

Date: 13 March 2024

Your ref:

Our ref: PL-202403018

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 (February 2024)**

Reference is made to the Monthly EM&A report (February 2024) provided by ET via email on 8 March 2024 and subsequent revision (Version 2) submitted on 13 March 2024.

Please be informed that we have no adverse comments on the revised Monthly EM&A report (February 2024) (Version 2). 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.

**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 February 2024
(Version 2)**

Disclaimer

The information provided in this report is for presentation. All information in the report is provided in good faith, and every effort has been made for the information contained herein at the time of publication. However, our company disclaims all responsibilities and liabilities for incompleteness within this report.

**Ka Shing Management Consultancy Ltd. www.ka-shign.net
Unit 2, 13/F Kai Yue Commercial Building, 2C Argyle St,
Mong Kok, Kowloon**

Our ref: 12-3-2024

12-3-2024

By email: kwokhw@archsd.gov.hk

Architectural Services Department
40/F, High Block, Queensway Government Offices,
66 Queensway, Hong Kong
(Attn: Mr. Vincent Kwok)

Dear Mr. Kwok,

Re: Quotation No. PMB202/8480/2022/A01/A

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

-Submission of the monthly EM&A report in February 2023

We refer to the Environmental Permit No. FEP-01/510/2016 for the captioned project.

Subject to the accuracy and authenticity of all the information provided to us, we hereby certify, in accordance with Conditions 3.4 of Environmental Permit No. FEP-01/510/2016, that the information is a representation of what it signifies.

Thank you very much for your attention and please feel free to contact Mr. Lee at 9382 4204 should you require further information.

Yours faithfully,

For and on behalf of
Ka Shing Management Consultant Limited



Mr. W. H. Lee
Environmental Team Leader

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EXECUTIVE SUMMARY

Introduction

- E1. This document represents the 11th monthly report detailing the Environmental Monitoring and Audit (EM&A) activities for the Kong Nga Po Police Facilities Project, which operates 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”). The report encapsulates the EM&A activities and findings carried out between the 1st and 29th of February 2024.
- E2. On the 23rd of December 2022, a section of the construction site was transferred to the Architectural Services Department (ArchSD), which assumed responsibility for the building's construction. Furthermore, ArchSD has taken on the role of maintenance agent for the Hong Kong Police Force (HKPF) throughout the operational phase.
- E3. In the month covered by this report, the Project of Police Facilities at Kong Nga Po, which operates under Environmental Permit No. FEP-01/510/2016, engaged in the following contractual work: Contract No. SSK509, which encompasses the design and construction of the Kong Nga Po Police Training Facilities.

Environmental Monitoring and Audit Progress

- E4. 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
Noise Monitoring	05, 14, 20, 26 February 2024
Air Quality Monitoring	05, 14, 20, 26 February 2024
Environmental Site Inspection	06, 14, 19, 28 February 2024
Ecological Monitoring	26, 28 February 2024
Landscape & Visual Inspection	06, 19 February 2024

Breaches of Action and Limit Levels

- E5. Summary of the environmental exceedances of the reporting month is tabulated in **Table II**.

Construction Noise

- E6. During the reporting month, the planned noise monitoring for construction took place as scheduled, with no recorded incidents of the Action/Limit Levels being exceeded.

Air Quality

E7. Throughout the reporting period, all planned air quality monitoring associated with construction was executed, and there were no recorded instances where the Action/Limit Levels were surpassed.

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	
Noise	$L_{eq(30min)}$	0	0	0	0	N/A
Air Quality	1-hr TSP	0	0	0	0	N/A

Ecological Monitoring

E8. The ecological monitoring slated for the reporting month was conducted according to schedule. Details of the findings from this ecological monitoring for the respective period are available in **Appendix H**.

Environmental Non-Compliance

E9. During the reporting month, no environmental compliance violations were documented.

Environmental Complaint

E10. No environmental complaints were recorded during the reporting period. In the event of any complaints, they would be documented in the Complaint Log found in **Appendix M**.

Notification of Summons and Successful Prosecutions

E11. Throughout the month covered in this report, there were no instances of receiving notifications regarding summons or confirmations of successful prosecutions.

Reporting Changes

E12. On the 23rd of December 2022, a section of the construction site was handed over to the Architectural Services Department (ArchSD). ArchSD has taken on the task of overseeing the construction activities for the building. This Monthly Environmental Monitoring and Audit (EM&A) Report offers a summary of the site operations and the status of the environmental safeguards being implemented under the contract with ArchSD.

Future Key Issues

E13. The major site activities for the coming three months include:

1. Open cut excavation
2. Removal of soil

3. Construction of footings
4. Construction of pile cap
5. Construction of substructure
6. Mock up construction
7. U.U. Lead in and Pipe Duct Connection

E14. The aforementioned construction activities could potentially lead to environmental impacts, with the primary concerns centered around construction dust, noise, water quality, and waste management. For detailed information, please refer to **Appendix A** regarding the anticipated major impacts from the construction works and corresponding recommended mitigation measures

1 INTRODUCTION

- 1.1 The Architectural Services Department (ASD) has commissioned Ka Shing Management Consultancy Ltd. (Ka Shing) as the Environmental Team (ET) to conduct the Environmental Monitoring and Audit (EM&A) activities for the Kong Nga Po Police Facilities Project, as dictated by Environmental Permit No. FEP-01/510/2016. The purpose of this role is to ensure compliance with the conditions of the Environmental Permits (EPs), the insights of the Environmental Impact Assessment (EIA) Report, directives within the Environmental Monitoring & Audit (EM&A) Manual for the Kong Nga Po Police Facilities Project, and any other pertinent statutory regulations.
- 1.2 The main construction activities for the Project began on the 3rd of July, 2020, and the primary location at Kong Nga Po was handed over to the Architectural Services Department (ASD) on the 23rd of December, 2022. The ASD has assumed control over the building construction tasks and will serve as the maintenance representative for the Hong Kong Police Force (HKPF) once the project is operational.

Purpose of the report

- 1.3 This document constitutes the 11th EM&A Report, offering a consolidated overview of the monitoring outcomes for impacts and the audit results from the EM&A program over the reporting interval spanning from the 1st to the 29th February 2024.

Structure of the report

- 1.4 The structure of the report is as follows:
- Section 1: Introduction
 - Section 2: Project Information
 - Section 3: Noise Monitoring
 - Section 4: Air Quality Monitoring
 - Section 5: Landscape and Visual Monitoring
 - Section 6: Ecological Monitoring
 - Section 7: Environmental Site Inspection.
 - Section 8: Environmental Non-conformance
 - Section 9: Future Key Issues
 - 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 falls under the category of a Designated Project as defined by the Environmental Impact Assessment Ordinance (EIAO). In October 2016, an Environmental Impact Assessment (EIA) Report (Report No.: AEIAR-201/2016) was approved for the Project 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 (EP no.: FEP-01/510/2016) was issued by the Director of Environmental Protection (DEP).
- 2.3 As per the approved Environmental Monitoring and Audit (EM&A) Manual, a comprehensive air quality and noise monitoring program is recommended during the construction phases of the Project to assess and monitor potential dust and noise nuisances. Prior to the commencement of the Project's construction works, baseline air quality and noise monitoring were conducted by the previous Environmental Team (Wellab Limited) from 14th March, 2020, to 2nd April, 2020, to establish the pre-existing conditions at designated sensitive receivers.
- 2.4 **Figure 1** displays the site layout plan for the Project.

Project Organization

- 2.5 Various stakeholders with varying degrees of participation are part of the Project's organizational structure under Environmental Permit number: FEP-01/510/2016, which includes:
- 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 **Table 2.1** summarizes the contact information for key personnel associated with Quotation No. PMB202/8480/2022/A01/A and additional contacts linked with the ArchSD Contract No. SSK509.

Table 2.1 Key Contacts of the Project

Party	Role	Contact Person	Phone No.	Fax No.
Architectural Services Department	Project Proponent	Mr. Vincent Kwok	2867 3939	3542 5223

Contractor (China State JV)	Site Agent	Mr. Kelvin Chan	6272 8828	2866 6325
	Environmental Officer	Ms. Marian Kong	6174 9735	
		Mr. LuLu Mar	5998 8852	
Ka Shing Management Consultancy Ltd.	ETL	Mr. W.H. 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 Significant site activities conducted on-site during the reporting month comprised:

1. Open cut excavation
2. Removal of soil
3. Construction of footings
4. Mock-up construction
5. Plate load test
6. Construction of substructure

Construction Programme

2.8 **Appendix A** contains a version of the Contractors' construction schedules. The primary site activities planned by the Contractor for the upcoming three months have been examined. In **Appendix O**, the expected environmental impacts' potential severity and the deployment of equipment have been evaluated. This appendix additionally provides the Contractor with recommendations and insights on alternative approaches aimed at raising environmental consciousness, refining practices on the construction site, and fostering environmental improvements.

2.9 **Table 2.2** presents a consolidated overview of the pertinent environmental protection permits, licenses, and/or notifications associated with this Project.

Table 2.2 Status of Environmental Licences, Notifications and Permits

Permit / Licence No.	Valid Period		Status
	From	To	
Further Environmental Permit (FEP)			
FEP-01/510/2016	N/A	N/A	Valid
Construction Noise Permit (CNP)			
GW-RN1337-23	20-12-2023	19-03-2024	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
EPD Ref no.: 487864	N/A	N/A	N/A
Billing Account for Construction Waste Disposal			

Account No. 7046289	18-01-2023	N/A	Valid
Registration of Chemical Waste Producer			
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 Environmental Monitoring and Audit (EM&A) program includes the monitoring of construction noise, air quality, ecological conditions, and regular environmental site audits. The specific requirements for the EM&A program are outlined in the following sections:

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

Status of Compliance with Environmental Permits Conditions

2.11 **Table 2.3** provides a summary of the adherence to Environmental Permit (EP) No. FEP-01/510/2016 and the necessary submissions connected to this Project as stipulated by the EP.

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

FEP Conditions	Submission	Submission Date	Approval Status
1.12	Commencement date of construction of the Project	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 Organization of Main Construction Companies, at least an organization chart, names of responsible persons and their contact details	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	26/6/2023	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	*

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

3 NOISE MONITORING

Monitoring Requirements

3.1 Following the EM&A Manual, monitoring of construction noise was performed by measuring the A-weighted equivalent continuous sound pressure level (Leq) to track noise generated by construction operations. Each monitoring station is scheduled for weekly noise assessments, with one set of readings to be taken from 0700 to 1900 hours on typical weekdays. The predefined Action/Limit Levels for the environmental monitoring activities are presented in **Appendix B**.

Monitoring Location

3.2 As per Section 3.2.3 of the EM&A Manual, impact noise monitoring took place at fourteen specified noise monitoring stations. Following the guidelines of the Project's Environmental Impact Assessment (EIA) report, noise monitoring stations situated within a 300-meter radius of the Project's boundary were taken into account. Consequently, six noise monitoring stations identified as relevant monitoring locations are depicted in Figure 3. The specific locations of these noise monitoring stations are detailed in **Table 3.1**.

Table 3.1 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

3.3 Impact noise monitoring was carried out using Integrating Sound Level Meters. These meters, classified as Type 1, are capable of providing continuous readings of noise levels, including the equivalent continuous sound pressure level (Leq) and percentile sound pressure level (Lx), and they conform to the specifications of International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). The noise monitoring equipment utilized is summarized in **Table 3.2**. The calibration certificates for these devices can be found in **Appendix C**.

Table 3.2 Noise Monitoring Equipment

Equipment	Model	Quantity
Sound Level Meter	RION NL-52	1
Sound Calibrator	Castle GA607	1

Monitoring Parameters, Frequency and Duration

3.4 **Table 3.3** encapsulates the variables monitored, the frequency of monitoring, and the total time span of the noise monitoring activities. The schedule for noise monitoring can be located in **Appendix D**.

Table 3.3 Noise Monitoring Parameters, Duration and Frequency

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

Remarks:

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

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

3.5 The procedures for noise monitoring were conducted in this manner:

- The sound level meter was mounted on a tripod, positioned 1 meter away from the outside of the noise-sensitive facade and at a height of 1.2 meters above ground level;
- To achieve free field measurement conditions, the meter was placed at a distance from any reflective surfaces, and the measured noise levels were then corrected by adding +3 dB(A);
- The battery's condition was examined to guarantee the proper operation of the meter;
- The settings for parameters like frequency weighting, time weighting, and measurement duration were established as detailed below:
 - frequency weighting: A
 - time weighting: Fast
 - time measurement: Leq(30 min.) dB(A)
- Noise levels were measured as six consecutive Leq, 5-minute readings during the hours when restrictions did not apply (specifically, from 0700 to 1900 hrs on normal weekdays).
- Calibration of the meter was performed before and after each noise measurement session using a Calibrator set to 94.0 dB at 1000 Hz. Should there be a discrepancy greater than 1.0 dB in calibration levels pre- and post-measurement, the data would be deemed invalid. A

repeat measurement would then be necessary following recalibration or repair of the equipment.

- Throughout the monitoring period, parameters such as Leq, L90, and L10 were documented. Observations regarding site conditions and noise origins were also noted on a standard recording form.
- Noise measurements were temporarily halted during instances of significant intrusive noise (for example, barking dogs or helicopter sounds), where feasible. An observation record for the measurement period was to be provided.
- Noise monitoring was suspended in conditions of fog, rain, or when wind speeds were consistently above 5 m/s, or during gusts surpassing 10 m/s. Wind speeds were verified using a portable anemometer capable of measuring speed in meters per second (m/s).

Maintenance and Calibration

- 3.6 Every three months, the microphone head of the sound level meter and the calibrator was gently wiped clean using a soft fabric.
- 3.7 Annually, the sound level meter and calibrator underwent inspection and calibration.
- 3.8 Before and after conducting each noise measurement, the precision of the sound level meter must be verified with an acoustic calibrator that produces a set sound pressure level at a specific frequency. Only when the pre- and post-measurement calibration levels are within a 1.0 dB range of each other will the measurements be considered valid.

Results and Observations

- 3.9 **Table 3.4** provides a summary of the noise monitoring outcomes. For an in-depth account and visual depiction of the noise monitoring, refer to **Appendix F**. A summary of the meteorological data for the reporting period is compiled in **Appendix G**.

Table 3.4 Summary Table of Noise Monitoring Results during the Reporting Month

Monitoring Station	Average	Range	Baseline Level	Limit Level
	Leq (30 min) dB(A)	Leq (30 min) dB(A)	dB(A)	dB(A)
NM9 ^[1]	58.3	57.3 – 59.9	55.9	75
NM10 ^[1]	54.4	51.6 – 58.1	52.8	
NM11	45.8	42.7 – 49.0	46.4	
NM12	44.9	41.7 – 48.2	54.7	
NM13 ^[1]	55.3	52.4 – 63.3	61.3	
NM14 ^[1]	43.0	41.0 – 48.5	59.6	

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

- 3.10 Noise monitoring related to construction activities took place according to the planned schedule for the month reported. There were no instances where the Action/Limit Levels were surpassed. A summary of exceedance records for the reporting month can be found in **Appendix J**.
- 3.11 Based on observations made in the field, the primary sources of noise detected at the allocated noise monitoring stations during the reporting month are as outlined below:

Table 3.5 Observation at Noise Monitoring Stations

Monitoring Station	Major Noise Source
NM9	Loading & unloading, Road traffic, Excavation works
NM10	Loading & unloading, Road traffic, Excavation works
NM11	Road traffic
NM12	Loading & unloading, Road traffic
NM13	Loading & unloading, Road traffic
NM14	Dog barking, Road traffic

Event and Action Plan

- 3.12 If any non-compliance with the criteria related to the project arises, measures will be taken following the procedures outlined in the Event Action Plan provided in **Appendix I**.

4 AIR QUALITY MONITORING

Monitoring Requirements

- 4.1 As per the EM&A Manual, 1-hour Total Suspended Particulates (TSP) monitoring was carried out to keep track of the air quality associated with the Works Contracts. The predetermined Action/Limit Levels for the air quality monitoring activities are detailed in **Appendix B**.
- 4.2 Monitoring for 1-hour Total Suspended Particulates (TSP) impacts was performed at a minimum of three times within each six-day period at a designated air quality monitoring station.

Monitoring Location

- 4.3 In line with Section 2.2.5 of the EM&A Manual, impact air quality monitoring took place at two specified monitoring stations for the Project, as depicted in Figure 2. The positions of the air quality monitoring stations are detailed in **Table 4.1**.

Table 4.1 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

- 4.4 Due to the denial by local villagers to set up a High-Volume Sampler (HVS) for 1-hour Total Suspended Particulates (TSP) monitoring at the chosen locations and the inability to secure an electricity supply for the HVS, direct-reading dust meters were utilized instead to conduct the 1-hour TSP monitoring. Direct-reading dust meters are widely accepted instruments for measuring 1-hour TSP levels and have been used in the same infrastructure project. The issue to use direct-reading dust meters was presented to the Independent Environmental Checker (IEC). The application of the direct-reading dust meter allows for immediate and straightforward results, facilitating timely EM&A reporting and the execution of the event and action plan. To ensure the validity and accuracy of the readings obtained by the direct-reading method, the HVS performed 1-hour sampling on a bi-monthly schedule.
- 4.5 **Table 4.2** provides a summary of the apparatus employed in the impact air quality monitoring program. Copies of the calibration certificates for the equipment can be found in **Appendix C**.

Table 4.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Dust Monitor	SIBATA (LD-3B)	2

- 4.6 Weather data was sourced from the "Hong Kong Observatory - General Weather Conditions during the Monitoring Period (February 2024)" detailed in **Appendix G**, which was used as a substitute approach to acquire representative wind data.
- 4.7 During the monitoring days, the field staff also documented the prevailing weather conditions, such as whether it was sunny, cloudy, or rainy.

Monitoring Parameters, Frequency and Duration

- 4.8 **Table 4.3** encapsulates the monitoring variables and the regularity of impact dust assessments conducted throughout the Works Contracts operations. The schedule for air quality observation for the month in question is presented in **Appendix D**.

Table 4.3 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

- 4.9 The air quality monitoring utilized a direct reading dust meter, as indicated in **Table 4.2**.
- 4.10 The procedures for operating the dust meter adhere to the guidelines set forth in the Manufacturer's Instruction Manual, as described below:
- Upon activating the Model LD-3B, the preset time that appears on the lower-left side of the liquid crystal display reads [01 min].
 - Pressing the start/stop switch once under these conditions initiates a 1-minute measurement.
- The duration of this measurement is determined by the preset time shown on the display.
- The liquid crystal display also features a countdown timer on its lower-right side.

Maintenance/Calibration

- 4.11 The direct dust meters required the following maintenance and calibration:
- The dust meter must be checked and calibrated against a High Volume Sampler (HVS) to validate the precision and accuracy of the readings obtained through the direct reading method. This calibration should be performed bi-monthly during all phases of the air quality monitoring.
 - The correlation between the dust meter and HVS in measuring TSP was established by directly comparing the mass of dust particles collected on a filter paper by the HVS against

the dust meter's reading. For accurate calibration, both the dust meter and the HVS should be turned on and off at the same location and at the same time.

- The correlation coefficient was verified to confirm the relationship between the readings from the dust meter and the HVS. This correlation factor was ascertained by comparing the outcomes from both the HVS and the dust meter.

- Prior to the initiation of dust monitoring, a check must be conducted to verify that all equipment is operational and has the necessary power supply. A zero count test was performed before and after each monitoring session to ensure accuracy.

Results and Observations

4.12 The outcomes of the 1-hour TSP monitoring are condensed in **Table 4.4**. For a comprehensive view, detailed results and graphical representations of the 1-hour TSP monitoring data can be found in **Appendix E**.

Table 4.4 Summary Table of 1-hour TSP Monitoring Results during the Reporting Month

Monitoring Station	Concentration ($\mu\text{g}/\text{m}^3$)		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
AM1	73	63 – 80	308	500
AM2	78	72 – 86	311	

4.13 The 1-hour TSP monitoring took place according to the planned timetable for the reporting month, and there were no instances of exceeding the established Action/Limit Levels.

4.14 Based on field observations, the primary sources of dust at the specified air quality monitoring stations during the reporting month are listed in **Table 4.5**.

Table 4.5 Observation at Dust Monitoring Stations

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

Event and Action Plan

4.15 In the event of a project-related violation of the criteria, measures will be taken as specified by the Event Action Plan detailed in **Appendix I**.

5 LANDSCAPE AND VISUAL MONITORING

Monitoring Requirements

- 5.1 The EIA Report recommends implementing strategies to mitigate impacts on landscape and visual resources throughout both the construction and operational phases of the Project.

- 5.2 The execution and upkeep of compensatory planting for landscaping are critical components of this process and must be monitored to confirm their complete fulfillment. It is essential to promptly address any potential clashes between the proposed landscaping efforts and other Project tasks or operational needs to ensure that the mitigation measures' objectives are not compromised. Furthermore, the enforcement of the mitigation measures advised by the EIA will be tracked continuously through the site audit program for the construction phase.

- 5.4 The Environmental Team (ET) carried out a fortnightly review of the execution of measures aimed at mitigating landscape and visual impacts as part of the weekly site audits. The findings and observations from these audit sessions are encapsulated in **Table 7.1**, while the status of implementation can be found detailed in **Appendix K**.

6 ECOLOGICAL MONITORING

Monitoring of Flora Species of Conservation Interest

- 6.1 In line with Section 8.3.2 of the EM&A Manual, a temporary protective barrier must be installed around the plant species of conservation significance identified in the detailed vegetation survey throughout the construction phase. This barrier should be well-maintained and regularly checked to ensure its effectiveness. Monthly checks of each plant species of conservation interest, as pinpointed in the detailed vegetation survey, are required during the construction phase to ensure that these species remain unaffected by the project's construction activities.
- 6.2 The monitoring aims to oversee the prompt execution of suitable environmental management practices and the application of mitigation measures concerning the preserved and relocated specimens of flora species of conservation interest. The correct setup and upkeep of the temporary protective fence surrounding these specimens were examined to assess its efficacy. The protective measures outlined in the approved transplantation proposal's implementation schedule were supervised.
- 6.3 As per the sanctioned detailed vegetation survey report and transplantation proposal, it was determined that 71 *Brainea insignis* specimens, 41 *Spiranthes sinensis* specimens, and 3 *Aquilaria sinensis* specimens should be relocated to the designated receiving site. Additionally, it was decided to preserve in situ 51 *Keteleeria fortunei* specimens, along with 26 small seedlings of *Keteleeria fortunei* and 7 small seedlings of *Aquilaria sinensis*, in the vicinity of Kong Nga Po Road near the Police Dog Unit and the Force Search Unit Training School.

Post-Transplantation Monitoring and Maintenance Programme

- 6.4 In line with the accepted transplantation proposal, the Contractor is mandated to carry out post-transplantation monitoring weekly for the first three months, and then monthly for the remainder of the 12-month establishment phase as well as the subsequent post-establishment phase, continuing until the construction phase of the Project concludes. This routine monitoring is critical for promptly identifying the growth condition of the transplanted species, any signs of construction work within or in the vicinity of the receptor site, and any changes in the environmental conditions of the receptor site.
- 6.5 For the initial year of acclimatization, it was advised to carry out maintenance activities to promote the robust growth of the transplanted species. Considering the state of the transplanted organisms following the 12-month establishment period, it was advised that maintenance activities continue through the Post-establishment Period until the completion

of the Construction Phase. It was recommended to water the transplants daily for the first three months following the move, as well as throughout periods of drought, to maintain soil moisture. Additional maintenance tasks, such as mulching and weeding, should be performed as necessary.

Results and Observations

6.6 During the reporting month, the Contractor carried out monthly evaluations of the flora species of conservation interest on the 26th of February 2024. The enforcement of the protective measures detailed in the approved transplantation proposal was reviewed, along with the maintenance of the temporary protective fencing. **Appendix H** contains the photographic documentation and checklists from the monthly assessments. The health of the transplanted and retained species was generally observed to be average to poor. The Contractor was urged to keep a vigilant eye on the transplanted species and to implement the protective measures as specified in the approved transplantation proposal to safeguard these species. Furthermore, the Contractor was given the following directives:

- 1) To provide new identification tags for any *Brainea insignis* that were missing them;
- 2) To substitute any plant labels at the receptor site that had become illegible due to fading;
- 3) To refer to the soil improvement guidelines published by the Greening, Landscape and Tree Management Section (GLTMS) of the Development Bureau (2022) for application in the monitoring and upkeep of the transplanted plant species;
- 4) To set up shade nets;
- 5) To ensure the soil remains moist by adhering to the necessary daily watering schedule.

Transplanted *Brainea insignis* and *Spiranthes sinensis*

6.7 From May 21st to 27th, 2020, 71 *Brainea insignis* specimens and 41 *Spiranthes sinensis* specimens were relocated to the receptor site. The detailed account of the transplantation process was compiled in a Transplantation Report and forwarded to ET(Wellab), IEC(Acuity), and the Supervisor (AECOM) for their examination and documentation. Monitoring after transplantation took place weekly for the initial three months (from June to August 2020) and then monthly throughout the subsequent 12-month establishment period, as well as the post-establishment phase, culminating with the conclusion of the construction phase of the Project. The Contractor was responsible for tracking the health of the transplanted species and carried out maintenance measures such as watering, mulching, and weeding during the first year to nurture the transplanted species' healthy development. Monitoring of the transplanted *Brainea insignis* and *Spiranthes sinensis* took place on November 25th, 2023, within the reporting period, with the findings documented in **Appendix H**. Particular attention was given to the transplanted *Brainea insignis* specimens that were impacted by a bushfire on February 2nd, 2021, with their progress detailed in the

post-transplantation monitoring records. The health of the preserved species was noted to be generally fair. The Contractor was advised to maintain vigilant monitoring of these species and to enforce the stipulated protective measures to ensure their continued preservation.

- 6.8 During the monthly checks, it was observed that there were no construction operations or storage of equipment taking place within the receptor site. The temporary protective barrier had been correctly installed and was being well-maintained to safeguard the transplanted species.

Precautionary Measure for Butterfly Species of Conservation Interest

- 6.9 As stipulated by FEP Condition 2.17, to reduce the impact on butterfly species of conservation concern, efforts shall be made to improve the new grassland habitats within the Project site. This enhancement shall be achieved by cultivating suitable plant species that serve as the larval food source for butterflies of conservation interest, like the Small Three-Ring, thereby supporting the well-being of these species.
- 6.10 The restoration of grassland zones within the Project must be completed prior to the initiation of the Project's operational phase. Information regarding the plant species to be used as larval food plants for butterflies, along with the design and execution details, will be subsequently provided under the building works contract of ArchSD.

Precautionary Measures to Minimize Indirect Disturbance on Ecology

- 6.11 As outlined in Section 9.7.3 of the EIA Report, implementing mitigation strategies for air, noise, water, waste, and landscaping can serve as preventative actions to avert and lessen any secondary effects of disturbance or pollution resulting from construction activities on the surrounding ecology and habitats outside the site. The Environmental Team (ET) conducted weekly site audits to oversee the prompt adoption of appropriate environmental management practices and the execution of mitigation measures at the Project site. The findings from these audits are consolidated in Section 7.3.

7 ENVIRONMENTAL SITE INSPECTION

Site Audits

- 7.1 The Environmental Team (ET) conducted site audits weekly to oversee the prompt adoption of appropriate environmental management practices and the execution of mitigation measures at the Contract site.
- 7.2 The Environmental Team (ET), along with representatives from the Client and the Contractor, conducted site audits on 6, 14, and 28 February of the reported month in 2024. Additionally, an audit was conducted on February 28, 2024, with representatives from the Independent Environmental Checker (IEC).
- 7.3 In the site inspections conducted over the reporting period, there were no particular environmental concerns noted. It should be recognized that these observations pertain solely to the moments of inspection. The findings and advice from these audits are compiled in **Table 7.1**. The absence of identified environmental issues during the joint site inspections does not exempt the Contractor from their obligation to adhere strictly to all legal requirements, the Particular Specifications, and the Environmental Monitoring and Audit (EM&A) Manual.

Table 7.1 Observations of Weekly site Inspection and advice

Parameters	Date	Observations	Advice
Air Quality	--	No specific environmental issues are observed	--
Construction Noise Impact	--	No specific environmental issues are observed	--
Water Quality	--	No specific environmental issues are observed	--
Waste/ Chemical Management	19-Feb-24	General refuse is stored in non-enclosed bins	General refuse should be stored in enclosed bins
Landscape and Visual	19-Feb-24	The stockpiling area lacks impervious sheets	Covering 80% of stockpiling area by impervious sheets
Ecology	19-Feb-24	The potential for sediment laden runoff entering the drainage system	Open stockpiles of material should be covered on site with waterproof layers
Permit /Licences	--	No specific environmental issues are observed	--
Others	19-Feb-24	QPME Label Missed	QPME label shown

Implementation Status of Environmental Mitigation Measures

- 7.4 In accordance with the EIA Report and the Project's EM&A Manual, the outlined mitigation measures are recommended to be implemented throughout the construction phase. An overview of the Environmental Mitigation Implementation Schedule (EMIS) is available in **Appendix K**.

Solid and Liquid Waste Management Status

- 7.5 Pursuant to the EM&A Manual, waste management practices were reviewed in the weekly site audits to assess compliance with the Project's Waste Management Plan (WMP) and pertinent legal and contractual obligations. The auditing process encompassed the examination of waste handling, storage, transport, and disposal methods.
- 7.6 The Contractor has appointed Environmental Officers on-site to manage environmental aspects, implement pollution control strategies, maintain proper site conduct, and educate workers on waste management. Efforts to reduce waste production include actively using Construction and Demolition (C&D) materials. Excavated materials have been sorted and screened on-site to salvage any recyclables. Non-reactive C&D materials were utilized on-site for backfill and to construct the haul road surface. Furthermore, inert materials from excavation activities were repurposed as fill in other local projects. Excess inert C&D materials were sent to the Government's public fill reception facilities (PFRFs) for use in other projects. To oversee the disposal of inert and non-inert C&D materials and prevent illegal dumping, a system is in place where all materials are weighed by a weighbridge before leaving the site, and the Trip Ticket System is rigorously enforced.
- 7.7 Contractor is encouraged to reduce waste production by recycling or reusing materials. It is imperative that all the mitigation strategies outlined in the EM&A Manual and the waste management plans be thoroughly executed. A summary of the progress in implementing waste management and reduction strategies is provided in **Appendix K**.
- 7.8 This Project produces inert Construction and Demolition (C&D) materials as well as non-inert C&D materials. The non-inert variety consists of general refuse and other waste materials that cannot be repurposed or recycled, necessitating disposal at assigned landfill locations. Data detailing the volume of waste resulting from the Project's construction activities over the reporting period can be found in **Appendix L**.

8 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 8.1 During the reporting month, there were no instances where the air quality exceeded the established Action and Limit Levels.
- 8.2 There were no instances of construction noise surpassing the designated Action and Limit Levels in the reporting period.
- 8.3 If the monitoring data from any specific stations reveal that environmental parameters have surpassed the Action/Limit Levels, then the procedures outlined in the Event and Action Plans in **Appendix I** should be executed. A summary of any exceedance records for the reporting month can be found in **Appendix J**.

Summary of Environmental Non-Compliance

- 8.4 There were no records of environmental compliance breaches during the reported month.

Summary of Environmental Complaint

- 8.5 In the month under review, no complaints were registered. A log of all complaints accumulated since the start of the Project is compiled in **Appendix M**.

Summary of Environmental Summon and Successful Prosecution

- 8.6 Since the beginning of the Project, there have been no instances of successful environmental prosecution or receipt of summons. A comprehensive record of all environmental summonses and successful prosecutions since the Project's inception is documented in **Appendix N**.

9 FUTURE KEY ISSUES

Key Issues in the Coming Three Months

- 9.1 **Appendix A** contains the provisional construction schedules for the Project. Over the next three months, the principal construction tasks to be carried out will include:
- Open cut excavation
 - Removal of soil
 - Construction of footings
 - Construction of pile cap
 - Construction of substructure
 - Mock up construction
 - U.U. Lead in and Pipe Duct Connection
- 9.2 Referring to the site layout plan found in **Appendix A**, which details the expected construction activities for the next three months, the primary environmental concerns related to these activities are likely to be construction dust, noise, water quality, waste management, landscape and visual aesthetics, and ecological impacts. The anticipated environmental effects have been factored into the mitigation strategies planned for the upcoming months.
- 9.3 The Contractor has advised mitigation measures for the next three months, which the Environmental Team (ET), Independent Environmental Checker (IEC), and the Client's Representative have reviewed through email correspondence during site audits. The Proactive Environmental Protection Proforma, which outlines the key site activities, potential environmental impacts, and advised mitigation strategies, has been examined and confirmed by the IEC and is displayed in **Appendix A**.
- 9.4 During construction and in periods of dry weather, dust can arise from work activities and uncovered site areas. To mitigate dust emissions that could affect nearby villages, the Contractor is advised to diligently apply air quality control measures as outlined in the layout plan in **Appendix A**, to the greatest extent possible. Moreover, the Contractor is reminded to adhere to the Project Implementation Schedule detailed in the approved EIA report/EM&A Manual, implementing suitable dust suppression tactics to curb emissions from intensive construction tasks such as ground excavation and earth moving. This includes managing all active work areas, bare site surfaces, and unpaved roads, especially under dry conditions, by covering 80% of stockpiled materials with impervious coverings and by moistening dusty substances with water just before loading and transfer activities. This ensures materials remain damp during handling in stockpile regions. Additionally, the Contractor must adhere to the prescribed dust control methods under the Air Pollution

Control (Construction Dust) Regulation to prevent negative dust impacts from the Project's construction activities.

- 9.5 Furthermore, construction noise represents a significant environmental concern during the Project's development. It is important to implement noise reduction strategies, such as utilizing quiet machinery and installing noise barriers where relevant. The Contractor has been prompted to regularly inspect and upkeep the sound-dampening materials on noisy sections of plant and machinery, ensuring there are no openings in the noise barriers. They should also actively recognize any potential construction noise impacts to Noise Sensitive Receivers (NSRs) and introduce adequate mitigation measures when required. Additionally, residents in the nearby Kong Nga Po village should be informed in advance about any potentially noisy activities at the work site.
- 9.6 The Contractor is advised to uphold measures that protect water quality throughout the construction process. This includes constructing barriers such as dikes or embankments to prevent flooding around the perimeters of areas where soil is being moved or excavated. Provision should be made for temporary channels to direct runoff effectively into a designated watercourse via a trap designed to capture sediment from the site. These sediment/silt traps should also be integrated into the permanent drainage systems to improve the settling of particulates. It is essential to utilize effective silt removal systems to ensure that the effluent treated by the wastewater treatment plant complies with the standards specified in the WPCO licenses. Additionally, the site drainage plan should be regularly revised to reflect the current site conditions and the progression of the construction schedule.

Monitoring Schedule for the Next Month

- 9.7 **Appendix D** displays the provisional schedule for environmental monitoring activities planned for the upcoming month.

10 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 10.1 This Monthly EM&A Report details the environmental monitoring and audit (EM&A) activities conducted in February 2024, following the guidelines set out in the EM&A Manual.
- 10.2 During the month in question, air quality monitoring did not register any instances of surpassing the Action/Limit Levels.
- 10.3 No instances of construction noise exceeding the established Action/Limit Levels were documented in the reporting month's monitoring records.
- 10.4 Site inspections focusing on environmental aspects took place on the 6, 14, 19, 28 February 2024. Additionally, monitoring of landscape and visual impacts was performed on the 6 and 19 February 2024, and ecological monitoring was conducted on the 28 February 2024 by ETL within the reporting month. The Contractor also conducted monitoring on 26 February 2024. There were no records of environmental non-compliance for the reporting month. It should be noted that the absence of any particular environmental issues during the joint site inspections does not exempt the Contractor from their obligation to adhere fully to all legal requirements, the specifications outlined in the contract, and the procedures in the EM&A Manual.
- 10.5 During the reporting month, there were no complaints lodged, nor were there any notices of summons or records of successful legal actions received.
- 10.6 The Environmental Team (ET) will persist in overseeing the Environmental Monitoring and Audit (EM&A) program. All environmental obligations are fulfilled, and the necessary mitigation measures are properly executed.

Recommendations

- 10.7 Based on the environmental audits conducted during the reporting month, the subsequent advice was put forward:

Air Quality Impact

- To enhance the dust suppression measures including watering for the dust generation works, exposed site area and haul road;

-
- To minimize the indirect impacts on air quality resulting from the operation of machineries on the construction site, one of the measures to be adopted is the use of biodiesel B100; and
 - To regular check the valid NRMM labels are properly displayed on the regulated machines and non-road vehicles

Construction Noise

- To refer to the ISO 12001:1996 or other comprehensive practices and subsequently develop a thorough inspection and maintenance protocol for the plant and equipment, maintaining a focus on Noise Control; 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; 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; and
- To avoid improper handling, storage and dispose of oil drums or chemical containers on site.

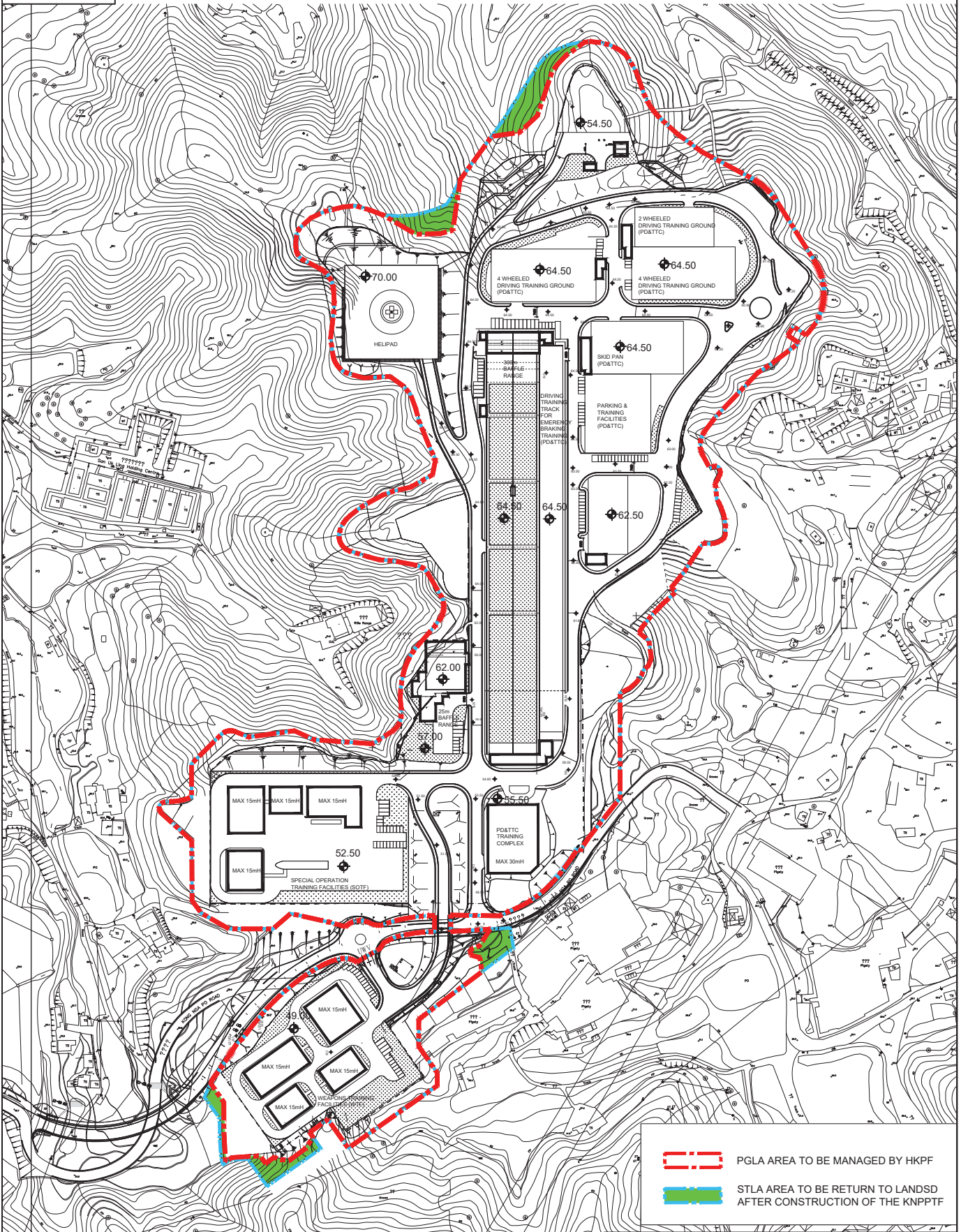
Ecology



- To maintain soil moisture, daily watering is required;
- To install a shaded net;
- To refer to the Guidelines on Soil Improvement issued by the Greening, Landscape and Tree Management Section (GLTMS) of the Development Bureau (2022) for the effective monitoring and maintenance of transplanted flora species; and
- The wild plants that are growing in undesirable areas should be removed, as they compete with the cultivated flora species of conservation interest.

Landscape and Visual

- To remove the construction materials within the tree protection zone; and
- To keep the tree protection zone large enough to protect the tress.

FIGURE(S)



-  PGLA AREA TO BE MANAGED BY HKPF
-  STLA AREA TO BE RETURN TO LANDSD AFTER CONSTRUCTION OF THE KNPTF



MASTER LAYOUT PLAN

PROJECT CODE: 3279LP
PROPOSED MLP FOR KONG NGA PO TRAINING FACILITIES

DRAWING NO. PMB/8480/XA001

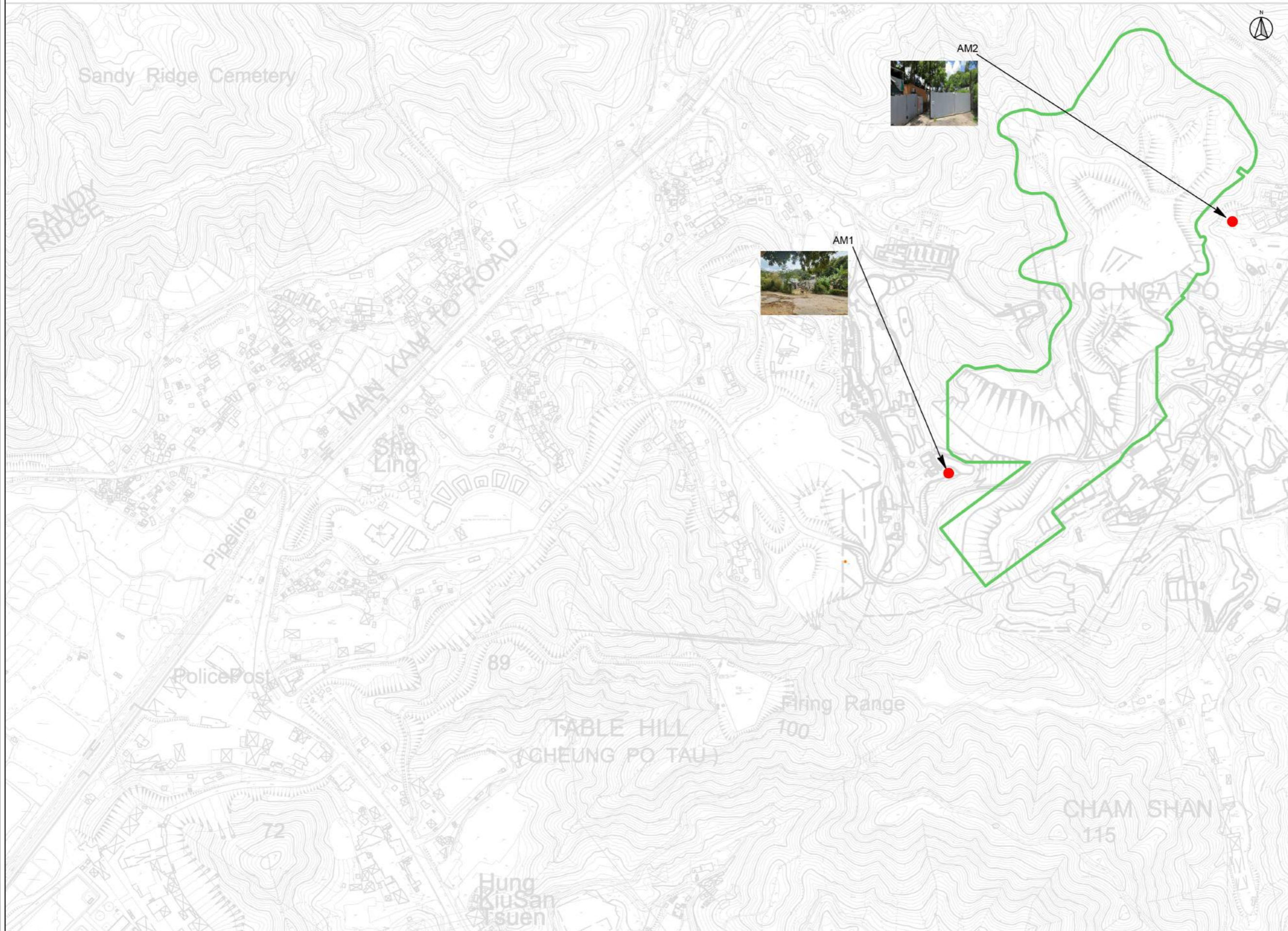
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DATE: AUGUST 2021



ARCHITECTURAL SERVICES DEPARTMENT 建築署

Figure 2 Location of Air Quality Monitoring Stations



KEY PLAN
SCALE: 1/50000

- LEGENDS:
- KONG NGA PO SITE BOUNDARY
 - AIR QUALITY MONITORING STATIONS

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

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Architectural Services Department

Environmental Team
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Rev.	Description	Date
2	SECOND ISSUE	03/2023
1	FIRST ISSUE	03/2023

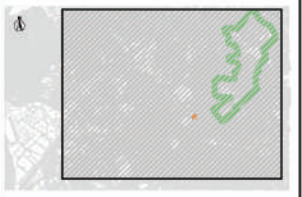
Project Title
PROVISION OF ENVIRONMENTAL TEAM CONSULTANCY FOR DESIGN AND CONSTRUCTION OF KONG NGA PO POLICE TRAINING FACILITIES

Drawing Title
KONG NGA PO ROAD AIR QUALITY MONITORING STATIONS

Drawing Status	
Project Ref.	File Ref.
Drawn by JC	Checked by RH
Scale 1:40000	Paper Size A3
Date	Revision

Drawing Number
KASHING-KNPR-DWG-002

Figure 3 Location of Noise Monitoring Stations



KEY PLAN
SCALE: 1:50000

LEGENDS
 KONG NGA PO SITE BOUNDARY
 NOISE MONITORING STATIONS

ID	Description
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

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Project Title
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Drawing Title
 KONG NGA PO ROAD NOISE MONITORING STATION

Project Ref.	File Ref.
-	--
Drawn by	Checked by
JC	RH
Scale	Paper Size
1:40000	A3
Date	Revision
-	-

Drawing Number
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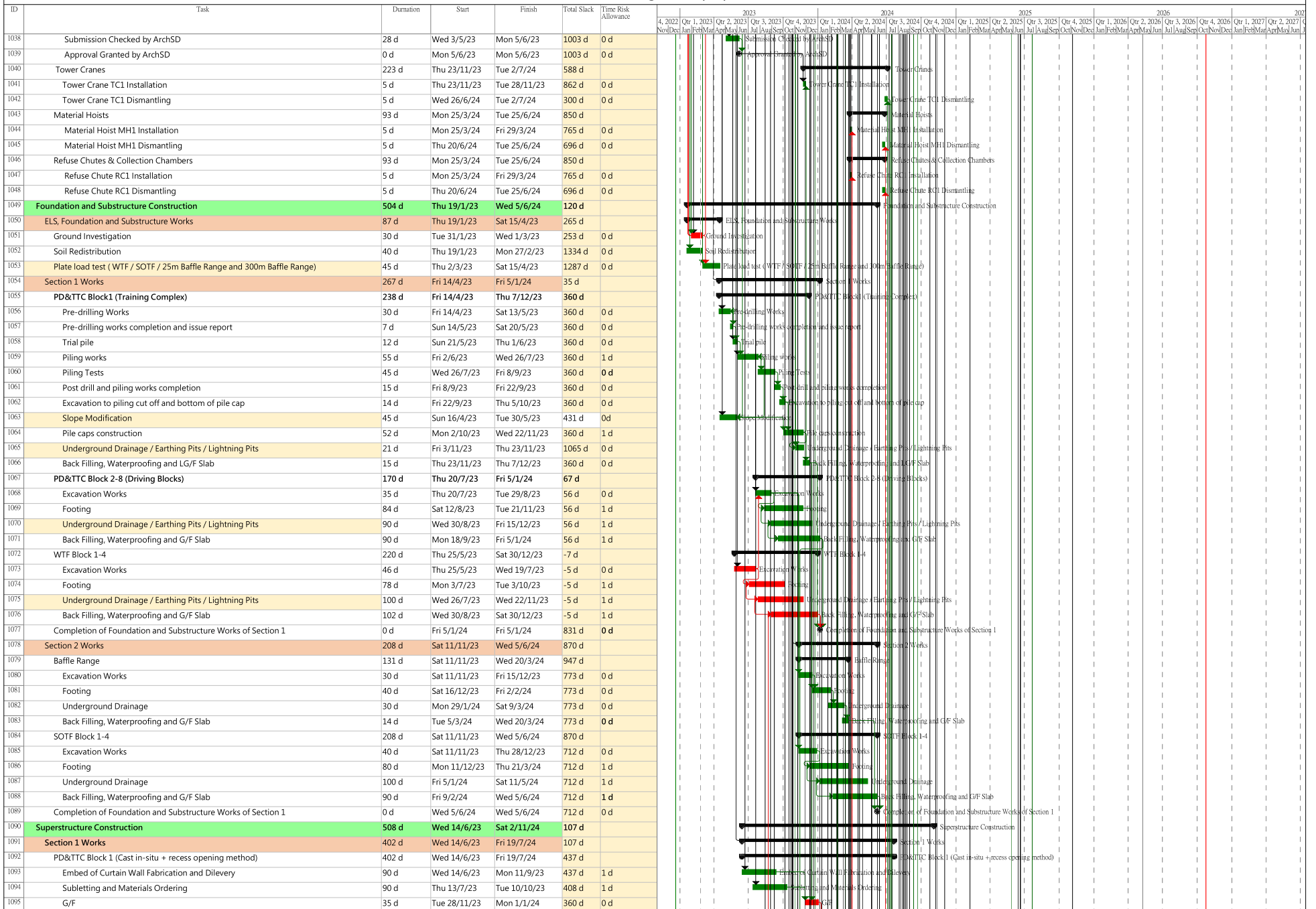
APPENDIX A
CONSTRUCTION PROGRAMME AND
PROACTIVE ENVIRONMENTAL
PROTECTION PROFORMA

Construction Programme

(Mar – May 2024)

Design & Construction of Kong Nga Po Police Training Facilities
Master Programme (MP)

Revision : 02



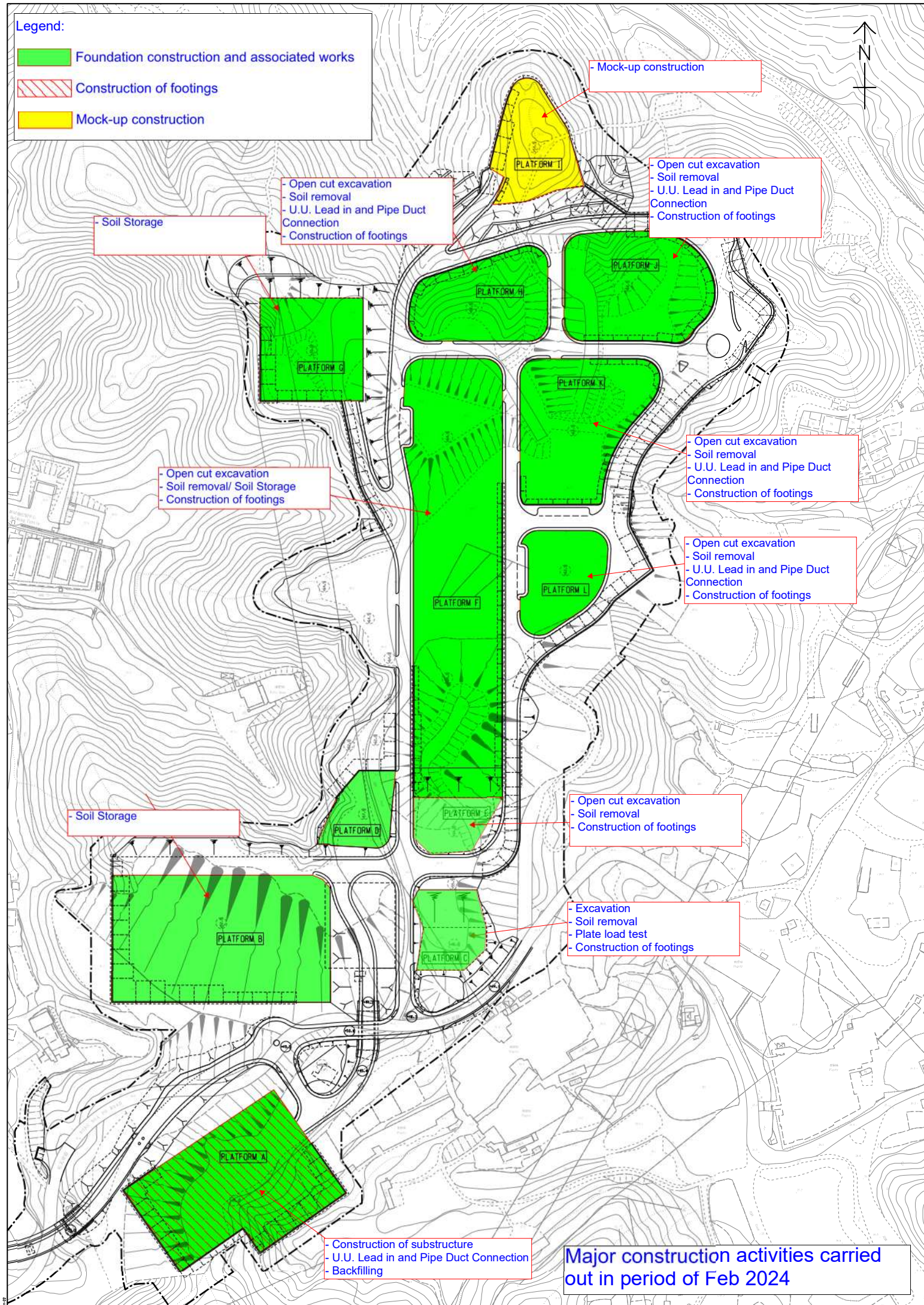
中國建築聯合體
CHINA STATE JOINT VENTURE

Task	█	Milestone	●	Inactive Milestone	○	Manual Task		Manual Summary Rollup	◆	Start-only	▬	External Tasks	◆
Critical Task	█	Summary	●	Inactive Summary	○	Duration-only		Manual Summary	◆	Finish-only	▬	External Milestone	◆

Layout Plan with major construction activities

Legend:

- Foundation construction and associated works
- Construction of footings
- Mock-up construction



- Soil Storage

- Open cut excavation
- Soil removal
- U.U. Lead in and Pipe Duct Connection
- Construction of footings

- Mock-up construction

- Open cut excavation
- Soil removal
- U.U. Lead in and Pipe Duct Connection
- Construction of footings

- Open cut excavation
- Soil removal/ Soil Storage
- Construction of footings

- Open cut excavation
- Soil removal
- U.U. Lead in and Pipe Duct Connection
- Construction of footings

- Open cut excavation
- Soil removal
- U.U. Lead in and Pipe Duct Connection
- Construction of footings

- Soil Storage

- Open cut excavation
- Soil removal
- Construction of footings

- Excavation
- Soil removal
- Plate load test
- Construction of footings

- Construction of substructure
- U.U. Lead in and Pipe Duct Connection
- Backfilling

Major construction activities carried out in period of Feb 2024

Proactive Environmental Protection Proforma

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
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 style="list-style-type: none"> • Use of regular water spraying (once every 1.25 hours or 8 times per day) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather • Deploy water bowser for regular water spraying to enhance dust suppression • Manual water spraying for dusty operation where inaccessible by water bowser • Speed control of site transportation • Stockpile of dusty materials will be covered by tarpaulin sheets to avoid wind-blown dust • Vehicles used for transporting dusty materials/spoils will be covered by mechanical cover before leaving the site • Wheel washing facilities will be provided and cleaning the wheel of all vehicles before leaving the site
EIA 4.4.6; EM&A Log 3.2			Noise Control	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant & equipment in good condition

				<ul style="list-style-type: none"> • Enclose the noisy part of machineries with noise enclosure • Adopt of Quality Powered Mechanical Equipment (QPME) if possible
			Working in Restricted Hours	<ul style="list-style-type: none"> • Valid construction noise permit should be obtained and displayed on site • In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out
EIA 5.6.1.2; EM&A Log 4.2			Water Pollution Control	<ul style="list-style-type: none"> • Cover the stockpiles of construction materials to reduce the 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 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	<ul style="list-style-type: none"> • Training of site personnel in proper waste management and

7.5.1.2; EM&A Log 6.2				<p>chemical handling procedures</p> <ul style="list-style-type: none"> • 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; EM&A Log 6.2			Chemical Waste	<ul style="list-style-type: none"> • Chemical waste should be stored at chemical waste container 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 EM&A Log 8.3			Ecology Concern	<ul style="list-style-type: none"> • Provide training to frontline workers for the conservative 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 style="list-style-type: none"> • Preservation of existing trees will be undertaken in 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; EM&A Log 2.2	Soil Removal	Kong Nga Po Site	Dust impact from excavation activities and earth	<ul style="list-style-type: none"> • Use of regular water spraying (once every 1.25 hours or 8 times per day) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather

			moving	<ul style="list-style-type: none"> • Water spraying during loading and unloading of excavated materials • Vehicles used for transporting dusty materials/spoils will be covered by mechanical cover before leaving the site • Deploy water bowser for regular water spraying to enhance dust suppression • Speed control of site transportation • Stockpile of dusty materials will be covered by tarpaulin sheets to avoid wind-blown dust • Wheel washing facilities will be provided and cleaning the wheel of all vehicles before leaving the site
EIA 4.4.6; EM&A Log 3.2			Noise Control	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant & equipment in good condition • Enclose the noisy part of machineries with noise enclosure • Adopt of Quality Powered Mechanical Equipment (QPME) if possible
			Working in Restricted Hours	<ul style="list-style-type: none"> • Valid construction noise permit should be obtained and displayed on site • In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out
EIA 5.6.1.2; EM&A Log 4.2			Water Pollution Control	<ul style="list-style-type: none"> • Cover the stockpiles of excavated materials to reduce the potential for water pollution

				<ul style="list-style-type: none"> • Provide wastewater treatment facilities prior to discharge of wastewater • Regular inspection and maintenance of wastewater treatment facilities • 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.
EIA 7.5.1.1 & 7.5.1.2; EM&A Log 6.2			Waste Generation	<ul style="list-style-type: none"> • Training of site personnel in proper waste management and chemical handling procedures • 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; EM&A Log 6.2			Chemical Waste	<ul style="list-style-type: none"> • Chemical waste should be stored at chemical waste container 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 EM&A Log 8.3			Ecology Concern	<ul style="list-style-type: none"> • Provide training to frontline workers for the conservative 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 style="list-style-type: none"> • Preservation of existing trees will be undertaken in 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; EM&A Log 2.2	Construction of footings and pile cap	Kong Nga Po Site	Air	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant and equipment in good condition • Regularly clean up stockpiles and debris to avoid accumulation of materials • Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.
EIA 4.4.6; EM&A Log 3.2			Noise Control	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant & equipment in good condition • Enclose the noisy part of machineries with noise enclosure • Adopt of Quality Powered Mechanical Equipment (QPME) if possible
			Working in Restricted Hours	<ul style="list-style-type: none"> • Valid construction noise permit should be obtained and displayed on site • In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out

EIA 5.6.1.2; EM&A Log 4.2			Water Pollution Control	<ul style="list-style-type: none"> 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. Designated location for residual concrete washout Provide wastewater treatment facilities prior to discharge of wastewater
EIA 7.5.1.4; EM&A Log			Chemical Waste	<ul style="list-style-type: none"> Drip tray and chemical spillage kit shall be provided on site
EIA 9.7.1 and EM&A Log 8.3			Ecology Concern	<ul style="list-style-type: none"> Provide training to frontline workers for the conservative 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 style="list-style-type: none"> Preservation of existing trees will be undertaken in 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
EIA 3.9.1; EM&A Log 2.2	Construction of substructure	Kong Nga Po Site	Air	<ul style="list-style-type: none"> Regular inspection and maintenance of plant and equipment in good condition Regularly clean up stockpiles and debris to avoid

				<p>accumulation of materials</p> <ul style="list-style-type: none"> Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.
EIA 4.4.6; EM&A Log 3.2			Noise Control	<ul style="list-style-type: none"> Regular inspection and maintenance of plant & equipment in good condition Enclose the noisy part of machineries with noise enclosure Adopt of Quality Powered Mechanical Equipment (QPME) if possible
			Working in Restricted Hours	<ul style="list-style-type: none"> Valid construction noise permit should be obtained and displayed on site In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out
EIA 5.6.1.2; EM&A Log 4.2			Water Pollution Control	<ul style="list-style-type: none"> Cover the stockpiles of construction materials to reduce the potential for water pollution Provide wastewater treatment facilities prior to discharge of wastewater Wastewater generated from surface runoff shall be treated prior to discharge Manholes should be temporarily sealed to prevent silt, construction materials or debris from entering the drainage system.


EIA 7.5.1.1; EM&A Log 6.2			Waste Management	<ul style="list-style-type: none"> Cover stockpiles of C&D materials by impervious sheets to avoid wind-blown dust. Spray water on all dusty materials including C&D materials immediately prior to any loading transfer operation Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal
EIA 7.5.1.4; EM&A Log 6.2			Chemical Waste	<ul style="list-style-type: none"> Drip tray and chemical spillage kit shall be provided on site
EIA 9.7.1 and EM&A Log 8.3			Ecology Concern	<ul style="list-style-type: none"> Provide training to frontline workers for the conservative 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 style="list-style-type: none"> Preservation of existing trees will be undertaken in 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

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

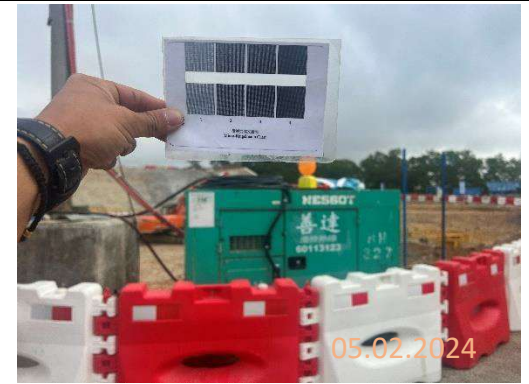
***Details of equipment, vehicles, plants, processes, technologies for the construction method*

Design and Construction of Kong Nga Po Police Training Facilities
Proactive Environmental Protection Proforma

Working Period: Feb 2024

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 3.9.1; EM&A Log 2.2	Open cut excavation	Kong Nga Po Site	Dust impact	<ul style="list-style-type: none"> • Manual water spraying for dust suppression • Regular inspection and maintenance of plant and equipment in good condition • Cover stockpile with impervious sheets or grout • Provide wheel washing facility at site entrance 	 <p data-bbox="1545 930 1939 959">By main contractor at KNP site</p>

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By main contractor at KNP site



By subcontractor at KNP site

					 <p>By main contractor at KNP site</p>
<p>EIA 4.4.6; EM&A Log 3.2</p>			<p>Noise</p>	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant & equipment in good condition • Deploy Quality Powered Mechanical Equipment (QPME) if possible • Valid construction noise permit should be displayed at site entrance. 	 <p>By main contractor at KNP site</p>

<p>EIA 9.7.1 and EM&A Log 8.3</p>			<p>Ecology Concern</p>	<ul style="list-style-type: none">• Provide training to workers about the conservative species• Provision of protective fence for the conservative species• Regular inspection for concerned vegetation and conservative species	 <p>By main contractor at KNP site</p>  <p>By subcontractor at KNP site</p>
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<p>EIA 3.9.1; EM&A Log 2.2</p>	<p>Soil Removal</p>	<p>Kong Nga Po Site</p>	<p>Air</p>	<ul style="list-style-type: none"> • Deploy water bowser for regular water spraying to enhance dust suppression • Cover dusty materials with impervious sheets • Exposed slopes covered with waterproof layers such as tarpaulin sheets or grout to reduce the potential for sediment laden runoff entering the drainage system. 	 <p>By subcontractor at KNP site</p>  <p>By subcontractor at KNP site</p>
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By main contractor at KNP site



By main contractor at KNP site

<p>EIA 4.4.6; EM&A Log 3.2</p>			<p>Noise</p>	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant & equipment in good condition • Deploy Quality Powered Mechanical Equipment (QPME) if possible • Noise insulating fabric adopted for excavator. 	 <p>By main contractor at KNP site</p>  <p>By main contractor at KNP site</p>
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EIA 5.6.1.2
and EM&A
Log 4.2

Water Quality

- Cover exposed slopes with impervious sheets or cement grout.
- Wastewater pumped out of the excavation areas shall be treated to remove suspended solid prior to discharge.
- Provide desilting/ sedimentation devices for wastewater treatment prior to discharge.
- Provide drip tray to prevent spillage of fuels
- Carry out chemical spillage drill for workers.



By main contractor at KNP site



By main contractor at KNP site



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By main contractor at KNP site



By main contractor at KNP site

<p>EIA 5.6.1.3 and EM&A Log 4.2</p>					 <p>By main contractor at KNP site</p>
<p>EIA Table 10.11; EM&A Table 9.1</p>			<p>Landscape and Visual Impact</p>	<ul style="list-style-type: none"> • Preservation of existing trees will be undertaken in 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 	 <p>By main contractor at KNP site</p>

				visual impacts	 <p>By subcontractor at KNP site</p>
EIA 3.9.1; EM&A Log 2.2	Construction of footings	Kong Nga Po Site	Air	<ul style="list-style-type: none"> • Cover dusty materials with impervious sheets • Exposed slopes covered with waterproof layers such as tarpaulin sheets or grout to reduce the potential for sediment laden runoff entering the drainage system. • Provide wheel washing facility at site entrance 	 <p>By main contractor at KNP site</p>

<p>EIA 4.4.6; EM&A Log 3.2</p>			<p>Noise</p>	<ul style="list-style-type: none"> Valid construction noise permit should be obtained and displayed on site 	 <p>By main contractor at KNP site</p>
<p>EIA 5.6.1.3 and EM&A Log 4.2</p>			<p>Water Quality</p>	<ul style="list-style-type: none"> Surface water from concrete batching areas and the rest of the site should be separated as far as possible. Temporary drainage is free of obstruction. Gullies are sealed to prevent silt or debris from entering the drainage system. 	 <p>By subcontractor at KNP site</p>

					 <p>05.02.2024</p> <p>By main contractor at KNP site</p>  <p>05.02.2024</p> <p>By main contractor at KNP site</p>
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APPENDIX B
ACTION AND LIMIT LEVELS

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

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

Table B-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
CERTIFICATES**



Calibration Certificate

Certificate No. : CSA33530

Page : 1 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 : Castle
Type : GA607
Equipment I.D. : ET/EN/002/07
Serial No. : 038641

Laboratory Information

Lab. Ref. No. : Q/CAL/23/4006/I
Date of Calibration : 19-May-2023
Date of Issue : 19-May-2023
Procedure : CQS/002/A
Date of Receipt : 17-May-2023
Calibration Location : Calibration Laboratory

Calibration Condition

Ambient Temperature : (20 ± 3) °C
Stabilizing Time : 30 minutes
Ambient Pressure : (1000 ± 50) hPa
Relative Humidity : (50±20) %
Sampling : As received

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 measured at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement.

Calibrated By : Tony MA
(Technician)

Approved By: CHAN Chi Wai



Calibration Certificate

Certificate No. : CSA33530

Page : 2 of 2

Calibration Result:

1. Measured Sound Pressure Level:

Nominal Frequency (Hz)	Nominal Output Sound Pressure (dB)	Measured Output (dB)	Expanded Uncertainty (dB)	Coverage Factor
1000	94.0	94.1	0.13	2.0
1000	104.0	104.0	0.13	2.0

2. Actual Output Frequency:

Nominal Frequency (Hz)	Nominal Output Sound Pressure (dB)	Measured Output (Hz)	Expanded Uncertainty (Hz)	Coverage Factor
1000	94.0	1000.020	0.057	2.0
1000	104.0	1000.017	0.057	2.0

Remark:

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

End of certificate



Calibration Certificate

Certificate No. : CSA34546
Page : 1 of 3

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)

	Sound Level Meter	Microphone	Pre-amplifier
Manufacturer	RION	RION	RION
Type	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/23/5141/I
Date of Calibration : 28-Jun-2023
Date of Issue : 28-Jun-2023
Procedure : CQS/001/A
Date of Receipt : 21-Jun-2023
Calibration Location : Calibration Laboratory

Calibration Condition

Ambient Temperature : (20 ± 3) °C
Stabilizing Time : 30 minutes
Ambient Pressure : (1000 ± 50) hPa
Relative Humidity : (50 ± 20) %
Sampling : As received

Reference equipment

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

Calibration specification

- To perform the calibration of linearity and frequency 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 measured at the time of test & any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement.

Calibrated By : Tony MA
(Technician)

Approved By: CHAN Chi Wai



Calibration Certificate

Certificate No. : CSA34546

Page : 2 of 3

Calibration Result:

1 Reference Sound Pressure Level : (Unit in: dB)

Range / Mode			Reference Level	REF Frequency (kHz)	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
A-Weighting	Self-cal	Before	94.0	1	93.7	-0.3	0.13	2.0
	Range	30 to 130	104.0		103.7	-0.3	0.13	2.0
	Mode	Fast	114.0		113.7	-0.3	0.13	2.0
A-Weighting	Self-cal	After	94.0	1	94.0	0.0	0.13	2.0
	Range	30 to 130	104.0		104.1	0.1	0.13	2.0
	Mode	Fast	114.0		114.1	0.1	0.13	2.0
	Self-cal	After	94.0	1	94.0	0.0	0.13	2.0
	Range	30 to 130	104.0		104.1	0.1	0.13	2.0
	Mode	Slow	114.0		114.1	0.1	0.13	2.0
C-Weighting	Self-cal	-	94.0	1	94.0	0.0	0.13	2.0
	Range	30 to 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	1	94.0	0.0	0.13	2.0
	Range	30 to 130	104.0		104.1	0.1	0.13	2.0
	Mode	Slow	114.0		114.0	0.0	0.13	2.0
Z-Weighting	Self-cal	-	94.0	1	94.0	0.0	0.13	2.0
	Range	30 to 130	104.0		104.1	0.1	0.13	2.0
	Mode	Fast	114.0		114.1	0.1	0.13	2.0
	Self-cal	-	94.0	1	94.0	0.0	0.13	2.0
	Range	30 to 130	104.0		104.1	0.1	0.13	2.0
	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
- Laboratory reference multi-function sound calibrator was used to adjust the "Self cal" reading of UUT.



Calibration Certificate

Certificate No. : CSA34546

Page : 3 of 3

Calibration Result:

Acoustic Sensitivity and Frequency Response:

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

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
30 to 130	Fast	94	31.5	54.6	40.5	-14.1	0.29	2.6
			63	67.8	57.2	-10.6	0.22	2.3
			125	77.9	72.2	-5.7	0.13	2.0
			250	85.4	83.6	-1.8	0.12	2.0
			500	90.8	90.9	0.1	0.12	2.0
			1000 (Ref.)	94.0	94.0	0.0	0.13	2.0
			2000	95.1	94.0	-1.1	0.13	2.0
			4000	94.9	92.3	-2.6	0.13	2.0
			8000	92.9	85.4	-7.5	0.14	2.0
			12500	89.7	76.0	-13.7	0.14	2.0
16000	87.5	71.6	-15.9	0.16	2.0			

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

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
30 to 130	Fast	94	31.5	91.0	74.6	-16.4	0.22	2.3
			63	93.2	82.4	-10.8	0.15	2.0
			125	93.8	88.1	-5.7	0.15	2.0
			250	94.0	92.2	-1.8	0.14	2.0
			500	94.0	94.1	0.1	0.12	2.0
			1000 (Ref.)	94.0	94.0	0.0	0.13	2.0
			2000	93.7	92.6	-1.1	0.13	2.0
			4000	93.1	90.5	-2.6	0.13	2.0
			8000	91.0	83.5	-7.5	0.14	2.0
			12500	87.8	74.1	-13.7	0.16	2.0
16000	85.6	69.8	-15.8	0.20	2.2			

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

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
30 to 130	Fast	94	31.5	94.0	77.6	-16.4	0.14	2.0
			63	94.0	83.2	-10.8	0.15	2.0
			125	94.0	88.3	-5.7	0.13	2.0
			250	94.0	92.2	-1.8	0.14	2.0
			500	94.0	94.0	0.0	0.12	2.0
			1000 (Ref.)	94.0	94.0	0.0	0.13	2.0
			2000	94.0	92.8	-1.2	0.13	2.0
			4000	94.0	91.3	-2.7	0.13	2.0
			8000	94.0	86.4	-7.6	0.14	2.0
			12500	94.0	80.7	-13.3	0.14	2.0
16000	94.0	79.4	-14.6	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

End of certificate



Certificate of Calibration

Calibration Certification Information			
Cal. Date:	January 15, 2024	Rootsmeter S/N:	438320
Operator:	Jim Tisch	Ta:	295 °K
Calibration Model #:	TE-5025A	Pa:	756.4 mm Hg
		Calibrator S/N:	4228

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4400	3.3	2.00
2	3	4	1	1.0250	6.4	4.00
3	5	6	1	0.9240	8.0	5.00
4	7	8	1	0.8780	8.9	5.50
5	9	10	1	0.7230	12.8	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
1.0010	0.6951	1.4180	0.9956	0.6914	0.8832
0.9969	0.9726	2.0054	0.9915	0.9674	1.2490
0.9948	1.0766	2.2421	0.9894	1.0708	1.3964
0.9936	1.1316	2.3515	0.9882	1.1256	1.4646
0.9884	1.3671	2.8361	0.9831	1.3597	1.7664
QSTD	m=	2.11633	QA	m=	1.32521
	b=	-0.04857		b=	-0.03025
	r=	0.99987		r=	0.99987

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

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

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



TEST REPORT

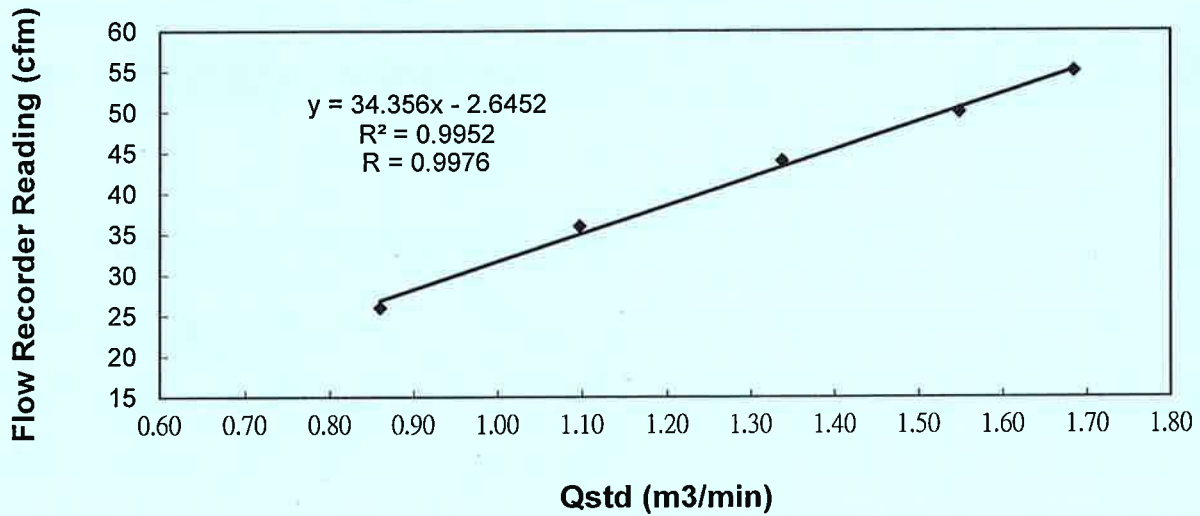
Calibration Report
of
High Volume Air Sampler

Manufacturer : Graseby GMW Date of Calibration : 20 December 2023
 Serial No. : 1180 (ET / EA / 003 / 04) Calibration Due Date : 19 February 2024
 Method : Based on Operations Manual for the 5-point calibration using standard calibration kit
 manufactured by Tisch TE-5025 A

Results :

Flow recorder reading (cfm)	55	50	44	36	26
Qstd (Actual flow rate, m ³ /min)	1.68	1.55	1.34	1.10	0.86
Pressure :	767.54 mm Hg		Temp. :	287 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
 MAK, Kei Wai
 (Assistant Supervisor)

Checked by : LAU Chi Leung
 LAU, Chi Leung
 (Environmental Team Leader)



TEST REPORT

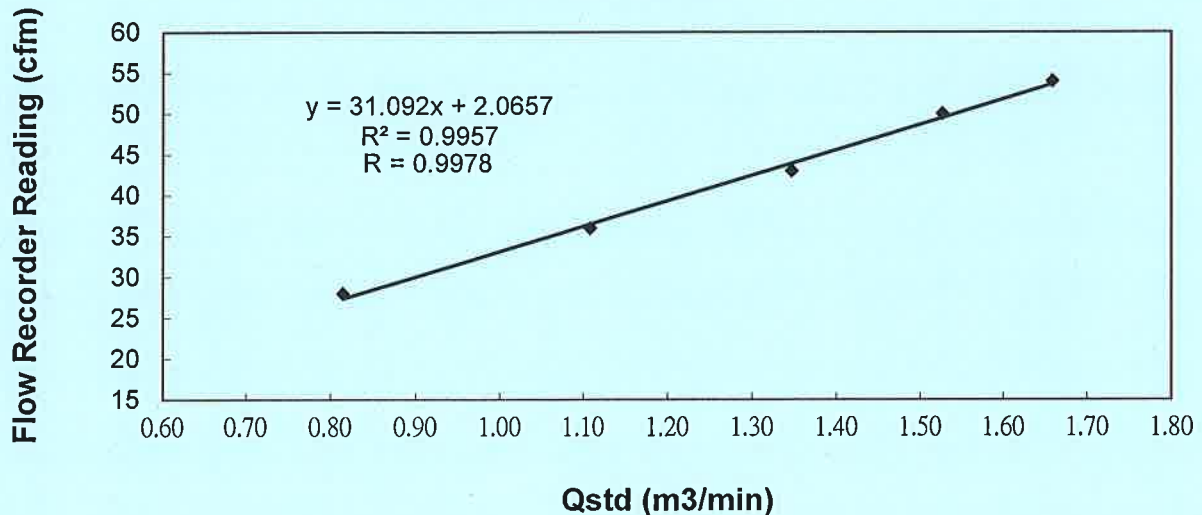
**Calibration Report
of
High Volume Air Sampler**

Manufacturer : Graseby GMW **Date of Calibration** : 19 February 2024
Serial No. : 1180 (ET / EA / 003 / 04) **Calibration Due Date** : 18 April 2024
Method : Based on Operations Manual for the 5-point calibration using standard calibration kit
 manufactured by Tisch TE-5025 A

Results :

Flow recorder reading (cfm)	54	50	43	36	28
Qstd (Actual flow rate, m ³ /min)	1.66	1.53	1.35	1.11	0.81
Pressure :	761.39 mm Hg		Temp. :	296 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
 MAK, Kei Wai
 (Assistant Supervisor)

Checked by : LAU, Chi Leung
 LAU, Chi Leung
 (Environmental Team Leader)



TEST REPORT

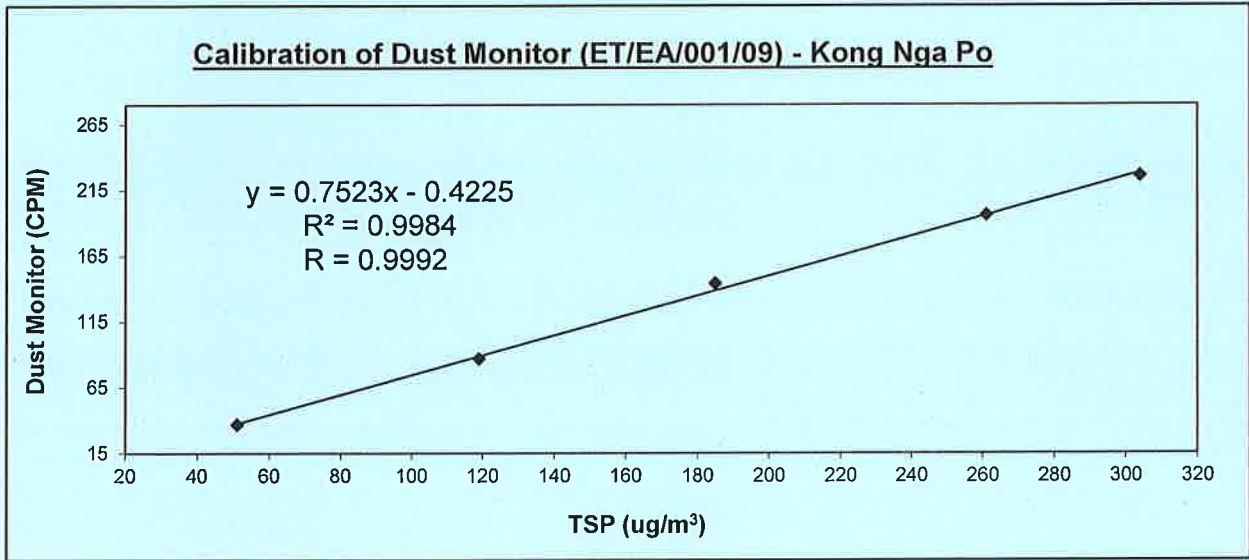
**Internal Calibration Report
of
Dust Monitor**

Manufacturer : SIBATA (LD-3B) Date of Calibration : 26 January 2024

Serial No. : 155331 (ET/EA/001/09) Calibration Due Date : 25 April 2024

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)	37	87	144	196	226
	TSP (ug/m ³)	51	119	185	261	304
	High Volume Air Sampler Serial No.: 1180	Calibration Due Date: 19 February 2024				



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)



TEST REPORT

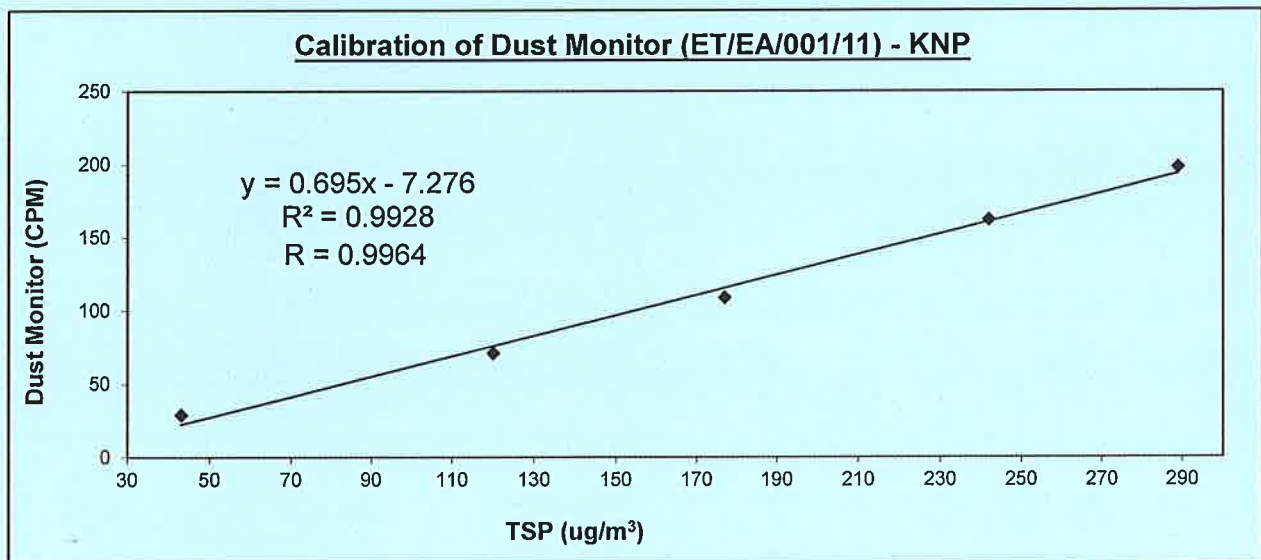
**Internal Calibration Report
of
Dust Monitor**

Manufacturer : SIBATA (LD-3B) Date of Calibration : 26 January 2024

Serial No. : 255863 (ET/EA/001/11) Calibration Due Date : 25 April 2024


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)	29	71	109	162	198
	TSP (ug/m ³)	43	120	177	242	289
	High Volume Air Sampler Serail No.:1180	Calibration Due Date: 19 February 2024				



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)

**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
February-2024**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28-Jan	29-Jan	30-Jan	31-Jan	1-Feb	2-Feb	3-Feb
		1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)				
4-Feb	5-Feb	6-Feb	7-Feb	8-Feb	9-Feb	10-Feb
	1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)				1-hr TSP x3 (AM1, AM2)	
11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb
			1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)			
18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb	24-Feb
		1-hr TSP x3 (AM1, AM2) NM (NM9 to NM14)				
25-Feb	26-Feb	27-Feb	28-Feb	29-Feb	1-Mar	2-Mar
	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
March-2024**

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

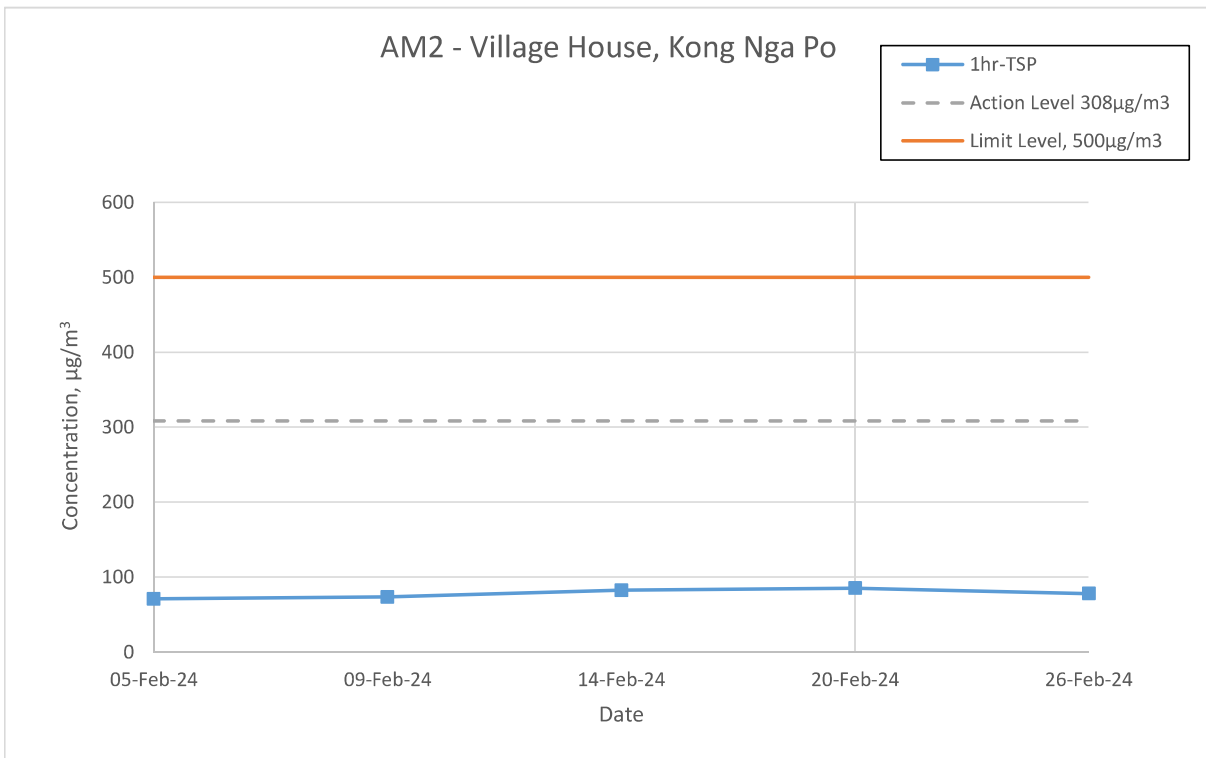
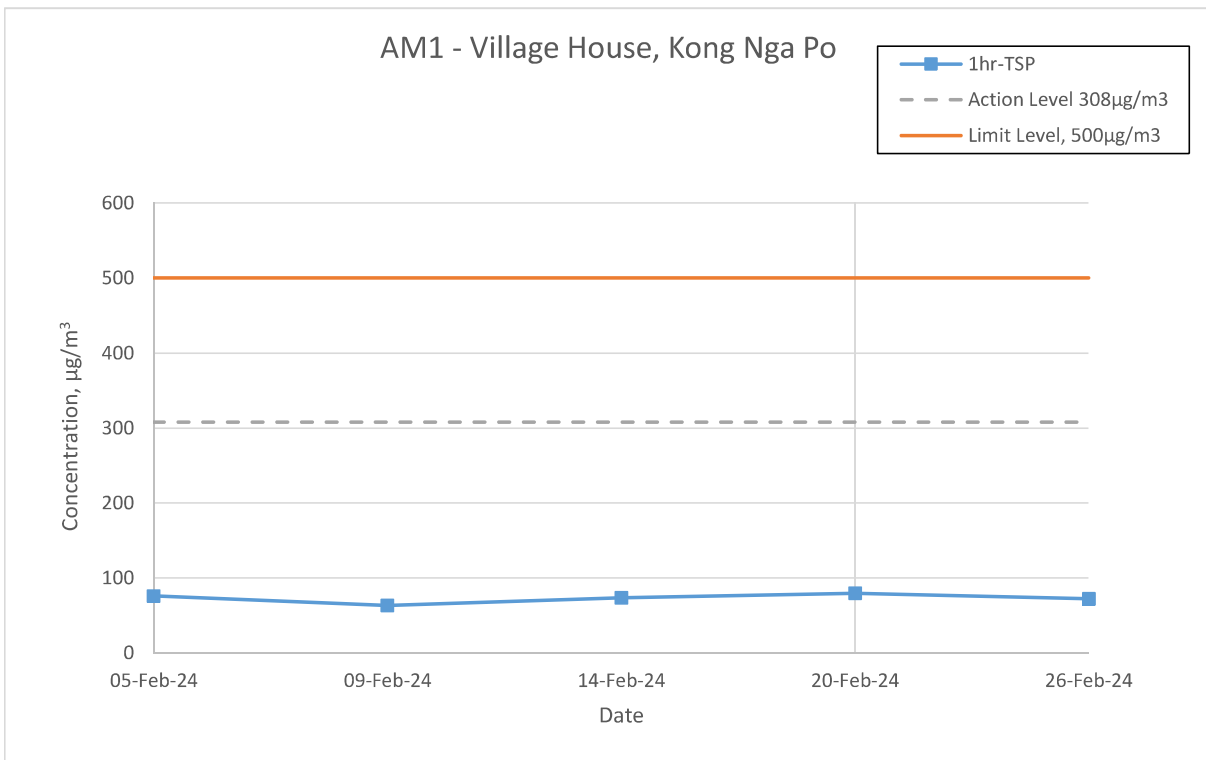
**APPENDIX E
AIR QUALITY MONITORING RESULTS
AND GRAPHICAL PRESENTATION**

Appendix E - 1-hour TSP Monitoring Results

Location AM1 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
05-Feb-24	9:00	Fine	76
	10:00		77
	11:00		76
09-Feb-24	10:50	Cloudy	63
	13:00		61
	14:00		66
14-Feb-24	10:30	Fine	73
	13:30		76
	14:30		72
20-Feb-24	13:30	Fine	80
	14:30		82
	15:30		79
26-Feb-24	10:45	Fine	72
	13:30		70
	14:30		71
		Minimum	61
		Maximum	82
		Average	73

Location AM2 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
05-Feb-24	13:30	Fine	71
	14:30		72
	15:30		73
09-Feb-24	11:00	Cloudy	74
	13:15		75
	14:15		69
14-Feb-24	10:45	Fine	82
	13:30		88
	14:30		88
20-Feb-24	13:40	Fine	85
	14:40		82
	15:40		87
26-Feb-24	11:00	Fine	78
	13:30		75
	14:30		75
		Minimum	69
		Maximum	88
		Average	78

1-hr TSP Concentration Levels



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

Appendix F -Noise Monitoring Results

Location NM9 - Village House, Kong Nga Po									
Date	Weather	Wind Speed (m/s)	Time	Unit: dB(A) (5-min)			Average	Limit Level	Baseline
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}	L _{eq}
05-Feb-24	Fine	0.2	9:35	54.2	54.9	51.1	59.9	75.0	55.9
				57.5	60.9	53.1			
				59.9	63.1	51.8			
				62.7	64.8	51.0			
				61.1	64.0	49.6			
14-Feb-24	Fine	1	14:48	59.5	63.9	49.1	57.3	75.0	55.9
				60.4	63.9	53.2			
				55.0	57.4	47.3			
				56.9	60.3	49.0			
				57.9	61.4	48.7			
20-Feb-24	Fine	0.2	14:05	55.2	58.8	46.2	57.9	75.0	55.9
				55.7	58.9	49.0			
				56.7	58.2	52.4			
				57.0	58.6	52.9			
				57.8	59.3	53.8			
26-Feb-24	Fine	0.2	13:40	58.2	59.6	54.5	58.0	75.0	55.9
				58.3	59.7	54.7			
				59.1	60.7	55.6			
				58.8	60.2	55.8			
				58.4	59.7	55.2			

Location NM10 - Village House, Kong Nga Po									
Date	Weather	Wind Speed (m/s)	Time	Unit: dB(A) (5-min)			Average	Limit Level	Baseline
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}	L _{eq}
05-Feb-24	Fine	0.2	9:00	56.7	58.5	49.3	56.3	75.0	52.8
				57.3	59.0	49.8			
				55.7	58.3	49.9			
				54.2	56.7	48.0			
				56.5	58.9	50.2			
14-Feb-24	Fine	0.5	13:30	56.9	59.0	50.4	58.1	75.0	52.8
				52.2	53.7	46.6			
				49.9	52.0	41.0			
				46.6	48.8	40.5			
				46.4	48.7	41.1			
20-Feb-24	Fine	0.2	13:30	46.3	48.9	41.9	51.7	75.0	52.8
				65.4	69.0	49.6			
				52.4	53.9	48.8			
				51.7	53.5	48.4			
				50.9	52.3	47.7			
26-Feb-24	Fine	0.2	10:45	50.7	51.9	47.4	51.6	75.0	52.8
				52.0	53.6	48.5			
				52.1	53.8	48.7			
				51.1	52.7	47.4			
				50.8	52.4	47.1			

Location NM11 - Village House, Kong Nga Po

Date	Weather	Wind Speed (m/s)	Time	Unit: dB(A) (5-min)			Average	Limit Level	Baseline
				L _{eq}	L ₁₀	L ₉₀			
05-Feb-24	Fine	0.2	10:10	50.0	52.4	44.7	49.0	75.0	46.4
				48.1	48.8	44.0			
				48.4	51.1	44.1			
				49.8	52.4	44.8			
				48.7	51.6	44.3			
				48.9	51.9	44.2			
14-Feb-24	Fine	0.3	14:08	50.0	54.1	41.7	48.1	75.0	46.4
				47.2	51.3	38.4			
				50.1	52.5	38.4			
				45.3	47.7	39.4			
				47.7	50.6	41.6			
				46.0	48.8	40.7			
20-Feb-24	Fine	0.2	14:45	42.4	43.7	39.4	43.5	75.0	46.4
				43.0	44.2	39.9			
				43.4	44.7	40.3			
				44.1	45.9	41.2			
				44.3	46.0	41.4			
				43.7	44.9	40.8			
26-Feb-24	Fine	0.2	14:20	43.3	44.8	40.2	42.7	75.0	46.4
				43.4	44.9	40.2			
				42.9	44.2	39.6			
				42.7	43.9	39.4			
				41.8	42.7	38.2			
				41.7	42.5	38.1			

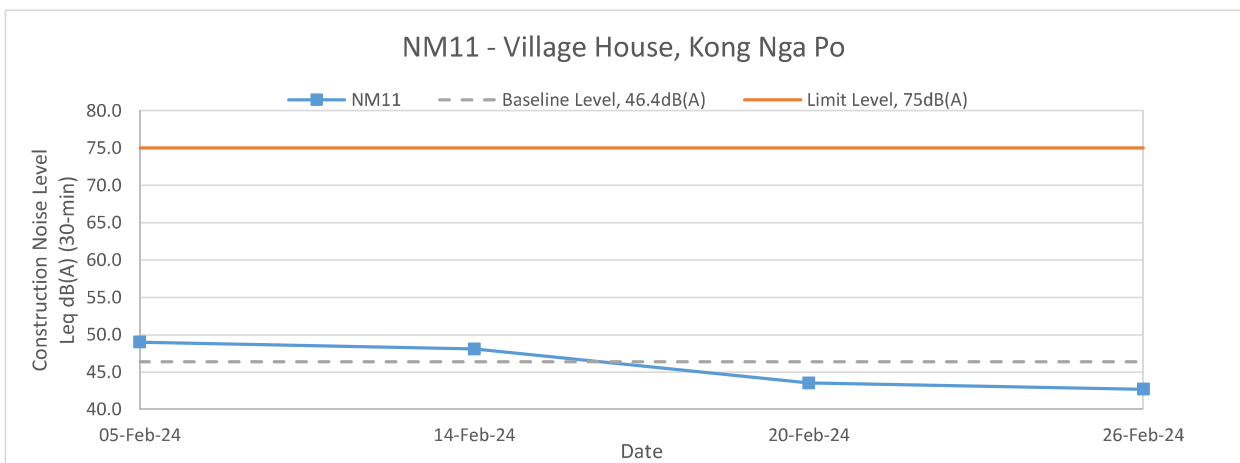
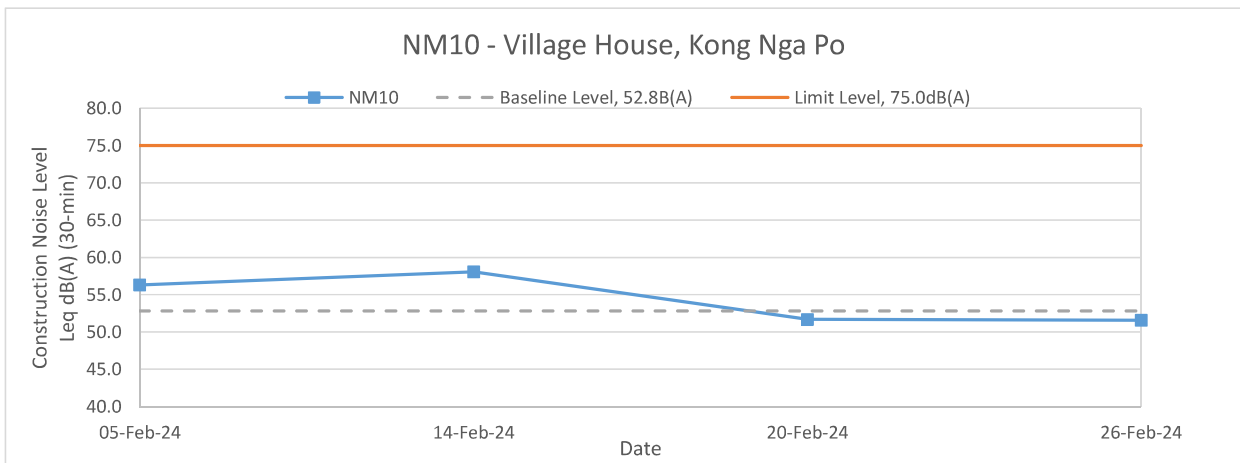
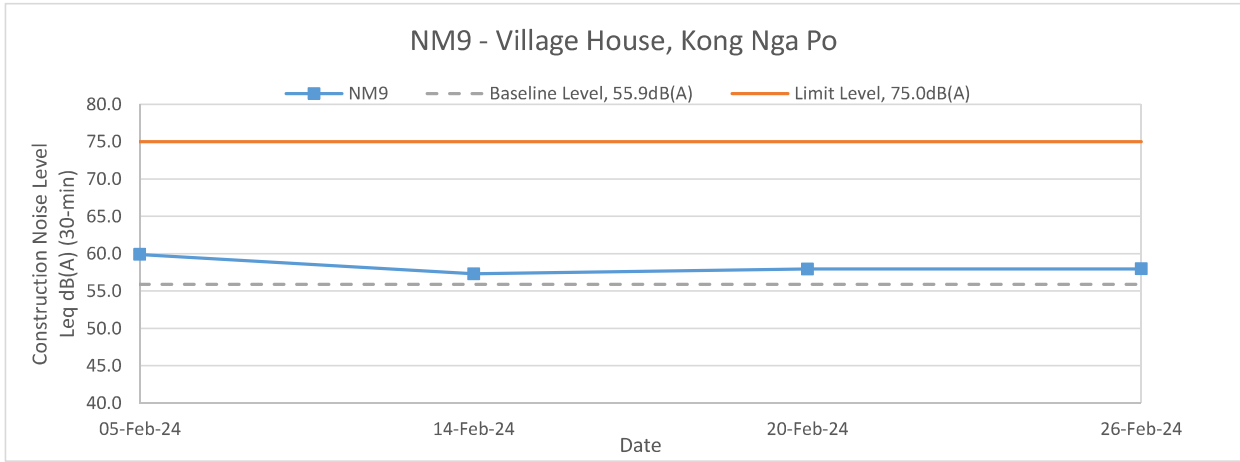
Location NM12 - Village House, Kong Nga Po

Date	Weather	Wind Speed (m/s)	Time	Unit: dB(A) (5-min)			Average	Limit Level	Baseline
				L _{eq}	L ₁₀	L ₉₀			
05-Feb-24	Fine	0.2	13:30	43.7	46.8	39.5	45.1	75.0	54.7
				44.4	47.6	40.2			
				44.9	48.6	40.8			
				45.4	49.8	41.4			
				45.9	50.0	42.2			
				46.0	50.4	42.8			
14-Feb-24	Fine	0.2	10:45	42.4	43.9	39.7	41.7	75.0	54.7
				42.6	44.3	40.2			
				41.9	43.5	39.2			
				40.8	42.2	38.7			
				40.9	42.4	38.9			
				41.4	43.0	39.1			
20-Feb-24	Fine	0.2	13:40	45.4	47.7	42.3	44.5	75.0	54.7
				44.9	47.3	41.9			
				45.0	46.9	42.0			
				44.2	46.4	41.6			
				44.1	46.2	41.5			
				43.3	45.0	40.5			
26-Feb-24	Fine	0.2	11:00	47.8	49.2	43.4	48.2	75.0	54.7
				47.4	48.8	43.2			
				47.2	48.6	43.1			
				48.4	49.2	44.2			
				48.7	49.6	44.8			
				49.3	50.4	45.4			

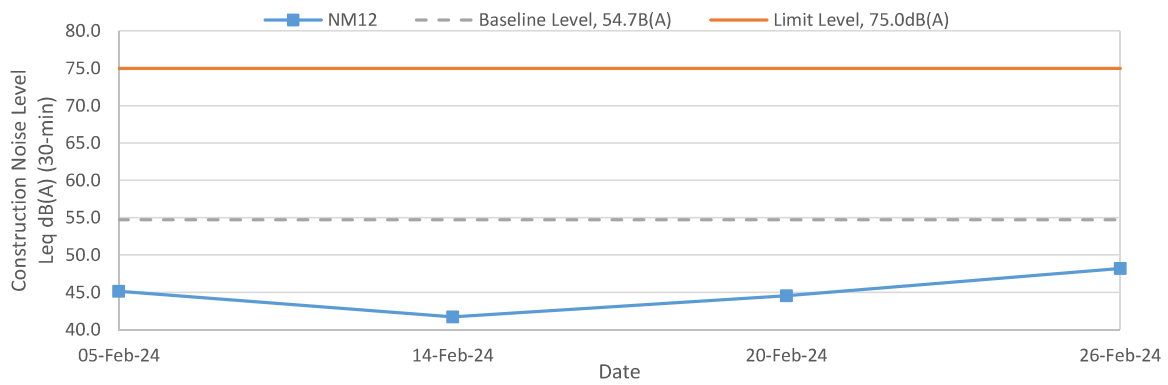
Location NM13 - Village House, Kong Nga Po									
Date	Weather	Wind Speed (m/s)	Time	Unit: dB(A) (5-min)			Average	Limit Level	Baseline
				L _{eq}	L ₁₀	L ₉₀			
05-Feb-24	Fine	0.2	11:30	62.7	64.8	59.6	63.3	75.0	61.3
				63.4	64.9	60.6			
				63.2	65.3	61.1			
				63.1	64.6	61.2			
				64.0	65.1	62.2			
				63.5	64.9	61.3			
14-Feb-24	Fine	0.2	13:30	52.4	54.0	49.7	52.4	75.0	61.3
				53.0	54.7	50.4			
				53.2	54.9	50.7			
				52.6	54.7	49.9			
				51.6	53.2	48.8			
				51.2	52.9	48.4			
20-Feb-24	Fine	0.2	15:10	53.7	55.0	50.2	52.8	75.0	61.3
				53.9	55.2	50.6			
				52.7	54.5	49.8			
				52.3	54.1	49.4			
				51.9	53.5	48.2			
				51.7	53.2	48.0			
26-Feb-24	Fine	0.2	15:05	52.7	54.0	49.1	52.5	75.0	61.3
				52.4	53.8	48.7			
				52.1	53.5	48.4			
				53.3	54.5	49.0			
				52.8	54.2	48.8			
				51.7	53.0	47.4			

Location NM14 - Village House, near Man Kam To Road									
Date	Weather	Wind Speed (m/s)	Time	Unit: dB(A) (5-min)			Average	Limit Level	Baseline
				L _{eq}	L ₁₀	L ₉₀			
05-Feb-24	Fine	0.2	10:55	49.3	52.9	39.3	48.5	75.0	59.6
				47.7	51.6	38.2			
				48.0	51.9	39.1			
				47.1	50.2	38.0			
				48.9	51.3	39.9			
				49.4	53.2	40.1			
14-Feb-24	Fine	0.2	14:05	40.4	41.9	37.7	41.1	75.0	59.6
				40.8	42.4	38.5			
				41.1	42.9	39.0			
				41.4	43.2	39.6			
				40.9	42.3	38.6			
				42.0	43.9	39.9			
20-Feb-24	Fine	0.2	14:30	40.4	41.9	38.1	41.5	75.0	59.6
				40.2	41.6	37.9			
				41.1	42.5	38.7			
				42.0	43.4	39.3			
				42.1	43.5	39.6			
				42.7	43.9	39.8			
26-Feb-24	Fine	0.2	15:15	40.1	41.8	37.9	41.0	75.0	59.6
				40.4	41.9	38.2			
				41.3	42.5	38.8			
				41.4	42.6	38.9			
				41.5	42.7	39.1			
				40.9	42.3	38.6			

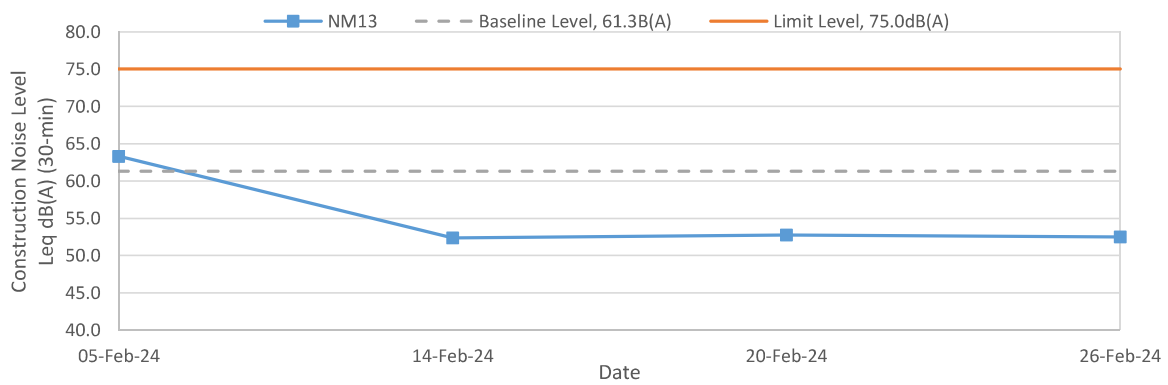
Noise Levels



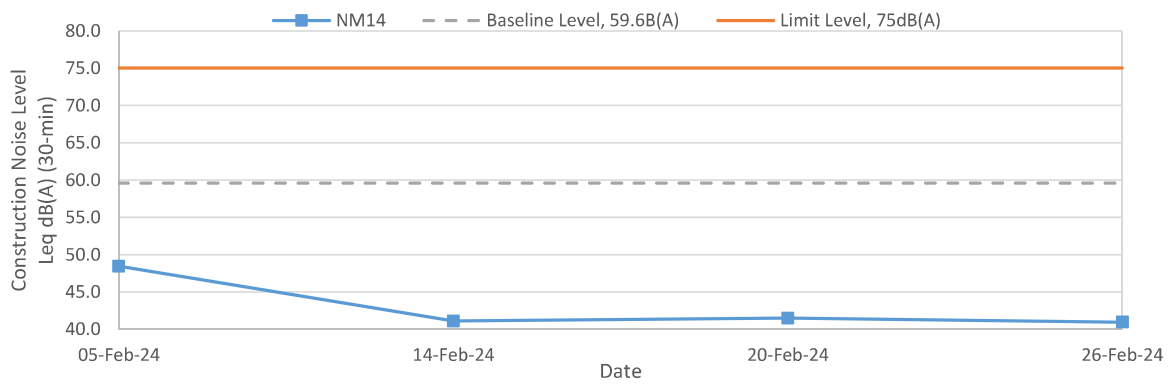
NM12 - Village House, Kong Nga Po



NM13 - Village House, Kong Nga Po



NM14 - Village House, Kong Nga Po



APPENDIX G
WEATHER CONDITION

**Appendix G –
General Weather Conditions during the Monitoring Period February 2024)**

Date February	Mean Pressure (hPa)	Air Temperature			Mean Dew Point Temperature (deg. C)	Mean Relative Humidity (%)	Mean Amount of Cloud (%)	Total Rainfall (mm)
		Maximum (deg. C)	Mean (deg. C)	Minimum (deg. C)				
1	1018	23.9	21.1	19.8	19.8	92	77	0.2
2	1017.6	25.7	21.7	18.6	19.6	88	73	Trace
3	1018.8	22.5	19.6	17.7	17	85	89	Trace
4	1017.3	20.5	19.8	19.3	18.5	92	88	Trace
5	1018.8	21.7	20.4	19.6	18	86	88	Trace
6	1019.6	20.3	19.1	18	16.7	86	88	0.6
7	1017.3	18.4	16.8	14.7	15.1	90	94	Trace
8	1018.8	14.8	13	11.6	10.4	84	88	2.2
9	1023.5	14.2	12.7	11	8.6	77	88	0.6
10	1026.5	18.6	14.4	11.3	9.4	72	55	0.5
11	1026.9	22.8	17.4	13.6	8.8	60	14	-
12	1025.8	21.2	18.1	15.5	8.6	55	20	-
13	1023.2	22.8	19.2	16.8	13.6	71	52	-
14	1020.2	25.1	21	18.3	17	78	56	-
15	1019	26	22.3	19.7	16.4	70	70	-
16	1019.7	22	20.4	19.4	16.2	77	60	Trace
17	1017.4	21.2	19.5	17.8	16.3	82	88	Trace
18	1015.2	23.6	21.6	19.9	19.4	87	85	-
19	1015.1	25.1	22.7	21.1	20.7	88	87	-
20	1014.7	26	23.9	22	21.6	87	83	-
21	1014.5	27.8	24.5	22.5	21.2	82	55	-
22	1016.6	25.2	23.6	22.4	21.2	87	71	-
23	1019.9	22.9	20.4	19.3	17.8	85	88	Trace
24	1021.1	21.6	18.8	17.5	13.9	73	88	Trace
25	1020.7	19.2	17.1	15.6	11.8	71	79	-
26	1021.1	21.1	18.2	16.8	13.9	76	86	Trace
27	1020.9	19.5	17.6	15.9	12.5	73	88	Trace
28	1018	19.3	18.3	17.5	15.8	85	91	Trace
29	1017.6	22	18.7	16.2	16.1	85	88	Trace
Mean/Total	1019.4	21.9	19.4	17.6	15.7	80	75	4.1
Normal*	1018.7	19.4	17.1	15.3	13.2	79	72	38.9

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

**APPENDIX H
ECOLOGICAL MONITORING RESULTS**

Post-transplantation monitoring records for
transplanted flora species
(February 2024)

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

Monitoring and Maintenance Works Report

INSPECTION DATE: 26 FEBRUARY 2024
REPORT DATE: 29 FEBRUARY 2024



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

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

Audit Ref. No. _____

Contract SS K509

Inspected By Lau Siu Yeung (Andy)

Inspection Date 26/02/2024

Time Period 09:00 to 13:00

Part A Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Hazy

Temperature 18.2 °C

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

Wind Calm Light Breeze Strong

Part B

1. Cycadfern *Brainea insignis*

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

2. Ladies Tresses *Spiranthes sinensis*

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

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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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.9 Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.10 Are fixings driven into plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.11 Are the plants used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.13 Are all plants kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.14 Are there enough area for growth and development of plant roots?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.15a Is exposure of plant roots avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.15b If not, were broken off or rotting of roots avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

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

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Design and Construction of Kong Nga Po Police Training Facilities

Part C Follow-up for the Previous Site Audit on Date: _____ (Ref. No. _____)

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

Remarks/Observations

Signatures:

Contractor's Representative



(Name: Lau Siu Yeung)
(Date: 26/02/2024)

Supervisor's Rep.

(Name: _____)
(Date: _____)

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

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



C0001(Patch)_01



C0001(Patch)_02



C0001(Patch)_03



C0001(Patch)_04



C0001(Patch)_05



C0001(Patch)_06



C0001(Patch)_07



C0001(Patch)_08



C0002(Patch)_01



C0002(Patch)_02



C0002(Patch)_03



C0002(Patch)_04



C0002(Patch)_05



C0002(Patch)_06



C0002(Patch)_07



C0002(Patch)_08



C-0003



C-0004(Patch)_01



C-0004(Patch)_02



C-0004(Patch)_03



C-0004(Patch)_04

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C-0004(Patch)_05



C-0004(Patch)_06



C-0004(Patch)_07



C-0004(Patch)_08



C-0004(patch)_09



C-0004(patch)_10



C-0004(Patch)_11



C-0004(Patch)_12



C-0004(Patch)_13



C-0004(Patch)_14



C-0004(Patch)_15



C-0004(Patch)_16



C-0004(Patch)_17



C-0004(Patch)_18



C-0004(Patch)_19



C-0004(Patch)_20

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C-0005(patch)_01



C-0005(patch)_02



C-0005(Patch)_03



C-0005(Patch)_04



C-0005(Patch)_05



C-0005(Patch)_06



C-0005(Patch)_07

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C-0006(Patch)_06

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C-0007(Patch)_01



C-0007(Patch)_02

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Monitoring and Maintenance Works for Flora Species of Conservation Interest



C-0008(Patch)_01



C-0008(Patch)_02



C-0008(Patch)_03



C-0008(Patch)_04



C-0008(Patch)_05



C-0008(Patch)_06



C-0008(Patch)_07



C-0009



C-0010(Patch)_01



C-0010(Patch)_02



C-0010(Patch)_03



C-0011(Patch)_01



C-0011(Patch)_02



C-0011(Patch)_03



C-0011(Patch)_04



C-0011(Patch)_05



C-0011(Patch)_06



C-0011(Patch)_07



C-0011(Patch)_08



C-0011(Patch)_09



C-0011(Patch)_10



C-0011(Patch)_11



C-0011(Patch)_12



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:

26/2/2024

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

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L-0001



L-0002



L-0003



L-0004



L-0005



L-0006



L-0007



L-0008

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L-0009



L-0010



L-0011



L-0012

Contract No.: SS K509
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L-0013



L-0014



L-0015



L-0016

Contract No.: SS K509
Design and Construction of Kong Nga Po Police Training Facilities
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L-0018



L-0019



L-0020



L-0021

Contract No.: SS K509
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L-0022



L-0023



L-0024



L-0025

Contract No.: SS K509
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L-0026



L-0027



L-0028



L-0029

Contract No.: SS K509
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Monitoring and Maintenance Works for Flora Species of Conservation Interest



L-0030



L-0031



L-0032



L-0033

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-0034



L-0035



L-0036



L-0037



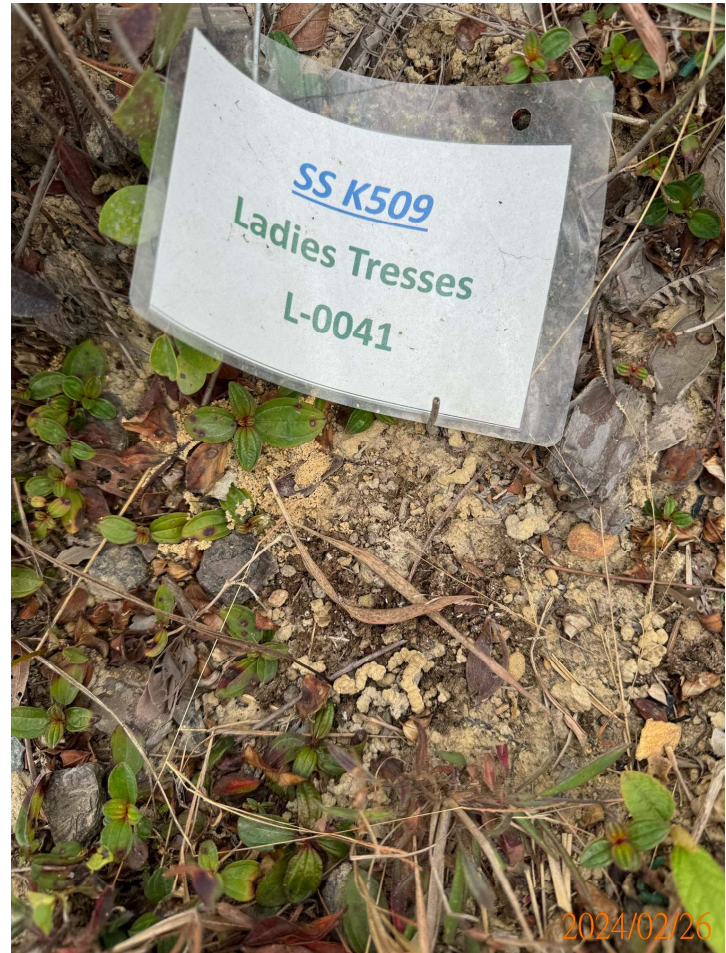
L-0038



L-0039



L-0040



L-0041



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 (February 2024)

Description of Work	Date																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Watering		Y						Y							Y							Y							
Weeding																													
Fertilization																													
Pest/Disease Control																													
Firming up of fence																													
Installation of shaded net																													
Mulching																													
Inspection																													
Checking of Protection Zone																													
Remarks	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH

	Public Holiday		H-Hot	D-Drizzle		R-Rainy		W-Windy		RH-High Humidity	MH-Medium Humidity	LH-Low Humidity	
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watering



Weeding (1)



weeding (2)

Post-transplantation Monitoring Checklist

Police Facilities in Kong Nga Po

Contract Provision of Environmental Team
Consultancy for Design and Construction
of Kong Nga Po Police Training Facilities
(Programme no. 279LP)

Inspected By ETL

Inspection Date 28-2-2024

Part A Weather

Condition Sunny Fine Overcast Drizzle
 Rain Hazy

Wind Calm Light Breeze Strong

Part B

	N/A or not observed	Yes	NO	Remarks
1 Cycadfern Brainea insignis				
1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.12	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 Ladies Tresses Spiranthes sinensis				
2.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 2.11 Are the plants being intentionally avoided for the purpose of anchoring, winching, or displaying signs? _____
- 2.12 Is the practice of lighting fires below the branches and storing petrol, oil, or caustic substances near the plants being avoided? _____
- 2.13 Are all plants consistently maintained free from pests, diseases, or fungal infections? _____
- 2.14 Is there sufficient space provided for the growth and development of plant roots? _____
- 2.15a Is the exposure of plant roots being prevented? _____
- 2.15b If not, are broken or rotting roots being avoided? _____

Advice/Observations

1) Please refer to the guidelines on soil improvement issued by the Greening, Landscape and Tree Management Section (GLTMS) of the development bureau (2022) to apply to monitoring and maintenance of transplanted flora species.

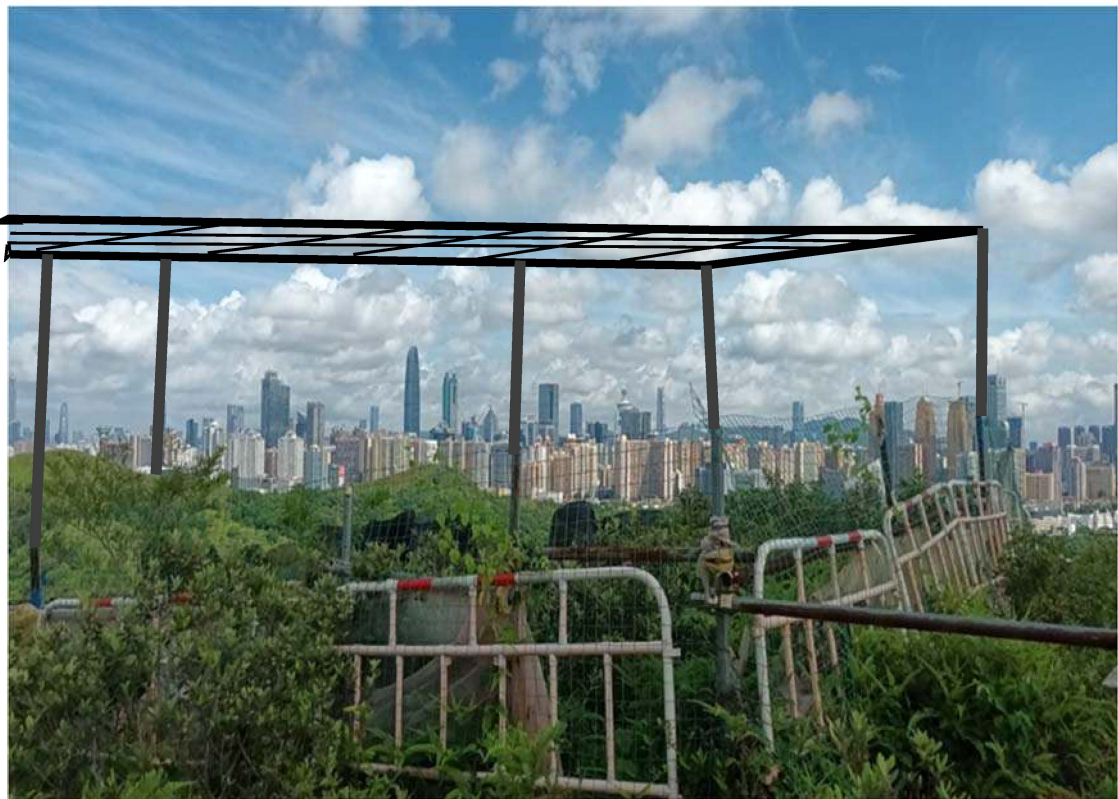
2) Daily watering frequency is needed to keep the soil moist.

3) Installation of a shaded net is provided below.

4) The wild plants that are growing in undesirable areas should be removed.

IEC	ETL	Contractor Representative
<p>Name: <u>Mr. Law</u></p> <p>Date _____</p>	<p style="color: blue; font-family: cursive;">Lee</p> <p>Name: <u>Mr. Lee</u></p> <p>Date <u>28-2-2024</u></p>	<p>Name: <u>Marian Kong</u></p> <p>Date _____</p>

The installation of a shaded net



Remark: Non scale & Conceptual drawing

**APPENDIX I
EVENT ACTION PLANS**

Appendix I:

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

EVENT	ACTION			
	ET	IEC	PERMIT HOLDER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC, ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method. 	<ol style="list-style-type: none"> 1. Notify Contractor. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC, ER and Contractor; 3. Advise the WKCDA on the effectiveness of the proposed remedial measure; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; and 5. Monitor Implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; and 3. Amend proposal if appropriate.

EVENT	ACTION			
	ET	IEC	PERMIT HOLDER	CONTRACTOR
	8. If exceedance stops, cease additional monitoring.			
LIMIT LEVEL				
1.Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and the ER informed of the results. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; and 5. Monitor the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Notify IEC, the ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with IEC, agree with the Contractor on the remedial measures to be implemented; 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals;

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

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker

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

EVENT	ACTION			
	ET	IEC	PERMIT HOLDER	CONTRACTOR
Action Level	<ol style="list-style-type: none"> 1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; and 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the monitoring data submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise ER; and 3. Advise the ER on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measure to be implemented: and 4. Supervise the implementation of remedial measure. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC and ER; and 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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; 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to the IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; and 5. Stop the relevant portion of works as

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

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker

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

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

(B) Exceedance Report for Construction Noise

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract		Cumulative No. of Exceedance recorded
		Action Level	Limit Level	Action Level	Limit Level	
Noise	Leq(30 min.) dB(A)	0	0	0	0	0

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

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
Air Quality Impact – Construction Phase									
3.9.1	2.2	<p>Dust Control Measures</p> <p>To achieve compliance with the FSP, RSP and TSP criteria during the construction phase, good practices for dust control should be implemented to reduce dust impacts. The dust control measures are detailed as follows:</p> <ul style="list-style-type: none"> ▪ Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather. ▪ Covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handling at the stockpile areas <p>Relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted:</p> <p>Good Site Management</p> <ul style="list-style-type: none"> ▪ Good site management is important to help reduce potential air quality impact down to an acceptable level. As a general guide, the 	Construction Dust	Contractor	Project construction site / Duration of the construction phase / Prior to commencement of operation		✓		EIA Recommendation and Air Pollution Control (Construction Dust) Regulation

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		<p>Contractor should maintain high standards of housekeeping to prevent emissions of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.</p> <p>Disturbed Parts of the Roads</p> <ul style="list-style-type: none"> ▪ 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 surface wet. <p>Exposed Earth</p> <ul style="list-style-type: none"> ▪ Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. <p>Loading, Unloading or Transfer of Dusty Materials</p> <ul style="list-style-type: none"> ▪ All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. 							

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		<p>Debris Handling</p> <ul style="list-style-type: none"> ▪ 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. <p>Transport of Dusty Materials</p> <ul style="list-style-type: none"> ▪ Vehicles used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. <p>Wheel washing</p> <ul style="list-style-type: none"> ▪ Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. <p>Use of vehicles</p> <ul style="list-style-type: none"> ▪ 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 dusty materials do not leak from the vehicle. 							

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		<p>Site hoarding</p> <ul style="list-style-type: none"> Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit 							
Air Quality Impact – Operation Phase									
3.7.4	-	<p>Control Measures of proposed firing ranges</p> <ul style="list-style-type: none"> Bullet containment systems such as backstops of soft materials (e.g. timber baffles) and sand traps behind bullet targets are proposed to be installed to collect bullets from gunshots, which would reduce lead dust and dust in general. Monitoring and adjusting of soil pH or runoff control measures may be required to ensure no lead migration occurs. Alternatively, the use of lead-free primers mixture for firearms or air pistols would eradicate lead dust emissions completely. A solid fence wall (at least 2.4m to 3.5m high) with a backstop of soft material (of a density of at least 20kg/m²) will also be erected around the boundary of the firing ranges. 	Proposed Firing Range	Hong Kong Police Force	Duration of the operation phase			✓	N/A
Noise Impact – Construction Phase									
4.4.6	3.2	<p>Good Site Practice</p> <p>Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:</p> <ul style="list-style-type: none"> only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; 	Maintain good site practice to minimise / avoid construction noise impact	Contractor	Within the Project site / During construction phase / Prior to commencement of operation.		✓		EIAO and Noise Control Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		<ul style="list-style-type: none"> ▪ 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 QPME should be adopted as far as applicable.	Minimise / avoid construction noise impacts to the surrounding NSRs	Contractor	Within the Project site / During construction phase / Prior to commencement of operation.		✓		EIAO and Noise Control Ordinance
4.4.6	3.2	Use of Movable Noise Barriers Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs.	Minimise / avoid construction noise impacts to the surrounding NSRs	Contractor	Within the Project site / During construction phase / Prior to commencement of operation.		✓		EIAO and Noise Control Ordinance
4.4.6	3.2	Use of Noise Enclosure/ Acoustic Shed Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.	Minimise / avoid construction noise impacts to the surrounding NSRs	Contractor	Within the Project site / During construction phase / Prior to commencement of operation.		✓		EIAO and Noise Control Ordinance
4.4.6	3.2	Use of Noise Insulating Fabric Noise insulating fabric can also be adopted for certain PME (e.g. pilling machine etc.).	Minimise / avoid construction noise impacts to the surrounding NSRs	Contractor	Within the Project site / During construction phase / Prior to commencement of operation.		✓		EIAO and Noise Control Ordinance
Noise Impact – Operation Phase									
4.6.6	3.3	Fixed Noise Source At least 2.5m height perimeter wall / boundary wall at the Project site and 5m height 4-side walls at Ma Tso Lung Firing Range will be installed.	Minimise / avoid fixed noise source impacts to the surrounding NSRs	Design Architect / Contractor	Within the Project site / During construction phase / Prior to commencement of operation.		✓		EIAO and Noise Control Ordinance
4.6.6	3.3	Fixed Noise Source Specification of the maximum allowable sound	Minimise / avoid fixed noise source impacts to	Design Architect / Contractor	Within the Project site / During operation phase			✓	EIAO and Noise Control

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		<p>power levels of the proposed fixed plants should be followed.</p> <p>The following noise reduction measures should be considered as far as practicable during operation:</p> <ul style="list-style-type: none"> ▪ Install sand bullet trap, sound absorption materials and baffle system at the planned firing ranges; ▪ Choose quieter plant such as those which have been effectively silenced; ▪ Include noise levels specification when ordering new plant (including chillier and E/M equipment); ▪ Locate fixed plant/louvre away from any NSRs as far as practicable; ▪ Locate fixed plant in walled plant rooms or in specially designed enclosures; ▪ Locate noisy machines in a completely separate building; ▪ Install direct noise mitigation measures including silencers, acoustic louvres and acoustic enclosure where necessary; and ▪ Develop and implement a regularly scheduled plant maintenance programme so that equipment is properly operated and serviced in order to maintain a controlled level of noise. 	the surrounding NSRs		/ Throughout operation phase				Ordinance
4.7.4	3.3	<p>Helicopter Noise</p> <p>At least 2.5m height perimeter wall / boundary wall at the Project site will be installed.</p>	Minimise / avoid helicopter noise impacts to the surrounding NSRs	Design Architect / Contractor	Within the Project site / During construction phase / Prior to commencement of operation.		✓		EIAO and Noise Control Ordinance
4.7.4	3.3	<p>Helicopter Noise</p> <p>Only one helicopter will be allowed in hovering, approaching or taking-off while another helicopter should be idling on ground.</p>	Minimise / avoid helicopter noise impacts to the surrounding NSRs	GFS	Helipad operation/ Operation Period			✓	EIAO and Noise Control Ordinance
4.7.4	3.3	<p>Helicopter Noise</p> <p>The helicopter will be in approaching or taking-off within the restricted ranges of approach/take-off flight paths and adopting steeper approach / departure (take-off) angles.</p>	Minimise / avoid helicopter noise impacts to the surrounding NSRs	GFS	Helipad operation/ Operation Period			✓	EIAO and Noise Control Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
Water Quality Impact – Construction Phase									
5.6.1.1	4.2	<p>General Construction Activities</p> <p>The following measures should be implemented:</p> <ul style="list-style-type: none"> ▪ Construction waste, debris and refuse generated on-site should be stored or contained appropriately to prevent them entering nearby watercourses or blocking stormwater drains. ▪ Regular off-site removal of these materials should be maintained to minimise the volume of waste present on the construction site at any one time. ▪ Stockpiles of construction materials such as cement and excavated material should be covered when not in use to reduce the potential for water pollution. 	Maintain good site practices to avoid pollution of water courses	Contractor	Within the Project site / During construction phase		✓		Water Pollution Control Ordinance (Cap. 358), ProPECC Note PN 1/94
5.6.1.2	4.2	<p>Construction Site Runoff</p> <p>The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:</p> <ul style="list-style-type: none"> ▪ Temporary site drainage facilities are to be designed and implemented by the Contractor prior to commencement of construction to convey surface runoff to storm drains applying adequately designed silt/ sand removal traps and sediment basins. ▪ Perimeter cut-off drains shall be installed in advance of any earthworks and site formation work to convey site runoff from the works areas to the silt removal facilities. ▪ Runoff into the excavation areas during rainstorm events shall be minimised as far as practicable. Any wastewater pumped out of the excavation areas shall be treated to remove suspended solids prior to discharge. ▪ Maintenance and inspection of the drainage system and sediment removal facilities should 	Minimise / control construction site runoff to avoid pollution of water courses	Contractor	Within the Project site / During construction phase		✓		Water Pollution Control Ordinance (Cap. 358), ProPECC Note PN 1/94

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		<p>be carried out regularly to remove any sediment and blockages, especially when rainstorms are forecast.</p> <ul style="list-style-type: none"> ▪ 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 storm runoff from entering foul sewers. The discharge of surface runoff into foul sewers should be prevented so as not to overload the sewerage system. <p>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</p>							

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS).							
5.6.1.3	4.2	<p>Accidental Spillage of Chemicals</p> <p>In accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C), the following measures should be implemented:</p> <ul style="list-style-type: none"> ▪ The labelling and storage of chemicals should be in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and maintained at all times by the Contractor. ▪ Oils and fuels should only be stored in designated areas which have appropriate pollution prevention control 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. 	Prevent accidental discharge of chemicals into the surrounding environment	Contractor	Within the Project site / During construction phase		✓		Code of Practice on the Packaging Labelling and Storage of Chemical Wastes; Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C)
5.6.1.4	4.2	<p>Sewage from Construction Workforce</p> <p>Portable toilets should be available throughout the construction phase and regularly maintained, collected and disposed by a licensed waste collector to a public sewage treatment works for suitable treatment.</p>	Prevent discharge of sewage into the surrounding environment	Contractor	Within the Project site / During construction phase		✓		Water Pollution Control Ordinance (Cap. 358), ProPECC Note PN 1/94
5.6.1.5	4.2	<p>Construction Works in Close Proximity to Inland Watercourses</p> <p>Mitigation measures such as such as temporary diversions of existing drainage culverts/ watercourses before construction commences and</p>	Minimise/ control construction site discharges to avoid pollution of nearby watercourses	Contractor	Within the Project site / During construction phase		✓		Water Pollution Control Ordinance (Cap. 358), ProPECC Note PN 1/94,

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		<p>during construction should be implemented, in addition to those listed in ProPECC Note PN1/94 <i>Construction Site Drainage</i> and ETWB TC (Works) No. 5/2005 <i>Protection of Natural Streams/ rivers from Adverse Impacts Arising from Construction Works</i>. Measures include the following:</p> <ul style="list-style-type: none"> ▪ Stockpiling of construction materials and spoil, should be properly covered and located away from any natural stream/river. ▪ Construction works close to the inland waters should be carried out in dry season as far as practicable where the flow in the surface channel or stream is low. ▪ Removal of existing vegetation alongside the riverbanks should be avoided or minimised. When disturbance to vegetation is unavoidable, all disturbed areas should be hydroseeded or planted with suitable vegetation to blend in with the natural environment upon completion of works. 							ETWB TC (Works) No. 5/2005
Water Quality Impact – Operation Phase									
5.6.2.1	4.2	<p>Stormwater Runoff</p> <p>In accordance with Drainage Services Department's Stormwater Drainage Manual, the following measures should be implemented:</p> <ul style="list-style-type: none"> ▪ Silt removal facilities should be implemented to reduce the potential for suspended solids and heavy metal contaminants from vehicles. ▪ Petrol interceptors should be installed in areas with the potential to generate runoff contaminated with petrol and grease to capture pollutants from vehicles and their maintenance, especially in 'first flush' rainfall events. ▪ Regular maintenance of these facilities particularly at the onset of and after each major rainstorm event will ensure the impacts on downstream river water quality are 	Prevent pollution of water courses due to stormwater runoff	Design Consultant/ Future site operator	During design and operation phase	✓		✓	Water Pollution Control Ordinance (Cap. 358), Stormwater Drainage Manual

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		minimised.							
5.6.2.2	4.2	<p>Accidental Spillage of Chemicals, Oils and Fuels</p> <p>In accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C), the following measures should be implemented:</p> <ul style="list-style-type: none"> ▪ The labelling and storage of chemicals should be in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes maintained at all times. ▪ Oils and fuels should only be stored in designated areas which have appropriate pollution prevention control 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. <p>For refuelling activities, the following measures should be implemented:</p> <ul style="list-style-type: none"> ▪ Refuelling activities at the PD&TTF shall be located in covered areas. ▪ No stormwater drainage systems shall be installed in the vicinity of helicopter or vehicle refuelling facilities unless petrol interceptors are implemented with an associated connection to the foul sewerage system. ▪ A fuel spill kit shall be located at easily accessible locations to enable any spillages to be cleaned up immediately. 	Prevent accidental discharge of chemicals, oils and fuels into the surrounding environment	Design Consultant/ Future site operator	During design and operation phase	✓		✓	Code of Practice on the Packaging Labelling and Storage of Chemical Wastes; Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C); Water Pollution Control Ordinance (Cap. 358); TM-DSS

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5.6.2.3	4.2	Runoff generated by the PD&TTF Silt traps and petrol interceptors shall be installed in the drainage system where necessary to minimise the risk of suspended sediment, heavy metals and fuel oil entering downstream watercourses.	Prevent pollution of watercourses	Design Consultant/ Future site operator	During design and operation phase	✓		✓	Water Pollution Control Ordinance (Cap. 358); TM-DSS; Stormwater Drainage Manual
Sewerage and Sewage Treatment Implications – Construction Phase									
N/A									
Sewerage and Sewage Treatment Implications – Design and Operation Phase									
5.6.2.4 / 6.7	-	Liaison with interfacing projects including OWTF2, CE1/2015(DS) and SWHSTW Phase 1A to ensure the communal / public sewerage network and the SWHSTW has adequate capacity to handle the sewage flows generated by the Project.	Ensure adequate capacity of the existing / planned sewerage network	Design Consultant/ CEDD/ EPD/ DSD	During design and operation phase	✓		✓	EIA Recommendation
5.6.2.5 / 6.7	-	To minimise the risk of overflows and emergency discharge of untreated effluents from the on-site SPS of the Project, the following mitigation measures will be implemented: <ul style="list-style-type: none"> ▪ The on-site SPS will be equipped with three pumps; 2 duty and 1 standby; and ▪ Retention tank with the capacity to store 2 hours of peak sewage flows. 	To minimise the risk of overflows and emergency discharge of untreated effluents from the on-site SPS	Design Consultant/ CEDD	During design and operation phase	✓		✓	EIA Recommendation
6.7	-	Design of twin rising mains connecting to the communal sewer to enable maintenance works to be carried out on one pipeline while the other remains in operation.	Improve the resilience and operability of the sewer pipeline / enable maintenance without disrupting operation	Design Consultant/ CEDD	During design and operation phase	✓		✓	EIA Recommendation
Waste Management Implications – Construction Phase									
7.5.1.1	6.2	Good Site Practice Recommendations for good site practices during the construction activities include: <ul style="list-style-type: none"> ▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site 	Implement good site practices to minimise waste generation	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities		✓		Waste Disposal Ordinance (Cap 354); Waste Disposal (Chemical Wastes) (General) Regulation (Cap

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		<ul style="list-style-type: none"> ▪ 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 wind-blown 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 							354C); and ETWB Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site
7.5.1.2	6.2	<p>Waste Reduction Measures</p> <p>Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> ▪ Sort non-inert C&D materials to recover any recyclable portions ▪ Segregation and storage of different types of waste in different containers or skips or stockpiles to enhance reuse or recycling of materials and their proper disposal ▪ Encourage collection of recyclable waste such as waste paper and aluminium 	Implement good management and control to minimise waste generation	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities		✓		Waste Disposal Ordinance (Cap 354)

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		<p>cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force</p> <ul style="list-style-type: none"> ▪ Proper site practices to minimise 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	<p>Inert and Non-inert C&D Materials</p> <p>In order to minimise impacts resulting from collection and transportation of inert C&D materials for off-site disposal, the inert C&D materials should be reused on-site as fill material as far as practicable. In addition, inert C&D materials generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.</p> <p>The surplus inert C&D materials will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.</p> <p>The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site.</p> <p>In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the DEVB Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in</p>	Minimise impacts resulting from collection and transportation of inert C&D materials	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities		✓		Waste Disposal Ordinance (Cap 354); DEVB Technical Circular (Works) No.6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials; and ETWB Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		accordance with the relevant requirements of the ETWB Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site							
7.5.1.4	6.2	<p>Chemical Waste</p> <p>If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidising, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p> <p>Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended</p>	Implement good practices to avoid chemical waste impact.	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities		✓		Code of Practice on the Packaging Labelling and Storage of Chemical Wastes; Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C)
7.5.1.5	6.2	<p>General Refuse</p> <p>General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</p>	Implement good practices to avoid odour nuisance or pest/vermin problem and waste impact.	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities		✓		Waste Disposal Ordinance (Cap 354); Public Health and Municipal Services Ordinance (Cap 132) - Public Cleansing and Prevention of Nuisances

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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Waste Management Implications – Operation Phase									
7.5.2.1	6.3	<p>General Reuse</p> <p>General refuse should be collected on a daily basis and delivered to the refuse collection point accordingly. A reputable waste collector should be employed to remove general refuse regularly to avoid odour nuisance or pest/vermin problem. Sufficient recycling containers are recommended to be provided at suitable locations of the Project to encourage recycling of waste such as aluminium cans, plastics and waste paper.</p>	Implement good practices to avoid odour nuisance or pest/vermin problem and waste impact.	Future user	Project area / On a regular basis / Throughout operation stage			✓	Waste Disposal Ordinance (Cap 354)
7.5.2.2	6.3	<p>Chemical Waste</p> <p>If chemical wastes are expected to be produced during the operation phase, the Project Proponent should register with the EPD as a chemical waste producer and follow the guidelines stated in the "Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidising, irritant, toxic, harmful, corrosive, etc. Licensed collector should be deployed to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C).</p>	Implement good practices to avoid chemical waste impact.	Future user	Project area / On a regular basis / Throughout operation stage			✓	Code of Practice on the Packaging Labelling and Storage of Chemical Wastes; Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C)
7.5.2.3	6.3	<p>Cartridge Casings</p> <p>All cartridge casings and bullet heads should be collected from the firing range daily and kept in the storeroom for disposal. A designated waste contractor should be employed to remove</p>	Minimise impacts resulting from collection and transportation of cartridge casings and bullet heads	Future user	Project area / On a regular basis / Throughout operation stage			✓	Waste Disposal Ordinance (Cap 354)

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		cartridge casings and bullet heads regularly.							
Land Contamination – Construction Phase									
8.6.1	7.2	In any case where contaminated soil is identified after the commencement of works, a Contamination Assessment Plan (CAP) is required to be prepared for EPD's endorsement prior to the site investigation. The Contamination Assessment Report (CAR) and/ or Remediation Action Plan (RAP) should be prepared for EPD's approval after the site investigation. If land contamination is confirmed, remediation works should be carried out according to the approved RAP. A Remediation Report (RR) should also be prepared for EPD's endorsement to demonstrate that the clean-up of the contaminated land is completed. No construction work or development of the site should be carried out before the approval of the RR.	Assessment is required for EPD approval in any case where contaminated soil is identified	Contractor	Project construction site / Before construction stage	✓			Guidance Note for Contaminated Land Assessment and Remediation; Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management; Practice Guide for Investigation and Remediation of Contaminated Land
8.6.1	7.2	The following mitigation measures are proposed for contaminated material excavation and transportation of contaminated materials (if any), in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials: <ul style="list-style-type: none"> ▪ To minimise the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; ▪ Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; ▪ Stockpiling of contaminated excavated 	Minimise impacts resulting from excavation and transportation of contaminated materials	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities		✓	Waste Disposal Ordinance (Cap 354) Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C)	

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		<p>materials on site should be avoided as far as possible;</p> <ul style="list-style-type: none"> ▪ The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; ▪ Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and / or release of contaminated wastewater; ▪ Truck bodies and tailgates should be sealed to stop any discharge; ▪ Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; ▪ Speed control for trucks carrying contaminated materials should be exercised; ▪ Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C) and obtain all necessary permits where required; and ▪ Maintain records of waste generation, disposal quantities and disposal arrangements. 							
Land Contamination – Operation Phase									
8.6.2	7.3	<p>The implementation of appropriate mitigation measures for the underground storage tank and pipework, and refuelling activities is required to ensure that risk of land contamination as a result of fuel oil spills or leaks is kept to a practical minimum. Such measures should include the following:</p> <ul style="list-style-type: none"> ▪ Adherence to relevant design standards for storage tank and pipework; 	<p>Minimise the risk of land contamination from the operation of underground storage tank and pipework, and refuelling activities</p>	Future user	Project area / On a regular basis / Throughout operation stage			✓	<p>Waste Disposal Ordinance (Cap 354);</p> <p>Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C)</p>

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		<ul style="list-style-type: none"> ▪ Regular inspections and maintenance; ▪ Underground fuel storage tank should be placed within a concrete pit; ▪ Refuelling service area should be concrete-paved; ▪ Provision of spill control materials and equipment on site (e.g. absorbent materials, goggles, protective masks, nitrile gloves, disposal bags etc.); ▪ If the fuel leakage or spillage occur during refuelling activities, the activities should be immediately stopped; and ▪ Fuel leakage or spillage should be contained and cleaned up immediately. Waste fuel oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance (Cap 354). 							
Ecological Impact									
9.7.1	8.3	<p>Detailed Vegetation Survey</p> <p>A detailed vegetation survey should be conduct to update the exact locations, number and condition of individuals of <i>Cycad-fern Brainea insignis</i>, Fortune's <i>Keteleeria Keteleeria fortunei</i> and Ladies Tresses <i>Spiranthes sinensis</i> and any other flora species of conservation interest within the proposed works area prior to the commencement of site clearance.</p>	To ensure no flora species of conservation interest will be affected.	Qualified botanist/ecologist of the ET	Project construction site / For once / Before site clearance	✓			EIAO-TM; Hong Kong Ordinance Cap. 96
9.7.1	8.3	<p>Temporary Protective Fence for Flora Species of Conservation Interest</p> <p>During construction phase, erection and maintenance of a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey is recommended.</p> <p>Monthly monitoring of any other flora species of conservation interest identified in the detailed vegetation survey should be conducted during the</p>	<p>To avoid potential impact on flora species of conservation interest from construction activities such as materials storage;</p> <p>To make sure that the flora species of conservation interest are not affected by the construction activities of</p>	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities		✓		EIAO-TM

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
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		construction phase.	the Project						
9.7.2	8.2	<p>Precautionary Measures for Butterfly Species of Conservation Interest</p> <p>It is recommended to consider inclusion of the common grass species <i>Ischaemum barbatum</i> and <i>Zanthoxylum nitidum</i> in the proposed vegetation planting or the Landscape Master Plan for the Project Site.</p>	To benefit butterfly species of conservation interest Small Three-ring and Swallowtail by providing their larval food plants	Design Architect / Contractor	Project area / During design stage / Throughout operation phase	✓		✓	EIAO-TM
Landscape and Visual Impacts – Construction Phase									
Table 10.11	Table 9.1	<p>CM01: Trees / woodland within the Project Site which are unaffected by the works shall be protected and preserved during the detailed design stage and construction phase. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at detailed design stage for further retention of individual trees. The preservation of existing tree shall provide instant greening and screening effect for proposed works. Tree protection works will be undertaken in accordance with DEVB TC(W) 7/2015 on “Tree Preservation” and tree risk assessment in accordance with “Guidelines for Tree Risk Assessment and Management Arrangement” by DEVB.</p>	Preserve and protect existing trees	Contractor	Project area / During design stage / construction phase / Establishment Period	✓	✓		<p>EIAO-TM;</p> <p>Protection of Endangered Species of Animals and Plants Ordinance (Cap 586);</p> <p>DEVB TC(W) No. 6/2015 – Maintenance of Vegetation and Hard Landscape Features;</p> <p>ETWB TCW No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation;</p> <p>DEVB TC(W) No. 07/2015 -Tree Preservation;</p> <p>ETWB (2/2007) - General Guidelines on Tree Pruning;</p> <p>GLTMS (12/2013)</p>

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									- Guidelines for Tree Risk Assessment and Management Arrangement on an Area Basis and on a Tree Basis
Table 10.11	Table 9.1	CM02: If removal of trees unavoidable due to construction impacts, trees will be transplanted where technically feasible in accordance with "Guidelines on Tree Transplanting" by DEVB and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit where applicable.	Preserve and protect existing trees	Contractor	Project area / During design stage / construction phase / Establishment Period	✓	✓		As above
Table 10.11	Table 9.1	CM03: Construction area control, where possible, to ensure that the landscape and visual impacts arising from the construction activities are minimised. This includes the reduction of the extent and location of working areas to avoid sensitive LRs, siting of offices or temporary structures so that they are not visually prominent, and consideration of detailed schedules to shorten the construction period. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and areas of earthworks to alleviate the potential impacts and minimise soil erosion.	Minimise landscape and visual impacts.	Contractor	Project area / During design stage / construction phase.		✓		EIAO-TM
Table 10.11	Table 9.1	CM04: Replanting of existing / disturbed vegetation shall be undertaken as soon as technically feasible during the construction phase. The priority shall be areas at the periphery of the site to ensure that proposed planting fulfils its role in mitigating the predicted impacts including screening views of the proposals as early as possible during the operation phase.	Maximise the mitigation effect of the planting to minimise landscape and visual impacts.	Contractor	Project area / During design stage / construction phase / Establishment Period		✓		EIAO-TM
Table 10.11	Table 9.1	CM05: Decorative screen hoarding will be erected along areas of the construction works site	Minimise landscape and visual impacts.	Contractor	Project area – areas adjacent to sensitive		✓		EIAO-TM

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		boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs) to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.			receivers / During construction phase.				
Landscape and Visual Impacts – Operation Phase									
Table 10.12	Table 9.2	OM01: Detailed design of development components should reduce landscape footprint and visibility of structures. The area allowed for any development components should be reduced to a practical minimum.	Minimise landscape and visual impacts.	Detailed Designer / Consultants	Project area / During design phase	✓			EIAO-TM; PNAP 152 – Sustainable Building Design Guidelines; Hong Kong Planning Standards and Guidelines; Urban Design Guidelines
Table 10.12	Table 9.2	OM02: The form, textures, finishes and colours of the proposed development components should be compatible with the existing surroundings. Light earthy tone colours such as shades of green, grey, brown and off- white may be utilised where technically feasible to reduce the visibility of the development components, including all roadwork, buildings and noise barriers etc. To further improve visual amenity, natural building materials such as stone and timber, should be preferably adopted for architectural features, where technically feasible. The proposed use of a responsive design for the disposition of the main elements of the proposed scheme including the locations of buildings and utility structures. Grouping of utilities and infrastructure components into proposed buildings as far as technically feasible to reduce the mass of development. The disposition and height profile of the developments and above	Minimise landscape and visual impacts.	Detailed Designer / Consultants	Project area / During design phase	✓			EIAO-TM; PNAP 152 – Sustainable Building Design Guidelines; Hong Kong Planning Standards and Guidelines; Urban Design Guidelines

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		ground utilities structures to respond to the existing context particularly the existing landform and preserved trees. Proposals designed to minimise the 'wall effects' and create a subtle transition at the edges of the site where it meets the rural landscape. Measures may include the creation of setbacks, articulating the development frontage and maintenance of view corridors to enhance the sense of visual integration with the existing context, avoid abrupt transitions between the existing and proposed built environment and reduce the apparent visual mass of the proposed developments.							
Table 10.12	Table 9.2	OM03: The design of the proposed Engineering Structures such as the proposed road layout and any ancillary structures including the sewage pumping station and the Ma Tso Lung Firing Range should pay particular attention to the appearance and construction methods. The detailed design landscape consultants shall work in unison with the engineers on the aesthetic aspects of the structures and their relationship with the landscape. 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.	Minimise landscape and visual impacts.	Detailed Designer / Consultants	Project area / During design phase	✓			EIAO-TM
Table 10.12	Table 9.2	OM04: The proposed treatment of Retaining Wall and Slopes will be undertaken in accordance with GEO Publication No. 1/2011 "Technical Guidelines on Landscape Treatment and Bio-engineering for Man-made Slopes and Retaining Walls". These engineering structures will be aesthetically enhanced through the use of soft landscape works including tree and shrub planting to give man-made slopes a more natural appearance blending into the local rural landscape.	Minimise landscape and visual impacts.	Detailed Designer / Consultants	Project area / During design phase	✓			EIAO-TM; GEO Publication No. 1/2011 Technical Guideline on Landscape Treatment for Slopes; DEVB TC(W) No. 6/2015 – Maintenance of Vegetation and Hard Landscape

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
									Features
Table 10.12	Table 9.2	<p>OM05: All compensatory planting of trees is to be carried out in accordance with DEVB TCW No. 7/2015. A total woodland compensation area of 5.54 ha is proposed. The planting proposals will utilise largely native species in accordance with GLTM/DEVB's - Guiding Principles on Use of Native Plant Species in Public Works Projects. Some compensatory shrub and ground cover planting will also be provided within the woodland area to create a more structurally diverse woodland. 5,869 nos. new trees will be planted as compensation including some 4,317 nos. will be planted within the Project site, 1,400 nos. alongside KNP Road, and 152 nos. to compensate for the existing dead trees to be removed.</p> <p>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 effect and screen views of the new structures and buildings.</p> <p>Whip sized tree planting is preferred on the face of soil cut slopes and for general woodland areas where screening is not a priority. 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. Roadside and amenity planting will utilise largely heavy standard sized trees.</p>	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓	✓		<p>EIAO-TM;</p> <p>DEVB TC(W) No. 7/2015 – Tree Preservation;</p> <p>DEVB TC(W) No. 2/2012 - Allocation of Space for Quality Greening on Roads;</p> <p>DEVB TC (W) No.3/2012 - Site Coverage of Greenery for Government Building Projects;</p> <p>DEVB TC (W) No.2/2013 - Greening on Footbridges and Flyovers;</p> <p>ETWB TCW No. 6/2015 – Maintenance of Vegetation and Hard Landscape Features;</p> <p>LTM/DEVB's - Guiding Principles on Use of Native Plant Species in Public Works Projects.</p>
Table 10.12	Table 9.2	OM06: Tree planting using larger sized tree stock shall be provided to screen the proposed structures and associated facilities. Wherever possible the planting will utilise native species. This measure will form part of the compensatory	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓	✓		As above

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		planting and will improve compatibility with the surrounding environment and create a pleasant pedestrian environment.							
Table 10.12	Table 9.2	OM07: Roadside amenity planting using predominantly native species shall be provided, to enhance the landscape and visual quality of the existing and proposed transport routes and car parks.	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓	✓		As above
Table 10.12	Table 9.2	OM08: Creation of new grassland areas approximately 1.02 ha in size. Inclusion of common grass species <i>Ischaemum barbatum</i> and <i>Zanthoxylum nitidum</i> (the larval food plants for butterfly species).	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓	✓		As above
Table 10.12	Table 9.2	OM09: Green roofs predominantly using native species shall be introduced where technically feasible on proposed buildings to reduce exposure of untreated concrete surfaces; enhance the sustainability of the design and mitigate visual impact to VSRs at high levels. Location and extent of green roof subject to detailed design.	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓	✓	✓	EIAO-TM; PNAP 152 – Sustainable Building Design Guidelines; Hong Kong Planning Standards and Guidelines; Urban Design Guidelines; DEVB TC (W) No.3/2012 - Site Coverage of Greenery for Government Building Projects
Table 10.12	Table 9.2	OM10: Vertical planting shall be introduced using predominantly native species to soften the hard, vertical surfaces of the proposed development components including the walls of the proposed buildings and retaining walls. Planting to utilise climbing and trailing plants. Location and extent of vertical greening subject to detailed design.	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓	✓		EIAO-TM; PNAP 152 – Sustainable Building Design Guidelines; Hong Kong Planning Standards and

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
									Guidelines; Urban Design Guidelines; DEVB TC (W) No.3/2012 - Site Coverage of Greenery for Government Building Projects
Table 10.12	Table 9.2	OM11: Where technically feasible utilise a green paving approach such as grass-crete or grass-grid to maximise the area of planting and reduce the area of hard paving. Location and extent of green paving subject to detailed design. This includes the use of permeable paving where grass-crete / grass grid is not practicable.	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓	✓		EIAO-TM; PNAP 152 – Sustainable Building Design Guidelines; DEVB TC (W) No.3/2012 - Site Coverage of Greenery for Government Building Projects
Table 10.12	Table 9.2	OM12: Street and night time lighting glare will be controlled to minimize glare impact to adjacent VSRs during the operation stage.	Minimise landscape and visual impacts.	Contractors	Project area / During design phase	✓		✓	EIAO-TM
Impact of Hazard to Life – Construction Phase									
N/A									
Impact of Hazard to Life – Operation Phase									
11.7.7	10.1	A list of recommendations / good practices are proposed: 1. All DG store should be constructed according to the standards and recommendations by Fire Services Department, having adequate fire-fighting facilities, proper ventilation and fire-proofing requirement. 2. All DGs such as paints and solvents should be stored in their respective DG rooms.	Minimize hazards in the proposed police facility	Project Manager / Project Engineer / Operating staff	Project Area / During design and operation phase	✓		✓	EIAO-TM

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Implementation Agent	Location / Duration of the measure	Implementation Stages ¹			Relevant Legislation & Guidelines
						Des	C	O	
		<p>3. Adequate fire-fighting equipment, such as fire extinguishers, fire sand etc. should be present during kerosene refuelling operation on the helipad.</p> <p>4. Proper earthing equipment and procedures should be in place to prevent accumulation of static electricity during kerosene refuelling operation.</p> <p>5. GFS kerosene road tanker and the helicopter pilot should follow the established protocol for arriving at the helipad to prevent helicopter crashing on the road tanker.</p> <p>6. Refuelling will only be performed in daytime</p> <p>7. Underground storage tanks will be used for petrol/diesel storage</p> <p>8. Kerosene pump will be equipped with pressure switch to prevent overfilling</p>							

Note 1: Des = Design; C = Construction; O = Operation

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

Name of Department: ArchSD

Monthly Summary Waste Flow Table for 2024 (year)

Project : Design and Construction of Kong Nga Po Police Training Facilities

Contract No.: SS K509

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Bituminous Material	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 m ³)
Cumulative in 2023	16.796	0.000	0.000	0.000	0.000	16.796	0.000	0.000	0.041	0.054	0.000	0.657
Jan	3.263	0.000	0.000	0.000	0.000	3.263	0.000	0.000	0.000	0.000	0.000	0.117
Feb	0.423	0.000	0.000	0.000	0.208	0.215	0.000	0.003	0.000	0.009	0.000	0.111
Mar												
Apr												
May												
Jun												
Sub-total	3.686	0.000	0.000	0.000	0.208	3.478	0.000	0.003	0.000	0.009	0.000	0.228
Jul												
Aug												
Sep												
Oct												
Nov												
Dec												
Total	20.482	0.000	0.000	0.000	0.208	20.274	0.000	0.003	0.041	0.063	0.000	0.885

- 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: February 2024

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action Status	Status
C001	N07/RN/00020836-23	Kong Nga Po Road (Lamp post GD0470)	29-Aug-23	The complainant alleged that the general construction noise except renovation (within Restricted Hours) from at Kong Nga Po Road (Lamp post GD0470), and commented that "晚上八九點地盤有噪音有人工作". The work sites under complaint are adjacent to the captioned Designated Project area.	Record of Site Investigation Refer to the public complaint which was no mention the certain time, based on daily record provided, CSJV was confirmed that the working period on 26, 27 & 28 Aug 2023 and the working hours were within the approved restricted hour. The equipment applied on the mentioned periods were listed in the Group D of the CNP No. GW-RN0882-23 (Effective date from 24/08/2023 to 23/11/2023) According to the written reply, the Contractor has implemented both the notification of the neighborhood on the schedule of night works and erect noise barriers to screen noisy works for neighborhood. Please be advised that the Contractor is strictly adhering to the conditions of the construction noise permit.	Closed
C002	N07/RN/00029993-23	The river(s) near the San Uk Ling Holding Centre	14-Dec-23	The complainant alleged that the river(s) near the San Uk Ling Holding Centre has recently had a large amount of soil/muddy water. (新屋嶺扣留中心附近的河流，近日有大量黃泥水)	Record of Site Investigation In reference to the public complaint, it has been noted that the complainant did not provide a precise description of the river(s) location adjacent to the San Uk Ling Holding Centre, where there has been a recent influx of soil-laden water. EPD officers carried out site inspection on 15/12/2023 at 11:20 –12:00. EPD officers checked the U-channels, catchpits and wastewater treatment facility at WTF. No water including muddy water was discharged from Construction sites to the drainage. The Contractor has checked the drainage and wastewater treatment facilities at WTF and SOTF, which is near the complaint area. No water was discharged from the above locations. Advice: For the Contractor: 1)The Contractor strictly complies with the	Closed

				<p>requirements of relevant environmental ordinances and EM&A Manual.</p> <p>2)The promotional flyer contains a Community Liaison Hotline: 9790 2879 that can be placed in residents' mailboxes, so they can directly contact you to resolve environmental issues.</p> <p>For EPD officer:</p> <p>1)Please consider that the Community Liaison Hotline: 9790 2879 will be provided for the complainant to directly contact the Contractor to resolve environmental issues.</p> <p>2) Please consider encouraging the complainant to provide more accurate and detailed information to facilitate our follow-up efforts.</p>
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Cumulative Complaint Log

Complaint Log Reporting Period	Total no. of Complaint Received
This reporting month	0
From 1st April 2023 to end of the reporting month	2

**APPENDIX N
SUMMARY OF SUCCESSFUL
PROSECUTION**

Appendix N - Summary of Successful Prosecution

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

**The potential seriousness of the forthcoming
environmental impacts and the use of
machineries**

A list of potential environmental impacts	The advice includes, but is not limited to, the following	Consideration of possible alternative methods
<p>Visual Impact: The presence of machinery, equipment, and temporary structures associated with ground investigation and plate load testing may have visual impacts on the surrounding landscape, altering the aesthetic qualities of the area.</p>	<p>Screening and Camouflage: Use screening techniques, such as temporary fencing, barriers, or landscaping, to visually conceal the machinery, equipment, and temporary structures from view. This can help minimize the visual impact on the surrounding landscape.</p>	<p>N.A.</p>
<p>Noise and Vibration: The operation of heavy machinery can contribute to noise and vibration pollution, which can disturb local wildlife or sensitive wildlife habitats.</p>	<p>Use of Low Noise and Vibration Equipment: Whenever possible, equipment produces lower levels of noise and vibration should be used. The use of noise barriers around the site can also help to mitigate the impact on local communities and wildlife.</p>	<p>Use of Electric-Powered Equipment: Electric-powered equipment is generally quieter than diesel powered equipment to help reduce noise pollution.</p>
<p>Disturbance of Local Ecosystems: The drilling operations, particularly those involving excavation, can potentially disturb the local ecosystems and impacting biodiversity.</p>	<p>Training and Awareness: trainings are provided for site personal about the importance of minimizing disturbance to local ecosystems, such as minimized noise and light pollution, how to handle waste properly, and what to do if they encounter local wildlife.</p>	<p>Employing construction methods of a low-impact nature, such as the utilization of machinery that is lightweight and drilling techniques which are minimally invasive</p>
<p>Air Pollution: Machinery used in construction sites can emit pollutants into the air. These pollutants may include Particulate Matter (PM), Nitrogen Oxides (NOx), Sulfur Oxides (SOx), and Volatile Organic Compounds (VOCs), contributing to air pollution and potentially impacting air quality in the surrounding area.</p>	<p>Dust Control Measures: Implement dust control measures such as water sprays, dust screens, or using dust suppression chemicals to reduce particulate matter emissions, and training for all staff on the importance of air quality and measures to reduce air pollution.</p>	<ol style="list-style-type: none"> 1. Improved Fuel Efficiency and Maintenance: Promoting fuel-efficient practices and regular maintenance of machinery can help reduce emissions. 2. Properly maintained equipment operates more efficiently, resulting in lower fuel consumption and reduced emissions. Implementing fuel-saving measures, such as reducing idling time and optimizing equipment usage, can further minimize air pollution during construction.
<p>Water Pollution: Drilling operations have the</p>	<p>Proper containment and lining of mud pools is crucial to</p>	<ol style="list-style-type: none"> 1. Horizontal Directional Drilling (HDD): HDD is a

<p>potential to contaminate local water sources, particularly if improper waste management practices are used.</p>	<p>prevent contamination. Mud pools should have an impermeable liner, such as HDPE or bentonite clay, to prevent seepage into the ground. Berms can be constructed around the perimeter to contain any overflow. Regular inspection and maintenance of the liner integrity is important.</p>	<p>trenchless method that causes less disturbance to the surrounding environment and mitigates the risk of water contamination. It could be a viable alternative depending on the geology of the site and the purpose of the drilling operation.</p> <p>2. Dry Drilling Techniques: Depending on the geology of the site, dry drilling techniques could be considered. These methods do not use drilling fluids and therefore reduce the risk of water contamination from these sources.</p>
<p>Soil Disturbance: The use of heavy machinery can cause soil compaction and disturbance, particularly during drilling operations or movement of equipment. This soil disturbance can disrupt the natural structure and composition of the soil, affecting its ability to support vegetation growth and nutrient cycling.</p>	<ol style="list-style-type: none"> 1. Proper Planning and Design: Incorporate soil protection measures into the initial planning and design phase of construction projects. This includes identifying sensitive areas and implementing appropriate construction techniques to minimize soil disturbance. 2. Ground Improvement Techniques: Techniques like soil stabilization, grouting, and compaction can help improve the soil's strength and stability, reducing the likelihood of soil disturbance during construction. 	<p>A helical pile is a type of deep foundation system used in construction. It consists of a steel shaft with helical plates or blades that are twisted into the ground to provide support for structures. Helical piles are commonly used in situations where traditional foundation methods are impractical or costly, such as in areas with poor soil conditions or limited access for heavy machinery.</p>
<p>Energy Consumption: The operation of machinery requires energy, typically derived from fossil fuels. The extraction, processing, and combustion of these fuels contribute to greenhouse gas emissions and contribute to climate change.</p>	<ol style="list-style-type: none"> 1. Training: workers are trained in the importance of energy conservation and efficiency. This could involve instruction on when to turn off equipment, how to use machinery efficiently, and the benefits of energy conservation. 2. Efficient Equipment and Machinery: Use energy-efficient machinery and equipment that consume less energy during operation. Regular maintenance and proper calibration of machinery can also improve energy efficiency and reduce energy waste. 	<ol style="list-style-type: none"> 1. Prefabrication and Modular Construction: Prefabrication and modular construction methods involve manufacturing building components off-site and assembling them on-site. This approach reduces energy consumption by streamlining the construction process, minimizing material waste, and optimizing energy usage during manufacturing. 2. Lean Construction: This methodology helps energy optimization in construction processes.

<p>Waste Generation: Ground investigation and plate load testing may generate various types of waste, including drilling cuttings, excess soil, and construction debris. Improper disposal or management of these wastes can result in soil and water contamination or contribute to landfill usage.</p>	<p>Education and Training: education and training are provided to construction workers and staff on proper waste management practices. Raise awareness about the importance of waste reduction, recycling, and responsible disposal methods. Encourage worker participation and engagement in waste management initiatives.</p>	<p>Cone Penetration Testing (CPT): CPT is a method of ground investigation that produces minimal waste compared to traditional drilling methods. It involves pushing a cone-shaped probe into the ground and measuring the resistance, which can provide valuable information about the soil conditions with less soil disturbance.</p>
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APPENDIX P
A LIST OF MACHINERIES USED IN
CONSTRUCTIN SITE

SSK509 Design and Construction of Kong Nga Po Police Training Facilities
NRMM & QPME List

	Type	Brand	Model	S/N No.	Engine Make	Engine Model	NRMM No.	Approval, Exemption or Modification	QPME no.	QPME Expiry Date	Sound Power Level
1	Generator	Airman	SDG100S-3B1	1533B10240	ISUZU	BI-4HK1XYGD-02	EPD-A-003542-2017	Approval	EPD-06206R	十二月-29	92
2	Forklift	Mitsubishi	fd25nt	CF18C-81179	Mitsubishi	S4S	EPD-A-007117-2016	Approval			
3	Loader	Bobcat	S450	B1ED14478	Kubota	V2403	EPD-A-000347-2022	Approval			
4	Generator	Airman	SDG60S-3B1	14A3B10240	ISUZU	BJ-4JJ1XYGD-04	EPD-A-003657-2017	Approval	EPD-06274R	十二月-29	90
5	Generator	Denyo	DCA-220ESEI	3936288	ISUZU	6UZ1	EPD-A-001848-2019	Approval	EPD-08614	八月-25	96
6	Forklift	Doosan	D30NXP	FDA41-1670-02844	YANMAR	4TNE98-BQDF1CC	EPD-A-000153-2023	Approval			
7	Generator	Airman	SDG60S-3B1	14A3B10369	ISUZU	BJ-4JJ1XYGD-04	EPD-A-001314-2020	Approval	EPD-09851	八月-26	90
8	Generator	Airman	SDG220L-5B1	P8BB1-0270	ISUZU	BH-6UZ1XYGD-04	EPD-A-001771-2021	Approval	EPD-11160	八月-27	94
9	Generator	Nippon Sharyo	NES150TI	DG041900	ISUZU	BH-6HK1X	EPD-A-001707-2018	Approval	EPD-07118	七月-24	92
10	Forklift	Mitsubishi	FD30NT	CF14E-16891	Mitsubishi	S4S	EPD-A-000779-2017	Approval			
11	Generator	Nippon Sharyo	NES220EM	FJ083800	Guangxi Yuchai	YC6A275-D30	EPD-M-002058-2020	Approval	EPD-01840R	七月-25	95
12	Generator	Airman	SDG300L-5B1	P9BB1-0057	KOMATSU	SAA6D125E-5-BV	EPD-A-001535-2017	Approval	EPD-05174R	四月-29	98
13	Excavator	Hitachi	ZX200-5A	HCMDCX90E00300835	ISUZU	4HK1-XDHAG-02-C3	EPD-A-001008-2019	Approval	EPD-08152	四月-25	103
14	Excavator	Hitachi	ZX75US-3	HCM1P300A00062042	ISUZU	AU-4LE2X	EPD-A-003158-2019	Approval			
15	Generator	Airman	SDG220L-5B1	P8BB1-0339	ISUZU	BH-6UZ1XYGD-04	EPD-A-001469-2022	Approval	EPD-12431	六月-28	94
16	Generator	Nissha	NES150TI	DG028600	Isuzu	BH-6HK1X	EPD-A-004698-2016	Approval	EPD-03628R	四月-28	92
17	Generator	Airman	SDG45S-3B1	13A3B10349	Kubota	V3800-T	EPD-A-003461-2017	Approval	EPD-06204R	十二月-29	87
18	Generator	Airman	SDG220L-5B1	P8BB1-0383	ISUZU	BH-6UZ1XYGD-04	EPD-A-000565-2023	Approval	EPD-13321	三月-29	94
19	Drilling rig	China Geo-equipment Chongqing Exploration Machinery Co. Ltd.	XY-2B	3-4818	Beinei	F4L912E11-3	EPD-A-002846-2020	Approval			
20	Excavator	Komatsu	SK350LC-8	YC11-06650	Hino	J08E-TM	EPD-A-002154-2018	Approval			
21	Generator	Nippon Sharyo	NES150TI	DG042300	ISUZU	BH-6HK1X	EPD-A-002077-2018	Approval	EPD-07262	八月-24	92
22	Excavator	Yanmar	VI040-5	51036B	Yanmar	4TNV88-PBV	EPD-A-000128-2019	Approval			
23	Excavator	Hitachi	ZX350K-3	HCM1V900T00056936	ISUZU	6HK1-XDHAA-01-C2	EPD-A-000772-2020	Approval			
24	Excavator	Kobelco	SK135SR-2	YY06-15612	Mitsubishi	D04FR	EPD-A-000581-2022	Approval			
25	Excavator	Liugong	CLG922E	CLG922EZHP718565	Cummins	QSB7	EPD-A-003163-2023	Approval			
26	Generator	Nippon Sharyo	NES60TK2	KS013300	Kubota	V3800-DI-TI-K3A	EPD-A-007338-2016	Approval	EPD-04522R	十二月-28	90
27	Road works machine	BITELLI	DTV325	000816	HATZ	2M41	EPD-EE-018554-2015	Exemption			
28	Excavator	Kobelco	SK200-8	YN12-65540	Hino	J05E-TA	EPD-A-003548-2017	Approval			
29	Loader	Bobcat	S450	B1ED11528	Kubota Corporation	V2403-M-DI-EU32	EPD-A-005651-2016	Approval			
30	Excavator	Kobelco	SK225SR	YB05-03058	Hino	AA-J05E-TA	EPD-A-001400-2022	Approval			
31	Excavator	Kato	HD820V	KWJ01E01PC0006237	Mitsubishi	4M50-TLE3A	EPD-A-003461-2021	Approval			
32	Excavator	Hitachi	ZX225USR-5B	HCMDCQA0E00303589	ISUZU	4HK1	EPD-A-000509-2024	Approval			
33	Excavator	Liugong	CLG922E	CLG922EZEPE718566	Cummins	QSB7	EPD-A-003164-2023	Approval			
34	Excavator	Kobelco	SK135SR-2	YY06-22265	Mitsubishi	D04FR	EPD-A-005755-2016	Approval			
35	Excavator	Kobelco	SK225SR-3	YB07-05170	Hino	J05E	EPD-A-000565-2024	Approval			
36	Excavator	Kobelco	SK135SR-2	YY05-12343	Mitsubishi	D04FR-KDP2TAAC	EPD-A-000483-2017	Approval			
37	Generator	Nippon Sharyo	NES60TK2	KS013000	Kubota	V3800-DI-TI-K3A	EPD-A007294-2016	Approval	EPD-04519R	十二月-28	90