Civil Engineering and Development Department

EP-510/2016 – Police Facilities in Kong Nga Po

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

Quarterly Environmental Monitoring and Audit Report for April to June 2023

(Version 1.0)

Certified By	M. Ivy Tam
	(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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

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Civil Engineering and Development Department North Development Office Unit 2320, Level 23, Tower 1, Metroplaza 223 Hing Fong Road, Kwai Fong, New Territories, Hong Kong

Attention: Mr. William WONG

22 August 2023

Dear William,

Contract No.: NDO/02/2018

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Quarterly Environmental Monitoring and Audit Report for April to June 2023

I refer to the email from the Environmental Team concerning the captioned. I have no adverse comment on the Quarterly EM&A Report for April to June 2023 (Version 1.0) and verify the report according to Conditions 1.9 of the Environmental Permit with permit number EP-510/2016.

Yours faithfully,

Kull 4

Tandy Tse Independent Environmental Checker

cc. CEDD – Joseph Yan AECOM – Mr. Steven Leung ET Leader – Ivy Tam

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EXECUTIVE SUMMARY

Introduction

- This is the 12th Quarterly Environmental Monitoring and Audit (EM&A) Report under the Work Contract (Environmental Permit No. EP-510/2016: Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) (the Project). This report was prepared by Wellab Limited (Wellab) under "Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po" (hereinafter called the "Service Contract"). This report documents the findings of Environmental Monitoring and Audit (EM&A) work conducted from April to June 2023.
- 2. Part of the construction site was handed over to Architectural Services Department (ArchSD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase. A further environmental permit (FEP) (FEP no.: FEP-01/510/2016) was issued by the Director of Environmental Protection (DEP) on 16 February 2023 to Architectural Services Department as permit holder for the construction of building works.

Summary of Construction Works undertaken during the Reporting Quarter

3. The major site activities undertaken in the reporting quarter included:

<u>Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in</u> Kong Nga Po (Environmental Permit No. EP-510/2016)

- Retaining Wall Construction
- Slope Upgrading Works
- Road & Associated Works
- Sewerage Trenchless Works
- Drainage & Watermain Trenchless Works
- Bridge & Associated Works

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	No. of Non-Project related Exceedances		No. of Exceedance related to the Construction Works of the Contract		Action Taken
0		Action Level	Limit Level	Action Level	Limit Level	- untern
Air Quality	1-hr TSP	0	0	0	0	N/A
Noise	Leq(30min)	0	0	0	0	N/A

Air Quality

6. 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

7. 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

8. 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.

Environmental Non-Compliance

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

Environmental Complaint

10. One (1) complaint related to water quality was received in the reporting quarter. The Complaint Log is presented in **Appendix I**.

Notification of Summons and Successful Prosecutions

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

Future Key Issues

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

<u>Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in</u> <u>Kong Nga Po</u>

- Retaining Wall Construction
- Slope Upgrading Works
- Road & Associated Works
- Bridge & Associated Works

13. 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 A of relevant Monthly EM&A Reports.

1 INTRODUCTION

1.1 Wellab Limited was commissioned by the Civil Engineering Development Department (CEDD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) works for the Work Contract (Environmental Permit No. EP-510/2016: Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) to ensure that the environmental performance of the Works Contracts comply with the requirements specified in the Environmental Permits (EPs), Environmental Impact Assessment (EIA) Report and Environmental Monitoring & Audit (EM&A) Manual of the Police Facilities in Kong Nga Po Project and other relevant statutory requirements.

Purpose of the report

1.2 This is the 12th 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. The major construction works for the Project commenced on 3rd July 2020 and the main site in Kong Nga Po was handed over to Architectural Services Department (ASD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase.

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 consists of site formation works and building works for the co-location of various police facilities in the Project site at Kong Nga Po as well as road improvement works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road. The police facilities include:
 - Lo Wu Firing Range (LWFR) to be relocated from Lo Wu;
 - Ma Tso Lung Firing Range (MTLFR) to be relocated from Ma Tso Lung;
 - Weapons Training Facilities (WTF) and Police Driving and Traffic Training Facilities (PD&TTF) to be relocated from Fan Garden;
 - Helipad to be relocated from Lo Wu;
 - A Proposed Police Training Facility (PTF); and
 - A new internal access road network with underpass within the Project site
- 2.2 The improvement works to Kong Nga Po Road between the police facilities and Man Kam To Road includes roadworks, viaduct of less than 100m between abutments, and associated works such as slopeworks and retaining walls.
- 2.3 In addition to the above, associated supporting infrastructure and utilities including an underground stormwater storage tank, sewage pumping station, petrol / diesel filling station, a multi-storey training complex associated with the PD&TFF, and other ancillary facilities will also be provided.
- 2.4 The Project is a Designated Project under the Environmental Impact Assessment Ordinance (EIAO). An Environmental Impact Assessment (EIA) Report (Report No.: AEIAR-201/2016) for the Project was approved under EIAO in October 2016 in accordance with the EIA Study Brief (No. ESB-276/2014) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM). The corresponding Environmental Permit was issued (EP no.: EP-510/2016) by the Director of Environmental Protection (DEP) in November 2016.
- 2.5 The Works Contract (Contract No. ND/2018/01 Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) generally consists of site formation & infrastructure works for the co-location of various police facilities at Kong Nga Po as well as upgrading works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road (hereinafter called "the Project").
- 2.6 Part of the construction site was handed over to Architectural Services Department (ArchSD) on 23rd December 2022 whom taken over responsibility for the construction of building works and as maintenance agent for Hong Kong Police Force (HKPF) during operation phase. A further environmental permit (FEP) (FEP no.: FEP-01/510/2016) was issued by the Director of Environmental Protection (DEP) on 16 February 2023 to Architectural Services Department as permit holder for the construction of building works.
- 2.7 The major construction activities of the Project are site formation and infrastructure works

which will include site clearance, excavation and filling, construction of access road, utilities laying and landscaping works. As such, an air quality and noise monitoring programme is recommended in the approved Environmental Monitoring and Audit (EM&A) Manual during the construction phases of this Project to monitor the expected dust and noise nuisances. Baseline air quality and noise monitoring were conducted by ET from 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.

2.8 The site layout plan for the Project is shown in **Figure 1**.

Project Organization

- 2.9 Different parties with different levels of involvement in the Project organization include:
 - Project Proponent Civil Engineering and Development Department (CEDD)
 - Supervisor / Supervisor's Representative AECOM
 - Environmental Team (ET) Wellab Limited
 - Independent Environmental Checker (IEC) Acuity Sustainability Consulting Limited
- 2.10 The key personnel contact names and numbers are summarised in Table 2.1.

Party	Role Contact Person		Phone No.	Fax No.		
Contract No. ND/2018/01	Contract No. ND/2018/01					
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Joseph YAN	3152 3551	3547 1658		
Supervisor / Supervisor's Representative (AECOM)	Senior Resident Engineer	Mr. Steven Leung	5287 4331	3922 9797		
	Environmental Team Leader	Ms. Ivy Tam	2151 2090	2898 7076		
Environmental Team (Wellab Limited)	Qualified Ecologist	Dr. Priscilla Choy	2898 7388	2898 7076		
	Registered Landscape Architect	Mr. Ted Lam	2898 7388	2898 7076		
Independent Environmental Checker (Acuity Sustainability Consulting Limited)	Independent Environmental Checker	Ms. Melody Cheng	2698 6833	2693 9383		
Contractor (Build King	Site Agent	Mr. Book Kin Man	2272 3128			
Construction Limited)	Environmental Officer	Mr. Alex Liu	9754 3432	2528 1751		

Table 2.1 Key Contacts of the Project

Summary of Construction Works Undertaken During Reporting Quarter

2.11 The major site activities undertaken in the reporting quarter included:

<u>Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in</u> <u>Kong Nga Po</u>

- Retaining Wall Construction
- Slope Upgrading Works
- Road & Associated Works
- Sewerage Trenchless Works
- Drainage & Watermain Trenchless Works
- Bridge & Associated Works

Status of Environmental Licences, Notifications and Permits

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

	Valid	<u><u> </u></u>	
Permit / Licence No.	From	То	Status
Environmental Permit (EP)		
EP-510/2016	N/A	N/A	Valid
Construction Noise Permit	(CNP)		-
GW-RN1224-22	03-01-2023	02-04-2023	Expired in the reporting period
GW-RN0081-23	28-01-2023	27-07-2023	Valid
Notification pursuant to Ai	r Pollution Control (Construction Dust) Re	gulation
EPD Ref no.: 451555	N/A	N/A	N/A
Billing Account for Constru	uction Waste Disposa	l	
Account No. 7036173	24-12-2019	N/A	Valid
Registration of Chemical W	Vaste Producer		
WPN5213-641-B2590-01	18-5-2020	N/A	Valid
Effluent Discharge Licence	under Water Polluti	on Control Ordinance	
WT00035709-2020	11-5-2020	31-5-2025	Valid

 Table 2.2
 Status of Environmental Licences, Notifications and Permits

Summary of EM&A Requirement

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

report; and

• Environmental requirements in contract documents.

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 3.1Location 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 3.3Location of Noise Monitoring Stations

Monitoring Station	Location of Measurement	
NM1	Village House, Sha Ling	
NM2	Village House, Sha Ling	
NM3	Village House No. 248, Sha Ling	
NM4	Village House, Sha Ling	
NM5	*Village House No. 270, Sha Ling	
NM6	Village House, Sha Ling	
NM7	Village House, Sha Ling	
NM8	Village House, Sha Ling	
NM9	Village House, Kong Nga Po	
NM10	Village House, Kong Nga Po	
NM11	Village House, Kong Nga Po	

Monitoring Station	Location of Measurement
NM12	Village House, Kong Nga Po
NM13	Village House, Kong Nga Po
NM14	Village House, near Man Kam To Road

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

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

Monitoring Stations	Parameter	Duration	Frequency	Measurement
NM1				Free field ^[1]
NM2				Free field ^[1]
NM3				Facade
NM4				Facade
NM5	\mathbf{I} $\mathbf{ID}(\mathbf{A})^{[2]}$			Facade
NM6	$L_{10(30 \text{ min.})} dB(A)^{[2]}$	$L_{90(30 \text{ min.})} dB(A)^{[2]}$ 0700 1000 hrs on	Once per	Free field ^[1]
NM7	$L_{90(30 \text{ min.})} dB(A)^{[2]}$ $L_{eq(30 \text{ min.})} dB(A)^{[2]}$			Facade
NM8	$L_{eq(30 min.)} dB(A)^{r}$ (as six consecutive	normal weekdays	week	Free field ^[1]
NM9	$L_{eq, 5min}$ readings)			Free field ^[1]
NM10	Leq, 5min readings)			Free field ^[1]
NM11				Facade
NM12				Facade
NM13				Free field ^[1]
NM14				Free field ^[1]

Table 3.4Noise Monitoring Parameters, Duration and Frequency

Remarks:

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

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

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

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 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 Re	porting Ouarter
	~ and j of i now	101 110 110 110		

Reporting Months	Air Quality Monitoring Station	Average µg/m ³	Range µg/m ³	Action Level µg/m ³	Limit Level µg/m ³
Amril 2022	AM1	96.5	52.4 - 188.4	308	
April 2023	AM2	69.1	53.1 - 96.0	311	
May 2022	AM1	70.2	53.9 - 116.2	308	500
May 2023	AM2	85.7	46.1 - 118.1	311	500
June 2023	AM1	36.7	22.2 - 73.7	308	
Julie 2025	AM2	42.7	24.2 - 58.6	311	

Construction Noise

- 4.5 All construction noise monitoring was conducted as scheduled in the reporting quarter.
- 4.6 No Action / Limit Level exceedance was recorded in the reporting quarter. 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**.

Remarks:					
Reporting Months	Noise Quality Monitoring Station	Average L _{eq (30 min)} , dB(A)	Range L _{eq (30 min)} , dB(A)	Baseline Level dB(A)	Limit Level, dB(A)
	NM1 ^[1]	61.1	56.9 - 65.4	54.9	
	NM2 ^[1]	62.8	53.3 - 68.1	56.7	
	NM3	59.1	53.1-61.4	54.5	
	NM4	61.2	58.1 - 62.8	58.7	
	NM5	56.1	53.5 - 58.3	57.0	
	NM6 ^[1]	66.8	60.0 - 70.6	56.0	
1 2022	NM7	53.1	45.7 - 55.0	49.8	
April 2023	NM8 ^[1]	57.6	52.2 - 61.8	57.6	
	NM9 ^[1]	56.5	46.4 - 59.7	55.9	
	NM10 ^[1]	56.0	52.4 - 58.7	52.8	
	NM11	52.5	44.9 - 56.5	46.4	
	NM12	56.3	53.5 - 58.1	54.7	
	NM13 ^[1]	54.6	49.8 - 57.1	61.3	
	NM14 ^[1]	57.5	45.2 - 59.6	59.6	
	NM1 ^[1]	60.2	58.1 - 62.7	54.9	
	NM2 ^[1]	61.0	58.7 - 62.8	56.7	75.0
	NM3	57.9	51.7 - 61.6	54.5	
	NM4	58.5	55.5 - 60.5	58.7	
	NM5	58.3	54.0 - 60.5	57.0	
	NM6 ^[1]	66.3	65.4 - 68.0	56.0	
M 2022	NM7	57.3	53.1 - 61.8	49.8	
May 2023	NM8 ^[1]	56.6	50.3 - 60.9	57.6	75.0
	NM9 ^[1]	58.1	56.6 - 59.6	55.9	
	NM10 ^[1]	55.5	54.1 - 57.5	52.8	
	NM11	52.9	49.9 - 55.0	46.4	
	NM12	53.8	49.8 - 56.6	54.7	
	NM13 ^[1]	58.2	51.9-61.7	61.3	
	NM14 ^[1]	55.9	50.4 - 57.6	59.6	
	NM1 ^[1]	66.5	54.2 - 70.9	54.9	
	NM2 ^[1]	63.7	58.6 - 67.5	56.7	
	NM3	55.8	53.1 - 58.0	54.5	
	NM4	59.8	56.4 - 63.4	58.7	
June 2023	NM5	60.8	54.8 - 64.0	57.0	
	NM6 ^[1]	64.1	57.9 - 68.5	56.0	
	NM7	57.0	48.6 - 59.9	49.8	
	NM8 ^[1]	54.7	51.6 - 56.6	57.6	
	NM9 ^[1]	59.5	54.6 - 62.6	55.9	
	NM10 ^[1]	58.1	55.7 - 59.9	52.8	
	NM11	53.6	46.5 - 55.9	46.4	1
	NM12	58.3	55.6 - 60.4	54.7	1
	NM13 ^[1]	52.9	48.2 - 56.9	61.3	1
	NM14 ^[1]	58.2	56.1 - 59.8	59.6	

Table 4.2 Summary of Noise Monitoring Result in Reporting Quarter Remarks: Remarks:

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

Ecological Monitoring

- 5.1 Monthly monitoring of flora species of conservation interest were conducted by ET as scheduled in the reporting quarter. The health conditions of the transplanted / retained species are generally in fair to poor condition. The Contractor was reminded to closely monitored the transplanted species and implemented the protection measures according to the approved transplantation proposal to protect the transplanted / retained species. In addition, the Contractor was also reminded of the following:
 - 1) Construction activities were observed conducted in the vicinity of *Keteleeria fortune*. The Contractor was reminded to closely review the protection works of *Keteleeria fortune* to avoid the damage of trees due to the works nearby;
 - 2) The soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of *Keteleeria fortune* should be cleared as soon as possible.
 - 3) The temporary protective fence should be properly erected and maintained for *Keteleeria fortune*.
- 4.8 All recommended measures as set out in the deposited Detailed Vegetation Survey Report and the Transplantation Proposal have been fully and properly implemented in accordance with EP-510/2016 Condition 2.14 and presented in Appendix H2 of relevant Monthly EM&A Reports.
- 4.9 Nevertheless, three individuals of transplanted *Aquilaria sinensis* A-008, A-0009 and A-0010 were collapsed after Typhoon Signal No. 8. According to the Tree Risk Assessment Report provided by the Contractor's landscape specialist, the collapsed trees have been removed on 16th July 2022. The ecological monitoring photo records and results were shown in the relevant Monthly EM&A Reports.
- 4.10 According to approved transplantation proposal, the post-transplantation monitoring for transplanted *Brainea insignis* and *Spiranthes sinensis* was conducted by Contractor once per week in the first three months (June to August 2020) after the transplantation of *Brainea insignis* and *Spiranthes sinensis* from 21st to 26th May 2020 and once per month during the 12-month establishment period and the post establishment period until the end of construction phase of the Project. Also, post-transplantation monitoring for *Aquilaria sinensis* was conducted by Contractor once per week in the first three months (October 2020 to January 2021) after the transplantation of *Aquilaria sinensis* from 3rd to 19th October 2020 and once per month during the 12-month establishment period and the post establishment period and the post establishment period until the end of construction phase of the transplantation of *Aquilaria sinensis* from 3rd to 19th October 2020 and once per month during the 12-month establishment period and the post establishment period and the post establishment period and the post establishment period until the end of construction phase of the Project.
- 4.11 Part of the construction site including the approved receptor site for *Brainea insignis* and *Spiranthes sinensis* was handed over to Architectural Services Department (ArchSD) on 23rd December 202. The post-transplantation maintenance and monitoring works for *Brainea insignis* and *Spiranthes sinensis* have been conducted by the Contractor under Contract No. SSK509 since February 2023. In addition, monthly monitoring of for *Brainea insignis* and *Spiranthes* has also been handed over to the ET under Contract No. SSK509 (FEP no.: FEP-01/510/2016) starting from April 2023.
- 4.12 No post-transplantation monitoring was conducted for *Aquilaria sinensis* as they were collapsed due to the Typhoon and removed on 16th July 2022.

6 ENVIRONMENTAL SITE INSPECTION

Site Audits

6.1 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

6.2 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

- 6.3 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.
- 6.4 The Contractors are advised to minimize the wastes generated through the recycling or reusing. All mitigation measures stipulated in the EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and reduction measures are summarised in **Appendix F**.
- 6.5 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**.

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

Summary of Exceedances

- 7.1 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**.
- 7.2 No exceedance of Action and Limit Levels of air quality and construction noise was recorded in the reporting quarter.

Summary of Environmental Non-Compliance

7.3 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

7.4 One (1) complaint related to water quality was 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

7.5 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**.

8 FUTURE KEY ISSUES

Key Issues in the Coming Three Months

8.1 The major construction activities undertaken in the coming three months will include:

<u>Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po</u>

- Retaining Wall Construction
- Slope Upgrading Works
- Road & Associated Works
- Bridge & Associated Works
- 8.2 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.
- 8.3 The Contractor is recommended to arrange and maintain the water quality mitigation measures according to the construction site drainage plan during wet season (i.e., March to October). The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a site/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. Efficient silt removal facilities shall deploy to ensure all treated effluent from wastewater treatment plant shall meet the requirements as stated in WPCO licences. The site drainage plan shall also be updated based on the site condition and construction programme.
- 8.4 Dust can be generated during construction works and exposed site area. To prevent high dust concentrations during the dry weather, the Contractor should pay attention on the air quality mitigation measures as far as practicable to minimise the dust impact to the villages which are located adjacent to the Project works. 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 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.
- 8.5 In addition, construction noise is also one of the key environmental issues during construction of the Project. Noise mitigation measures such as using quiet plants and noise barriers should be in place, where applicable. In addition, the Contractor was reminded to

frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; and provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area.

- 8.6 Moreover, the tree protection zone for the existing *Keteleeria fortunei* and *Aquilaria sinensis* shall be properly maintained during the Kong Nga Po Road upgrading works in close proximity of the plant species of conservation importance according to the approved "Explanatory Statement for Revised Layout Plan of Kong Nga Po Road (Final)".
- 8.7 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.

9 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

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

Air Quality Monitoring

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

Construction Noise Monitoring

9.4 Construction Noise monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

Environmental Site inspections

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

Environmental Complaint and Successful Prosecution

9.6 One (1) complaint related to water quality was received in the reporting quarter. No notification of summons or successful prosecutions was received in the reporting quarter.

Recommendations

- 9.7 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.
- 9.8 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.
- 9.9 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;
- To maintain the wheel washing facilities provided at every construction site exit where practicable are functioning properly;
- To cover / clear the used cement bags on site; and
- To maintain the plant equipment to avoid heavy smoke emission.

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;
- To maintain temporary noise barriers for operations of noisy equipment near the noise sensitive receivers, if necessary; and
- To keep the door of air compressors close.

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;
- To divert the muddy water at the retention pond to the wetsep for treatment before discharging out; and
- To review and update site drainage plan based on the current site condition, and implement water quality mitigation measures as appropriate.

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

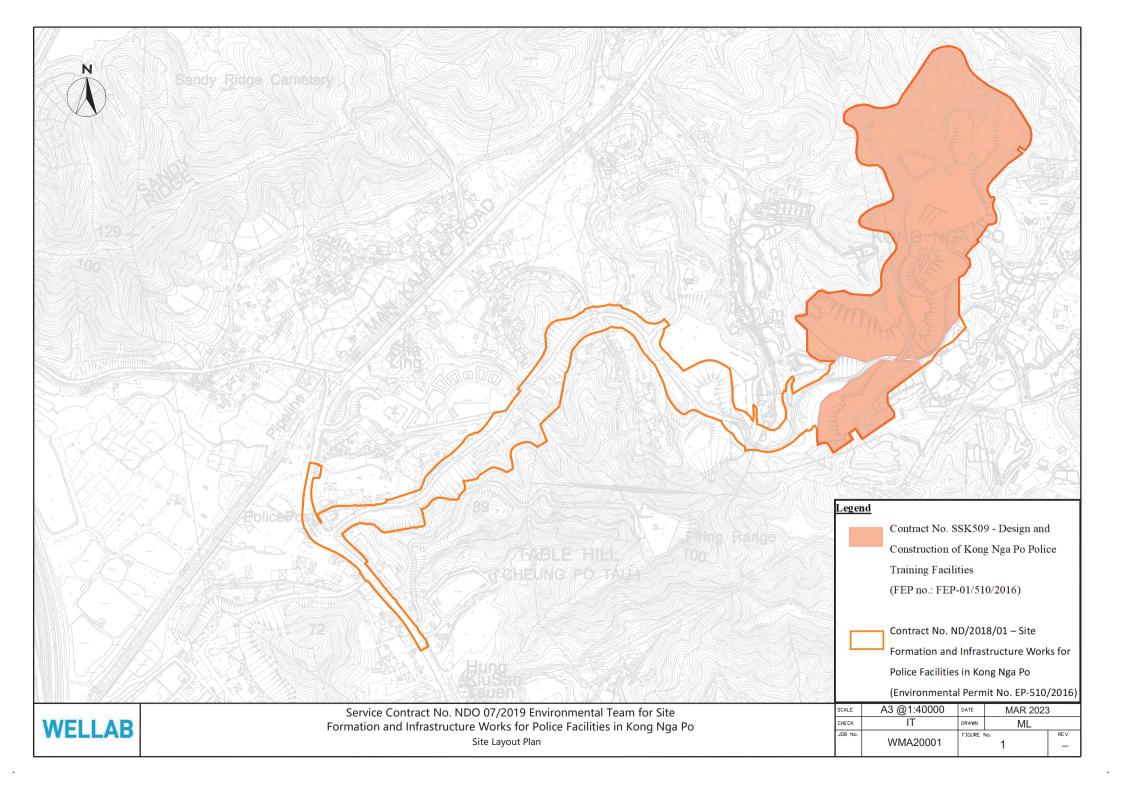
- To erect and maintain the protection fence around the retained trees / conservation species;
- To keep the tree protection zone large enough to protect the tress; and
- To remove the soil, debris and construction materials / wastes inside the protective fence

and or deposited around the trunk of retained trees / conservation species.

Landscape and Visual

- To erect and maintain the protection fencing and tree protection zone around the preserved trees;
- To remove the soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of retained trees; and
- To keep the tree protection zone large enough to protect the tress.

FIGURE(S)



Ν	

LEGEND Legend

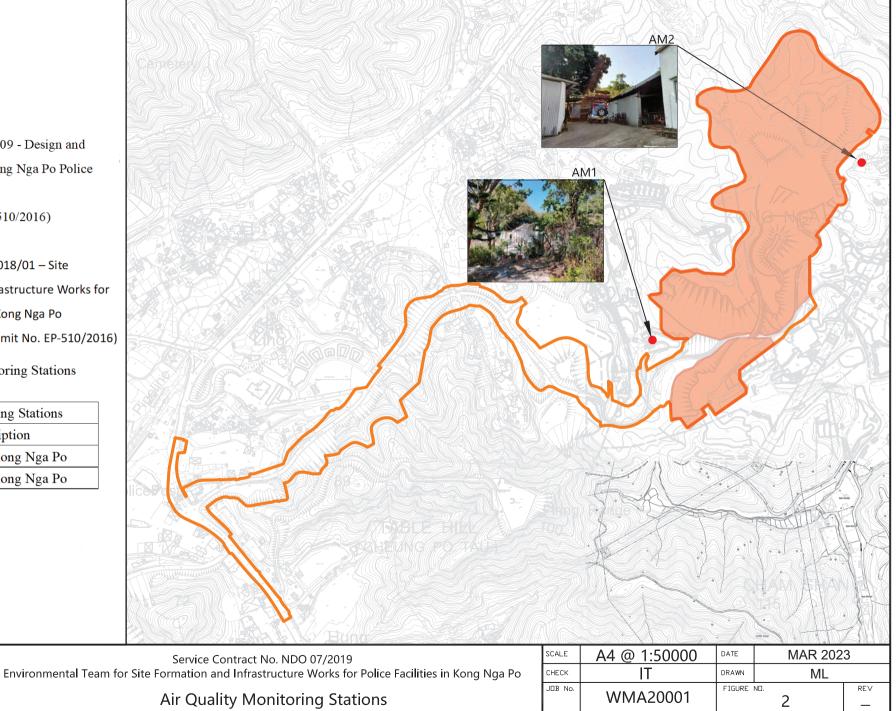
Contract No. SSK509 - Design and Construction of Kong Nga Po Police Training Facilities (FEP no.: FEP-01/510/2016)

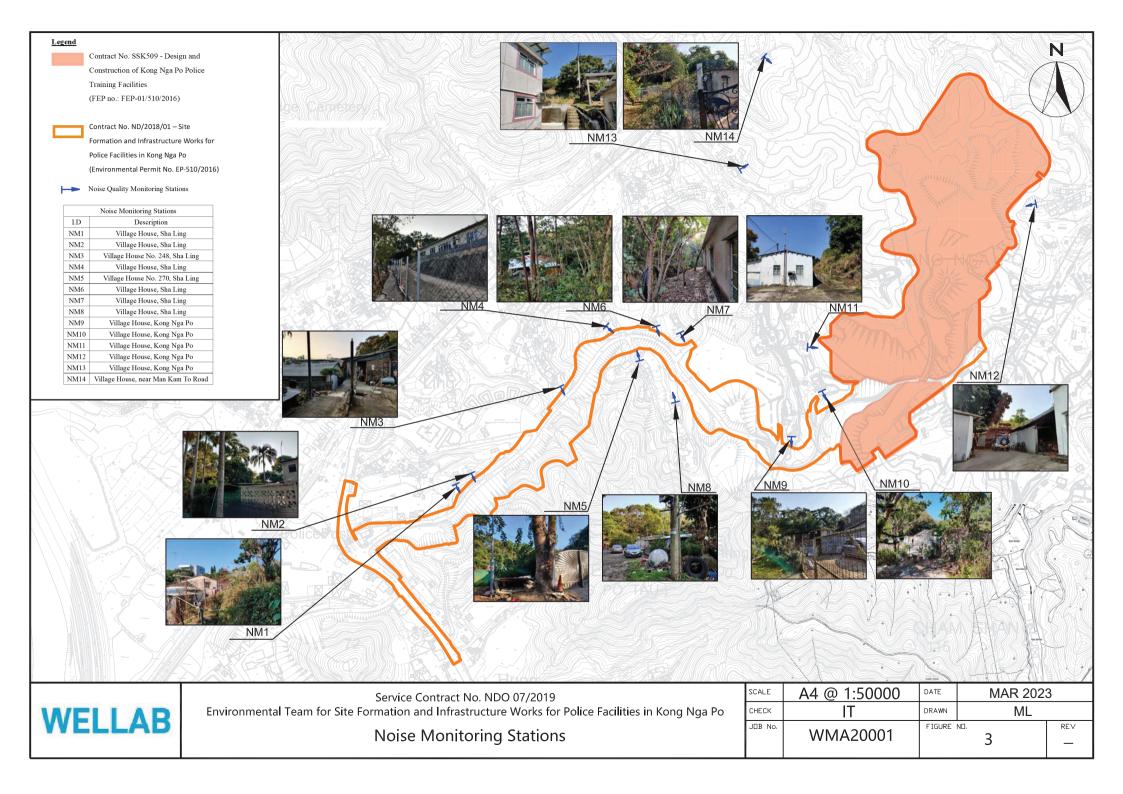
Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po (Environmental Permit No. EP-510/2016)

Air Quality Monitoring Stations

Air Quality Monitoring Stations		
I.D	Description	
AM1	Village House, Kong Nga Po	
AM2	Village House, Kong Nga Po	

WELLAB





APPENDIX A ACTION AND LIMIT LEVELS Civil Engineering and Development Department

Appendix A - Action and Limit Levels

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

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

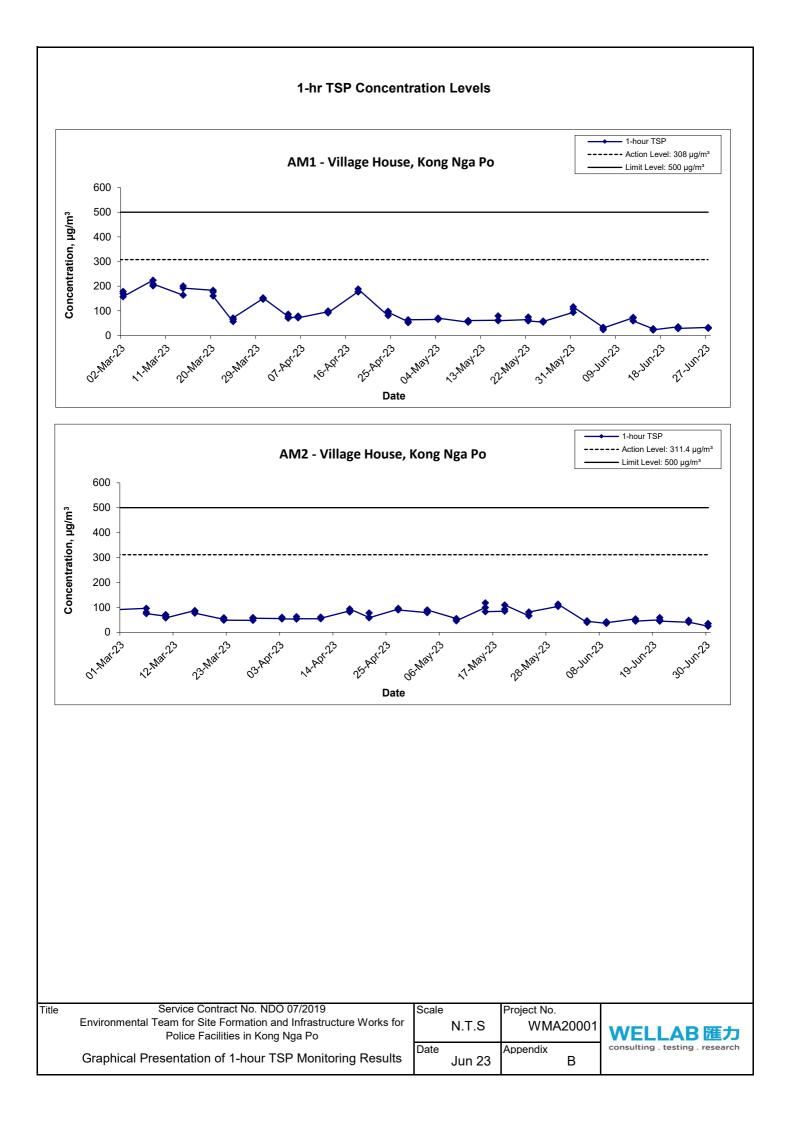
TableA-2 Action and Limit Levels for Construction Noise

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

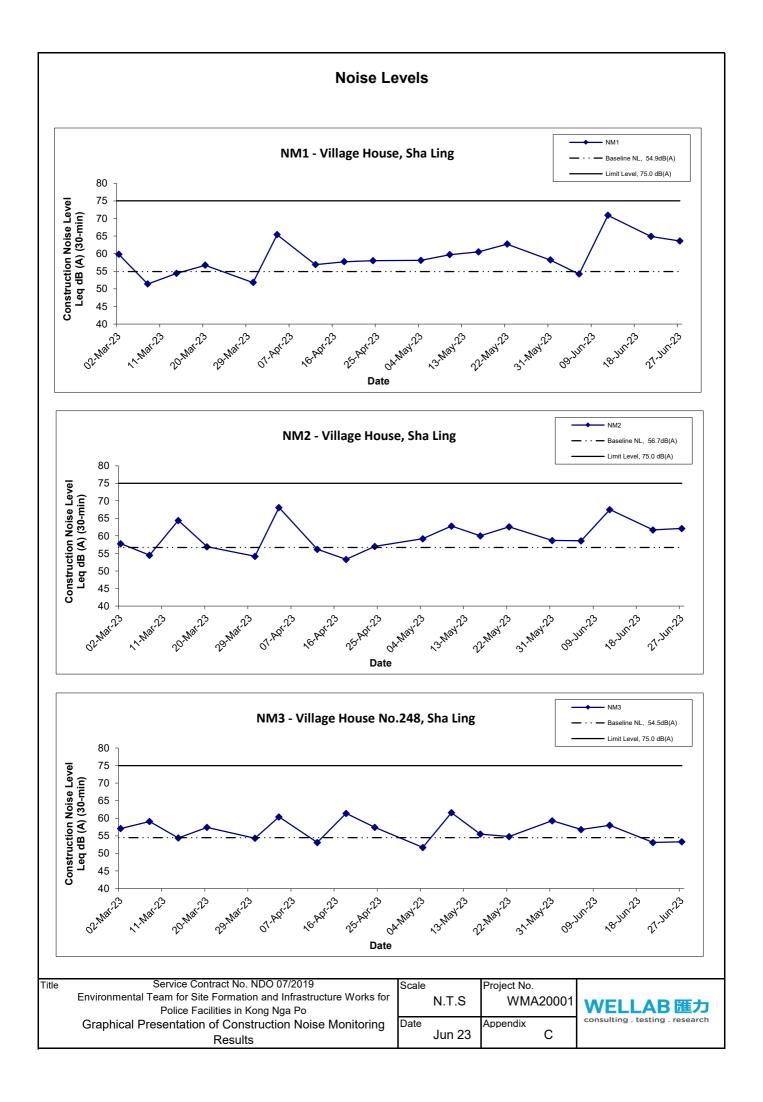
Noted:

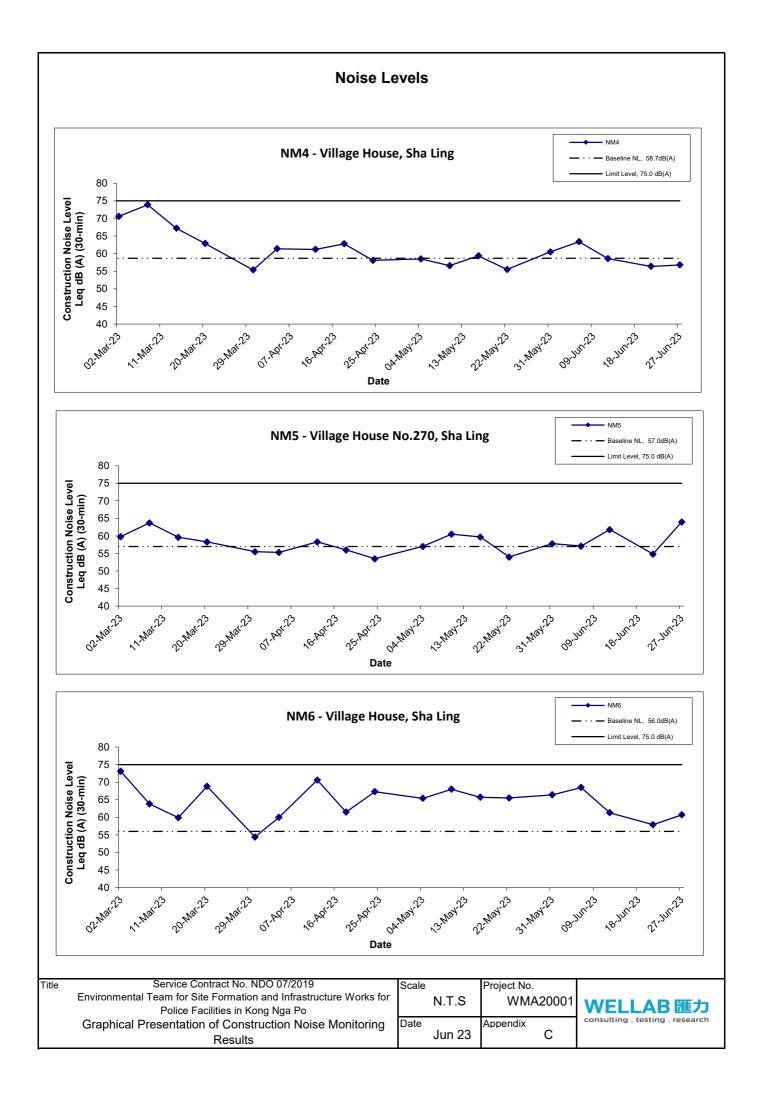
If works are to be carried during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

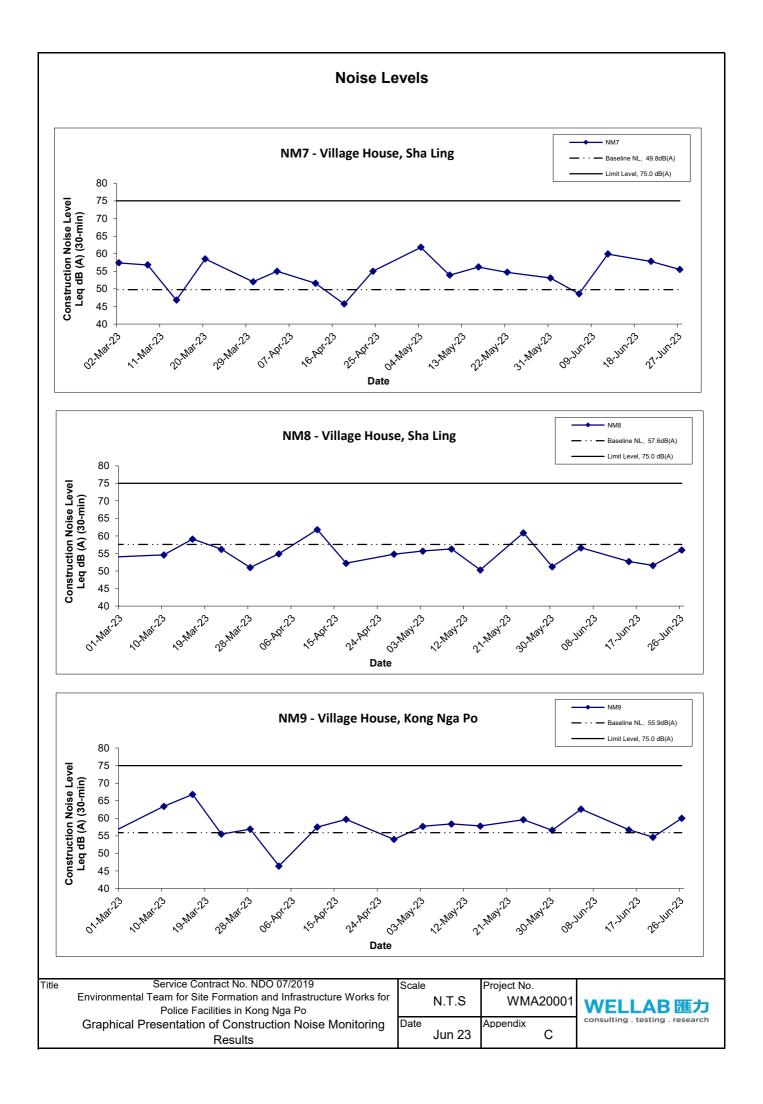
APPENDIX B 1-HOUR TSP MONITORING GRAPHICAL PRESENTATION

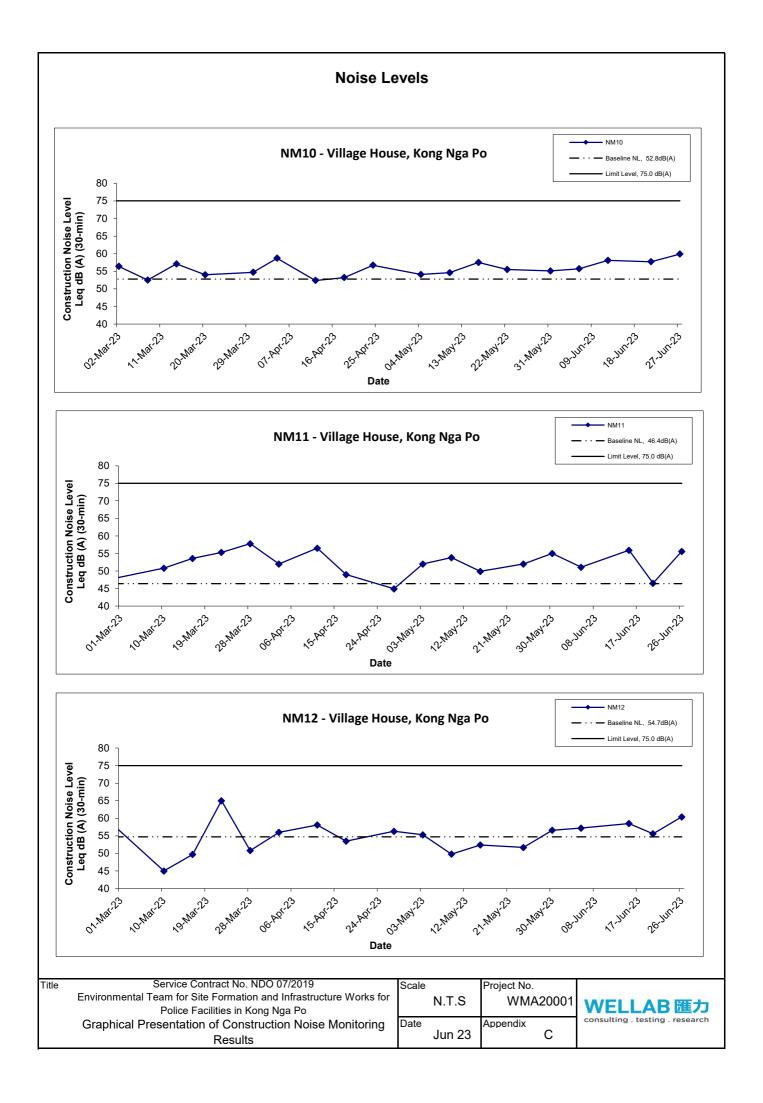


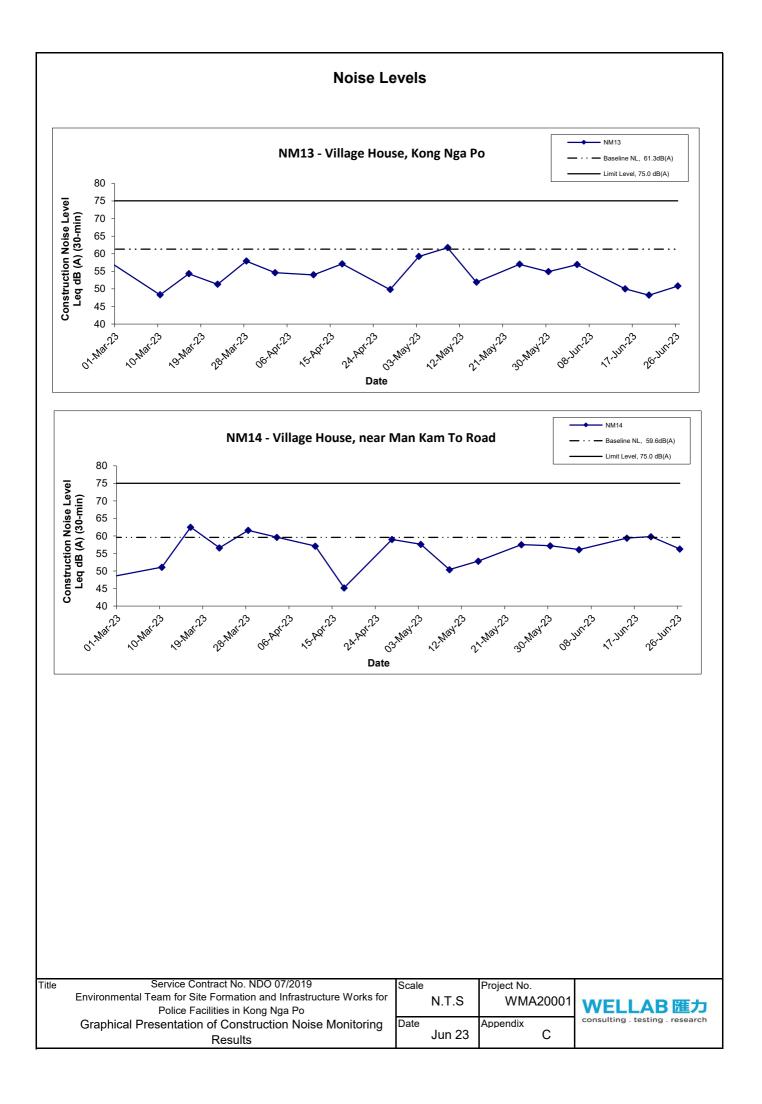
APPENDIX C NOISE MONITORING GRAPHICAL PRESENTATION











APPENDIX D EVENT ACTION PLANS

Appendix D:

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

		ACTIO	N	
EVENT	ET	IEC	ER	CONTRACTOR
ACTION LEVE	L		·	
1. Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC,ER and Contractor; Repeat measurement to confirm finding; and Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; 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	 Identify source; Inform IEC, ER and Contractor; Advise the WKCDA on the effectiveness of the proposed remedial measure; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; 	 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 	 Confirm receipt of notification of failure in writing; Notify Contractor; and Ensure remedial measures properly implemented. 	 Submit proposals for remedial to ER within 3 working days of notification; Implement the agreed proposals; and Amend proposal if appropriate.

		ACTIC	DN	
EVENT	ET	IEC	ER	CONTRACTOR
LIMIT LEVEL 1.Exceedance for one sample	 7. If exceedance continues, arrange meeting with IEC and ER; and 8. If exceedance stops, cease additional monitoring. 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and the ER informed of the results. 	 Monitor Implementation of remedial measures. 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. 	 Confirm receipt of notification of failure in writing; Notify Contractor; and Ensure remedial measures properly implemented. 	 Take immediate action to avoid furthrt 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; 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss amongst ER, ET, and Contractor on 	 Confirm receipt of notification of failure in writing; Notify Contractor; In consultation with IEC, agree with the Contractor 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3

EVENT		ACTION							
	ET	IEC	ER	CONTRACTOR					
	 5. Carry out analysis of Contractor's working procedures to determine 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. 	 the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Monitor implementation of remedial measures. 	on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedances is abated.	 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; and 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated. 					

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

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

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

WMA20001\App D - Event Action Plan

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

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

EVENT		АСТ	TION	
	ET	IEC	ER	CONTRACTOR
Non- conformity on one occasion	Identify source. Inform IEC and ER. Discuss remedial actions with IEC, ER and Contractor. Monitor remedial actions until rectification has been completed.	Check report.CheckContractor'sworking method.Discusswith ET andContractor on possibleremedial measures.AdviseER oneffectivenessofproposedremedialmeasures.Checkimplementationof remedial measures.	Notify Contractor. Ensure remedial measures are properly implemented	Amendworkingmethodstopreventrecurrenceofnonconformity.Rectifydamageandundertakeadditionalaction necessary.
Repeated Nonconformity	Identify source. Inform IEC and ER. Increase monitoring frequency. Discuss remedial actions with IEC, ER and Contractor. Monitor remedial actions until rectification has been completed. If non-conformity stops, cease additional monitoring.	Checkmonitoringreport.CheckContractor'sworkingmethod.method.Discuss with ET andContractor on possiblecontractor on possibleremedial measures.AdviseERoneffectivenessofproposedremedialmeasures.Superviseimplementationofremedial measures.of	Notify Contractor. Ensure remedial measures are properly implemented.	Amend working methods to prevent recurrence of nonconformity. Rectify damage and undertake additional action necessary.

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

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

APPENDIX E SUMMARY OF EXCEEDANCE

Appendix E: Exceedance Report

(A) Exceedance Report for Air Quality

Reporting Quarter: April to June 2023

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceed to the Con Activities of	Cumulative No. of Exceedance	
8		Action Level	Limit Level	Action Level	Limit Level	recorded
Air Quality	1-hr TSP	0	0	0	0	0

(B) Exceedance Report for Construction Noise

Environmental Monitoring	Parameter No. of non-pro Exceeds		v	to the Co	No. of Exceedance related to the Construction Activities of this Contract	
8		Action Level	Limit Level	Action Level	Limit Level	Exceedance recorded
Noise	L _{eq(30 min.)} dB(A)	0	0	0	0	7

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 I	mpact – Const	truction 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					^
		prior to any loading transfer operations to keep the dusty					
		materials wet during material handing at the stockpile					
		areas.					
		Relevant dust control practices as stipulated in the Air Pollution					
		Control (Construction Dust) Regulation should be adopted:					
		Good Site Management					
		• Good site management is important to help reduce					*
		potential air quality impact down to an acceptable level.					

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

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

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to implement	Location of the	When to	Implementation
	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
Noise Impact	t – Constructio	on Phase		1			
4.4.6	3.2	Good Site Practice	Maintain good site practice	Contractor	Within the	Construction Phase	
		Good site practice and noise management can significantly	to minimise / avoid		Project site /		
		reduce the impact of construction site activities on nearby NSRs.	construction noise impact		During		
		The following package of measures should be followed during			construction		
		each phase of construction:			phase / Prior to		
		• Only well-maintained plant to be operated onsite and			commencement		*
		plant should be serviced regularly during the construction			of operation.		
		works;					
		• Machines and plant that may be in intermittent use to be					^
		shut down between work periods or should be throttled					
		down to a minimum;					
		• Plant known to emit noise strongly in one direction,					^
		should, where possible, be orientated to direct noise away					
		from the NSRs;					
		• Mobile plant should be sited as far away from NSRs as					^
		possible; and					
		• Material stockpiles and other structures to be effectively					^
		utilised, where practicable, to screen noise from on-site					~
		construction activities.					
4.4.6	3.2	Adoption of QPME	Minimise/ avoid	Contractor	Within the	Construction Phase	
		• QPME should be adopted as far as applicable.	construction noise				^

Appendix F – Implementation Schedule and Recommended Mitigation M	easures
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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	v Impact – Co	nstruction Phase					
5.6.1.1	4.2	General Construction Activities	Maintain good site practices	Contractor	Within the Project	Construction Phase	
		The following measures should be implemented:	to avoid pollution of water		site / During		
		Construction waste, debris and refuse generated on-site	courses		construction phase		^
		should be stored or contained appropriately to prevent					
		them entering nearby watercourses or blocking					
		stormwater drains.					
		Regular off-site removal of these materials should be					^
		maintained to minimise the volume of waste present on					
		the construction site at any one time.					
		• Stockpiles of construction materials such as cement and					^

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

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

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		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					

Appendix F – Implementation Schedule and Recommended Mitigation Measures

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					

Appendix F – Im	plementation	Schedule and	Recommended	Mitigation Measures

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 Manag	gement 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		

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		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	

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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		

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		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					

Appendix F – Implementation Schedule and Recommended Mitigation Measures

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
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 Contan	nination – Con	struction 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	

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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					

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		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 In	mpact						
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		

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
		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 (R	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					

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
-	-	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					

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	Log	(What Measures)	recommended Measures	the measures?	measures	Implement the	Status
	Ref		& Main Concerns to	(Who)	(Where)	measures?	
			address (What			(When)	
			Requirements)				
-	-	acts – Construction Phase				1	1
Table 10.11	Table	CM01: Trees / woodland within the Project Site which are	Preserve and protect	Contractor	Project area /	Design and	*
	9.1	unaffected by the works shall be protected and preserved during	existing trees		During design	construction phase	
		the detailed design stage and construction phase. The tree			stage /		
		preservation proposals shall be coordinated with the layout and			construction phase		
		design of the engineering and architectural works at detailed			/ Establishment		
		design stage for further retention of individual trees. The			Period		
		preservation of existing tree shall provide instant greening and					
		screening effect for proposed works.					
		Tree protection works will be undertaken in accordance with					
		DEVB TC(W) 7/2015 on "Tree Preservation" and tree risk					
		assessment in accordance with "Guidelines for Tree Risk					
		Assessment and Management Arrangement" by DEVB.					
Table 10.11	Table	CM02: If removal of trees unavoidable due to construction	Preserve and protect	Contractor	Project area /	Design and	^
	9.1	impacts, trees will be transplanted where technically feasible in	existing trees		During design	construction phase	
		accordance with "Guidelines on Tree Transplanting" by DEVB			stage /		
		and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for			construction phase		
		Tree Transplanting Works under Highways Department's			/ Establishment		
		Vegetation Maintenance Ambit where applicable.			Period		
Table 10.11	Table	CM03: Construction area control, where possible, to ensure that	Minimise landscape and	Contractor	Project area /	Construction phase	^

Appendix F – Implementation Schedule and Recommended Mitigation Measures

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

Appendix F – Imi	plementation	Schedule and	Recommended	Mitigation Measures
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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		^

Appendix F – Implementation Schedule and Recommended Mitigation Measures

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				

Appendix F – Implementation Schedule and Recommended Mitigation Measures

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					

Appendix F -	 Implementation 	Schedule and	Recommended	Mitigation Measures

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		

Appendix F – Implementation Schedule and Recommended Mitigation	on Measures
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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				

Appendix F – Implementation Schedule and Recommended Mitigation Measures

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

Appendix	x F – Imple	mentation	Schedule and	Recommended	Mitigation	Measures

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		

Appendix F – Implementation Schedule and Recommended Mitigation Measures

Implementation status: ^ Mitigation measure was fully implemented

* Observation/reminder was made during site audit but improved/rectified by the contractor

Observation/reminder was made during site audit but not yet improved/rectified by the contractor

X Non-compliance of mitigation measure

• Non-compliance but rectified by the contractor

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

APPENDIX G SITE AUDIT SUMMARY

Appendix G: Site Audit Summary

Parameters	Date	Observations	Follow Up Action
Air Quality		No environmental deficiency was identified during the reporting month.	
Construction Noise Impact		No environmental deficiency was identified during the reporting month.	
	06/04/2023	Wheel washing facilities should be provided for the temporary site exit near Portion B1.	The temporary site exit has been closed by the Contractor as observed during follow-up audit session on 14/04/2023.
	06/04/2023	The accumulated sediment at the retention pond at Abutment B should be cleared.	The accumulated sediment at the retention pond has been cleared by the Contractor as observed during follow-up audit session on 14/04/2023.
Water Quality	14/04/2023	Provide mitigation measures to avoid muddy surface runoff directly discharging to the KNP Road at the site exit of Feature A.	A concrete bund has been erected at the site exit to direct surface runoff / wheel washing water for treatment before discharging out as observed during follow-up audit session on 28/04/2023.
	21/04/2023	The wetsep maintenance records at Portion B1 should be updated.	The wetsep maintenance records have been updated by the Contractor as observed during follow-up audit session on 28/04/2023.
	21/04/2023	Provide mitigation measures to avoid muddy surface runoff directly discharging to the KNP Road at the site exit of Feature A.	A concrete bund has been erected at the site exit to direct surface runoff / wheel washing water for treatment before discharging out as

Table G-1: Observations and Recommendations of Site Audit in April 2023

Parameters	Date	Observations	Follow Up Action
			observed during follow-up audit session on 28/04/2023.
	21/04/2023	The collected muddy water at the retention pond at Abutment B should be pumped to the wetsep for treatment more frequently.	The collected muddy water has been pumped to the wetsep for treatment regularly by the Contractor as observed during follow-up audit session on 28/04/2023.
	28/04/2023	The exposed slope at F16 should be covered properly with tarpaulin sheet.	Rectification/improvement was not observed during the follow-up audit sessions. Further follow-up on this item is required.
	06/04/2023	The accumulated construction wastes at Portion B1 and Feature A should be cleared regularly.	The accumulated construction wastes have been cleared by the Contractor as observed during follow-up audit session on 14/04/2023.
	06/04/2023	The used cement bags should be cleared or properly covered before disposal at near dog unit.	The used cement bags have been cleared by the Contractor as observed during follow-up audit session on 14/04/2023.
Waste/ Chemical Management	14/04/2023	The general refuse which were not disposed properly should be cleared at deck surface.	The general refuse at deck surface has been cleared by the Contractor as observed during follow-up audit session on 21/04/2023.
	21/04/2023	The oil leakage at the drip tray for chemical containers at Abutment B should be cleared as chemical waste.	The oil leakage at the drip tray has been cleared as chemical waste by the Contractor as observed during follow-up audit session on 28/04/2023.
	28/04/2023	The soil, debris and construction materials / wastes inside the protective fence and or deposited	Rectification/improvement was not observed during the follow-up audit sessions. Further follow-up on this

Parameters	Date	Observations	Follow Up Action
		around the trunk of <i>Keteleeria fortunes</i> should be cleared as soon as possible.	item is required.
Landscape and Visual	28/04/2023	The soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of <i>Keteleeria</i> <i>fortunes</i> should be cleared as soon as possible.	Rectification/improvement was not observed during the follow-up audit sessions. Further follow-up on this item is required.
	06/04/2023	The temporary protective fence should be properly erected and maintained for <i>Keteleeria fortunei</i> .	The temporary protective fence has been properly erected by the Contractor as observed during follow-up audit session on 14/04/2023.
Ecology	06/04/2023	The construction waste materials at near the tree protection zone for <i>Keteleeria fortunei</i> should be cleared.	The construction waste materials at near the tree protection zone have been cleared by the Contractor as observed during follow-up audit session on 14/04/2023.
	28/04/2023	The soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of <i>Keteleeria</i> <i>fortunes</i> should be cleared as soon as possible.	Rectification/improvement was not observed during the follow-up audit sessions. Further follow-up on this item is required.
Permit/Licences		No environmental deficiency was identified during the reporting month.	

Parameters	Date	Observations	Follow Up Action
Air Quality	19/05/2023	The used cement bags at RD-A should be covered or cleared properly.	The used cement bags have been cleared by the Contractor as observed during follow-up audit session on 25/05/2023.
Construction Noise Impact		No environmental deficiency was identified during the reporting month.	
	05/05/2023	The channel next to the bridge should be protected to avoid the muddy surface runoff directly discharging out.	The drainage channel has been separated from the exposed site area by sand bag bund to avoid muddy surface runoff directly discharging out by the Contractor as observed during follow-up audit session on 11/05/2023.
	05/05/2023	The exposed slope at F16 should be covered properly with tarpaulin sheet.	The exposed slope has been covered with tarpaulin sheet by the Contractor as observed during follow-up audit session on 11/05/2023.
Water Quality	19/05/2023	Water quality mitigation measures should be provided at all site exit along Kong Nga Po Road to avoid muddy water discharging out.	A cut off drain has been provided at the site exit to direct the wheel wash water to avoid its discharging to the KNP road directly as observed during follow-up audit session on 25/05/2023.
	19/05/2023	Protection of existing water drainage systems at the near slope F16 should be conducted to avoid muddy water discharge directly.	The sand bag bund has been provided to block the drainage channel to discharge the muddy surface runoff by the Contractor as observed during follow-up audit session on 02/06/2023.

Table G-2: Observations and Recommendations of Site Audit in May 2023

Parameters	Date	Observations	Follow Up Action
Waste/ Chemical Management	05/05/2023	The air compressor at Portion B1 should be checked and maintained to avoid the oil leakage and the oil contaminated soil should be cleared as chemical wastes.	No further oil leakage was observed and the oil contaminated soil have been cleared as chemical waste by the Contractor as observed during follow-up audit session on 11/05/2023.
	05/05/2023	The soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of <i>Keteleeria</i> <i>fortunes</i> should be cleared as soon as possible.	The soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of <i>Keteleeria</i> <i>fortunes</i> have been cleared by the Contractor as observed during follow-up audit session on 11/05/2023.
	19/05/2023	The waste around the waste skip should be cleared properly and the waste skip should be covered to avoid wind-blown waste at Portion B1.	The waste around the waste skip have been cleared properly and the waste skip has also been covered by the Contractor as observed during follow-up audit session on 25/05/2023.
Landscape and Visual	05/05/2023	The soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of <i>Keteleeria fortunes</i> should be cleared as soon as possible.	The soil, debris and construction materials / wastes inside the protective fence and or deposited around the trunk of <i>Keteleeria fortunes</i> have been cleared by the Contractor as observed during follow-up audit session on 11/05/2023.
	19/05/2023	Tree protection works should be conducted at C37 to avoid damage on trees due to the works nearby.	Tree protection works have been provided for the retained trees by the Contractor as observed during follow-up audit session on 25/05/2023.
Ecology	05/05/2023	The soil, debris and construction materials / wastes inside the	The soil, debris and construction materials / wastes inside the

Parameters	Date	Observations	Follow Up Action				
		around the trunk of Keteleeria	protective fence and or deposited around the trunk of <i>Keteleeria</i> <i>fortunes</i> have been cleared by the Contractor as observed during follow-up audit session on 11/05/2023.				
Permit/Licences		No environmental deficiency was identified during the reporting month.					

Parameters	Date	Observations	Follow Up Action
	16/06/2023	The site exit / entrance at Feature 4 should be paved and the water from wheel washing should be properly collected and treated before discharging out.	Concrete bund was provided to avoid the water from wheel washing discharging out as observed during follow-up audit session on 23/06/2023. The effectiveness of mitigation measures would be reviewed from time to time subject to the site condition.
Air Quality	23/06/2023	The door of air compressor should be closed and maintenance should also be provided to avoid heavy smoke emission (Portion B1).	The door of air compressor was closed and no further heavy smoke emission as observed during follow-up audit session on 30/06/2023.
	30/06/2023	The used cement bags should be cleared or covered at Feature A.	The used cement bags have been cleared by the Contractor as observed during follow-up audit session on 07/07/2023.
	30/06/2023	NRMM labels should be provided for the roller, excavator and generator at Feature A.	NRMM labels have been provided for the plant equipment by the Contractor as observed during follow-up audit session on 07/07/2023.
Construction Noise Impact	23/06/2023	The door of air compressor should be closed and maintenance should also be provided to avoid heavy smoke emission (Portion B1).	The door of air compressor was closed and no further heavy smoke emission as observed during follow-up audit session on 30/06/2023.
	02/06/2023	The site boundary along the water-filled barriers should be sealed to avoid the muddy surface runoff leaking out (near dog unit).	The site boundary along the water-filled barriers have been sealed by the Contractor as observed during follow-up audit session on 09/06/2023.
Water Quality	09/06/2023	Mud trail was found outside the site exit of Portion B1, RD-A, Feature A and Feature 4. The Contractor was reminded to clean up the mud trails and provide a proper wheel washing area and avoid the wheel washing water discharging out directly.	No further mud trail was observed outside the site exit of Portion B1, RD-A and Feature A and those site exit has been closed as observed during follow-up audit session on 16/06/2023.

Table G-3: Observations and Recommendations of Site Audit in June 2023

Parameters	Date	Observations	Follow Up Action		
	16/06/2023	The site exit / entrance at Feature 4 should be paved and the water from wheel washing should be properly collected and treated before discharging out.	Concrete bund was provided to avoid the water from wheel washing discharging out as observed during follow-up audit session on 23/06/2023. The effectiveness of mitigation measures would be reviewed from time to time subject to the site condition.		
	23/06/2023	Provide mitigation measures to avoid muddy surface runoff from temporary site drainage channel directly discharging out (Portion B1).	Sand bag bund was provided to protect the existing drainage by the Contractor as observed during follow-up audit session on 30/06/2023.		
	30/06/2023	The water-filled barriers should be deployed along the works area at Feature A completely to avoid the leakage of soil / debris outside the site boundary.	Follow up action is required for this item in the upcoming site audit session.		
	30/06/2023	The exposed slopes at Feature A should be covered with tarpaulin sheet.	Follow up action is required for this item in the upcoming site audit session.		
Waste/ Chemical Management	16/06/2023	The accumulated construction wastes at Feature A should be cleared regularly.	The accumulated construction wastes have been cleared by the Contractor as observed during follow-up audit session on 23/06/2023.		
Landscape and Visual	30/06/2023	The construction materials / wastes at near the trees should be removed (Feature A).	Follow up action is required for this item in the upcoming site audit session.		
Ecology	02/06/2023	The construction materials at near the retained trees should be removed (near dog unit).			

Parameters	Date	Observations	Follow Up Action				
	16/06/2023	The protective fence enclosing the flora species of conservation importance should be properly maintained.	The protective fence has been replaced and properly erected by the Contractor as observed during follow-up audit session on 23/06/2023.				
Permit/Licences		No environmental deficiency was identified during the reporting month.					

APPENDIX H WASTE GENERATION IN THE REPORTING PERIOD

		Actual	Quantities of In	nert C&D Waste	Generated Mo	nthly	Actual Quantities of C&D Waste Generated Monthly				
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.00304	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00304
Feb	0.00699	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00699
Mar	0.01294	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01294
Apr	0.02173	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02173
May	0.02534	0.00000	0.00000	0.00000	0.01329	0.00000	0.00000	0.00000	0.00000	0.00000	0.01205
Jun	0.10368	0.00000	0.00000	0.00000	0.00687	0.00000	0.00000	0.00000	0.00000	0.00000	0.09681
Sub-Total	0.17372	0.00000	0.00000	0.00000	0.02016	0.00000	0.00000	0.00000	0.00000	0.00000	0.15355
Jul	33.65416	0.00000	0.00000	33.07233	0.07872	0.00000	0.00000	0.00000	0.00000	0.00000	0.50311
Aug	26.60619	0.00000	0.00000	25.47880	0.48478	0.00000	0.00000	0.00000	0.00000	0.00000	0.64260
Sep	50.56237	0.00000	0.00000	48.88600	0.45676	0.00000	0.00000	0.00000	0.00000	0.00000	1.21961
Oct	41.97128	0.00000	0.00000	41.63335	0.02784	0.00000	0.00000	0.00000	0.00000	0.00000	0.31009
Nov	62.67238	0.00000	0.00000	61.98935	0.09226	0.00000	0.00000	0.00000	0.00000	0.00000	0.59077
Dec	61.43492	0.00000	0.00000	52.40582	8.76826	0.00000	0.00000	0.00000	0.00000	0.00000	0.26083
Total	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056

		Actual	Quantities of In	nert C&D Waste	Generated Mo	nthly		Actual Quantitie	es of C&D Waste	Generated Mont	hly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Cumulative in 2020	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056
Jan	44.91877	0.00000	0.00000	20.33601	24.31886	0.00000	0.00000	0.00000	0.00000	0.00000	0.26389
Feb	13.08831	N/A	N/A	9.64034	3.40955	N/A	N/A	N/A	N/A	N/A	0.03841
Mar	35.52359	N/A	N/A	19.92956	15.50902	N/A	N/A	N/A	N/A	N/A	0.08501
Apr	42.22569	N/A	11.95500	7.21197	22.96688	N/A	N/A	N/A	N/A	N/A	0.09183
May	9.09491	N/A	4.13844	4.47821	0.43554	N/A	N/A	N/A	N/A	N/A	0.04272
Jun	40.50170	N/A	22.95720	16.78316	0.68899	N/A	N/A	N/A	N/A	N/A	0.07235
Sub-Total	462.42797	0.00000	39.05064	341.84492	77.25764	0.00000	0.00000	0.00000	0.00000	0.00000	4.27477
Jul	38.56656	N/A	2.04766	34.19166	2.26520	N/A	N/A	N/A	N/A	N/A	0.06204
Aug	32.57509	N/A	3.80440	23.63834	4.94379	N/A	N/A	N/A	N/A	N/A	0.18856
Sep	14.56695	N/A	13.46440	0.00000	0.99677	N/A	N/A	N/A	N/A	N/A	0.10578
Oct	6.10194	N/A	5.02740	0.00000	0.96228	N/A	N/A	N/A	N/A	N/A	0.11225
Nov	15.41373	N/A	14.04710	0.00000	1.25681	N/A	N/A	N/A	N/A	N/A	0.10982
Dec	16.44356	N/A	15.59920	0.00000	0.73992	N/A	N/A	N/A	N/A	N/A	0.10444
Total	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767

		Actual	Quantities of I	nert C&D Waste	Generated Mo	nthly		Actual Quantitie	es of C&D Waste	Generated Montl	nly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Cumulative up to 2021	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767
Jan	15.52131	N/A	14.62310	0.00000	0.75883	0.00000	0.00000	0.00000	0.00000	0.00000	0.13939
Feb	0.75965	N/A	0.00000#	0.00000	0.68681	0.00000	0.00000	0.00000	0.00000	0.00000	0.07283
Mar	11.42694	N/A	11.19380	0.00000	0.13435	0.00000	0.00000	0.00000	0.00000	0.00000	0.09879
Apr	21.11792	N/A	20.93220	0.00000	0.03174	0.00000	0.00000	0.00000	0.00000	0.00000	0.15399
May	23.62989	N/A	22.75850	0.00000	0.78923	0.00000	0.00000	0.00000	0.00000	0.00000	0.08216
Jun	50.32256	N/A	49.84710	0.00000	0.38282	0.00000	0.00000	0.00000	0.00000	0.00000	0.09264
Sub-Total	708.87407	0.00000	212.39550	399.67493	91.20618	0.00000	0.00000	0.00000	0.00000	0.00000	5.59747
Jul	55.65088	N/A	54.26760	0.00000	0.37304	0.91776	0.00000	0.00000	0.00000	0.00000	0.09247
Aug	43.19611	N/A	29.70000	0.00000	8.72599	4.69637	0.00000	0.00000	0.00000	0.00000	0.07375
Sep	36.80396	N/A	33.21960	0.00000	3.50538	0.00000	0.00000	0.00000	0.00000	0.00000	0.07898
Oct	5.67507	N/A	5.40497	0.00000	0.19936	0.00000	0.00000	0.00000	0.00000	0.00000	0.07074
Nov	0.21425	N/A	0.00000	0.00000	0.10276	0.00000	0.00000	0.00000	0.00000	0.00000	0.11149
Dec	1.48147	N/A	0.00000	0.00000	1.26914	0.00000	0.00000	0.00000	0.00000	0.00000	0.21233
Total	851.89581	0.00000	334.98767	399.67493	105.38185	5.61413	0.00000	0.00000	0.00000	0.00000	6.23723

		Actual	Quantities of In	nert C&D Waste	Generated Mo	nthly	Actual Quantities of C&D Waste Generated Monthly				
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Cumulative up to 2022	851.89581	0.00000	334.98767	399.67493	105.38185	5.61413	0.00000	0.00000	0.00000	0.00000	6.23723
Jan	1.74468	N/A	0.00000	0.00000	1.66413	0.00000	0.00000	0.00000	0.00000	0.00000	0.08055
Feb	6.16174	N/A	0.00000	0.37018	5.71394	0.00000	0.00000	0.00000	0.00000	0.00000	0.07762
Mar	1.48006	N/A	0.00000	0.00000	1.41025	0.00000	0.00000	0.00000	0.00000	0.00000	0.06981
Apr	0.64705	N/A	0.00000	0.00000	0.59785	0.00000	0.00000	0.00000	0.00000	0.00000	0.04921
May	0.61516	N/A	0.00000	0.00000	0.48302	0.00000	0.00000	0.00000	0.00000	0.00000	0.13215
Jun	0.93964	N/A	0.00000	0.00000	0.89660	0.00000	0.00000	0.00000	0.00000	0.00000	0.04303
Sub-Total	863.48415	0.00000	334.98767	400.04510	116.14764	5.61413	0.00000	0.00000	0.00000	0.00000	6.68960
Jul	0.00000	N/A									
Aug	0.00000	N/A									
Sep	0.00000	N/A									
Oct	0.00000	N/A									
Nov	0.00000	N/A									
Dec	0.00000	N/A									
Total	863.48415	0.00000	334.98767	400.04510	116.14764	5.61413	0.00000	0.00000	0.00000	0.00000	6.68960

	Forecast of Total Quantities of C&D Materials to be Generated from the Contract [*]										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse	
(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	
630.500	0.000	190.000	358.000	78.000	0.000	0.000	0.000	0.000	0.000	4.500	

Notes:

(1) Not Used.

(2) The waste flow table shall also include C&D materials that are specified in this contract to be imported for use at the Site

(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.

(4) The summary table shall be submitted to the Supervisor monthly together with the Waste Flow Table for review and monitoring in accordance with the PS Clause 25.20A(4)

(5) The density of inert C&D is assumed 2.2 tonnes per cubic meter

(6) The density of non-inert C&D is assumed 1.5 tonnes per cubic meter

(7) The C&D materials generated before Jul 2020 are from domestic activities, site investigation, clearance, and preparation for surveying works

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

*The quantity of Inert Materials reused in the contract to be updated upon surveying record

APPENDIX I COMPLAINT LOG

Appendix I - Complaint Log

Reporting Quarter: April to June 2023

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-001	EP3/N07/RN/18746- 20	Kong Nga Po Road	19 th August 2020	The complainant complained about the construction noise nuisance of the Kong Nga Po Road and requested noise monitoring and mitigation measures to lower the noise level.	 According to the results from regular noise monitoring, no Limit Level Exceedance was recorded at sensitive receivers since the commencement of the construction of the Project. In addition, there was no environmental deficiency regarding construction noise impact recorded during site inspection. It is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works in July and August 2020. Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow: Erect noise isolating mat at Portion B1 to reduce noise nuisance arising from the site Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site, such as: Selection of guieter plant; Provision of sufficient noise mitigation measures (e.g. movable noise barrier, noise enclosure. acoustic shed, noise insulating fabric etc.) for the site activities on nearby NSRs where appropriate. To strengthen site supervision and provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
	EPD Log Ref. EP3/N07/RN/ 21538-20	Location Kong Nga Po Road		The complainant complained about the polluting effluent discharged from construction site, leading to flooding and pollution problem.	 to the nearby residents during working hours as well as restricted hours. According to EM&A Manual of the Project, the complaint was referred to the ET for investigation. Adhoc site inspections were conducted by ET and IEC to identify the source of the complaint, review the effectiveness of the Contractor's remedial measures and the updated situation once received the complaint. According to the site inspection finding, no muddy effluent discharged from Portion D entrance was observed at Kong Nga Po Road. Wastewater generated from wheel washing, construction works or surface runoff was collected and treated in wastewater treatment facilities. Wastewater treatment facilities were functioning properly. No Limit Level exceedance for pH, suspended solid and chemical oxygen demand was recorded in effluent discharge monitoring. In order to avoid any circumstances that may lead to the complaint, ET and IEC have recommended enhancement on water quality mitigation measures. The Contractor had undertaken the follow up actions and additional mitigation measures on drainage system to minimize the water quality impact arising from the construction works as follow: Provision of soil berm at edge near retaining 	Closed
					wall DAM Bay 43-46Setting up of wastewater treatment facilities near wheel washing bay	

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					 Re-formation of haul road in Portion D Provision of soil berm near Platform B Increase in capacity of retention pit near Platform B Reinforcement of soil berm near excavation area and near retaining wall at Portion D to minimize water leakage Regular maintenance of clear U-channel which was blocked by natural debris at Kong Nga Po Road Nevertheless, the Contractor was reminded to ensure the wastewater generated from construction works must comply with the condition stated in the Effluent Discharge license and enhance sediment control measure regarding storm water management to assure 	
					no muddy water is being discharged from the construction site. The environmental conditions of the site and the control of works will be continuously reviewed and monitored by the Supervisor, ET and IEC.	
C-003	N/A	Kong Nga Po Road	8 th October 2020	The complainant complained about the muddy water discharged from construction site into Kong Nga Po Road during heavy rainfall. Also, he concerned if there is illegal discharge	muddy effluent discharge was observed on road surface and road drainage along the Kong Nga Po road section from construction site to the location of complaint during rainfall. Also, no direct slope surface and pathway for muddy water outflew from the site to the location of complaint was observed. Potential source of	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				and if the design of drainage system is sufficient to handle the discharge.	natural surface runoff from shrubland and grassland along the Kong Nga Po Road during heavy rainfall. Continuous improvement works on the temporary	
C-004	N/A	Kong Nga Po Road	28 th October 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and water pollution problem.	 drainage system at Project site have been conducted for water pollution control since September 2020. Regular checking were carried out by the Contractor to ensure the system is working properly. All wastewater were collected and treated to ensure discharge comply with condition stated in the Effluent Discharge Licence. In addition, the Contractor has taken the following mitigation measures to minimize the water quality impact arising from the construction works: Regular inspection and maintenance on sediment control measure at Project site; <i>Ad-hoc</i> inspection on the water pollution control measures at Project site before onset of the typhoon; Regular maintenance record on wastewater treatment facilities; and Provision of vegetated filter strips at outer side of existing soil berms and slope surface to act as natural filtration for water pollution control. The environmental condition of the site and the control of work will be continuously reviewed and monitored by the Supervisor, ET and IEC. 	

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-005	N/A	Slope Feature A at Kong Nga Po Road	28 th October 2020	The complainant complained about the noise generated from the construction activities at Slope Feature A that caused annoyance to his family.	 According to the results from regular noise monitoring, no Limit Level exceedance was recorded at sensitive receivers during the time of complaint. In addition, there was no environmental deficiency regarding construction noise impact was recorded during site inspection. In view of the above, it is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works. Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow: Setting up of double layers of noise barrier to block the transmission of noise from breaking point to Noise Sensitive Receivers; Conducting internal noise monitoring to ensure the noise mitigation measures are properly implemented; and To check and maintain the noise insulating fabric enclosed the noisy part of the breaker. Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site , such as To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; To provide regular training to the workers to 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					 increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours; To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area 	
C-006	N/A	Portion C at Kong Nga Po Road	30 th November 2020	The complainant complained about the noise nuisance from the construction activities at Portion C on Kong Nga Po Road.	No complaint investigation is required as this complaint has been withdrawn by the complainant.	Closed
C-007	N/A	Portion C at Kong Nga Po Road	30 th November 2020	The complainant complained about the muddy water discharged from construction site into nearby drainage system and some oil slicks observed at the downstream of the drainage.	No complaint investigation is required as this complaint has been withdrawn by the complainant.	Closed
C-008	EP3/N07/RN/8845- 21	Near Lamp Post BD2370 at Kong Nga Po Road	19 th April 2021	The complainant complained about suspected dumping soil at nullah, causing blockage and flooding near lamp post BD2370.	According to the finding of <i>ad-hoc</i> site inspection conducted by the Contractor, no excavation nor construction works were carried out by ND/2018/01 near Lamp Post BD2370. Slope excavation was carrying out at Slope Feature 3NW-C/C38, the disposal was recorded and controlled by trip ticket system. Existing U-channel near slope toe had been covered	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					and surface runoff was guided to sedimentation tank by submersible pump. No discharge was taken place due to dry season and excavation was not a wastewater- generated activity.	
					 Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow: Excavated slop had been covered by erosion mat Strictly implemented trip ticket system to monitor the C&D waste disposal Deployed sufficient submersible pump and wastewater treatment facilities for the surface runoff treatment 	
C-009	N/A	Kong Nga Po Road (Feature A)	22 nd October 2021	The complainant complained about noise generated from rock breaking activities at Construction Site caused nuisance to his family and the village.	In addition, Contractor has also undertaken the follow up action as follow:	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					 To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; o provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours; and To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area. 	
C-010	N/A	Kong Nga Po Road	18 th November 2021	The complainant complained about noise and vibration generated from sheet-piling works and rock breaking works for pipe laying works at Kong Nga Po Road	 Noise mitigation measures have been implemented for sheet-piling works as below: noisy part of sheet-piling plant has been enclosed by sound insulation materials; proactive environmental protection proforma has been prepared to identify the potential noise impact to NSRs and corresponding mitigation measures has been implemented; toolbox talk training for site engineers and frontline workers on construction noise suppression has been conducted. In addition, noise mitigation measures have been implemented for rock breaking activities as below: hammer of the excavator has been wrapped by 	Closed

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

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					Enhancement on the noise mitigation measures such as strengthening the use of noise barriers to enclose the noise source from rock breaking works and controlling the working period to avoid continuous noisy works will also be implemented for upcoming rock breaking works.	
C-011	N/A	Kong Nga Po Road near 警察訓 練學校	22 nd December 2021	The complainant complained about soil / muddy water discharging out from construction site near 警察訓練學校at Kong Nga Po Road	 vehicles and plants leaving the works areas; the section before the site exits have been paved with backfall to prevent the wheel washing water 	Closed
C-012	N/A	Works Area Near Lamp Post	3 rd May 2022	The complainant complained about the following issues:	The main construction works near the complaint location as stated by the complainant was the pre- boring works at works area "S0131" from 21 April	Closed

Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
		GD0460 at Kong Nga Po Road		 Noise from construction activities that caused nuisance to public Vibration may cause damage to nearby structure Suspected muddy water discharged into private drainage 	 during the investigation as below: <u>Noise & Vibration</u> Additional noise barrier has been erected for the pre-boring works to minimize the noise transmitted to the noise sensitive receiver (NSR) even the line of sight between the noise source point and the NSR was blocked by the natural barrier. 	

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

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					 self-monitoring on vibration at the nearby Sensitive Receiver was conducted on 21 June 2022 and the result showed a vibration level of 0.348 mm/s that was far lower than the Peak Particle Velocity Limits of 15mm/s feasibility of alternative working methods to further minimize the vibration to nearby Sensitive Receivers for upcoming pre-boring works at other works area will be considered by the Contractor 	
C-014	N/A	Works Area Near Lamp Post GD0460 at Kong Nga Po Road	17 th Aug 2022	The complainant complained about the muddy surface runoff flowing from the construction site into the private lots during rainy days	According to the finding of ad-hoc site inspection conducted during raining on 13 August 2022, the surface runoff was flowing from the carriageway surface and passing through Kong Nga Po Bridge works area, where had been hard paved, to the lower drainage. No muddy water generated from the construction works area was observed. The discharged effluent from the wastewater treatment system has been sampled on 24 July 2022 and the test report showed a result of Total Suspended Solid of < 1mg/L which complied with the requirement of < 30mg/L as stipulated in Discharge Licence. In addition, the suspected complaint location is an existing low-lying area even before the commencement of the construction. The water accumulation at the suspected location of complaint is considered due to the existing terrain according to the initial topographic	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					However, additional clearance works for the existing drainage would be conducted to clear the soil accumulated in the drainage brought from nearby existing earth and to ensure no blockage of the drainage.	
C-015	EP3/N07/RN/03386- 23	Construction sites along the Kong Nga Po Road	7 th Feb 23	The complainant complained about the sand and mud brought onto the traffic road by the dump trucks due to improper wheel washing before leaving the construction sites along the Kong Nga Po Road.	According to the investigation, Kong Nga Po Road involves different road users besides the construction site under Contract No. ND/2018/01 including some workshops and container yards while they also have interfaces with the public traffic road and vehicle in- and-out activities. Referring to the site inspection, no sand and mud at the site exit points were observed. Wheel washing measure was provided and wheel washing has been implementing at site exit points. As a preventive measures, workers performed road washing regularly to maintain cleanliness at interfaces. Based on the site condition and observations abovementioned, the complaint is considered non- project-related.	Closed
C-016	N/A	Works area "RD-D" at Kong Nga Po Road	6 th Mar 23	The complainant complained about dust generated from construction activities without proper dust suppression measures	 Site clearance and materials exportation works were conducting at the time of the complaint. The works were commenced on 2 March 2023 and completed on 8 March 2023. 1) Water spraying has been implementing at the site clearance areas during the works for dust suppression. 2) The surface maintained wet and no construction dust was observed during inspection. 3) the operator has controlled the dropping height from which the materials dropped into the dump bodies of 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					the dump truck to a practical minimum to prevent construction dust generation. According to the video provided by the complainant, the complaint is project related.	
C-017	N/A	Works area "Feature M" at Kong Nga Po Road	16 th Mar 23	The complainant complained about dust generated from construction sites	 According to the video provided by the complainant, the suspected location of complaint was the works area of Platform A under management of another contract where above the works area of Feature M under Contract No. ND/2018/01. 1) Dust was generated from works area at Platform A which is under management of another Contract. 2) Dust generated from works area at Platform A of another contract passing the works area of Feature M under Contract No. ND/2018/01where below Platform A. 3) No construction dust was observed at works area of Feature M during inspection on 18 March 2023. 4) Regular water spraying on exposed earth surfaces has been implementing for dust suppression for the works area of Feature M under Contract No. ND/2018/01. The complaint is project related since part of the location of complaint us under Contract No. ND/2018/01. 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-018	EP3/N07/RN/06950- 23	Works area at RD-C1 at Kong Nga Po Road	15 th Mar 23	The complainant complained about noise generated from construction activities	 Sheet piles removal works under the Contract No. ND/2018/01 at works area of RD-C1 was commenced on 9 March 2023 and completed on 18 March 2023. Noise mitigation measures have been implemented during the works: 1) The view from the suspected location of complaint to noise source point of the sheet piles removal works has been blocked by the physical structure. 2) Self-monitoring on noise level at the suspected location of complaint has been conducted on 15 March 2023 during the sheet piles removal works. No Limit Level, 75B(A) exceedance was recorded. 	Closed
C-019	N/A	Works Area – Feature M at Kong Nga Po Road	16 th June 2023	Public complaint via 1823 received by DSD on 16 June 2023 and referred to CEDD on 21 June 2023. The complainant concerned the muddy water discharge from outfall and potential impact to the downstream natural stream during heavy rain.	 The complaint is not project-related due to the investigation results as follow: - 1) manholes have been covered and no rain water can enter the drainage system at Feature M. 2) the level of manholes opening is higher than the backfill level of the platform and no surface runoff can enter the drainage system at Feature M. 3) no muddy water or surface runoff entering the drainage system at Feature M was observed. 4) the treatment of surface runoff at Feature M has followed the Temporary Drainage Management Plan (TDMP) rev. H that the surface runoff is diverted into and captured at the retention pit and then pumped into the Wastewater Treatment Plant at Abutment B for treatment before discharging into the existing catch pit. 5) the existing catch pit used for discharging the treated effluent is not connected to the newly 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					 constructed outfall. 6) monthly sampling and testing for discharged effluent from the wastewater treatment plant has been conducted on 30 June 2022 and no exceedance was recorded. 	

Cumulative Complaint Log

Reporting Period	Total no. of Complaint Received
This reporting quarter	1
From 3 rd July 2020 to end of the reporting month	19

APPENDIX J SUMMARY OF SUCCESSFUL PROSECUTION Appendix J - Summary of Successful Prosecution

Reporting Quarter: April to June 2023

Date of Successful Prosecution			Follow Up	