



Date: 15 August 2023

Your ref:

Our ref: PL-202308012

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 Quarterly EM&A Report (April 2023 to June 2023)

Reference is made to the Quarterly EM&A report provided by ET via email on 1 August 2023 and subsequent revision provided on 15 August 2023.

Please be informed that we have no adverse comments on the revised Quarterly EM&A report (April 2023 to June 2023) provided on 15 August 2023. We hereby verify the submission is in accordance with S.12.4 of EM&A Manual and Condition 3.1 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.

Architectural Services Department

FEP-01/510/2016 - Police Facilities in Kong Nga Po

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

Quarterly Environmental Monitoring and Audit Report for April to June 2023 (Version 1.0)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing. Ka Shing accepts no responsibility for changes made to this report by third parties.

Ka Shing Management Consultancy Ltd. www.ka-shign.net

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Our ref: 13-8-2023

13-8-2023

By email: kwokhw@archsd.gov.hk

By email: Law.Law@aurecongroup.com

By email: malai.kong@cohl.com

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 Quarterly EM&A report for April to June 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

- 1. This is the 1st Quarterly Environmental Monitoring and Audit (EM&A) Report for the Project of Police Facilities in Kong Nga Po under Environmental Permit No. FEP-01/510/2016. This report was prepared by Ka Shing Management Consultancy Ltd. (Ka Shing) under "Service Contract Quotation No. PMB202/8480/2022/A01/A Provision of Environmental Team consultancy for Design and Construction of Kong Nga Po Police Training Facilities" (hereinafter called the "Service Contract"). This report documents the findings of Environmental Monitoring and Audit (EM&A) work conducted from April to June 2023.
- 2. During the reporting quarterly, the following Works Contracts were undertaken for the Project of Police Facilities in Kong Nga Po under Environmental Permit No. FEP-01/510/2016:
 - Contract No. SSK509 Design and Construction of Kong Nga Po Police Training Facilities

Summary of Construction Works undertaken during the Reporting Quarter

- 3. The major site activities undertaken in the reporting quarter included:
 - Ground investigation
 - Plate load test
 - Trial A.O. Probe test
 - Preparation for excavation
 - Pre-bored socketed-H Piling

Environmental Monitoring and Audit Works

- 4. Environmental monitoring for the Project was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
- 5. Summary of the environmental exceedances of the reporting quarter for the Project is tabulated in **Table I.**

Table I Summary Table for Events Recorded in the Reporting Quarter

Environmental Monitoring	Parameter		n-Project ceedances	No. of Ex related Construct of the C	l to the ion Works	Action Taken
g		Action Level	Limit Level	Action Level	Limit Level	Action Taken N/A N/A
Air Quality	1-hr TSP	0	0	0	0	N/A
Noise	L _{eq(30min)}	0	0	0	0	N/A

Air Quality

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

Construction Noise

8. All Construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded in the reporting quarter.

Ecological Monitoring

9. All ecological monitoring was conducted as scheduled in the reporting quarter. The ecological monitoring photo records and results were shown in the relevant Monthly EM&A Reports.

Landscape and Visual Monitoring

10. Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted during weekly site audit. Most of the necessary mitigation measures have been implemented and recommended follow-up actions have been discharged by the Contractor. Details of the audit findings and implementation status are summarized in Appendix F and Appendix G.

Environmental Non-Compliance

11. No environmental non-compliance was recorded in the reporting quarter.

Environmental Complaint

12. No environmental complaint was received in the reporting quarter. The Complaint Log is presented in **Appendix I**.

Notification of Summons and Successful Prosecutions

13. No notification of summons or successful environmental prosecutions was received in the reporting quarter.

Future Key Issues

- 14. The major site activities for the coming three months include:
 - Setting-up of site office
 - Open cut excavation
 - Removal of soil
 - Construction of footings
 - Pre-bored socketed-H Piling
 - U.U. Lead in and Pipe Duct Connection

15. Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality and waste management. The anticipated major impacts from the construction works and corresponding recommended mitigation measures are detailed in **Appendix G** of Site Audit Summary.

1 INTRODUCTION

1.1 Ka Shing Management Consultancy Ltd. (Ka Shing) was commissioned by the Architectural Services Department (ASD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) works for the Project of Police Facilities in Kong Nga Po under Environmental Permit No. FEP-01/510/2016 to ensure that the environmental performance of the Works Contracts comply with the requirements specified in the Environmental Permits (EPs), Environmental Impact Assessment (EIA) Report and Environmental Monitoring & Audit (EM&A) Manual of the Police Facilities in Kong Nga Po Project and other relevant statutory requirements.

Purpose of the report

1.2 This is the 1st Quarterly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from April to June 2023.

Structure of the report

- 1.3 The structure of the report is as follows:
 - Section 1: Introduction purpose and structure of the report.
 - Section 2: **Project Information** summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting period.
 - Section 3: **Environmental Monitoring and Audit Requirement** summarises monitoring location and parameters, monitoring programmes, monitoring frequencies, Action and Limit Levels, Event / Action Plans, and Site Audit inspection.
 - Section 4: **Monitoring Result** summarises the monitoring results in the reporting quarter.
 - Section 5: **Environmental Site Inspection** summarises the audit findings of the weekly site inspections undertaken within the reporting period.
 - Section 6: Non-Compliance of the Environmental Quality Performance Limits (Action and Limit) summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting period.
 - Section 7: **Future Key Issues** summarises the impact forecast and monitoring schedule for the next three months.
 - **Section 8: Conclusions and Recommendations**

2 PROJECT INFORMATION

Background

- 2.1 The Project mainly includes construction and operation of various police facilities. The police facilities include:
 - (i) a helipad;
 - (ii) two firing ranges; and
 - (iii) other facilities, associated infrastructure & utilities, etc.
- 2.2 The Project is a Designated Project under the Environmental Impact Assessment Ordinance (EIAO). An Environmental Impact Assessment (EIA) Report (Report No.: AEIAR-201/2016) for the Project was approved under EIAO in October 2016 in accordance with the EIA Study Brief (No. ESB-276/2014) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM). The corresponding Environmental Permit was issued (EP no.: FEP-01/510/2016) by the Director of Environmental Protection (DEP).
- 2.3 According to an approved Environmental Monitoring and Audit (EM&A) Manual, an air quality and noise monitoring programme is recommended during the construction phases of the Project to monitor the expected dust and noise nuisances. Baseline air quality and noise monitoring were conducted by previous ET (Wellab Limited) from 14th March 2020 to 2nd April 2020 to establish the background conditions of the designated sensitive receivers prior to the commencement of the Project's construction works.
- 2.4 The site layout plan for the Project is shown in **Figure 1**.

Project Organization

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

Project Proponent – Architectural Services Department (ArchSD)

Contractor– China State JV

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

Independent Environmental Checker (IEC) – Acuity Sustainability Consulting Limited

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

Table 2.1 Key Contacts of the Project

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

Contractor	Site Agent	Mr. Kelvin Chan	6272 8828	2866 6325	
(China State JV)	Senior Environmental Officer	Ms. Marian Kong	6174 9735	2866 6325 2866 6325 2120 7752 2698 9383	
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 Quarter

- 2.7 The major site activities undertaken in the reporting quarterly included:
 - Ground investigation
 - Plate load test
 - Trial A.O. Probe test
 - Preparation for excavation
 - Pre-bored socketed-H Piling

Status of Environmental Licences, Notifications and Permits

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

Table 2.2 Status of Environmental Licences, Notifications and Permits

TD '4/T' NT	Valid	Valid Period		
Permit / Licence No.	From	То	Status	
Further Environmental Perm	it (FEP)			
FEP-01/510/2016	N/A	N/A	Valid	
Construction Noise Permit (C	CNP)	•		
GW-RN0478-23	10-05-2023	09-08-2023	Valid	
Notification pursuant to Air I	Pollution Control (Construction Du	st) Regulation	
EPD Ref no.: 487864	N/A	N/A	N/A	
Billing Account for Construct	tion Waste Dispos	al		
Account No. 7046289	18-01-2023	N/A	Valid	
Registration of Chemical Was	ste Producer	•	•	
WPN5213-641-C4770-01	18-01-2023	N/A	Valid	
Effluent Discharge Licence ui	nder Water Pollut	ion Control Ordi	nance	
WT00043663-2023	21-04-2023	30-04-2028	Valid	
		II.	L.	

Summary of EM&A Requirement

- 2.9 The EM&A programme requires construction noise monitoring, air quality monitoring, ecological monitoring and environmental site audits. The EM&A requirements are described in the following sections, including:
 - All monitoring parameters;
 - Action and Limit levels for all environmental parameters;
 - Event / Action Plans;
 - Environmental mitigation measures, as recommended in the Project EIA study final report; and
 - Environmental requirements in contract documents.

3 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENT

Monitoring Parameters and Monitoring Locations

Air Quality Monitoring

3.1 In accordance with the EM&A Manual, impact 1-hour TSP monitoring was conducted to monitor the air quality for the Works Contracts. The location of the monitoring stations are shown in **Figure 2. Table 3.1** describes the location of the air quality monitoring stations.

Table 3.1 Location for Air Quality Monitoring Stations

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

3.2 **Table 3.2** Summarises the monitoring parameters and frequencies of impact air quality monitoring during the Works Contracts activities.

Table 3.2 Impact Air Quality Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times/ 6 days

Noise Monitoring

3.3 In accordance with the EM&A Manual, construction noise monitoring were conducted to monitor the construction noise arising from the construction activities. The location of the monitoring stations are shown in **Figure 3**. **Table 3.3** describes the location of the noise monitoring stations.

Table 3.3 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

3.4 **Table 3.4** Summarises the monitoring parameters and frequencies of construction noise monitoring during the Works Contracts activities.

Table 3.4 Noise Monitoring Parameters, Duration and Frequency

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

Remarks:

Monitoring Methodology and Calibration Details

3.5 Monitoring works/equipment were conducted/calibrated regularly in accordance with the Project Specific EM&A Manual. Copies of calibration certificates were attached in the relevant Monthly EM&A Reports.

Environmental Quality Performance Limits (Action and Limit Levels)

3.6 The environmental quality performance limit i.e. Action and Limit Levels were derived from the baseline monitoring results. Should the measured environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix A**.

Landscape and visual

3.7 Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted during weekly site audit. Most of the necessary mitigation measures have been implemented and recommended follow-up actions have been discharged by the Contractor. Details of the audit findings and implementation status are summarized in **Appendix F** and **Appendix G**.

Ecology Monitoring

3.8 Ecology monitoring was carried out on a monthly basis to monitor the timely implementation of proper environmental management practices and mitigation measures for the retained and transplanted individuals of flora species of conservation interest. Proper erection and

^{[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.

maintenance of the temporary protective fence enclosing the individuals was inspected for the effectiveness. The ecological monitoring photo records and result could refer to the relevant Monthly EM&A Reports.

Site Audit Summary

3.9 Site audit were carried out on a weekly basis to monitor and audit the timely implementation of proper environmental management practices and mitigation measure of this Project. The observations and recommendations made during the reporting period are summarized in Appendix G.

Environmental Mitigation Measures

3.10 Relevant mitigation measures as recommended in the project EIA report have been stipulated in the Project EM&A Manual for the Contractor to implement. A summary of the Environmental Mitigation Implementation Schedule (EMIS) is given in **Appendix F**.

Status of Waste Management

3.11 The amount of wastes generated by the major site activities of this Project during the reporting quarter is shown in **Appendix H**.

4 MONITORING RESULTS

Weather Conditions

4.1 The detail of weather conditions for each individual monitoring session could be referred to monthly EM&A reports.

Air Quality

1-hr TSP Monitoring

- 4.2 All construction air quality monitoring was conducted as scheduled during the reporting quarter.
- 4.3 No Action/Limit Level exceedance was recorded in this reporting quarter. A summary of exceedance is attached in **Appendix E**.
- 4.4 **Table 4.1** summarizes the air quality monitoring results which were extracted from the monthly reports for this Project. The graphical presentation of the air quality monitoring results are shown in **Appendix B**.

Table 4.1 Summary of 1-hour TSP Monitoring Result in Reporting Quarter

Reporting Months	Air Quality Monitoring Station	Average μg/m³	Range μg/m³	Action Level μg/m³	Limit Level μg/m³
. 22	AM1	55	45 - 61	308	
Apr-23	AM2	59	55 - 63	311	
Mar. 22	AM1	54	42 - 68	308	i
May-23	AM2	63	54 - 84	311	
Jun-23	AM1	51	42 - 63	308	
Jun-23	AM2	57	43 - 74	311	

Construction Noise

- 4.5 All construction noise monitoring was conducted as scheduled in the reporting quarter.
- 4.6 No Action Level exceedance was recorded in this reporting month. No Limit Level exceedance was recorded. A summary of exceedance is attached in **Appendix E**.
- 4.7 **Table 4.2** summarizes the noise monitoring results which were extracted from the monthly reports for this Project. The graphical presentations of the construction noise monitoring results are shown in **Appendix C**.

Table 4.2 Summary of Noise Monitoring Result in Reporting Quarter:

Reporting Months	Noise Quality Monitoring	Average	Range	Baseline Level dB(A)	Limit Level,
Widness	Station	Leq (30 min), dB(A)	Leq (30 min), dB(A)	ub(ri)	_
	NM9	60.0	55.1 - 63.8	55.9	
	NM10	55.5	53.8 - 56.4	52.8	
A mm 22	NM11	48.3	42.9 - 51.4	46.4	Level, dB(A)
Apr-23	NM12	48.7	43.8 - 55.9	54.7	
	NM13	56.9	49.2 - 63.1	61.3	
	NM14	50.4	48.2 - 54.5	59.6	
	NM9	55.3	43.6 - 61.7	55.9	
	NM10	53.5	49.3 - 63.2	52.8	
Mary 22	NM11	49.8	46.8 - 52.4	46.4	Level, dB(A)
May-23	NM12	52.9	44.8 - 63.8	54.7	/3
	NM13	53.3	50.3 - 56.4	61.3	Level, dB(A)
	NM14	49.4	42.8 - 52.4	59.6	
	NM9	61.1	58.9 - 63.4	55.9	
	NM10	52.0	50.4 - 54.4	52.8	
Lun 22	NM11	51.1	48.8 - 55.1	46.4	
Jun-23	NM12	51.2	49.6 - 53.4	54.7	
	NM13	53.8	51.7 - 55.9	61.3	
	NM14	50.1	48.5 - 52.0	59.6	

Ecological Monitoring

- 4.8 Monthly monitoring of flora species of conservation interest were conducted by ET as scheduled in the reporting quarter. No construction activity and equipment storage were observed within the receptor site. Temporary protective fence were found properly erected and maintained for the transplanted species.
- 4.9 According to approved transplantation proposal, the post-transplantation monitoring for transplanted Brainea insignis and Spiranthes sinensis was conducted by Contractor post-transplantation monitoring on transplanted Brainea insignis and Spiranthes sinensis was conducted once per month by the Contractor under Contract No. SSK509 from April to June 2023 during the reporting period.
- 4.10 The contractor provided maintenance works including watering, use of mulch and weeding to allow healthy growth of the transplanted species. The post-transplantation monitoring records were submitted to ET and IEC for review and were included in the relevant monthly EM&A Reports for record keeping.

5 ENVIRONMENTAL SITE INSPECTION

Site Audits

5.1 Site audits were carried out by ET on weekly basis in the reporting quarter to monitor the timely implementation of proper environmental management practices and mitigation measures on the project site. No non-conformance was identified and the observation and recommendations made in each individual site audit session in the reporting period are summarized in **Appendix G**.

Implementation Status of Environmental Mitigation Measures

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

Solid and Liquid Waste Management Status

- In accordance with the EM&A Manual, waste management was audited during weekly site audit to determine if wastes are being managed in accordance with the Waste Management Plan (WMP) prepared for the Project and the relevant legislative and contractual requirements. Waste management practice including waste handling, storage, transportation and disposal were audited.
- 5.4 The Contractor is advised to minimize the wastes generated through the recycling or reusing. All mitigation measures stipulated in the EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and reduction measures are summarised in **Appendix F**.
- 5.5 Waste generated from this Project includes inert C&D materials and non-inert C&D materials. Non-inert C&D materials are made up of general refuse and waste that cannot be reused or recycled and has to be disposed of at the designated landfill sites. The amount of wastes generated by the construction works of the Project during the reporting quarter is shown in **Appendix H**.

6 NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

Summary of Exceedances

- 6.1 Environmental monitoring works were performed in the reporting quarter and all monitoring results were checked and reviewed. A summary of exceedance is attached in Appendix E.
- 6.2 No exceedance of Action/Limit Levels of air quality and construction noise was recorded in the reporting quarter.
- 6.3 No Action Level exceedance for noise monitoring was recorded. No exceedance of Limit Level of construction noise was recorded in the reporting quarter.

Summary of Environmental Non-Compliance

No environmental non-compliance was recorded in the reporting quarter. The observations and recommendations made in each individual site audit session were presented in **Appendix G**.

Summary of Environmental Complaint

No complaints related to air quality and no complaint related to construction noise were received in the reporting quarter. The Cumulative Complaint Log since the commencement of the Project is attached in **Appendix I**.

Summary of Environmental Summon and Successful Prosecution

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

7 FUTURE KEY ISSUES

Key Issues in the Coming Three Months

- 7.1 The major construction activities undertaken in the coming three months will include:
 - Setting-up of site office
 - Open cut excavation
 - Removal of soil
 - Construction of footings
 - Pre-bored socketed-H Piling
 - U.U. Lead in and Pipe Duct Connection
- 7.2 Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality, waste management and ecology. The proactive Environmental Protection Proforma summarizing the major site activities, potential environmental impacts and recommended mitigation measures for the coming months could refer to relevant Monthly EM&A Report.
- 7.3 Dust can be generated during construction works and exposed site area in the summer months and windy weather in the upcoming dry season. To prevent high dust concentrations during the summer months, the Contractor should pay attention on the air quality mitigation measures as far as practicable to minimise the dust impact to the villages which are located adjacent to the Project works. The Contractor was also reminded to follow the Project Implementation Schedule in approved EIA report / EM&A Manual to implement appropriate dust control measure including "Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather and covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handling at the stockpile areas" as well as the relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation so that no adverse dust impact arising from the Project works site.
- 7.4 In addition, construction noise is also one of the key environmental issues during construction of the Project. Noise mitigation measures such as using quiet plants and noise barriers should be in place, where applicable. In addition, the Contractor was reminded to frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; and provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area.

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

8 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 8.1 This Quarterly EM&A Report presents the EM&A work undertaken from April to June 2023 in accordance with EM&A Manual.
- 8.2 Environmental monitoring and audit works were performed in the reporting quarter and all monitoring results were checked and reviewed.

Air Quality Monitoring

8.3 Air Quality monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

8.4 Construction Noise monitoring was conducted as scheduled in the reporting quarter. No Limit Level exceedance was recorded. No exceedance of Limit Level of construction noise was recorded in the reporting quarter

Environmental Site inspections

8.5 Environmental site inspections were conducted as weekly basis in the reporting quarter. No environmental non-compliance was recorded.

Environmental Complaint and Successful Prosecution

8.6 No complaints related to air quality and no complaint related to construction noise were received in the reporting quarter. No notification of summons or successful prosecutions was received in the reporting quarter.

Recommendations

- 8.7 The mitigation measures recommended in the EIA report and EM&A Manual are considered effective and efficient in minimizing environmental impacts due to construction of the project during the reporting quarter. The EM&A programme implemented by the ET has effectively monitored the environmental impacts arising from the construction activities and ensure the proper implementation of mitigation measures.
- 8.8 The effectiveness and efficiency of the EM&A programme will be continuously reviewed. The EM&A programme will be improved if deficiencies of the existing EM&A programme are identified.
- 8.9 According to the environmental audits performed in the reporting quarter, the following recommendations were provided to remediate any potential impacts due to the Project:

Air Quality Impact

- To maintain the cover for stockpile of dusty materials and exposed slope for dust suppression;
- To enhance the dust suppression measures including watering for the dust generation works, exposed site area and haul road;
- To regular check the valid NRMM labels are properly displayed on the regulated machines and non-road vehicles; and
- To maintain the wheel washing facilities provided at every construction site exit where practicable are functioning properly.

Construction Noise Impact

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

Water Impact

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

Waste/Chemical Management

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

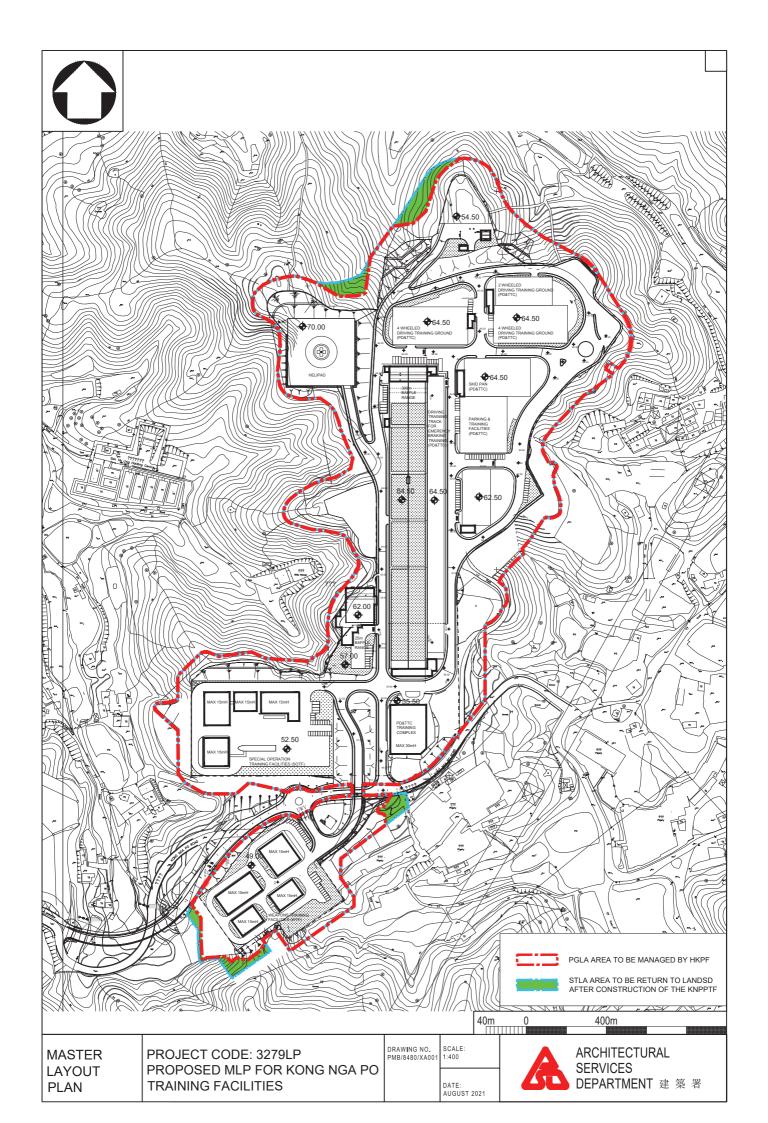
Ecology

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

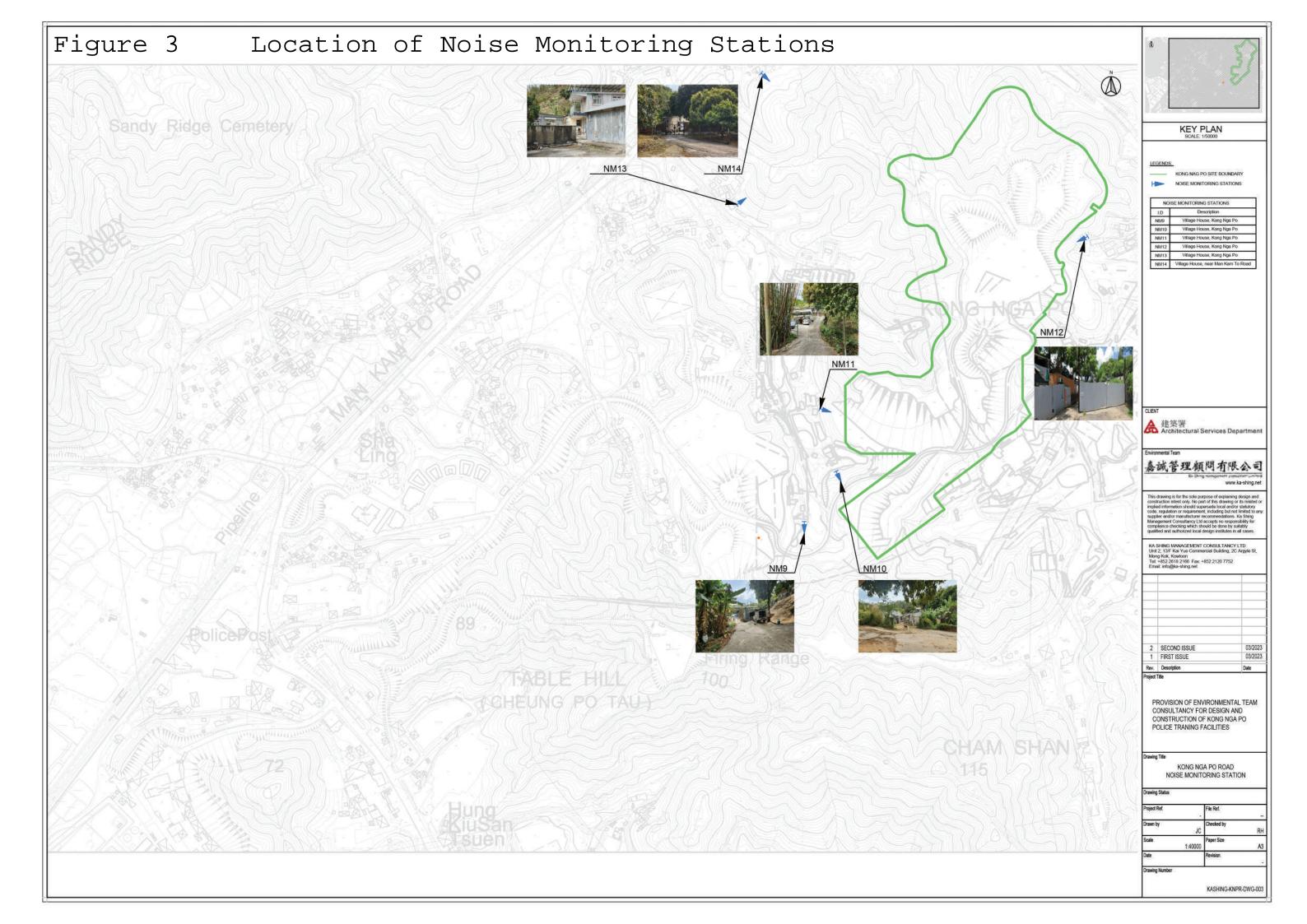
Landscape and Visual

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

FIGURE(S)







APPENDIX A ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels

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

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

TableA-2 Action and Limit Levels for Construction Noise

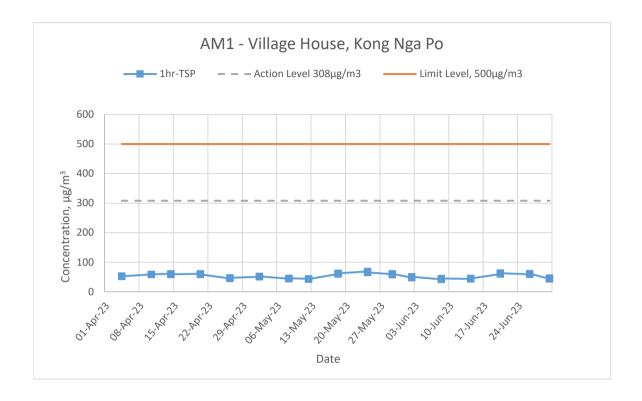
Time Period	Action Level	Limit Level (dB(A))
0700-1900 hours	When one documented	75
on normal weekdays	complaint is received	73

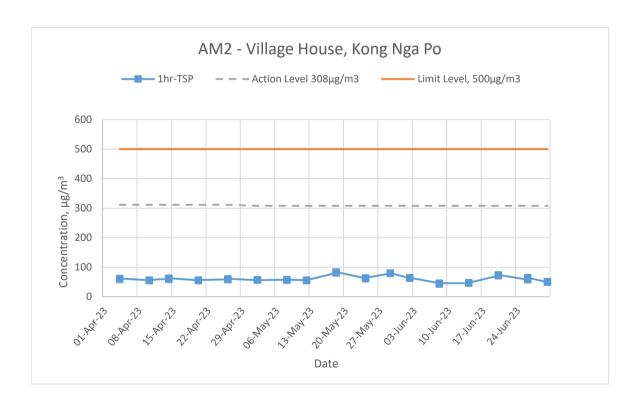
Noted:

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 B 1-HOUR TSP MONITORING GRAPHICAL PRESENTATION

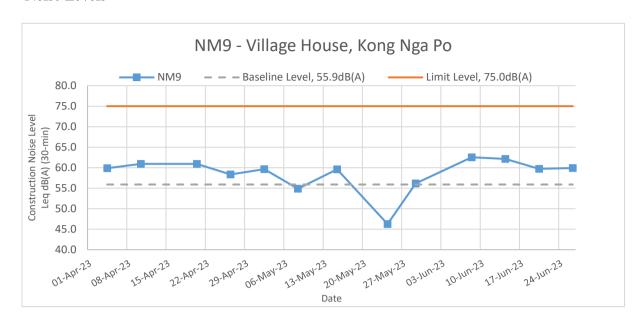
1-hr TSP Concentration Levels

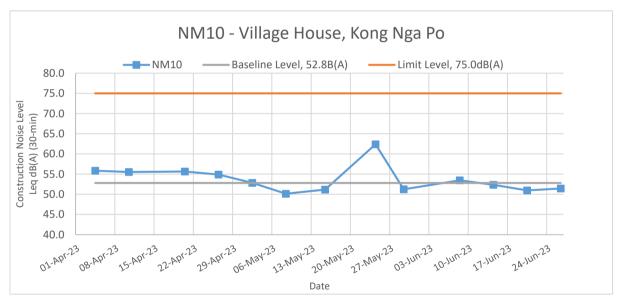


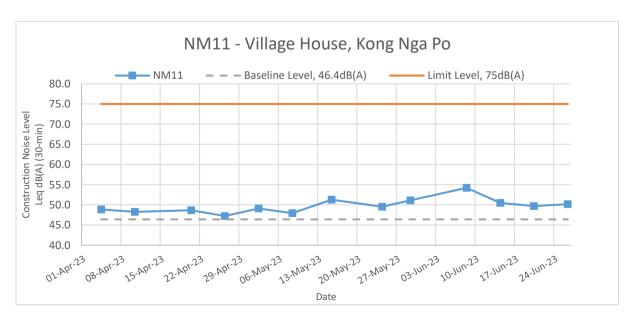


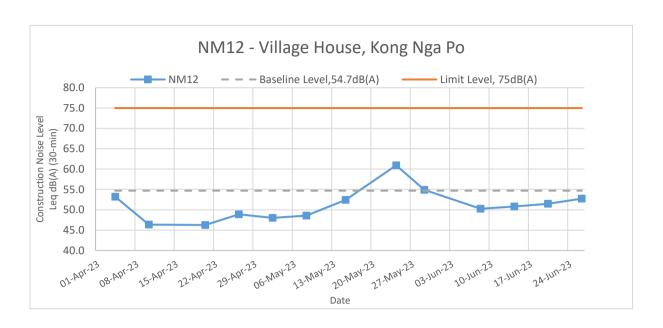
APPENDIX C NOISE MONITORING GRAPHICAL PRESENTATION

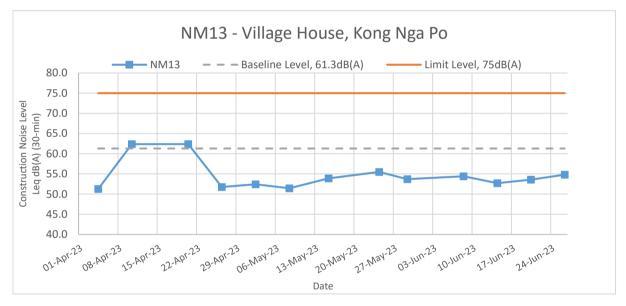
Noise Levels

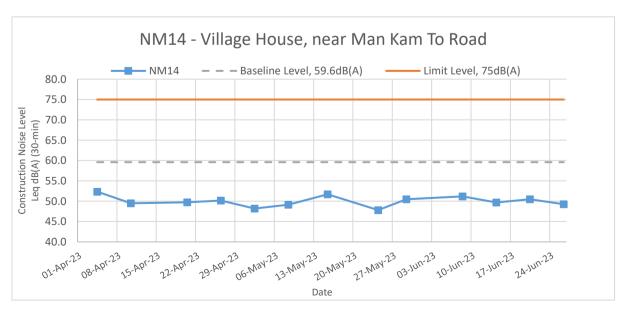












APPENDIX D EVENT ACTION PLANS

Appendix D:

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX E SUMMARY OF EXCEEDANCE

Appendix E: Exceedance Report

Reporting Quarter: April to June 2023

(A) Exceedance Report for Air Quality

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

(B) Exceedance Report for Construction Noise

Environment al Parameter Monitoring		No. of non-p Excee	roject related	No. of Exceedance related to the Construction Activities of this Contract		No. of
		Action Level	Limit Level	Action Level	Limit Level	recorded
Noise	Leq(30 min.) dB(A)	0	0	0	0	0

APPENDIX F ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

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

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

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		construction site, every vehicle should be washed to					
		remove any dusty materials from its body and wheels.					
		Use of Vehicles					
		The speed of the trucks within the site should be					^
		controlled to about 10 km/hour in order to reduce adverse					
		dust impacts and secure the safe movement around the					
		site					
		Immediately before leaving the construction site, every					N/O
		vehicle should be washed to remove any dusty materials					
		from its body and wheels.					
		Where a vehicle leaving the construction site is carrying a					N/O
		load of dusty materials, the load should be covered					
		entirely by clean impervious sheeting to ensure that the					
		entirely by clean impervious sheeting to ensure that the					
		dusty materials do not leak from the vehicle.					
		Site hoarding					
		Where a site boundary adjoins a road, street, service lane					
		or other area accessible to the public, hoarding of not less					
		than 2.4m high from ground level should be provided					N/O
		along the entire length of that portion of the site boundary					14/0
		except for a site entrance or exit.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
Noise Impact -	- Constructio	on Phase					
4.4.6	3.2	Good Site Practice	Maintain good site practice	Contractor	Within the	Construction Phase	
		Good site practice and noise management can significantly	to minimise / avoid		Project site /		
		reduce the impact of construction site activities on nearby NSRs.	construction noise impact		During		
		The following package of measures should be followed during			construction		
		each phase of construction:			phase / Prior to		
		Only well-maintained plant to be operated onsite and			commencement		N/O
		plant should be serviced regularly during the construction			of operation.		
		works;					
		Machines and plant that may be in intermittent use to be					^
		shut down between work periods or should be throttled					
		down to a minimum;					
		Plant known to emit noise strongly in one direction,					^
		should, where possible, be orientated to direct noise away					
		from the NSRs;					
		Mobile plant should be sited as far away from NSRs as					^
		possible; and					
		Material stockpiles and other structures to be effectively					,
		utilised, where practicable, to screen noise from on-site					, ,
		construction activities.					
4.4.6	3.2	Adoption of QPME	Minimise/ avoid	Contractor	Within the	Construction Phase	
		QPME should be adopted as far as applicable.	construction noise				۸

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
	1	acts – Construction Phase	T	Γ	Γ	Γ	T
Table 10.11	Table	CM01: Trees / woodland within the Project Site which are	_	Contractor	Project area /	Design and	^
	9.1	unaffected by the works shall be protected and preserved during	existing trees		During design	construction phase	
		the detailed design stage and construction phase. The tree			stage /		
		preservation proposals shall be coordinated with the layout and			construction phase		
		design of the engineering and architectural works at detailed			/ Establishment		
		design stage for further retention of individual trees. The			Period		
		preservation of existing tree shall provide instant greening and					
		screening effect for proposed works.					
		Tree protection works will be undertaken in accordance with					
		DEVB TC(W) 7/2015 on "Tree Preservation" and tree risk					
		assessment in accordance with "Guidelines for Tree Risk					
		Assessment and Management Arrangement" by DEVB.					
Table 10.11	Table	CM02: If removal of trees unavoidable due to construction	Preserve and protect	Contractor	Project area /	Design and	^
	9.1	impacts, trees will be transplanted where technically feasible in	existing trees		During design	construction phase	
		accordance with "Guidelines on Tree Transplanting" by DEVB			stage /		
		and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for			construction phase		
		Tree Transplanting Works under Highways Department's			/ Establishment		
		Vegetation Maintenance Ambit where applicable.			Period		
Table 10.11	Table	CM03: Construction area control, where possible, to ensure that	Minimise landscape and	Contractor	Project area /	Construction phase	^

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
Landscape and	Visual Impo	acts (Recommended Mitigation Measures from Landscape	e and Visual Mitigation Pla	un)			
-	-	Tree protection and preservation	To avoid potential impact on	CEDD's and	CEDD: Along	Design and	*
		a. The tree preservation proposals shall be coordinated with the	retained tree from	ArchSD's Contractors	KNP Road where	construction phase	
		layout and design of the engineering and architectural works at	construction activities such		applicable and	of CEDD's and	
		the detailed design stage for further retention of individual trees.	as materials storage; To		slopes within KNP	ArchSD's Contracts	
		b. During construction period, retained trees will be protected	make sure that the retained		Police Facilities		
		from impact from construction activity as per General	tree are not affected by the		Site		
		Specification for Civil Engineering Works (2006 Edition),	construction activities of the		ArchSD: Within		
		Section 26 – Preservation and Protection of Trees and Guidelines	Project		KNP Police		
		on Tree Preservation during Development.			Facilities Site		
-	-	Tree transplantation	To preserve the trees with	CEDD's Contractors	The location of	Construction Stage	٨
		a. If removal of trees unavoidable due to construction impacts,	conservation interest which		three Aquilaria	of CEDD's	
		trees will be transplanted where technically feasible in	are unavoidably affected by		sinensis at Site	contracts	
		accordance with "Guidelines on Tree Transplanting" by DEVB	the construction activities.		Portion B and D,		
		and HQ/GN/13 and HQ/GN/13 - Interim Guidelines for Tree			and the receptor		
		Transplanting Works under Highways Department's Vegetation			site for the		
		Maintenance Ambit where applicable.			transplanted trees		
					opposite Portion		
					B1 of the site.		
-	-	Work area and temporary works area	To minimize the landscape	CEDD's and	CEDD: Along	Construction	^

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

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

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

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

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

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

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

Implementation status: ^

- Mitigation measure was implemented
- * Observation/reminder was made during site audit but improved/rectified by the contractor
- # Observation/reminder was made during site audit but not yet improved/rectified by the contractor
- X Non-compliance of mitigation measure
- Non-compliance but rectified by the contractor
- N/O Not Observed at this stage in the reporting period

APPENDIX G SITE AUDIT SUMMARY

Appendix G: Site Audit Summary

Table G-1: Observations and Follow Up Action of Site Audit in April 2023

Parameters	Date	Observations	Follow Up Action
Air Quality	19/4/2023	Stockpiles should be fully covered by impermeable sheeting to reduce dust emission	Stockpiles have been removed.
Construction Noise Impact		No environmental deficiency was identified during the reporting month.	
Water Quality	4/4/2023	The labelling of chemicals missed	The labelling of chemicals has been displayed.
Waste/ Chemical Management		No environmental deficiency was identified during the reporting month	
landscape and visual		No environmental deficiency was identified during the reporting month.	
Ecology		No environmental deficiency was identified during the reporting month	
Permit /Licences		No environmental deficiency was identified during the reporting month.	
Others	11/4/2023	Construction waste shall be removed timely	Construction waste has been removed
	25/4/2023	Secondary container shall be provided for the chemicals to prevent soil contamination	The chemicals has been removed

Table G-2: Observations and Follow Up Action of Site Audit in May 2023

Parameters	Date	Observations	Follow Up Action
Air Quality	9/5/2023	Stockpiles should be fully covered by impermeable sheeting to reduce dust emission	Stockpiles have been removed.
Construction Noise Impact		No environmental deficiency was identified during the reporting month.	
Water Quality	23/5/2023	The labelling of chemicals missed	Construction waste, debris and refuse generated on-site have been removed.
Waste/ Chemical Management		No environmental deficiency was identified during the reporting month	
landscape and visual		No environmental deficiency was identified during the reporting month.	
Ecology		No environmental deficiency was identified during the reporting month	
Permit /Licences		No environmental deficiency was identified during the reporting month.	
Others	2/5/2023	Construction waste shall be removed timely	Construction waste has been removed.
	17/5/2023	Secondary container shall be provided for the chemicals to prevent soil contamination	The chemicals has been removed.

Table G-3: Observations and Follow Up Action of Site Audit in June 2023

Parameters	Date	Observations	Follow Up Action
Air Quality	7/6/2023	Stockpiles should be fully covered by impermeable sheeting to reduce dust emission	Stockpiles removed
Construction Noise Impact		No environmental deficiency was identified during the reporting month.	
Water Quality	20/6/2023	The labelling of chemicals missed	Chemicals removed.
Waste/ Chemical Management		No environmental deficiency was identified during the reporting month	
landscape and visual		No environmental deficiency was identified during the reporting month.	
Ecology		No environmental deficiency was identified during the reporting month	
Permit /Licences		No environmental deficiency was identified during the reporting month.	
Others			

APPENDIX H WASTE GENERATION IN THE REPORTING PERIOD

Name of Department: ArchSD

Monthly Summary Waste Flow Table for 2023 (year)

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

			uantities of Ine		Actu	al Quantities	of C&D Wast	es Generated N	Monthly			
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Bituminous Material	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	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)
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020
Jun	0.988	0.000	0.000	0.000	0.000	0.988	0.000	0.000	0.000	0.000	0.000	0.046
Sub-total	0.988	0.000	0.000	0.000	0.000	0.988	0.000	0.000	0.000	0.000	0.000	0.086
Jul												
Aug												
Sep												
Oct												
Nov												
Dec												
Total	0.988	0.000	0.000	0.000	0.000	0.988	0.000	0.000	0.000	0.000	0.000	0.086

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 this 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 I COMPLAINT LOG

Appendix I - Complaint Log

Reporting month: April 2023

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

Cumulative Complaint Log

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

Reporting month: May 2023

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

Cumulative Complaint Log

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

Reporting month: June 2023

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

Cumulative Complaint Log

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

APPENDIX J SUMMARY OF SUCCESSFUL PROSECUTION

Appendix J - Summary of Successful Prosecution

Reporting Quarter: April to June 2023

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up
	1	-	