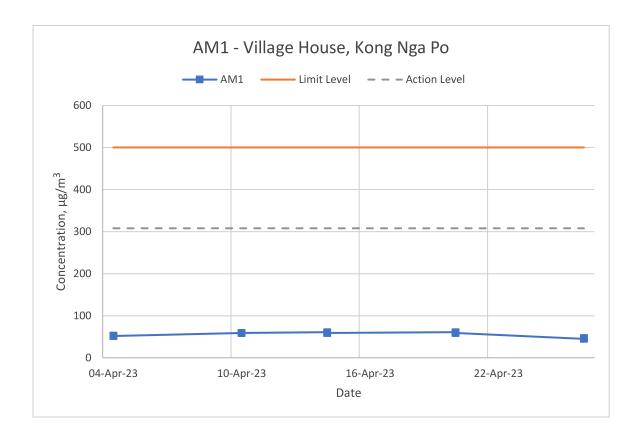
APPENDIX E AIR QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATION

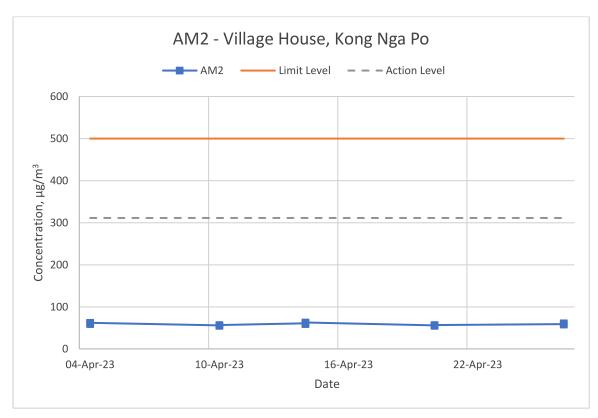
Appendix E - 1-hour TS	P Monitoring Results
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Location AM1	- Village Hou	ise, Kong Nga	Ро
Date	Time	Weather	Particulate Concentration (μg/m³)
	8:45		53
04-Apr-23	9:45	Drizzle	52
	10:45		52
	9:00		59
10-Apr-23	10:00	Fine	59
	11:00		59
	9:00		61
14-Apr-23	10:00	Fine	59
	11:00		59
	9:00		61
20-Apr-23	10:00	Fine	59
	11:00		59
	8:40		45
26-Apr-23	9:40	Fine	47
	10:40		47
		Minimum	45
		Maximum	61
		Average	55

Location AM2	- Village Hou	use, Kong Nga	а Ро
Date	Time	Weather	Particulate Concentration (μg/m³)
	11:00		59
04-Apr-23	13:00	Drizzle	62
	14:00		62
	13:00		56
10-Apr-23	14:00	Fine	55
	15:00		57
	8:45		61
14-Apr-23	9:45	Fine	59
	10:45		63
	13:00		56
20-Apr-23	14:00	Fine	55
	15:00		57
	10:00		59
26-Apr-23	11:00	Fine	58
	13:00		61
		Minimum	55
		Maximum	63
		Average	59

## 1-hr TSP Concentration Levels





APPENDIX F NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

# **Appendix F - Noise Monitoring Results**

Date	Weather	Wind Speed (m/s)	StartTime	Unit	: dB(A) (5-	min)	Average	Limit Level	Baseline
Date	Weather	Willa Speed (III/3)	Startime	$L_{eq}$	L <sub>10</sub>	L <sub>90</sub>	$L_{eq}$	$L_{eq}$	$L_{eq}$
				59.9	65.4	55.5			
				60.3	62.9	57.3			
04-Apr-23	Drizzle	0.2	9:20	60.8	63.2	57.7	59.9	75.0	55.9
0 1 7 pr 20	Dilleic	0.2	5.20	58.8	61.1	56.5	33.3	, 5.0	33.3
				59.4	62.2	56.0			
				59.7	61.9	55.4			
				55.3	56.0	52.2			
				58.4	61.8	54.2			
10-Apr-23	Fine	0.3	9:35	61.0	64.2	52.9	60.9	75.0	55.9
				63.8	65.7	51.9			
				62.2	65.1	51.7			
				60.4 55.1	64.8 55.8	50.0 52.0		1	
				58.6	62.0	54.2			
				61.0	64.2	52.9			
20-Apr-23	Rain	0.4	9.:35	63.7	65.8	52.0	60.9	75.0	55.9
				62.2	65.1	50.7			
				60.5	65.0	50.2			
				58.2	60.9	53.8			
				57.1	59.7	52.2			
				59.2	62.0	54.4			
26-Apr-23	Fine	0.3	9:15	58.2	60.4	54.5	58.4	75.0	55.9
				58.9	61.7	54.9			
				30.5	01.7	J <del>4</del> .J			
ocation NI	M10 - Villa	ge House, Kong Nga	Po	58.3	60.7	53.0			
				58.3		53.0	Average	Limit Level	Baseline
ocation NI	M10 - Villag Weather	ge House, Kong Nga Wind Speed (m/s)	Po Time	58.3	60.7	53.0	Average L <sub>eq</sub>	Limit Level	Baseline L <sub>eq</sub>
				58.3 Unit	60.7 :: dB(A) (5-	53.0 min)			
				58.3 Unit L <sub>eq</sub>	60.7 :: dB(A) (5- L <sub>10</sub>	53.0 min) L <sub>90</sub>			
Date	Weather	Wind Speed (m/s)	Time	58.3  Unit L <sub>eq</sub> 55.1 56.2 55.4	60.7 :: dB(A) (5- L <sub>10</sub> 57.4 58.8 57.9	53.0 min) L <sub>90</sub> 53.8 54.1 53.6	L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>
Date				58.3  Unit  L <sub>eq</sub> 55.1  56.2  55.4  55.9	60.7 :: dB(A) (5- L <sub>10</sub> 57.4 58.8 57.9 58.3	53.0  min)  L <sub>90</sub> 53.8  54.1			
Date	Weather	Wind Speed (m/s)	Time	58.3  Unit L <sub>eq</sub> 55.1 56.2 55.4 55.9 56.4	60.7 : dB(A) (5- L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8	53.0  min)  L <sub>90</sub> 53.8  54.1  53.6  54.2  54.4	L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>
Date	Weather	Wind Speed (m/s)	Time	58.3  Unit  L <sub>eq</sub> 55.1 56.2 55.4 55.9 56.4 56.0	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7	53.0  min)  L <sub>90</sub> 53.8  54.1  53.6  54.2  54.4  54.2	L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>
Date	Weather	Wind Speed (m/s)	Time	58.3  Unit  L <sub>eq</sub> 55.1 56.2 55.4 55.9 56.4 56.0 55.8	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6	53.0  min)  L <sub>90</sub> 53.8  54.1  53.6  54.2  54.4  54.2  48.4	L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>
Date	Weather	Wind Speed (m/s)	Time	58.3  Unit  Leq 55.1 56.2 55.4 55.9 56.4 56.0 55.8 56.4	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1	53.0  Min)  L <sub>90</sub> 53.8  54.1  53.6  54.2  54.4  54.2  48.4  48.9	L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>
Date 04-Apr-23	Weather	Wind Speed (m/s)	Time	58.3  Unit  L <sub>eq</sub> 55.1 56.2 55.4 55.9 56.4 56.0 55.8 56.4 54.3	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1 56.8	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0	L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>
Date	Weather  Drizzle	Wind Speed (m/s)  0.2	<b>Time</b> 8:45	58.3  Unit  L <sub>eq</sub> 55.1 56.2 55.4 55.9 56.4 56.0 55.8 56.4 54.3 54.7	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1 56.8 57.3	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9	L <sub>eq</sub> 55.9	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23	Weather  Drizzle	Wind Speed (m/s)  0.2	<b>Time</b> 8:45	58.3  Unit  Leq 55.1 56.2 55.4 55.9 56.4 56.0 55.8 56.4 54.3 54.7 55.6	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1 56.8 57.3 57.8	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1	L <sub>eq</sub> 55.9	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23	Weather  Drizzle	Wind Speed (m/s)  0.2	<b>Time</b> 8:45	58.3  Unit  Leq 55.1 56.2 55.4 55.9 56.4 56.0 55.8 56.4 54.3 54.7 55.6 56.0	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1 56.8 57.3 57.8 58.1	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5	L <sub>eq</sub> 55.9	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23	Weather  Drizzle	Wind Speed (m/s)  0.2	<b>Time</b> 8:45	58.3  Unit  Leq 55.1 56.2 55.4 55.9 56.4 56.0 55.8 56.4 54.3 54.7 55.6 56.0 55.8	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1 56.8 57.3 57.8 58.1 57.6	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4	L <sub>eq</sub> 55.9	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23 10-Apr-23	Weather  Drizzle	0.2	8:45 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.4  54.3  54.7  55.6  56.0  55.8  56.3	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1 56.8 57.3 57.8 58.1 57.6 58.1	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8	55.9 55.5	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23 10-Apr-23	Weather  Drizzle	Wind Speed (m/s)  0.2	<b>Time</b> 8:45	58.3  Unit  Leq 55.1 56.2 55.4 55.9 56.4 56.0 55.8 56.4 54.3 54.7 55.6 56.0 55.8 56.3 54.3	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 58.7 57.6 58.1 56.8 57.3 57.8 58.1 56.8 57.6 58.1	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0	L <sub>eq</sub> 55.9	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23	Weather  Drizzle  Fine	0.2	8:45 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.4  54.3  54.7  55.6  56.0  55.8  56.3  54.3  55.6	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 57.6 58.1 56.8 57.3 57.8 58.1 57.6 58.1 56.8 57.9	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0 49.2	55.9 55.5	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23 10-Apr-23	Weather  Drizzle  Fine	0.2	8:45 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.4  54.3  54.7  55.6  56.0  55.8  56.3  54.3  55.6  55.6	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 57.6 58.1 56.8 57.3 57.8 58.1 57.6 58.1 57.6 58.1 57.8 58.1 57.8	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0 49.2 49.3	55.9 55.5	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23 10-Apr-23	Weather  Drizzle  Fine	0.2	8:45 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.4  54.3  54.7  55.6  56.0  55.8  56.3  54.3  55.6	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 57.6 58.1 56.8 57.3 57.8 58.1 57.6 58.1 57.6 58.1 57.8 57.8 58.1 57.6 58.1	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0 49.2 49.3 49.4	55.9 55.5	75.0	L <sub>eq</sub> 52.8
<b>Date</b> 04-Apr-23 10-Apr-23	Weather  Drizzle  Fine	0.2	8:45 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.4  54.3  54.7  55.6  56.0  55.8  56.3  54.3  55.6  55.6  56.0	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 57.6 58.1 56.8 57.3 57.8 58.1 57.6 58.1 57.6 58.1 57.8 58.1 57.8	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0 49.2 49.3	55.9 55.5	75.0	L <sub>eq</sub> 52.8
Date  04-Apr-23  10-Apr-23  20-Apr-23	Weather  Drizzle  Fine  Rain	0.2 0.2	9:00 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.4  54.3  54.7  55.6  56.0  55.8  56.3  54.3  55.6  56.0  55.6  55.6	60.7 L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 57.6 58.1 56.8 57.3 57.8 58.1 57.6 58.1 57.6 58.1 57.8 58.1 57.6 58.1 57.8 58.1 57.6 58.1 57.8 58.1 57.6 58.1 57.8 58.1 57.6 58.1 57.8 58.1 57.8 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.1 57.6 58.0 58.1 57.6 58.0	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0 49.2 49.3 49.4 52.0	55.9 55.5	75.0 75.0	52.8 52.8
<b>Date</b> 04-Apr-23 10-Apr-23	Weather  Drizzle  Fine	0.2	8:45 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.4  54.3  54.7  55.6  56.0  55.8  56.3  54.3  55.6  56.0  55.1  54.4	60.7  L10 57.4 58.8 57.9 58.3 58.8 57.6 58.1 56.8 57.3 57.6 58.1 57.6 58.0 56.8 57.9 58.0 56.8 57.9 58.0 56.8	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0 49.2 49.3 49.4 52.0 51.6	55.9 55.5	75.0	L <sub>eq</sub> 52.8
Date  04-Apr-23  10-Apr-23  20-Apr-23	Weather  Drizzle  Fine  Rain	0.2 0.2	9:00 9:00	58.3  Unit  Leq  55.1  56.2  55.4  55.9  56.4  56.0  55.8  56.0  55.8  56.3  54.3  55.6  56.0  55.6  55.6  56.0  55.1  54.4  53.8	60.7  L <sub>10</sub> 57.4 58.8 57.9 58.3 58.8 57.6 58.1 56.8 57.3 57.6 58.1 57.6 58.0 56.8 57.9 58.0 56.8 57.9 58.0 55.7	53.0  min)  L <sub>90</sub> 53.8 54.1 53.6 54.2 54.4 54.2 48.4 48.9 48.0 48.9 49.1 49.5 48.4 48.8 48.0 49.2 49.3 49.4 52.0 51.6 51.4	55.9 55.5	75.0 75.0	52.8 52.8

				Unit	:: dB(A) (5-	min)	Average	Limit Level	Baseline
Date	Weather	Wind Speed (m/s)	Time	$L_{eq}$	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	$L_{eq}$
				49.6	53.1	44.4			
				48.1	51.7	43.4			
04-Apr-23	Drizzle	0.3	10:00	46.6	48.7	44.2	48.9	75.0	46.4
04-Apr-25	Diizzie	0.3	10:00	47.3	48.5	45.5		/5.0	46.4
				50.4	52.8	47.3			
				49.9	51.7	46.9			
				51.4	49.0	43.7			46.4
				47.2	47.8	43.0		75.0	
10-Apr-23	Fine	0.2	10:10	47.4	50.2	43.2	48.3		
10-Apr-25				48.9	51.5	43.9			
				47.8	50.7	43.4			
				42.9	51.0	43.3			
				51.4	49.0	43.7			46.4
				47.2	47.8	43.1			
20-Apr-23	Rain	0.2	10:10	47.3	49.9	43.0	48.7	75.0	
20-Api-23	Naiii	0.2	10.10	48.9	51.5	43.9	40.7	75.0	40.4
				47.7	50.6	43.3			
				47.9	50.9	43.2			
				45.5	46.9	43.0			
				48.7	50.9	46.0			
26-Apr-23	Fine	0.3	10:50	45.8	47.2	44.6	17.2	75.0	16.4
20-Ahi-52	Fille	0.5	10.50	48.0	49.7	45.4	47.2	/3.0	46.4
				46.8	48.2	45.2			
				47.7	49.5	44.7			

				Unit	: dB(A) (5-	min)	Average	Limit Level	Baseline
Date	Weather	Wind Speed (m/s)	StartTime		L <sub>10</sub>	, L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
				<b>L</b> <sub>eq</sub> 55.9	57.8	49.4	Feq -	<b>-</b> eq	L <sub>eq</sub>
				54.9	57.8	49.4			
				50.6	52.7	47.3	1		
04-Apr-23	Drizzle	0.2	13:00	51.2	53.3	48.0	53.2	75.0	54.7
				51.7	53.9	47.5			
				52.0	54.4	48.4			
				43.8	46.9	39.6			
				49.5	47.6	40.3			
	Cloudy	0.2	13:00	44.9	48.7	40.9	46.4	75.0	54.7
10-Apr-23				45.5	49.9	41.5			
				46.0	50.1	42.3			
				46.1	50.5	42.9			
				43.8	46.9	39.5			
				49.4	47.6	40.3			
20 4 22	Classalis	0.3	13:00	44.9	46.7	40.8	46.3	75.0	F4.7
20-Apr-23	Cloudy	0.2	13:00	45.3	49.9	41.3	46.3	/5.0	54.7
				45.8	50.2	42.3			
				46.0	50.3	42.9			
				46.6	48.6	44.5			
				47.7	49.5	45.8			
26-Apr-23	Fine	0.3	10:00	49.2	50.8	46.6	48.9	75.0	54.7
20-Apr-23	rifle	0.5	10.00	50.4	51.7	47.7		/3.0	54.7
				48.8	49.9	46.2			
				49.5	50.9	47.0			

		ge House, Kong Nga I		Unit	: dB(A) (5-	min)	Average	Limit Level	Baseline
Date	Weather	Wind Speed (m/s)	Time	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	L <sub>eq</sub>
				50.2	51.9	48.3	- 1		
				50.8	52.3	49.0			
	5	0.0	44.00	54.6	56.2	48.9	-4.0	75.0	64.0
04-Apr-23	Drizzle	0.2	14:30	49.2	50.8	47.4	51.3	75.0	61.3
				50.5	52.9	48.0			
				49.8	51.1	48.3			
				61.7	63.7	58.8			
				62.3	63.9	59.6			
10 4 22	Clli	0.2	11.20	62.3	64.4	60.2	62.4	75.0	61.2
10-Apr-23	Cloudy	0.2	11:30	62.1	63.7	60.3	62.4	75.0	61.3
				63.1	64.2	61.4			
				62.6	63.8	60.4			
				61.8	63.8	58.8			
				62.3	63.8	59.7			
20 4 22	61 1	0.0	44.20	62.2	64.4	60.2	62.4	75.0	64.2
20-Apr-23	Cloudy	0.2	11:30	62.1	63.6	60.2	62.4	75.0	61.3
				63.1	64.2	61.3			
				62.6	63.8	60.4			
				52.4	54.0	48.8			
				51.9	53.3	47.2	1		
26.4.22		0.0	42.55	52.8	54.6	49.0	51.7	75.0	64.0
26-Apr-23	Fine	0.3	13:55	51.3	52.6	47.3		75.0	61.3
				50.7	51.8	46.2			
				51.0	52.5	46.9			
ocation N	M14 - Villag	ge House, near Man I	(am To Roa				1	1	
Date	Weather	Wind Speed (m/s)	Time		: dB(A) (5-		Average	Limit Level	Baselin
				L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	$L_{eq}$
				51.9	55.9	43.3			
				53.7	56.7	49.0			
04-Apr-23	Drizzle	0.2	13:50	50.2	53.8	44.0	52.3	75.0	59.6
				50.9	55.2	43.8			
				54.5	56.1	44.8			
				51.2	55.0	44.0			
				50.4	54.0	54.0			
				48.6	52.5	52.5			
10-Apr-23	Cloudy	0.2	10:55	49.1	53.0	53.0	49.5	75.0	59.6
10 Mpi 23	Cloudy	0.2	10.55	48.2	51.3	51.3	] -3.3	, 3.0	33.0
				49.8	52.1	52.1			
				50.4	54.2	54.2			
				50.4	53.9	40.4			
				48.8	52.6	39.3			
20 45- 22	Claudy	0.3	10.55	50.0	52.9	39.3	10.7	75.0	F0.0
20-Apr-23	Cloudy	0.2	10:55	48.2	51.3	39.2	49.7	75.0	59.6
				50.1	52.4	39.6	1		
							-		
				50.4	54.2	41.2			

49.4

48.2 51.3

49.1

50.9

51.2

13:15

26-Apr-23

Fine

0.3

52.7

50.2

53.5

51.8

55.8

56.1

42.8

41.9

44.8

45.0

46.4

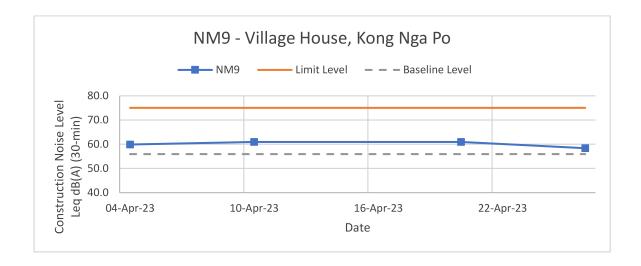
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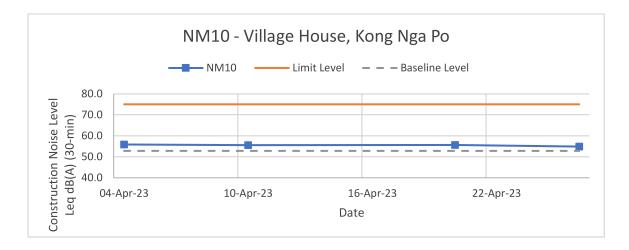
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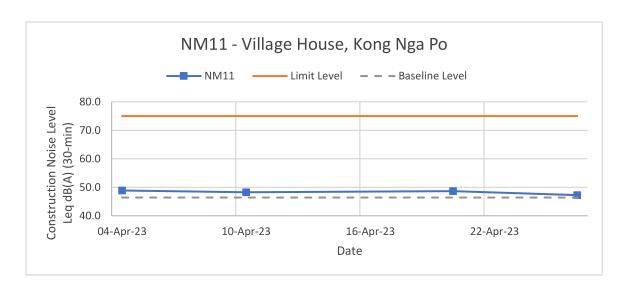
75.0

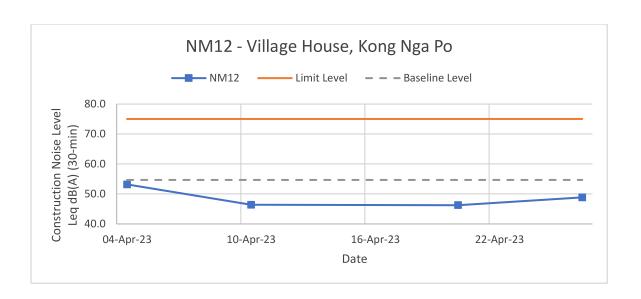
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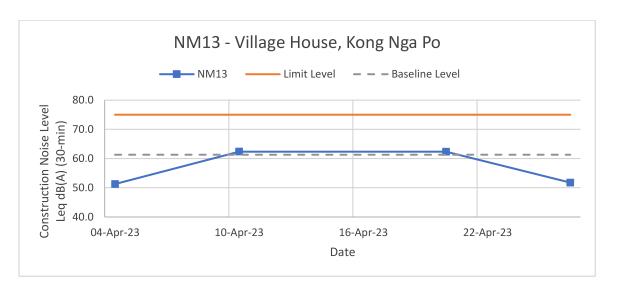
#### **Noise Levels**

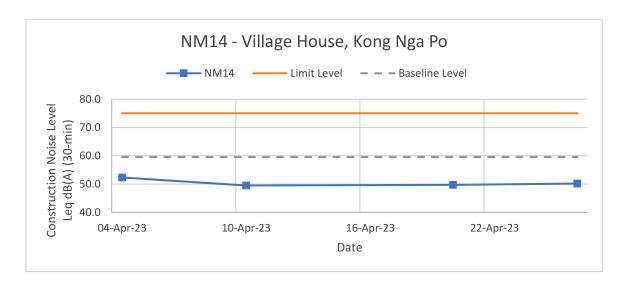












# APPENDIX G WEATHER CONDITION

Appendix G –

General Weather Conditions during the Monitoring Period (April 2023)

		Air T	emper	ature	Mean	N / 0 0 10		Describing	N / 0 0 10
Day	Mean Pressure	Absolute Daily	Mean	Absolute Daily	Dew Point	Mean Relative	Total Rainfall	Prevailing Wind	Mean Wind
Day	(hPa)	Max	(deg.	Min	(deg.	Humiaity	(mm)	Direction (degrees)	Speed
	, ,	(deg. C)	C)	(deg. C)	C)	(%)	, ,	(degrees)	(km/h)
01	1012.6	23.0	20.2	18.6	18.1	88	0.0	110	9.9
02	1012.1	21.5	20.8	20.0	19.0	90	3.5	110	10.3
03	1011.6	21.5	20.8	20.5	18.7	88	0.0	110	13.3
04	1009.0	26.3	23.4	20.5	21.8	90	2.0	110	10.0
05	1009.1	25.6	24.2	23.3	23.3	95	6.0	110	5.0
06	1010.6	29.1	24.9	20.6	22.8	88	4.5	220	4.8
07	1015.6	25.0	21.0	18.0	15.0	69	0.0	010	11.0
08	1020.3	21.5	19.8	17.6	14.4	71	0.0	110	5.0
09	1018.5	23.3	19.0	16.9	14.6	76	0.5	100	4.5
10	1014.8	25.0	21.3	18.8	16.8	76	0.0	110	9.8
11	1012.6	28.7	24.0	21.5	20.4	81	0.0	110	8.5
12	1012.1	30.7	24.6	19.4	20.1	78	0.0	100	6.0
13	1012.7	27.9	23.7	21.6	19.1	76	0.0	110	11.0
14	1010.6	29.1	24.5	21.6	21.3	83	0.0	110	5.5
15	1009.3	32.1	26.4	21.8	20.6	73	0.0	010	4.4
16	1009.3	32.5	25.5	19.1	20.0	74	0.0	100	5.8
17	1011.3	29.7	25.6	22.2	22.3	82	0.0	110	9.0
18	1009.7	31.0	26.3	23.1	23.4	85	1.5	130	5.8
19	1004.8	27.2	24.8	22.0	22.9	89	21.5	220	5.9
20	1003.8	26.8	24.3	22.8	22.7	91	6.0	120	7.5
21	1006.9	25.8	23.7	22.6	22.2	91	15.5	110	12.2
22	1010.3	24.7	23.1	22.4	20.7	87	0.0	110	15.3
23	1013.0	25.0	23.2	22.1	21.0	87	0.0	110	15.2
24	1014.0	25.2	23.2	21.9	21.4	90	4.0	110	8.3
25	1014.2	23.6	21.2	18.6	19.8	92	1.0	360	4.8
26	1014.8	25.5	21.2	17.6	15.0	69	0.0	360	9.9
27	1015.1	25.3	22.7	20.8	18.4	77	0.0	110	10.6
28	1013.5	29.9	24.5	21.3	21.0	82	0.0	100	9.6
29	1011.6	29.7	25.2	22.5	21.7	81	0.0	010	4.3
30	1012.2	28.7	23.9	20.3	17.4	68	0.0	360	8.7

<sup>\*</sup> The above information was extracted from the daily weather summary by Ta Kwu Ling Station.

# APPENDIX H ECOLOGICAL MONITORING RESULTS

Post-transplantation monitoring records for transplanted flora species (April 2023)

# Contract No.: SS K509 Design and Construction of Kong Nga Po Police Training Facilities

# Monitoring and Maintenance Works Report

INSPECTION DATE: 29 APRIL 2023 REPORT DATE: 01 MAY 2023

> PREPARED BY: Lau Siu Yeung, Andy (UKAA PR5206)

> > Version: 00

# Template of Post-transplantation Monitoring Checklist Design and Construction of Kong Nga Po Police Training Facilities

						Audit R	ef. No		_
Contra	act	SS K509							
Inspected By		Lau Siu Yeung (Andy)	Inspection Date 29/04/2023 Time Period 10:00 to 13:00				00		
Part A		nther				<b></b>			
Conditi Tempe Humid	rature	Sunny Fine Overcast Drizzle  29.7 °C  High (RH>90%) Moderate (90%>RH>50%)	Rain Low (F	St RH<50%)	orm	Hazy			
Wind		Calm Light Breeze Strong	r not observed	Yes	No	Follow-up	N/C	Remarks	
Part B						- • • • • • • • • • • • • • • • • • • •			
1.		<u>n Brainea insignis</u>		<u> </u>			_		
1.1	•	ants' health conditions satisfactory?  slanted plants on site protected carefully?							
1.3	Are the te	mporary protective fence properly erected and maintained?							
1.4		ant protection zone set 1m from the plants?				$\Box$	$\overline{\Box}$		
1.5	Are all gra	assed and planted area kept free from weeds/unwanted plants?							
1.6	Is compac	tion of the soil avoided for the plants?				$\overline{\Box}$	$\overline{\Box}$		
1.7	Are litter/	unwanted material removed within the planting area?							
1.8	Are equip	ment or stockpile placed outside the protection zone?				$\overline{\Box}$			
1.9		lebris or construction materials deposited around and against the plant as this causes bark damage avoided?							
1.10	Are fixing	s driven into plants avoided?							
1.11	Are the pl signs avoi	ants used for anchoring or winching purposes or for the display of ded?		$\triangle$					
1.12		re lit below the branches and petrol, oil or caustic substances stored lants avoided?		$\triangle$					
1.13	Are all pla	ants kept free from pest, disease or fungal infection?		$\square$					
1.14	Are there	enough area for growth and development of plant roots?		$\triangleleft$					
1.15a	Is exposur	re of plant roots avoided?							
1.15b	If not, wer	re broken off or rotting of roots avoided?		$\Box$					
2.	Ladice T	N/A o	r not observed	Yes	No	Follow-up	N/C	Remarks	
2.1		ants' health conditions satisfactory?							
2.2	Are transp	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?		$\square$					
2.5	Are all gra	assed and planted area kept free from weeds/unwanted plants?							
2.6	Is compac	tion of the soil avoided for the plants?							
27	Ara littar/	unwanted material removed within the planting area?							

# Template of Post-transplantation Monitoring Checklist Design and Construction of Kong Nga Po Police Training Facilities

		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2.8	Are equipment or stockpile placed outside the protection zone?		$\square$				
2.9	Are soil, debris or construction materials deposited around and against t trunk of a plant as this causes bark damage avoided?	he	$\Box$				
2.10	Are fixings driven into plants avoided?		$\triangle$				
2.11	Are the plants used for anchoring or winching purposes or for the displasigns avoided?	y of	$\triangle$				
2.12	Are the fire lit below the branches and petrol, oil or caustic substances s near the plants avoided?	tored	$\triangle$				
2.13	Are all plants kept free from pest, disease or fungal infection?		$\square$				
2.14	Are there enough area for growth and development of plant roots?		$\triangle$				
2.15a	Is exposure of plant roots avoided?		$\square$				
2.15b	If not, were broken off or rotting of roots avoided?		$\triangle$				
$\overline{\ }$	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?						
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 t trunk of a tree as this causes bark damage avoided?	he					
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?	of					
3.12	Are the fire lit below the branches and petrol, oil or caustic substances s near the trees avoided?	tored					
3.13	Are all trees kept free from pest, disease or fungal infection?		A				
3.14	Are there enough area for growth and development of tree roots?			$\Box$			
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?					A	
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 Design and Construction of Kong Nga Po Police Training Facilities

	Follow-up for the	Previous Site	Audit on Date:	(Ref. No	)	<b>N</b> 7	т и	NIC	D
	Is the situation in item		improved/rectified?	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
	Is the situation in item _		•		H	H	H	$\vdash$	-
	Is the situation in item _		-	H	H	H	H	H	
	Is the situation in item		•	H	H	$\vdash$	H	$\vdash$	
	Is the situation in item		•	H	$\vdash$	H	님	$\vdash$	
	Is the situation in item _		•		H	H	片	$\vdash$	
			•		$\vdash$	$\vdash$	H	$\vdash$	
	Is the situation in item _		•		$\vdash$	$\vdash$	H	$\vdash$	
	Is the situation in item		-		$\vdash$	$\forall$	믬	$\vdash$	-
	Is the situation in item		•		님	$\vdash$	님	님	
0.	Is the situation in item _		improved/rectified?		Ш	Ш	Ш	Ш	
The l	humidity clima	te conditio	- C	y improved with the area. The fog in the rolant health.	_	_			

Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities Monitoring and Maintenance Works for Flora Species of Conservation Interest

Inspection Date: 29/4/2023

Tree/Plant/	Number of	C N	Form	Health	D
Colony No.	Individuals	Species Name	(Good/Fair/Poor)	(Good/Fair/Poor)	Remark
	01	Brainea insignis	F	F	Young leaves observed
	02	Brainea insignis	F	F	Young leaves observed
	03	Brainea insignis	F	F	Young leaves observed
C-0001	04	Brainea insignis	F	F	Young leaves observed
C-0001	05	Brainea insignis	F	F	Young leaves observed
	06	Brainea insignis	F	F	Young leaves observed
	07	Brainea insignis	F	P	Young leaves observed
	08	Brainea insignis	F	F	Young leaves observed
	01	Brainea insignis	F	F	Young leaves observed
	02	Brainea insignis	F	F	Young leaves observed
	03	Brainea insignis	F	P	Young leaves observed
C-0002	04	Brainea insignis	F	P	Young leaves observed
C-0002	05	Brainea insignis	F	F	Young leaves observed
	06	Brainea insignis	F	F	Young leaves observed
	07	Brainea insignis	F	F	Young leaves observed
	08	Brainea insignis	F	F	Young leaves observed
C-0003	01	Brainea insignis	F	F	Young leaves observed
2 0002	01	Drumea insigms		1	Young leaves at base; Dry out
					caused by bushfire initially
	01	Brainea insignis	P	P	outside site boundary and high
					temperature on 2 Feb 2021
	02	Brainea insignis	F	F	Young leaves observed
	03	Brainea insignis	F	F	-
	04	Brainea insignis	F	F	_
	05	Brainea insignis	F	F	
	06	Brainea insignis	F	F	<u> </u>
	07	Brainea insignis	F	F	<u>-</u>
	08		F	P	Young leaves at base
	- 08	Brainea insignis  Brainea insignis	P	P	Dry out caused by bushfire
					initially outside site boundary
	09				and high
					_
	10	D i i i i .	F	P	temperature on 2 Feb 2021
	10	Brainea insignis			Young leaves at base
	11	Brainea insignis	F	P	Young leaves observed
	12	Brainea insignis	F	P	Young leaves observed
C-0004		Brainea insignis	- F	- F	Stem not found
	12				Dry out caused by bushfire
	13				initially outside site boundary
					and high temperature on 2 Fe
					2021
	14	Brainea insignis	Г	Г	Young leaves observed
		Brainea insignis Brainea insignis	P P	P P	Young leaves at base; Dry ou caused by bushfire initially
	15				-
	16				outside site boundary and hig
					Dry out caused by bushfire
					Dry out caused by bushfire initially
					outside site boundary and hig
	17	Dugin og ingigni	D	n	temperature on 2 Feb 2021
	17	Brainea insignis	P	P	Young leaves observed
	10	Brainea insignis	-	-	Burned by bushfire initially
	18				outside the site boundary on 2
	10	Duniu an inniani	T.	P	Feb 2021.
	19	Brainea insignis	F		-
	20	Brainea insignis	F	F	-

Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities Monitoring and Maintenance Works for Flora Species of Conservation Interest

Inspection Date: 29/4/2023

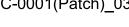
Tree/Plant/	Number of	Species Name	Form	Health	Remark	
Colony No.	Individuals	Species Name	(Good/Fair/Poor)	(Good/Fair/Poor)	Remark	
	01	Brainea insignis	F	F	-	
	02	Brainea insignis	F	F	-	
	03	Brainea insignis	F	F	Young leaves observed	
C-0005	04	Brainea insignis	F	F	Young leaves observed	
	05	Brainea insignis	F	P	Young leaves at base	
	06	Brainea insignis	F	F	-	
	07	Brainea insignis	F	F	-	
C-0006	01	Brainea insignis	P	F	-	
C-0007	01	Brainea insignis	F	F	-	
C-0007	02	Brainea insignis	F	P	-	
	01	Brainea insignis	F	F	Young leaves observed	
	02	Brainea insignis	F	F	-	
	03	Brainea insignis	P	P	-	
C-0008	04	Brainea insignis	F	F	-	
	05	Brainea insignis	F	F	Young leaves observed	
	06	Brainea insignis	F	P	-	
	07	Brainea insignis	F	P	Young leaves at base	
C-0009	01	Brainea insignis	F	F	Young leaves observed	
	01	Brainea insignis	F	F	Young leaves observed	
C-0010	02	Brainea insignis	F	F	Young leaves observed	
	03	Brainea insignis	F	F	Young leaves observed	
	01	Brainea insignis	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021	
	02	Brainea insignis	F	P	ı	
	03	Brainea insignis	P	P	Young leaves at base	
	04	Brainea insignis	F	F	-	
G 0011	05	Brainea insignis	F	P	Young leaves at base	
C-0011	06	Brainea insignis	F	F	Young leaves at base	
	07	Brainea insignis	P	P	Young leaves at base	
	08	Brainea insignis	F	F	Young leaves observed	
	09	Brainea insignis	P	P	-	
	10	Brainea insignis	F	F	Young leaves observed	
	11	Brainea insignis	F	F	Young leaves observed	
	12	Brainea insignis	P	P	-	
	13	Brainea insignis	F	F	-	



C-0001(Patch)\_01











C-0001(Patch)\_05





C-0001(Patch)\_07





C-0002(Patch)\_01





C-0002(Patch)\_03





C-0002(Patch)\_05





C-0002(Patch)\_07







C-0004(Patch)\_01





C-0004(Patch)\_03





C-0004(Patch)\_05





C-0004(Patch)\_07





C-0004(Patch)\_09





C-0004(Patch)\_11



C-0004(Patch)\_12



C-0004(Patch)\_13



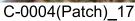
C-0004(Patch)\_14



C-0004(Patch)\_15











C-0004(Patch)\_19









C-0005(Patch)\_03









C-0005(Patch)\_07

Contract No.: SS K509



C-0006



C-0007(Patch)\_01





C-0008(Patch)\_01





C-0008(Patch)\_03





C-0008(Patch)\_05









C-0010(Patch)\_01





C-0010(Patch)\_03



C-0011(Patch)\_01





C-0011(Patch)\_03





C-0011(Patch)\_05





C-0011(Patch)\_07





C-0011(Patch)\_09





C-0011(Patch)\_11





C-0011(Patch)\_13

Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities

Monitoring and Maintenance Works for Flora Species of Conservation Interest

Inspection Date: 29/4/2023

Tree/Plant/ Colony No.	Species Name	Form (Good/Fair/Poor)	Health (Good/Fair/Poor)	Remark
L-0001	Spiranthes sinensis	-	-	Not observed
L-0002	Spiranthes sinensis	P	P	Leaf observed
L-0003	Spiranthes sinensis	P	P	Leaf observed
L-0004	Spiranthes sinensis	P	P	Leaf observed
L-0005	Spiranthes sinensis	-	-	Not observed
L-0006	Spiranthes sinensis	-	-	Not observed
L-0007	Spiranthes sinensis	-	-	Not observed
L-0008	Spiranthes sinensis	P	P	Leaf observed
L-0009	Spiranthes sinensis	-	-	Not observed
L-0010	Spiranthes sinensis	-	-	Not observed
L-0011	Spiranthes sinensis	-	-	Not observed
L-0012	Spiranthes sinensis	-	-	Not observed
L-0013	Spiranthes sinensis	-	-	Not observed
L-0014	Spiranthes sinensis	P	P	Leaf observed
L-0015	Spiranthes sinensis	P	P	Leaf observed
L-0016	Spiranthes sinensis	-	-	Not observed
L-0018	Spiranthes sinensis	F	F	Leaf observed
L-0019	Spiranthes sinensis	_	-	Not observed
L-0020	Spiranthes sinensis	_	-	Not observed
L-0021	Spiranthes sinensis	-	-	Not observed
L-0022	Spiranthes sinensis	P	P	Leaf observed
L-0023	Spiranthes sinensis	_	-	Not observed
L-0024	Spiranthes sinensis	_	-	Not observed
L-0025	Spiranthes sinensis	_	-	Not observed
L-0026	Spiranthes sinensis	_	-	Not observed
L-0027	Spiranthes sinensis	_	-	Not observed
L-0028	Spiranthes sinensis	_	-	Not observed
L-0029	Spiranthes sinensis	-	-	Not observed
L-0030	Spiranthes sinensis	-	-	Not observed
L-0031	Spiranthes sinensis	F	F	Leaf observed
L-0032	Spiranthes sinensis	-	-	Not observed
L-0033	Spiranthes sinensis	-	-	Not observed
L-0034	Spiranthes sinensis	-	-	Not observed
L-0035	Spiranthes sinensis	-	-	Not observed
L-0036	Spiranthes sinensis	_	-	Not observed
L-0037	Spiranthes sinensis	F	F	Leaf observed
L-0038	Spiranthes sinensis	-	-	Not observed
L-0039	Spiranthes sinensis	-	-	Not observed
L-0040	Spiranthes sinensis	P	P	Leaf observed
L-0041	Spiranthes sinensis	-	-	Not observed
L-0042	Spiranthes sinensis	-	-	Not observed



L-0001





L-0003















Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities

Monitoring and Maintenance Works for Flora Species of Conservation Interest



L-0009





L-0011



Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities

Monitoring and Maintenance Works for Flora Species of Conservation Interest



L-0013



L-0014



L-0015





L-0018



L-0019



L-0020





L-0022









L-0026











L-0030



Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities

Monitoring and Maintenance Works for Flora Species of Conservation Interest



L-0032





L-0034





L-0036



Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities

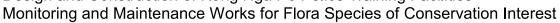
Monitoring and Maintenance Works for Flora Species of Conservation Interest



L-0038



Contract No.: SS K509 Design and Construction of Kong Nga Po Police Training Facilities





L-0040



Contract No.: SS K509
Design and Construction of Kong Nga Po Police Training Facilities

Monitoring and Maintenance Works for Flora Species of Conservation Interest



L-0042

Contract No.: SS K509

Design and Construction of Kong Nga Po Police Training Facilities

Monitoring and Maintenance Works for Flora Species of Conservation Interest

### Hong Da Landscaping Limited

Vegetation Maintenance Record Sheet (April 2023)

Description of Work																Date														
Description of Work	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					Y							Y							Y										Y	
Weeding												Y																	Y	
Fertilization																														
Pest/Disease Control																														
Firming up																														
Trimming of Wilted Foliage																														
Mulching																														
Inspection																													Y	
Checking of Protection Zone																													Y	
Remarks	R, ME	IR, RH	R, RE	R, RH	R, MH	R, ME	R, MH	R, MH	R, MH	R, MH	IR, MH	R, MH	IR, ME	R, MH	R, RH	R, RH	R, MH	R, RH	R, MH	IR, RH	RM	R, MH	R, MHI	R, MH	МН					
	Publ	olic Holiday H-Hot D-Drizzle R-Rainy W-Windy RH-High Humidity MH-Medium Humidity LH-Low Humidity																												



IMG\_2768





IMG\_6929



#### Post-transplantation Monitoring Checklist Police Facilities in Kong Nga Po

Contr	act	Provision of Environmental Team consultancy for Design and Construction						
		of Kong Nga Po Police Training Facilities (Programme no. 279LP)						
Inspec	ted By	ETL	Inspection Date Time Period	_	1-4-20 0:30 T	23 O 11:30		
Part A	Wo	ather						
Condit		Sunny Fine Overcast Drizzle	Rain	St	torm	Hazy		
Humid Wind	ity	High (RH>90%) Moderate (90%>RH>50%)  Calm Light Breeze Strong	Low (R	LH<50%)				
Part B		N/A	or not observed	Yes	No	Follow-up	N/C	Remarks
1.	Cycadfer	n Brainea insignis						
1.1	Are the p	lants' health conditions satisfactory?						
1.2	Are transp	planted plants on site protected carefully?						
1.3	Are the te	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	assed and planted area kept free from weeds/unwanted plants?						
1.6	Is compac	ction of the soil avoided for the plants?		$\overline{\Box}$			$\overline{\Box}$	
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 pl	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 pest, 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.	Ladies T	resses Spiranthes sinensis						
2.1		lants' health conditions satisfactory?						
2.2	Are transp	planted plants on site protected carefully?						
2.3	Are the te	emporary protective fence properly erected and maintained?						
2.4	Are the p	lant protection zone set 1m from the plants?						
2.5	Are all gr	assed and planted area kept free from weeds/unwanted plants?						
2.6	Is compac	ction of the soil avoided for the plants?						
2.7	Are litter/	unwanted material removed within the planting area?						

# Post-transplantation Monitoring Checklist Police Facilities in Kong Nga Po

		50.00	pat observed	Yes	No.	Fellew-up	NC	Remark	•
29	Are equipment or stockpile placed outside the pro-	otection zone" ed around and against the			0			_	_
	trunk of a plant as this causes bark damage avoid  Are fixings driven into plants avoided?	ed?						_	_
	Are the plants used for anchoring or winching pu	rposes or for the display of						-	
	signs avoided?  Are the fire lit below the branches and petrol, oil near the plants avoided?							_	_
213	Are all plants kept free from pest, disease or fung	al infection*							_
2.14	Are there enough area for growth and developme	nt of plant roots?						_	_
2.15a	Is exposure of plant roots avoided?				-	_			
2.156	If not, were broken off or rotting of roots avoided	r		Ч	_	_	_		
	Increase Trees Aquillaria sinesis  Are the trees's health conditions satisfactory?					0		_	7
	Are transplanted trees on site protected carefully						H	Z	
	Are the temporary protective fence properly erec						5		
	Are the tree protection zone set 1m from the tree.  Are all grassed and planted area kept free from w					9	石		_
	Is compaction of the soil avoided for the trees	7				D		-	_
	Are litter/ unwanted material removed within the	planting area?			Ø			_	_
3.8	Are equipment or stockpile placed outside the pro	election zone?		otag				_	_
3.9	Are soil, debris or construction materials deposite trunk of a tree as this causes bark damage avoide	ed around and against the	2					_	
	Are fixings driven into trees avoided?	/	/ 📙				Η		
3.11	Are the trees used for anchoring or winching purgigns avoided?	poses or for the display of		ш	_	_	_		
	Are the fire lit below the branches and petrol, oil near the trees avoided?								-
	Are all trees kept free from pest, disease or funga								
	Are there enough area for growth and developme	nt of tree roots?							
	Is exposure of tree roots avoided?	,							
	If not, were broken off or setting of roots avoided Are wounds/mechanical injuries avoided on tree								
	Are leaning of trees avoided?							_	
	Are dead/detached branches avoided?							_	
19	Are decay/cavity avoided on tree trunks?							_	
Rem	arks/Observations								
IEC		ET Representative			ontract	or Repre	sentativ	0	
	10the	L			(	+	7	_	
Nam	ie: Mr. Law	Namo: Mr. Lee		,	lame: M	larian Ko	ng	W.	
Date	: 11/4/1023	Date: 11-4-2023			Date:	11-	4-	202	3

#### APPENDIX I EVENT ACTION PLANS

## Appendix I:

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

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

		ACTION	ī	
EVENT	ET	IEC	PERMIT HOLDER	CONTRACTOR
	8. If exceedance stops, cease additional monitoring.			
LIMIT LEVEL				
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>	<ol> <li>Check monitoring data submitted byET;</li> <li>Check Contractor's working method;</li> <li>Discuss with         ET and Contractor on possible remedial measures;</li> <li>Advise the ER on the effectiveness ofthe proposed remedial measures; and</li> <li>Monitor the implementation of remedial measures.</li> </ol>	1. Confirm receipt ofnotification of failure in writing; 2. Notify Contractor;and 3. Ensure remedial measures properly implemented.	1. Take immediate actionto avoid further exceedance;  2. Submit proposals for remedial actions to IECwithin 3 working days of notification;  3. Implement the agreedproposals; and  4. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	<ol> <li>Notify IEC, the ER,         Contractor and EPD;</li> <li>Identify source;</li> <li>Repeat measurement to         confirm findings;</li> <li>Increase monitoring         frequency to daily;</li> <li>Carry out analysis of         Contractor's working         procedures to determine</li> </ol>	1. Check monitoring data submitted byET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions;	1. Confirm receipt ofnotification of failure in writing; 2. Notify Contractor; 3. In consultation with IEC, agree with the Contractor on theremedial measures to be implemented;	1. Take immediate actionto avoid further exceedance;  2. Submit proposals for remedial actions to IECwithin 3 working days of notification;  3. Implement the agreedproposals;

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

 $Abbreviations: ET-Environmental\ Team,\ IEC-Independent\ Environmental\ Checker$ 

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

EVENT		ACT	TION	
	ET	IEC	PERMIT HOLDER	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>	<ol> <li>Review the monitoring data submitted by the ET;</li> <li>Review the proposed remedial measures by the Contractor and advise ER; and</li> <li>Advise the ER on the effectiveness of the proposed remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>In consolidation with the IEC, agree with the Contractor on the remedial measure to be implemented: and</li> <li>Supervise the implementation of remedial measure.</li> </ol>	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		ACT	TION	
	ET	IEC	PERMIT HOLDER	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.			

 $Abbreviations: ET-Environmental\ Team,\ IEC-Independent\ Environmental\ Checker$ 

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

EVENT		ACT	CION	
	ET	IEC	PERMIT HOLDER	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.

 $Abbreviations: ET-Environmental\ Team,\ IEC-Independent\ Environmental\ Checker$ 

### APPENDIX J SUMMARY OF EXCEEDANCE

### **Appendix J:** Exceedance Report

### (A) Exceedance Report for Air Quality

Environmental Monitoring	Parameter	No. of non-proje Exceedance	ct related	No. of Exceeda the Construction this Contract	on Activities of	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-proje Exceedance	ct related	No. of Exceeda the Construction this Contract	Exceedance	
		Action Level	Limit Level	Action Level		recorded
Noise	1-hr TSP	0	0	0	0	0

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 Imp	pact – Consti	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		۸
		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					۸
		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					N/A
		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		<b>,</b>		<del>,</del>	
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 plant			commencement		^
		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	
I		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.		N/A
		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					۸
		PME (e.g. pilling machine etc.).					
Water Quality	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					*

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)				
		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					۸
		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					

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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)				
		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					۸
		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					۸
		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	ntions – 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					۸
		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,					۸
		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					
1		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					
1		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 general	waste impact.		construction stage		
		refuse from the site, separately from inert C&D materials.			/ Until completion		
		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	estruction 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.				

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					۸
		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	۸

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 construction	effect of the planting to		During design		
		phase. The priority shall be areas at the periphery of the site to	minimise landscape and		stage /		
		ensure that proposed planting fulfils its role in mitigating the	visual impacts.		construction phase		
		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	^
	9.1	the construction works site boundary where the works site borders	visual impacts.		areas adjacent to		
		publically accessible routes and/or is close to visually sensitive			sensitive receivers		
		receivers (VSRs) to screen undesirable views of the works site. It			/ During		
		is proposed that the screening be compatible with the surrounding			construction phase.		
		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	Visual Impa	acts (Recommended Mitigation Measures from Landscape	and Visual Mitigation Pla	(n)			
-	-	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 the	construction activities such		applicable and	of CEDD's and	
		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), Section	construction activities of the		ArchSD: Within		
		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 accordance	are unavoidably affected by		sinensis at Site	contracts	
		with "Guidelines on Tree Transplanting" by DEVB and	the construction activities.		Portion B and D,		
		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	۸

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	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 areas			Facilities Site		
		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 beundertaken	impacts including screening	ArchSD's Contractors	area, priority given	of CEDD's and	
		as soon astechnically feasible during the construction phase.	views of the proposals as		to periphery of the	ArchSD's Contracts	
			early as possible during the		site		
			operation phase.				
-	-	Decorative screen hoarding	To screen undesirable views	CEDD's and	Along areas of the	Construction Phase	^
		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		۸

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 mass	abrupt transitions between				
		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 context	reduce the apparent visual				
		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 construction	landscape.				
		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 structurally			Facilities Site		
		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 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

# APPENDIX L WASTE GENERATION IN THE REPORTING MONTH

Name of Department: ArchSD

## Monthly Summary Waste Flow Table for 2023 (year)

Project: Design and Construction of Kong Nga Po Police Training Facilities Contract No.: SS K509

Troject.	l sign unit		uantities of Ine		_	d Monthly		Actual Quantities of C&D Wastes Generated Monthly					
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Bituminous Material	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill		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 '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 m <sup>3</sup> )	
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	
May													
Jun													
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	
Jul													
Aug													
Sep													
Oct				_									
Nov				_									
Dec													
Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	

Notes:

- (1) The performance targets are given in the Particular Specification on Environmental Management Plan.
- (2) The waste flow table shall also include construction waste that are specified in the Contract to be imported for use at the site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (4) Broken concrete for recycling into aggregates.
- (5) If necessary, use the conversion factor: 1 full load of dumping truck being equivalent to 6.5 m3 by volume.

#### APPENDIX M COMPLAINT LOG

### Appendix M - Complaint Log

**Reporting month: April 2023** 

Complaint Log Ref.	EPD Log Ref.		Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

#### Cumulative Complaint Log

Reporting Period	Total no. of Complaint Received
This reporting month	0
From 1th April 2023 to end of the reporting month	0

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