Service Contract No. NDO 05/2024

Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas

5th Monthly Environmental Monitoring and Audit (EM&A) Report (May 2025)

Civil Engineering and Development Department

Revision: 2

2025-06-19

aurecon

Bringing ideas to life

MOTT MACDONALD

Project Manager (North)
North Development Office
Civil Engineering and Development Department
Unit 1501, Level 15, Tower I, Metroplaza
223 Hing Fong Road
Kwai Fong, New Territories

Attention: Mr. CHEUNG Fu Keung, Tommy – Chief Engineer / North 1

Your Reference

Our Reference
EC/TC/kl/601100430/L039

3/F Manulife Place
348 Kwun Tong Road
Kowloon
Hong Kong

T +852 2828 5757
F +852 2827 1823
mottmac.hk

Agreement No. CE 81/2023 (EP)
Independent Environmental Checker for Environmental Monitoring and Audit Works in Construction Phase for the Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas – Investigation

Monthly Environmental Monitoring and Audit Report (No. 5) (May 2025)

26 June 2025

BY EMAIL

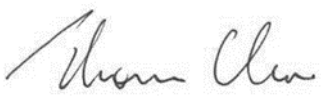
Dear Sir,

We refer to email of 23 June 2025 attaching the 5th Monthly Environmental Monitoring and Audit Report (No. 5) prepared by the Environmental Team (ET) of the captioned.

We would like to inform you that we have no adverse comment on the captioned submission. Therefore, we write to verify the captioned submission in accordance with the Condition 3.4 of the Environmental Permit no. EP-465/2013/A, EP-466/2013/A, EP-467/2013/A, EP-468/2013/A, EP-470/2013/A, EP-471/2013/A, EP-472/2013/A, and EP-476/2013.

Should you have any queries, please contact the undersigned or our Ms. Kimmy Lui at 2828 5953.

Yours faithfully,
For and on behalf of the
Mott MacDonald Hong Kong Limited



Ir Thomas Chan
Independent Environmental Checker
T +852 2828 5967
Thomas.Chan@mottmac.com

c.c.

CEDD	Mr. C.M. OR	cmor@cedd.gov.hk
	Mr. Bruce Lee	kylee@cedd.gov.hk
Aurecon	Mr. Keith Chau	Keith.Chau@aurecongroup.com
	Mr. Ray Yan	Ray.Yan@aurecongroup.com

Document control record

Document prepared by:

Aurecon Hong Kong Limited

Unit 1608, 16/F, Tower B, Manulife Financial Centre,
223 – 231 Wai Yip Street, Kwun Tong, Kowloon
Hong Kong S. A. R.

T +852 3664 6888
F +852 3664 6999
E hongkong@aurecongroup.com
W aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.

b) Using the documents or data for any purpose not agreed to in writing by Aurecon.

Document control						aurecon
Report title		5th Monthly Environmental Monitoring and Audit (EM&A) Report (May 2025)				
Document code		EM&A-04	**Project number**		P527789	
File path						
Client		Civil Engineering and Development Department				
Client contact			**Client reference**			
Rev	**Date**	**Revision details/status**	**Author**	**Reviewer**	**Verifier** (if required)	**Approver**
0	06/06/2025	Preliminary First Draft	Edgar Yu	Ray Yan		Keith Chau
1	13/06/2025	First Draft	Edgar Yu	Ray Yan		Keith Chau
2	19/06/2025	Second Issue	Edgar Yu	Ray Yan		Keith Chau
Current revision		**2**				

Approval			
Author signature		Certified by	
Name	Edgar Yu	Name	Keith Chau
Title	Environmental Team Consultant	Title	Environmental Team Leader

Contents

EXECUTIVE SUMMARY I

1 INTRODUCTION 1

1.1 PROJECT BACKGROUND 1
1.2 PROJECT ORGANISATION 2
1.3 CONSTRUCTION WORKS PROGRAMME AND CONSTRUCTION WORKS AREA 3
1.4 SUMMARY OF ENVIRONMENTAL STATUS 5

2 AIR QUALITY MONITORING 7

2.1 MONITORING REQUIREMENT 7
2.2 MONITORING LOCATION 7
2.3 MONITORING PARAMETER AND FREQUENCY AND DURATION 8
2.4 MONITORING EQUIPMENT 8
2.5 MONITORING METHODOLOGY AND QA/QC PROCEDURE 9
2.6 ACTION AND LIMIT LEVEL FOR AIR QUALITY MONITORING 12
2.7 RESULTS AND OBSERVATIONS 13
2.8 EVENT AND ACTION PLAN 14

3 CONSTRUCTION NOISE MONITORING 15

3.1 MONITORING REQUIREMENTS 15
3.2 MONITORING LOCATIONS 15
3.3 NOISE MONITORING PARAMETER, FREQUENCY AND DURATION 16
3.4 MONITORING EQUIPMENT, METHODOLOGY AND QA / QC PROCEDURE 17
3.5 MAINTENANCE AND CALIBRATION 18
3.6 ACTION AND LIMIT LEVELS 18
3.7 RESULTS AND OBSERVATIONS 19
3.8 EVENT AND ACTION PLAN 20

4 WATER QUALITY 21

4.1 MONITORING REQUIREMENT 21
4.2 RESULT AND OBSERVATIONS 21

5 WASTE MANAGEMENT 22

6 ECOLOGY 24

6.1 INTRODUCTION 24
6.2 MONITORING REQUIREMENTS 24
6.3 RESULTS AND OBSERVATIONS 26
6.4 EVENT AND ACTION PLAN 36

7 LANDSCAPE AND VISUAL 37

7.1 AUDIT REQUIREMENTS 37
7.2 RESULTS AND OBSERVATIONS 37
7.3 EVENT AND ACTION PLAN 37

8 LAND CONTAMINATION (AMBIENT ARSENIC MONITORING) 38

8.1 MONITORING REQUIREMENTS 38
8.2 MONITORING LOCATIONS 38
8.3 MONITORING EQUIPMENT 39
8.4 MONITORING PARAMETERS, FREQUENCY AND DURATION 39
8.5 MONITORING METHODOLOGY AND QA/QC PROCEDURE 40
8.6 MAINTENANCE/CALIBRATION 41
8.7 LABORATORY MEASUREMENT / ANALYSIS 41
8.8 RESULT AND OBSERVATIONS 42
8.9 EVENT AND ACTION PLAN 42

9 LANDFILL GAS MONITORING 43

9.1 MONITORING REQUIREMENTS 43
9.2 MONITORING LOCATIONS 43
9.3 RESULT AND OBSERVATIONS 44

10 ENVIRONMENTAL SITE INSPECTION AND AUDIT 45

10.1 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES 45

11 SUMMARY OF MONITORING EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS 49

11.1 SUMMARY OF EXCEEDANCE 49
11.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE 49
11.3 SUMMARY OF ENVIRONMENTAL COMPLAINT 49
11.4 SUMMARY OF ENVIRONMENTAL SUMMON AND SUCCESSFUL PROSECUTION 49

12 FUTURE KEY ISSUES 50

12.1 WORKS AND POTENTIAL ENVIRONMENTAL ISSUES IN THE NEXT REPORTING PERIOD 50
12.2 RECOMMENDATION 52

13 CONCLUSIONS 54

13.1 CONCLUSION 54
13.2 COMMENTS/ RECOMMENDATIONS 54

Figures

Figure 1.1 Location and Site Layout Plan (KTN)
Figure 1.2 Location and Site Layout Plan (FLN)
Figure 2.1 Location of Air Quality Monitoring Stations for KTN NDA
Figure 2.2 Location of Air Quality Monitoring Stations for FLN NDA
Figure 3.1 Location of Noise Monitoring Stations for KTN NDA
Figure 3.2 Location of Noise Monitoring Stations for FLN NDA
Figure 6.1 Transect Routes for Non-aquatic Fauna Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution (T1, T4 and T6), Aquatic Fauna Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley (MS_01 - MS_10), and Waterbirds Monitoring of Measures to Minimise Disturbance to Waterbird (T3 and T5) for KTN NDA
Figure 6.2 Transect Routes for Non-aquatic Fauna Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution (T2 and T3), Aquatic Fauna Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley (MS_11 - MS_15), and Waterbirds Monitoring of Measures to Minimise Disturbance to Waterbird (T1, T2 and T4) for FLN NDA
Figure 8.1 Location of Ambient Arsenic Monitoring Stations for KTN NDA

Appendices

Appendix 1.1 Construction Programme
Appendix 1.2 Project Organization Chart
Appendix 1.3 Implementation Status of Environmental Mitigation Measure
Appendix 2.1 Impact Monitoring Schedule during the reporting period
Appendix 2.2 Impact Air Quality Monitoring Data & Graphical Presentations & Calibration Certificates
Appendix 2.3 Weather Information during the Reporting Period
Appendix 2.4 Event and Action Plan for Construction Dust
Appendix 3.1 Impact Noise Monitoring Data & Graphical Presentations & Calibration Certificates
Appendix 3.2 Event and Action Plan for Construction Noise
Appendix 5.1 Summary of Monthly Waste Flow Table
Appendix 6.1 Detailed Results of the Ecological Waterbird Monitoring during this Reporting Period
Appendix 6.2 Detailed Results of the Ecological Aquatic Monitoring during this Reporting Period
Appendix 6.3 Detailed Results of the Ecological Non-aquatic Monitoring during this Reporting Period
Appendix 6.4 Event and Action Plan for Ecological Monitoring
Appendix 7.1 Event and Action Plan for Landscape and Visual
Appendix 8.1 Impact Ambient Arsenic Monitoring Data & Graphical Presentations &Calibration Certificates (sourced from the First Phase ET)
Appendix 8.2 Event and Action Plan for Ambient Arsenic Monitoring
Appendix 11.1 Statistical Summary of Environmental Complaints, Summons and Prosecution
Appendix 12.1 Impact Monitoring Schedule of Next Reporting Month

Executive Summary

Introduction

A1. This is the 5th Monthly Environment Monitoring and Audit (EM&A) Report for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas (the Project). This report was prepared by Aurecon Hong Kong Limited (Aurecon) under Service Contract No. NDO 05/2024 Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas - Environmental Team (hereinafter called the "Service Contract").

A2. Since only construction works were undertaken under Works Contract No. ND/2024/01, Works Contract No. ND/2024/04, Works Contract No. ND/2024/06 and Works Contract No. ND/2024/07 during the reporting month, this report documents the findings of EM&A works at Works Contract No. ND/2024/01, Works Contract No. ND/2024/04, Works Contract No. ND/2024/06 and Works Contract No. ND/2024/07 under the Project during the reporting period only. No construction works occurred in the remaining contracts during the reporting period for Works Contract No. ND/2024/02, ND/2024/03, ND/2024/05 and ND/2024/08.

A3. This Project involves nine (9) Environmental Permits (EPs) (i.e. EP-465/2013/A, EP-466/2013/A, EP-467/2013/A, EP-468/2013/A, EP-470/2013/A, EP-471/2013/A, EP-472/2013/A, EP-473/2013/A and EP-476/2013). Details of each EPs are summarised in **Table A1**.

Table A1 Works Contracts under relevant Environmental Permits in the Reporting Month

Environmental Permit No.	Works Contracts	Title of Designated Project	Designated Project (DP)
EP-465/2013/A	ND/2024/03 ND/2024/04 ND/2024/05	NENT - San Tin Highway and Fanling Highway Kwu Tung Section Widening (Between San Tin Interchange and Po Shek Wu Interchange)	DP1
EP-466/2013/A	ND/2024/03 ND/2024/05	NENT - Castle Peak Road Diversion	DP2
EP-467/2013/A	ND/2024/01 ND/2024/03 ND/2024/05	NENT - Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	DP3
EP-468/2013/A	ND/2024/01 ND/2024/02	Kwu Tung North New Development Area Road D1 to D5	DP4
EP-469/2013	-	Sewage Pumping Stations in Kwu Tung North New Development Area	DP5
EP-470/2013/A	ND/2024/06	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	DP7

Environmental Permit No.	Works Contracts	Title of Designated Project	Designated Project (DP)
EP-471/2013/A	ND/2024/04	Po Shek Wu Interchange Improvement	DP8
EP-472/2013/A	ND/2024/08	Fanling Bypass Western Section	DP9
EP-473/2013/A	-	Fanling Bypass Eastern Section	DP10
EP-474/2013	-	Shek Wu Hui Sewage Treatment Works - Further Expansion at Fanling North New Development Area	DP11
EP-476/2013	ND/2024/07 ND/2024/08	NENT - Sewage Pumping Stations in Fanling North New Development Area (FLNDA)	DP13

Key Construction Works in the Reporting Period

A4. Apart from the construction works undertaken under Works Contract No. ND/2024/01 since 20 January 2025, construction works under Works Contract No. ND/2024/07 commenced since 27 February 2025, construction works under Works Contract No. ND/2024/06 commenced since 10 March 2025 and construction works under Works Contract No. ND/2024/04 has also been commenced since 10 May 2025. No construction works occurred in the remaining Works Contracts (i.e. Works Contract No. ND/2024/02, ND/2024/03, ND/2024/05 and ND/2024/08) during the reporting period. The commencement dates of each Works Contracts are summarized in **Table A2**.

Table A2 Commencement Dates of Each Works Contracts

Works Contracts	Commencement Dates
ND/2024/01	20 January 2025
ND/2024/02	Not Commenced
ND/2024/03	Not Commenced
ND/2024/04	10 May 2025
ND/2024/05	Not Commenced
ND/2024/06	10 March 2025
ND/2024/07	27 February 2025
ND/2024/08	Not Commenced

A5. A summary of construction activities undertaken during the reporting period is presented below:

Works Contract No. ND/2024/01:

- All Site Resumption Area(s)
    1. Tree survey

2. Site Clearance

- Portion VI (6)
    1. Ground Investigation Works
- Portion IX (9)
    1. Ground Investigation Works
- Portion XXII (22) and Portion XLIV (44)
    1. Ground Investigation Works
- Portion XL (40)
    1. Excavation, Mixing with General fill & Backfilling
- Portion XVI (16), XLII (42) and LIII (53)
    1. Asbestos Abatement Work
- Portion LIX (59)
    1. Setting Up of High Arsenic-Containing Soil (HAS) Treatment Plant

<u>Works Contract No. ND/2024/04:</u>

- Site Clearance
- Site Establishment
- Tree works
- Demolition of existing structures
- Pre-drilling

<u>Works Contract No. ND/2024/06:</u>

- Excavation to +108 mPD of Portion A;
- Excavation of trench of Portion C
- Watermain laying of Portion D

<u>Works Contract No. ND/2024/07:</u>

- Site Clearance
- Site Formation
- Ground Investigation
- Construction of Site Accommodation
- Pre-bored Socketed H Pile Construction
- Sheet Piling
- Pile Cap Construction
- Foundation Works at Footbridge FB4 &FB5

- UU Diversion
- Tree Felling
- Asbestos Containing Materials Survey
- Land Contamination Investigation
- Internal Movement, Importation & Exportation of C&D materials

Works Contract No. ND/2024/02, ND/2024/03, ND/2024/05 and ND/2024/08.

- No Construction Work during reporting period.

Environmental Monitoring and Audit Programme

The environmental monitoring activities, including 1-hour Total Suspended Particulates (TSP) monitoring, 24-hour TSP monitoring, noise monitoring, ecological survey, 24-hour Respirable Suspended Particulates (RSP) (Ambient Arsenic) monitoring for land contamination and environmental site inspection, were undertaken by Environmental Team (ET) under Service Contract No. NDO 04/2019 (i.e. First Phase ET – Wellab) and under Service Contract No. NDO 05/2024 (i.e. Remaining Phase ET Aurecon) during the reporting period in accordance with the approved Updated EM&A Manual. A summary of the monitoring and audit activities during the reporting period is presented in **Table A3**.

Table A3 Summary of EM&A Activities in the Reporting Period

		Works Contract(s)[5]							
EM&A Activities	Monitoring Station(s)	ND/2024/01	ND/2024/02	ND/2024/03	ND/2024/04	ND/2024/05	ND/2024/06	ND/2024/07	ND/2024/08
1-hour TSP Monitoring[1]	KTN-DMS1[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	KTN-DMS2[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	KTN-DMS3[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	KTN-DMS4(B)[2][3]	2, 8, 14, 20, 26, 30 May 2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS1[2]	N/A	N/A	N/A	N/A	N/A	N/A	3, 9, 15, 21, 27 May 2025	N/A
	FLN-DMS2[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS3[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS4[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS5[2]	N/A	N/A	N/A	N/A	N/A	N/A	2, 8, 14, 20, 26, 30 May 2025	N/A
	FLN-DMS6(A)[2][3]	N/A	N/A	N/A	10, 15, 21, 27 May 2025[7]	N/A	N/A	N/A	N/A
	FLN-DMS7[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24-hour TSP Monitoring[1]	KTN-DMS1[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EM&A Activities	Monitoring Station(s)	Works Contract(s)[5]							
		ND/2024/01	ND/2024/02	ND/2024/03	ND/2024/04	ND/2024/05	ND/2024/06	ND/2024/07	ND/2024/08
	KTN-DMS2[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	KTN-DMS3[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	KTN-DMS4(B)[2][3]	2, 8, 14, 20, 26, 30 May 2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS1[2]	N/A	N/A	N/A	N/A	N/A	N/A	2, 8, 14, 20, 26, 30 May 2025	N/A
	FLN-DMS2[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS3[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS4[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-DMS5(A)[2][3]	N/A	N/A	N/A	N/A	N/A	N/A	2, 8, 14, 20, 26, 30 May 2025	N/A
	FLN-DMS6(A)[2][3]	N/A	N/A	N/A	10, 15, 21, 27 May 2025[7]	N/A	N/A	N/A	N/A
	FLN-DMS7[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Noise Monitoring[1]	CP-KTN-NMS1[2]	3, 10, 15, 21, 27 May 2025[7]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	CP-KTN-NMS2[2]	8, 14, 20, 26 May 2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	CP-KTN-NMS3[2]	8, 14, 20, 26 May 2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	CP-KTN-NMS4[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	CP-KTN-NMS5[2]	N/A	N/A	N/A	N/A	N/A	8, 14, 20, 26 May 2025	N/A	N/A
	CP-KTN-NMS6[2]	8, 14, 20, 26 May 2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	CP-KTN-NMS7[2]	3, 10, 15, 21, 27 May 2025[7]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	CP-FLN-NMS1[2]	N/A	N/A	N/A	N/A	N/A	9, 15, 21, 27 May 2025		N/A
	CP-FLN-NMS3[2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	CP-FLN-NMS4(A)[2][3]	N/A	N/A	N/A	10, 15, 21, 27 May 2025[7])	N/A	N/A	N/A	N/A
	CP-FLN-NMS5[2]	N/A	N/A	N/A	N/A	N/A	N/A	3, 10, 15, 21, 27 May 2025[7]	N/A
	CP-FLN-NMS6[2]	N/A	N/A	N/A	N/A	N/A	N/A	3, 10, 15, 21, 27 May 2025[7]	N/A

		Works Contract(s)[5]							
EM&A Activities	**Monitoring Station(s)**	**ND/2024/01**	**ND/2024/02**	**ND/2024/03**	**ND/2024/04**	**ND/2024/05**	**ND/2024/06**	**ND/2024/07**	**ND/2024/08**
Ecological Monitoring [6]	Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung River, Sheung Yue River, and Long Valley	Weekly Monitoring: 8, 9, 12, 16, 22, 23, 26, 27 May 2025[4] (Transect T1, T2, T3, and T5)	N/A	N/A	Weekly Monitoring: 6, 9, 14, 16, 19, 22, 26, 30 May 2025[4] (Transect T4)	N/A	Weekly Monitoring: 8, 9, 12, 16, 22, 23, 26, 27 May 2025[4] (Transect T1, T2, T3)	Weekly Monitoring: 6, 8, 9, 12, 14, 16, 19, 22, 23, 26, 27, 30 May 2025[4] (Transect T1, T2, T3, T4)	N/A
	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream	Monthly Monitoring: 15 May 2025[4] (MS_01 – MS_10)	N/A	N/A	N/A	N/A	N/A	Monthly Monitoring: 15 May 2025[4] (MS_11 – MS_15)	N/A
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	Monthly Monitoring: 13 May 2025[4] (Transect T1)	N/A	N/A	N/A	N/A	Monthly Monitoring: 21 May 2025[4] (Transect T2)	Monthly Monitoring: 20 May 2025 [4] (Transect T3)	N/A
24-hour RSP (Ambient Arsenic) Monitoring for Land Contamination [1]	KTN-DMS-4A[2][3]	2, 8, 14, 20, 26, 30 May 2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Quality Monitoring[1]	KTN-IS1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	KTN-CS1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-IS1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FLN-CS1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Landfill Gas Monitoring	250m Landfill Consultation Zone of Ma Tso Lung Landfill	N/A[8]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Site Inspection	Site Area under Works Contract No. ND/2024/01	9, 13, 20, 27 May 2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Site Area under Works Contract No. ND/2024/04	N/A	N/A	N/A	13, 23, 30 May 2025	N/A	N/A	N/A	N/A

EM&A Activities	Monitoring Station(s)	Works Contract(s)[5] ND/2024/01	ND/2024/02	ND/2024/03	ND/2024/04	ND/2024/05	ND/2024/06	ND/2024/07	ND/2024/08
	Site Area under Works Contract No. ND/2024/06	N/A	N/A	N/A	N/A	N/A	7, 14, 19, 30 May 2025	N/A	N/A
	Site Area under Works Contract No. ND/2024/07	N/A	N/A	N/A	N/A	N/A	N/A	8, 15, 22, 29 May 2025	N/A

Remarks:

(1) For 1-hour and 24-hour TSP & 24-hour RSP (Ambient Arsenic) monitoring, monitoring stations that are specifically within the 500m buffer area projected from the site boundary of works contract(s) will be considered being the representative monitoring stations for the corresponding works contract(s) and the associated impact monitoring exercises will be kicked off once the nearest works contracts have been commenced and undertaken during the reporting period/month.

For Noise Monitoring, monitoring stations that are specifically within the 300m buffer area projected from the site boundary of works contract(s) will be considered being the representative monitoring stations for the corresponding works contract(s) and the associated impact monitoring exercises will be kicked off once the nearest works contracts have been commenced and undertaken during the reporting period/month.

For Water Quality Monitoring, monitoring stations at which inland waters runs into the major water systems, including their tributaries, passing through the site boundary of works contract(s) involving construction of channelisation works, potentially causing water quality impacts as a result of water bodies contamination, will be considered being the representative monitoring stations for the corresponding works contract(s) involving construction of channelisation works as the rationale for determination of contract involvement in terms of environmental monitoring.

(2) New monitoring station IDs are presented. The corresponding monitoring station IDs are as follows:

1-hr and 24-hr TSP / 24-hr RSP (Ambient Arsenic)	Noise
KTN-DMS1 = DMS1	CP-KTN-NMS1 = CP-NMS1
KTN-DMS2 = DMS2	CP-KTN-NMS2 = CP-NMS2
KTN-DMS3 = DMS3	CP-KTN-NMS3 = CP-NMS3
KTN-DMS4(A)/4(B) = DMS4	CP-KTN-NMS4 = CP-NMS5
FLN-DMS1 = DMS7	CP-KTN-NMS5 = CP-NMS7
FLN-DMS2 = DMS9	CP-KTN-NMS6 = N/A
FLN-DMS3 = DMS11	CP-KTN-NMS7 = CP-NMS4
FLN-DMS4 = DMS6	CP-FLN-NMS1 = CP-NMS10
FLN-DMS5/5(A) = DMS8	CP-FLN-NMS3 = CP-NMS12
FLN-DMS6(A) = DMS10	CP-FLN-NMS4(A) = CP-NMS6
FLN-DMS7 = DMS5	CP-FLN-NMS5 = CP-NMS8
	CP-FLN-NMS6 = CP-NMS9

(3) Alternative monitoring stations to the corresponding original monitoring stations.

(4) The monitoring date for May 2025 was conducted by the ET from the First Phase of KTN/FLN NDAs Project, except Transect T4 for the ecological monitoring item Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung River, Sheung Yue River, and Long Valley, and Transect T2 for the ecological monitoring item Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution.

(5) N/A – No relevant monitoring is required according to the approved updated EM&A Manual.

(6) Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung River, Sheung Yue River, and Long Valley; Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution and Monitoring of Measures to Minimize Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream were conducted by the First Phase ET of the KTN/FLN NDAs Project except Transect T4 (waterbird monitoring) and Transect T2 (monitoring of ecological sensitive habitats).

(7) The monitoring date for May 2025 was conducted by the ET from the Remaining Phase of KTN/FLN NDAs Project.

(8) As confirmed by the Supervisor Team, no ground disturbance works were carried out in the work area within 250m Landfill Consultation Zone of Ma Tso Lung Landfill including construction of the infrastructure, development works, excavation works and works involve confined spaces. Routine gas monitoring should be undertaken during groundwork construction and in all excavations.

Breaches of Action Levels (AL) and Limit Levels (LL)

A6. Summary of the environmental exceedances of the reporting period is tabulated in **Table A4.**

Table A4 Summary of Exceedances in the Reporting Period

Environmental Monitoring	Parameter(s)	No. of Exceedances		Total No. of Exceedances	No. of Non-project Related Exceedances		Total No. of Non-project Related Exceedances	No. of Exceedances Related to the Project		Total No. of Exceedances Related to the Project
		AL	LL		AL	LL		AL	LL	
Air Quality	1-hour TSP	0	0	0	0	0	0	0	0	0
	24-hourTSP	0	0	0	0	0	0	0	0	0
	24-hour RSP (Ambient Arsenic)	0	0	0	0	0	0	0	0	0
Noise	$L_{eq(30mins)}$	0	0	0	0	0	0	0	0	0
Ecological Monitoring	Avifauna	0	0	0	0	0	0	0	0	0
	Aquatic fauna	0	0	0	0	0	0	0	0	0
	Non-aquatic fauna	0	0	0	0	0	0	0	0	0

Air Quality

A7. No AL or LL exceedance was recorded for air quality monitoring in the reporting period.

Noise

A8. No AL or LL exceedance was recorded for construction noise monitoring in the reporting period.

Ambient Arsenic

A9. No AL or LL exceedance was recorded for ambient arsenic monitoring in the reporting period.

Ecological Monitoring

A10. No AL or LL exceedance was recorded for ecological monitoring in the reporting period.

Complaint Log

A11. No environmental complaint was received in the reporting period.

Notification of Summons and Successful Prosecutions

A12. No notification of summons or successful prosecutions was received in the reporting period.

Reporting Changes

A13. There was no change to be reported that may affect the on-going EM&A programme.

Future Key Issues

A14. The major site activities for the next reporting period are summarized below and shown in **Appendix 1.1**:

Contract No. ND/2024/01:

- All Site Resumption Area(s)
    1. Tree survey
    2. Site Clearance
- Portion XL (40)
    1. Excavation, Mixing with General fill & Backfilling
    2. Construct Retaining Wall & Backfilling
- Portion LIX (59)
    1. Site Clearance
    2. Setting Up including T&C of High Arsenic-Containing Soil (HAS) Treatment Plant

Contract No. ND/2024/03

- Portion XVI
    1. Site Clearance and Tree Works
    2. Watermain and Sewer Pipe Laying
- Portion IX
    1. Asbestos Removal Works
- Portion XI
    1. Site Clearance and Tree Works
    2. Ground Investigation
- TTA stage 1 Works
    1. Tree Works
    2. Demolish of Central Divider & Barrier
- TTA stage 1B
    1. Site Clearance
- TTA stage 3
    1. Predrilling & Piling Works
- Works Areas – WA1, WA2, WA3 & WA4
    1. Site Clearance and Site Formation
    2. Hoarding Works
    3. Asbestos Removal Works

Contract No. ND/2024/04

- Site Clearance

- Site Establishment
- Tree works
- Demolition of existing structures
- Pre-drilling

Contract No. ND/2024/06

- Forming Haul Road beside Existing THFWSR For Excavation Works of Portion A;
- Transplantation of fern (2nd batch);
- Ground investigation works
- Slope trimming and soil nailing works of cut slope S1 & S2 / access road of Portion A;
- Preservation Works for Plant with Conservation Importance (2nd Stage);
- Demolition of DN2000 pipes and associated thrust blocks of Portion D &
- Watermains laying works at Fu Tei Au Road of Portion C

Contract No. ND/2024/07

- Site Clearance
- Site Formation
- Construction of Site Accommodation
- Pre-bored Socketed H Pile Construction
- Pile Cap Construction
- Foundation Works at Footbridge FB4 & FB5
- Tree Felling & Transplantation
- Sewerage Construction
- Asbestos Containing Materials Removal (subject to approval of AAP by EPD)
- Archaeological Impact Assessment
- Land Contamination Investigation
- Internal Movement, Importation & Exportation of C&D materials

1 Introduction

1.1 Project Background

1.1.1 The KTN/FLN NDAs development are implemented in two phases, comprising First Phase and Remaining Phase developments. The construction works for the First Phase development commenced in December 2019. The construction works for the Remaining Phase development (the Project), including site clearance and formation, roads, drainage, sewerage and water supply systems, commenced progressively from the January 2025.

1.1.2 The Project is delivered under eight (8) Works Contracts as below.

- Contract No. ND/2024/01: Site Formation and Infrastructure Works (South);
- Contract No. ND/2024/02: Site Formation and Infrastructure Works (North);
- Contract No. ND/2024/03: Improvement Works of Fanling Highway (Kwu Tung Portion) and Associated Works;
- Contract No. ND/2024/04: Improvement Works of Tai Tau Leng Roundabout and Po Shek Wu Road and Associated Works;
- Contract No. ND/2024/05: Improvement Works of Fanling Highway (Pak Shek Au Portion) and Associated Works;
- Contract No. ND/2024/06: Fresh Water and Flushing Water Service Reservoirs and Associated Works;
- Contract No. ND/2024/07: Site Formation and Infrastructure Works (East); and
- Contract No. ND/2024/08: Site Formation and Infrastructure Works (West).

1.1.3 The EIA Report (AEIAR-175/2013) for NENT NDA was approved with conditions under EIAO in 2013. The Environmental Permits for corresponding Designated Projects were also issued by DEP in November 2013. Subsequent to the findings of preliminary design and P&E Review for accommodating additional population in KTN and FLN NDAs, VEP were subsequently applied for nine EPs under the Project (i.e. EP-465/2013/A, EP-466/2013/A, EP-467/2013/A, EP-468/2013/A, EP-470/2013/A, EP-471/2013/A, EP-472/2013/A, EP-473/2013/A and EP-476/2013).

1.1.4 Aurecon was commissioned by Civil Engineering and Development Department (CEDD) to provide EM&A services for the works contracts in relation to the Project pursuant to the requirements as specified in relevant EPs, the EM&A Manual issued in the EIA stage, the Updated EM&A Manual prepared for Contract No. NDO 14/2018 and the approved EIA Report for the Project to discharge the duties of the ET for the Project.

1.1.5 This is the 5th Monthly EM&A Report summarizing the findings of EM&A works at Works Contract No. ND/2024/01 under the Project with EP-467/2013/A and EP-468/2013/A, Works Contract No. ND/2024/04 under the Project with EP-465/2013/A and EP-471/2013/A, Works Contract No. ND/2024/06 under Environmental Permit No. EP-470/2013/A and for Contract No. ND/2024/07 under Environmental Permit No. EP-476/2013 during the reporting period from 01 to 31 May 2025. No construction works occur in the remaining contracts during the reporting period for Contract No. ND/2024/02, ND/2024/03, ND/2024/05 and ND/2024/08..

1.2 Project Organisation

1.2.1 Parties with different levels of involvement in the Project organisation for Works Contracts are summarized in **Table 1.1.**

Table 1.1 Parties Involved in Project Organization for all Works Contracts

	Works Contract(s)							
Parties	**ND/2024/01**	**ND/2024/02**	**ND/2024/03**	**ND/2024/04**	**ND/2024/05**	**ND/2024/06**	**ND/2024/07**	**ND/2024/08**
Project Proponent	CEDD							
Supervisor / Engineer's Representative (ER)	AECOM Asia Co. Ltd.	-	-	AECOM Asia Co. Ltd	-	Binnies Hong Kong Limited	AtkinsRéalis	-
Contractor	Build King – Richwell Engineering Joint Venture (BKJV)	-	-	Chun Wo Construction and China Railway Construction Corporation Limited Joint Venture	-	Wo Hing-Tsun Yip Joint Venture	Build King – Richwell Engineering Joint Venture (BKJV)	-
ET	Aurecon Hong Kong Limited							
Independent Environmental Checker (IEC)	Mott MacDonald Hong Kong Limited							

1.2.2 The key personnel contact names and contact numbers are summarized in **Appendix 1.2**.

1.3 Construction Works Programme and Construction Works Area

1.3.1 The construction phase EM&A programme commenced since 20 January 2025 progressively. The construction works programme, and the construction works area of the Project are shown in **Appendix 1.1** and **Figure 1.1** respectively. A summary of construction activities undertaken during the reporting period is presented below:

Works Contract No. ND/2024/01:

- All Site Resumption Area(s)
    1. Tree survey
    2. Site Clearance
- Portion VI (6)
    1. Ground Investigation Works
- Portion IX (9)
    1. Ground Investigation Works
- Portion XXII (22) and Portion XLIV (44)
    1. Ground Investigation Works
- Portion XL (40)
    1. Excavation, Mixing with General fill & Backfilling
- Portion XVI (16), XLII (42) and LIII (53)
    1. Asbestos Abatement Work
- Portion LIX (59)
    1. Setting Up of High Arsenic-Containing Soil (HAS) Treatment Plant

Works Contract No. ND/2024/04:

- Site Clearance
- Site Establishment
- Tree Works
- Demolition of existing structures
- Pre-drilling

Works Contract No. ND/2024/06:

- Excavation to +108 mPD of Portion A;

- Excavation of trench of Portion C;
- Watermain laying of Portion D

Work Contract No. ND/2024/07:

- Site Clearance
- Site Formation
- Ground Investigation
- Construction of Site Accommodation
- Pre-bored Socketed H Pile Construction
- Sheet Piling
- Pile Cap Construction
- Foundation Works at Footbridge FB4 &FB5
- UU Diversion
- Tree Felling
- Asbestos Containing Materials Survey
- Land Contamination Investigation
- Internal Movement, Importation & Exportation of C&D materials

1.4 Summary of Environmental Status

1.4.1 A summary of the relevant permits, licences, and/or notifications on environmental protection for the work contracts that are involved in this reporting period is presented in **Table 1.2 to Table 1.5.**

Table 1.2 Status of Environmental License, Notifications and Permits for Works Contract No. ND/2024/01

Permit / License Name/No.	Valid Period		Status
	From	To	
Environmental Permit			
EP-467/2013/A	27/01/2017	N/A	Valid
EP-468/2013/A	27/01/2017	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
10008709	02/09/2024	N/A	Valid
Billing Account for Disposal of Construction Waste			
7052236	20/09/2024	N/A	Valid
Registration of Chemical Waste Producer			
WPN: 5213-548-B2781-01	06/12/2024	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
WT00045924-2024	15/01/2025	31/01/2030	Valid
Construction Noise Permit (CNP)			
GW-RN0060-25	20/01/2025	19/07/2025	Valid

Table 1.3 Status of Environmental License, Notifications and Permits for Works Contract No. ND/2024/04

Permit / License Name/No.	Valid Period		Status
	From	To	
Environmental Permit			
EP-465/2013/A	20/01/2017	N/A	Valid
EP-471/2013/A	10/10/2022	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
10012919	N/A	N/A	Under Application
Billing Account for Disposal of Construction Waste			
7053746	13/02/2025	N/A	Valid
Registration of Chemical Waste Producer			
WPN:5213-626-C5043-25	28/01/2025	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
10017727	N/A	N/A	Under Application
Construction Noise Permit (CNP)			
GW-RN0504-25	04/05/2025	31/07/2025	Valid

Table 1.4 Status of Environmental License, Notifications and Permits for Works Contract No. ND/2024/06

Permit / License Name/No.	Valid Period		Status
	From	To	
Environmental Permit			
EP-470/2013/A	13/05/2022	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
10007695	06/08/2024	N/A	Valid
Billing Account for Disposal of Construction Waste			
7051899	28/08/2024	N/A	Valid
Registration of Chemical Waste Producer			
WPN:5213-624-W3824-01	04/09/2024	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
Portion A	15/05/2025	31/05/2030	Valid
Portion D	29/05/2025	31/05/2030	Valid
Construction Noise Permit (CNP)			
GW-RN0267-25	21/03/2025	30/06/2025	Valid

Table 1.5 Status of Environmental License, Notifications and Permits for Works Contract No. ND/2024/07

Permit / License Name/No.	Valid Period		Status
	From	To	
Environmental Permit			
EP-476/2013	21/11/2013	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
10007874	09/08/2024	N/A	Valid
Billing Account for Disposal of Construction Waste			
7051974	20/08/2024	N/A	Valid
Registration of Chemical Waste Producer			
WPN:5213-625-B2775-01	19/08/2024	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
WT00045532-2024	10/12/2024	31/12/2029	Valid
WT00046059-2025	14/02/2025	28/02/2030	Valid
Construction Noise Permit (CNP)			
GW-RN0448-25	24/04/2025	31/10/2025	Valid
GW-RN0570-25	16/05/2025	22/08/2025	Valid
GW-RN0565-25	26/05/2025	30/11/2025	Valid

2 Air Quality Monitoring

2.1 Monitoring Requirement

2.1.1 In accordance with the EM&A Manual, the approved updated EM&A Manual for the First Phase, the ET shall carry out impact monitoring during the construction phase of the Project. 1-hour and 24-hour TSP to monitor the air quality for the Works Contacts.

2.1.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while the impact 24-hour TSP monitoring was conducted for at least once every 6 days at the designated air quality monitoring stations.

2.2 Monitoring Location

2.2.1 According to the EM&A Manual, the approved updated EM&A Manual for the First Phase, the designated locations for impact air quality monitoring in related to the work contracts in the reporting period are listed in **Table 2.1** and their locations are shown in **Figure 2.1 and 2.2**.

Table 2.1 Summary of Impact Air Quality Monitoring Stations in related to the Works Contracts in the Reporting Period

Monitoring Station(s)	Works Contract(s)	ASR ID in EIA	Planned[3] or Existing	Monitoring Location(s)
KTN-DMS1	ND/2024/01	KTN-19	Planned	Nursery Classes and Kindergarten; Post Offices
KTN-DMS2	ND/2024/01	KTN-90	Planned	Nursery Classes and Kindergarten (2 nos); District Elderly Community Centre
KTN-DMS3	ND/2024/01	KTN-326	Planned	Village Resite
KTN-DMS4(B)[1][2]	ND/2024/01	KTN-E70	Existing	Temporary Structure at Pak Shek Au
FLN-DMS1	ND/2024/07	FLN-E62	Existing	Scattered Village Houses North of Proposed Potential Ecopark
FLN-DMS2	ND/2024/06, ND/2024/07	FLN-E243	Planned	Residential Building, Nursery Classes and Kindergartens, Neighbourhood Elderly Community Centre, Residential Home for the Elderly, Post Office
FLN-DMS5, FLN-DMS5(A)	ND/2024/07	FLN-E124	Existing	Noble Hill / Good View New Village
FLN-DMS6(A)	ND/2024/04	DMS-10	Existing	Choi Ngan House, Choi Po Court
FLN-DMS7	ND/2024/06, ND/2024/07	FLN-20	Planned	Planned premise for Weapon Training Division

Remarks:
(1) KTN-DMS4(B) is the alternative air monitoring stations proposed to replace KTN-DMS4.
(2) As KTN-DMS4 - Temporary structure near Fanling Highway (near Pak Shek Au) is no longer as existing ASR, air quality monitoring station should be relocated to the alternative dust monitoring location according to the updated EM&A Manual, Section 2.6.2. According to Figure 3.1 of Approved EIA report and site visits conducted in June 2022, ASR at near KTN-E70 – Temporary Structure near Fanling Highway near Pak Shek Au is considered as the most representative alternative station KTN-DMS4(B) for air quality monitoring for KTN-DMS4 (i.e. KTN-E162).

(3) Impact monitoring will be carried out when the planned sensitive receivers are commissioned.

2.3 Monitoring Parameter and Frequency and Duration

2.3.1 In accordance with the requirements for placement of equipment, as set out of the EM&A Manual of the Project, the approved updated EM&A Manual for the First Phase, the monitoring parameter, frequency and duration of impact air quality monitoring are listed in **Table 2.2**.

Table 2.2 Parameters Measured in the Impact Air Quality Monitoring

Parameter(s)	Frequency[1][2]
1-hour TSP	Three times / 6 days
24-hour TSP	Once / 6 days

Remark:
(1) The air quality monitoring (1-hour and 24-hour TSP) was conducted by First Phase ET during the reporting period.
(2) The air quality monitoring (1-hour and 24-hour TSP) was conducted by Remaining Phase ET during the reporting period.

2.4 Monitoring Equipment

2.4.1 Direct reading dust meters and High-Volume TSP Samplers were used for measuring the impact air quality monitoring (i.e. 1-hour TSP and 24-hour TSP) during the reporting period in accordance with the Service Contract No. NDO 04/2019 Monthly EM&A Report. According to Section 2.4.5 of the EM&A Manual, the approved updated EM&A Manual for First Phase ET, the proposed use of direct reading dust meter was submitted to and agreed by the First Phase IEC. HVS for 24-hour TSP monitoring will be adopted once secured supply of electricity become available at FLN-DMS5(A) and KTN-DMS4(B).

2.4.2 **Table 2.3** summarizes the equipment used in the air quality monitoring programme. Copies of the calibration certificates for air quality monitoring equipment are shown in **Appendix 2.2**.

Table 2.3 Air Quality Monitoring Equipment

Monitoring Station(s)	Equipment	Model	Manufacturer	Quantity
KTN-DMS4(B)[1], FLN-DMS5[1], FLN-DMS5(A)[1]	Dust Monitor (1-hour and 24-hour TSP)	AEROCET-831	Met One Instruments	8
FLN-DMS1[1]	Dust Monitor (1-hour TSP)			
	HVS Sampler (24-hour TSP)	TE-5170	Tisch	1
FLN-DMS6(A)[2]	Dust Monitor (1-hour and 24-hour TSP)	LD-5R	Sibata	1

Remark:
(1) The air quality monitoring (1-hour and 24-hour TSP) was conducted by First Phase ET during the reporting period.
(2) The air quality monitoring (1-hour and 24-hour TSP) was conducted by Remaining Phase ET during the reporting period.

2.5 Monitoring Methodology and QA/QC Procedure

2.5.1 Direct reading dust meter was deployed for the air quality monitoring as shown in **Table 2.3**.

Instrumentation

(AEROCET-831)

2.5.2 The measuring procedures of the dust meters were in accordance with the Manufacturer's Instruction Manual as follows:

- Place the dust meter at least 1.3 meters above ground;
- Press and hold the Power key momentarily to power on the unit and make sure that the battery level was not flash or in low level;
- Allow the instrument to stand for about 3 second to display the Sample Screen minutes;
- Press the START / STOP key to run the internal vacuum pump for 1 minute and be ready to use;
- Use the select dial to select the PM range and press the START / STOP key to start a measurement;
- Finally, push the START/STOP key to stop the measurement after 24-hour sampling;
- Information such as sampling date, time, value and site condition were recorded during the monitoring period; and
- All data were recorded in the data logger for further data processing.

Maintenance/Calibration

2.5.3 The following maintenance/calibration was required for the HVS:

- Check and calibrate the meters by High Volume Sampler (HVS) to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

Instrumentation

(TISCH Model: TE-5170 / TE-5170X)

2.5.4 The following guidelines were adopted during the installation of HVS:

- A horizontal platform with appropriate support was provided to secure the samplers against gusty wind. the dust meter at least 1.3 meters above ground;
- No two samplers were placed less than 2 metres apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 metres of separation from walls, parapets and penthouses was required for rooftop samples.

- A minimum of 2 metres separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.
- Airflow around the sampler was unrestricted.
- The sampler were more than 20 metres from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.
- Permission and access to monitoring stations have been obtained to set up the samplers.
- A secured supply of electricity was provided to operate the samplers.

Filters Preparation

2.5.5 Wellab Limited (HOKLAS Registration No. HOKLAS083) is a HOKLAS accredited laboratory and responsible for the preparation of 24-hour conditioned and pre-weighed filter papers for the monitoring team.

2.5.6 All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25°C and not variable by more than ±3°C; the relative humidity (RH) was < 50% and not variable by more than ±5%. A convenient working RH was 40%.

Operating/Analytical Procedures

2.5.7 Operating/analytical procedures for the air quality monitoring were highlighted as follows:

- Prior to the commencement of dust sampling, the flow rate of the HVS was properly set (between 1.1 m3 /min. and 1.4 m3 /min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50;
- The power supply was checked to ensure the sampler worked properly;
- On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station;
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen;
- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. The filter holding frame was then tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges;
- The shelter lid was closed and secured with the aluminum strip;
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number);
- After sampling, the filter was removed and kept in a clean and tightly sealed plastic bag. The filter paper was then returned to the HOKLAS accredited laboratory (Wellab Ltd.) for

reconditioning in the humidity-controlled chamber followed by accurate weighting by an electronic balance with a readout down to 0.1mg. The elapsed time was also recorded; and

- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and did not vary by more than ±3°C; the RH should be < 50% and did not vary by more than ±5%. A convenient working RH is 40%. Weighing results were returned for further analysis of TSP concentrations collected by each filter

Maintenance/Calibration

2.5.8 The following maintenance/calibration was required for the HVS:

- The high-volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working conditions; and
- All HVS were calibrated (five point calibration) using Calibration Kit prior to the commencement of baseline monitoring and thereafter at bi-monthly intervals.

Instrumentation

(Sibata Model: LD5R)

2.5.9 The measuring procedures of the dust meters were in accordance with the Manufacturer's Instruction Manual as follows:

- Placed the dust meters at least 1.5m above ground
- Set POWER to "ON" and make sure that the battery level not flashed or in low level;
- Pulled the air sampling inlet cover up;
- Pushed the knob at MEASURE position;
- Set time/mode setting to [BG] by pushing the time setting switch. Then, started the background measurement by pushing the start/stop switch once. It took 6 sec. to complete the background measurement;
- Turned knob to SENSI. ADJ position and pressed in;
- Pushed Start/Stop switch once;
- Gently returned knob to the MEASURE position;
- Pushed the time setting switch to change the time setting display to [LOG] at the bottom left of the liquid crystal display;
- Removed the cap and started measurement; and
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period.

Maintenance/Calibration

2.5.10 The following maintenance/calibration was required for the direct reading dust meter:

- Direct reading dust meter shall be used in determining 1-hr TSP and 24-hr TSP at air quality monitoring points. The direct reading dust meters have been calibrated against high volume samplers (HVSs) bi-monthly. A 2-day, three 3-hour measurement results per day from direct reading dust meters were taken to compare with the sampling results from the HVSs. The correlation between the direct reading dust meters and the HVSs were then concluded. By accounting for the correlation factor, the direct reading dust meters are considered to achieve comparable results as that of the HVSs.
- The HVS used to calibrate the direct dust monitor will need to be calibrated bi-monthly. Details of maintenance and calibration for the HVS refers to **Section 2.5.8**. Calibration for the air quality monitoring equipment is attached to the **Appendix 2.2**.

2.6 Action and Limit Level for Air Quality Monitoring

2.6.1 The baseline monitoring results formed the basis for determining the air quality criteria for the impact monitoring. The ET shall compare the impact monitoring results with air quality criteria set up for 1-hour TSP and 24-hour TSP. Based on the baseline dust monitoring data and the derivation criteria specified above, the Action/Limit Levels for 1-hour TSP and 24-hour TSP are presented in **Table 2.4** and **Table 2.5** respectively.

Table 2.4 Action and Limit Levels for 1-hour TSP Air Quality Monitoring

Monitoring Station	AL (μg/m^3)	LL (μg/m^3)
KTN-DMS4(B)	297	500
FLN-DMS1	303	500
FLN-DMS5	279	500
FLN-DMS6(A)	286	500

Table 2.5 Action and Limit Levels for 24-hour of TSP Air Quality Monitoring

Monitoring Station	AL (μg/m^3)	LL (μg/m^3)
KTN-DMS4(B)	192	260
FLN-DMS1	150	260
FLN-DMS5(A)	153	260
FLN-DMS6(A)	157	260

2.7 Results and Observations

2.7.1 Air quality monitoring was conducted as scheduled in the reporting period. The air quality monitoring schedule during the reporting period is shown in the **Appendix 2.1**.

2.7.2 The 1-hour and 24-hour TSP air quality monitoring result in the reporting period are summarized in **Table 2.6 and 2.7**. No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix 2.2**.

2.7.3 The weather information during the reporting period is presented in **Appendix 2.3**.

Table 2.6 Summary Table of 1-hour TSP Monitoring Result during the Reporting Month

Monitoring Station	Averaged Measured Value (μg/m^3)	Minimum Measured Value (μg/m^3)	Maximum Measured Value (μg/m^3)	Action Level (μg/m^3)	Limit Level, (μg/m^3)
KTN-DMS4(B)(1)	60	25	87	297	500
FLN-DMS1(1)	75	44	120	303	500
FLN-DMS5(1)	47	34	69	279	500
FLN-DMS6(A)(2)	35	16	61	286	500

Remark:
(1) The air quality monitoring (1-hour and 24-hour TSP) was conducted by First Phase ET during the reporting period.
(2) The air quality monitoring (1-hour and 24-hour TSP) was conducted by Remaining Phase ET during the reporting period.

Table 2.7 Summary Table of 24-hour TSP Monitoring Result during the Reporting Month

Monitoring Station	Averaged Measured Value (μg/m^3)	Minimum Measured Value (μg/m^3)	Maximum Measured Value (μg/m^3)	Action Level (μg/m^3)	Limit Level, (μg/m^3)
KTN-DMS4(B)(1)	62	38	75	192	260
FLN-DMS1(1)	57	24	81	150	260
FLN-DMS5(A) (1)	48	38	57	153	260
FLN-DMS6(A)(2)	39	32	45	157	260

Remark:
(1) The air quality monitoring (1-hour and 24-hour TSP) was conducted by First Phase ET during the reporting period.
(2) The air quality monitoring (1-hour and 24-hour TSP) was conducted by Remaining Phase ET during the reporting period.

2.7.4 According to the observation record from Monthly EM&A Report (May 2025) prepared under Service Contract No. NDO 04/2019 , the major dust source KTN-DMS4(B), FLN-DMS1, FLN-DMS5 and FLN-DMS5(A) included excavator, crane, breaker, roller, dump truck, concrete mixer truck, road traffic, sheet piling etc. For station conducted by Remaining Phase ET, the major dust source for FLN-DMS6(A) is from road traffic.

2.8 Event and Action Plan

2.8.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 2.4** shall be followed. Investigation of the exceedances of environmental quality performance limits should be conducted, and the ET will immediately notify the IEC and EPD, as appropriate. The notification should be followed up with advice to the IEC and EPD on the results of the investigation, proposed actions and success of the action taken, with any necessary follow-up proposals.

3 Construction Noise Monitoring

3.1 Monitoring Requirements

3.1.1 In accordance with the approved Updated EM&A Manual, the ET shall carry out impact monitoring during the construction phase of the Project in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}) to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station was on a weekly basis and one set of measurements between 0700 and 1900 hours on normal weekdays shall be conducted.

3.2 Monitoring Locations

3.2.1 According to the approved Updated EM&A Manual, the monitoring designated locations for construction noise monitoring in related to the works contracts in the reporting period are listed in **Table 3.1** and shown in **Figure 3.1 and 3.2**.

Table 3.1 Construction Noise Monitoring Stations near in related to the Works Contracts in the Reporting period

Monitoring Station(s)	Works Contract(s)	NSR EIA ID(s)	Location(s)	Planned[2] Or Existing	Type of Measurement
CP-KTN-NMS1	ND/2024/01	CP-NMS1	Residential Building at Ma Tso Lung	Existing	Free-Field[1]
CP-KTN-NMS2	ND/2024/01	CP-NMS2	Residential Building at Ma Tso Lung	Existing	Free-Field[1]
CP-KTN-NMS3	ND/2024/01	CP-NMS3	Fung Kong Garden	Existing	
CP-KTN-NMS4[3]	ND/2024/01	CP-NMS5	Primary School	Planned	
CP-KTN-NMS5	ND/2024/06	CP-NMS7	N/A	Planned	Free-Field[1]
CP-KTN-NMS6	ND/2024/01	N/A	Ho Sheung Heung, Hau Ku ShekAncestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery	Existing	Façade
CP-KTN-NMS7	ND/2024/01	CP-NMS4	Oi Lok Home	Existing	Free-Field[1]
CP-FLN-NMS4(A)[4]	ND/2024/04	CP-NMS6	Choi Ying House, Choi Po Court (Choi Yuen Estate)	Existing	Free-Field[1]
CP-FLN-NMS1	ND/2024/06, ND/2024/07	CP-NMS10	Belair Monte	Existing	Facade
CP-FLN-NMS3[3]	ND/2024/06, ND/2024/07	CP-NMS12	Secondary School	Planned	Free-Field[1]

Monitoring Station(s)	Works Contract(s)	NSR EIA ID(s)	Location(s)	Planned[2] Or Existing	Type of Measurement
CP-FLN-NMS5	ND/2024/07	CP-NMS8	Man Kok Village	Existing	Free-Field[1]
CP-FLN-NMS6	ND/2024/07	CP-NMS9	Woodland Crest	Existing	Façade

Remarks:
(1) For Free Field measurement, +3 dB(A) should be added to the measured results.
(2) Impact monitoring will be carried out when the planned sensitive receivers are commissioned.
(3) As confirmed with Engineer Representative, the planned school at CP-KTN-NMS4 and CP-FLN-NMS3 are not constructed yet. Thus, the impact noise monitoring will be carried out at monitoring station CP-KTN-NMS4 and CP-FLN-NMS3 after the construction and occupation of the planned school. No noise monitoring of the mentioned station was carried out in this reporting period.
(4) Alternative monitoring stations to the corresponding original monitoring stations.

3.3 Noise Monitoring Parameter, Frequency and Duration

3.3.1 Construction noise level was measured by the ET and measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30mins)}$ used as the monitoring parameter for the construction noise monitoring.

3.3.2 As supplementary information for data auditing, statistical results such as L_{10} and L_{90} were also obtained for reference.

3.3.3 **Table 3.2** summarizes the monitoring parameters, duration, and frequency of construction noise monitoring.

Table 3.2 Construction Noise Monitoring Parameter, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
CP-KTN-NMS1[2], CP-KTN-NMS2[1], CP-KTN-NMS3[1], CP-KTN-NMS5[1], CP-KTN-NMS6[1],CP-KTN-NMS7[2],CP-FLN-NMS1[1], CP-FLN-NMS4(A)[2], CP-FLN-NMS5[2], CP-FLN-NMS6[2]	$L_{eq(30mins)}$, L_{10} and L_{90} (as six consecutive $L_{eq,5min}$ readings)	Once every week throughout the construction phase

Remark:
(1) The noise monitoring was conducted by First Phase ET during the reporting period.
(2) The noise monitoring was conducted by Remaining Phase Environmental Team during the reporting period.

3.4 Monitoring Equipment, Methodology and QA / QC Procedure

3.4.1 As referred to the technical memorandum issued under the Noise Control Ordinance (NCO), sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used for carrying out the construction noise monitoring.

3.4.2 Noise measurements were not made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.4.3 Sufficient numbers of noise measuring equipment and associated instrumentation were prepared by the ET. All the equipment and associated instrumentation were clearly labelled.

3.4.4 The monitoring procedures are as follows:

- For façade measurement, the monitoring station was set at a point 1 m from the exterior of the sensitive receivers building façade and set at a position 1.2 m above the ground. For free-field measurement, the monitoring station was set at a position 1.2 m above the ground.
- The battery condition was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the interval were set as follows:
  - Frequency weighting: A
  - Time weighting: Fast
  - Interval: 30 minutes ($L_{eq(30mins)}$)
- Prior to and after each noise measurement, the meter was calibrated using an acoustic calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement will be required after re-calibration or repair the equipment.
- At the end of the monitoring period, the values of L_{eq}, L_{10} and L_{90} were recorded. In addition, noise sources were recorded on a standard record sheet.

3.4.5 **Table 3.3** summarizes the noise monitoring equipment used during the reporting period. Copies of the calibration certificates for noise monitoring are shown in **Appendix 3.1**

Table 3.3 Construction Noise Monitoring Equipment

Equipment	Manufacturer	Model	No. of Equipment	Serial No.
Sound Level Meter	SVANTEK(2)	SVAN 971	1	96062
	NTi Audio(2)	XL3	2	A3A-01231-F0 A3A-01229-F0
	BSWA(1)	BSWA 308	4	580005 580006 580008 580013
Acoustic Calibrator	RION(2)	NC-75	3	34724244 34724245 35124529
	Bruel & Kjaer(1)	B&K4321	1	2412367
	SVANTEK(1)	SV30A	3	24803 24791 24780

Remark:
(1) The noise monitoring equipment was used by First Phase ET during the reporting period.
(2) The noise monitoring equipment was used by Remaining Phase Environmental Team during the reporting period.

3.5 Maintenance and Calibration

3.5.1 Maintenance and calibration procedures are as follows:

- The microphone head of the sound level meter and calibrator were regularly cleaned with a soft cloth;
- The sound level meter and acoustic calibrator were calibrated annually; and
- The accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency immediately prior to and following each noise measurement. Measurements were accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

3.6 Action and Limit Levels

3.6.1 The Action and Limit levels were established in accordance with the Updated EM&A Manual. **Table 3.4** presents the Action and Limit Levels for construction noise. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix 3.2** shall be carried out.

Table 3.4 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action	Limit Level
07:00 – 19:00 on normal weekdays	When one or more documented complaints are received	75 dB(A)

3.7 Results and Observations

3.7.1 All noise monitoring was conducted as scheduled in the reporting month. The noise monitoring schedule during the reporting period is shown in the **Appendix 2.1**.

3.7.2 No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix 3.1**. The construction noise monitoring results are summarized in **Table 3.5**. The major noise sources observed during impact noise monitoring are summarized in **Table 3.6**.

Table 3.5 Summary of Construction Noise Monitoring Results during the Reporting Month

Works Contracts	Monitoring Stations	Noise Levels, $L_{eq(30min)}$, dB(A)	Baseline Levels, dB(A)	Limit Levels, dB(A)
ND/2024/01	CP-KTN-NMS1(1)(3)	48.2 – 66.9	65.7	75
	CP-KTN-NMS2(1)(2)	52.5 – 61.5	58.6	
	CP-KTN-NMS3(1)(2)	51.9 – 55.7	51.6	
	CP-KTN-NMS6(2)	58.1 – 64.7	55.1	
	CP-KTN-NMS7(1)(3)	51.7 – 72.2	65.3	
ND/2024/04	CP-FLN-NMS4(A)(1)(3)(4)	72.8 – 74.5	72.0	
ND/2024/06	CP-KTN-NMS5(1)(2)	54.0 – 58.0	57.2	
ND/2024/06, ND/2024/07	CP-FLN-NMS1(2)	66.3 – 73.1	69.9	
ND/2024/07	CP-FLN-NMS5(1)(3)	66.0 – 68.6	69.7	
	CP-FLN-NMS6(3)	54.0 – 63.4	54.9	

Remarks:
(1) For Free Field measurement, +3 dB(A) was added to the measured results.
(2) The noise monitoring was conducted by First Phase ET during the reporting period.
(3) The noise monitoring was conducted by Remaining Phase Environmental Team during the reporting period.
(4) Alternative monitoring stations to the corresponding original monitoring stations.

Table 3.6 Summary of Observations at Noise Monitoring Stations

Works Contracts	Monitoring Stations	Location	Major Noise Sources
ND/2024/01	CP-KTN-NMS1	Residential Building at Ma Tso Lung	Household noise from nearby village house
	CP-KTN-NMS2	Residential Building at Ma Tso Lung	Road Traffic Noise, Excavator, Mobile crane
	CP-KTN-NMS3	Fung Kong Garden	Road Traffic Noise, Excavator, Crane
	CP-KTN-NMS4	Primary School	N/A(1)
	CP-KTN-NMS6	Ho Sheung Heung, Hau Ku ShekAncestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery	Road Traffic Noise, Excavator
	CP-KTN-NMS7	Oi Lok Home	Road Traffic Noise

Works Contracts	Monitoring Stations	Location	Major Noise Sources
ND/2024/04	CP-FLN-NMS4(A)(2)	Choi Ying House, Choi Po Court (Choi Yuen Estate)	Road Traffic Noise
ND/2024/06	CP-KTN-NMS5	N/A	Road Traffic Noise, Excavator, Train noise
ND/2024/06, ND/2024/07	CP-FLN-NMS1	Belair Monte	Road Traffic Noise, Excavator, Dump Truck, Crane
	CP-FLN-NMS3	Secondary School	N/A(1)
ND/2024/07	CP-FLN-NMS5	Man Kok Village	Road Traffic Noise
	CP-FLN-NMS6	Woodland Crest	Road Traffic Noise

Remarks:
(1) No impact noise monitoring was carried out at the monitoring station. Thus, not applicable (N/A).
(2) Alternative monitoring stations to the corresponding original monitoring stations.

3.7.3 No complaint on construction noise was received during the reporting month, therefore no Action/Limit Level exceedance was recorded.

3.8 Event and Action Plan

3.8.1 Should non-compliance of the noise monitoring criteria occur, actions in accordance with the Event and Action Plan in **Appendix 3.4** shall be carried out.

4 Water Quality

4.1 Monitoring Requirement

4.1.1 In accordance with the approved Updated EM&A Manual and EM&A Manual for impact water quality monitoring shall be carried out three days per week at all the designated monitoring stations in during the construction of channel. The measurement periods are specified in **Table 4.1**. The interval between two sets of monitoring shall not be less than 36 hours.

Table 4.1 Summary of Water Quality Monitoring Locations

New Monitoring Station(s)	Original Monitoring Station ID(s)	Description	Location(s)	Measurement Period
KTN NDA				
KTN-CS1	CS1	Control Station for KTN NDA	Centreline of river, upstream of the channel	During construction of channel
KTN-IS1	IS1	Impact Station for KTN NDA	Centreline of river, downstream of the channel	During construction of channel
FLN NDA				
FLN-CS1	CS2	Control Station for FLN NDA	Centreline of river, upstream of the channel	During construction of channel
FLN-IS1	IS2	Impact Station for FLN NDA	Centreline of river, downstream of the channel	During construction of channel

4.2 Result and Observations

4.2.1 No construction of channelisation work between KTN-CS1, KTN-IS1, FLN-CS1 and FLN-IS1 were undertaken during the reporting period. Therefore, no water quality monitoring was carried out.

5 Waste Management

5.1.1 Waste generated from the Project include inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting period. The summarized amount of waste generated by the construction works in related to the Works Contracts in the reporting period is shown in **Table 5.1**. The cumulative waste flow table of the Project was presented in in **Appendix 5.1**.

5.1.2 Sorting of construction and demolition (C&D) materials was carried out on site. Sufficient numbers of receptacles were provided for general refuse collection and sorting. Excavated inert C&D materials were reused to minimize the disposal of C&D waste to public fill.

5.1.3 The Contractor is advised to minimize the wastes generated through recycling or reusing. All applicable mitigation measures stipulated in the Updated EM&A Manual and waste management plans will be fully implemented.

Table 5.1 Summary of Waste Generated by the Construction Works from Works Contracts in the Reporting Period

Works Contract(s)	Month	Actual Quantalities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
		Total Quantity Generated	Hard Rock and Lage Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Carboard Packing	Plastics	Chemical Waste	Yard Waste recycled in Shredding Facility	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 '000kg)	(in '000m^3)
ND/2024/01	May 2025	0.000	0.000	0.000	0.000	0.000	123431.730	0.000	0.040	0.000	0.000	0.000	146.456
ND/2024/04	May 2025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ND/2024/06	May 2025	11.955	0.000	0.326	8.269	3.360	0.000	0.008	0.000	0.005	0.000	0.000	0.046
ND/2024/07	May 2025	10.722	0.000	1.363	0.000	0.182	9.122	0.000	0.000	0.000	0.000	0.027	0.027

6 Ecology

6.1 Introduction

6.1.1 This section was derived from the ecological monitoring conducted during the construction phase by the First Phase ET under Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas. This approach was undertaken to prevent redundancy in survey efforts.

6.2 Monitoring Requirements

Weekly Site Inspection

6.2.1 Weekly site inspections by the ET from the First Phase of the KTN/FLN NDAs Project for ecological mitigation measures are conducted as part of the overall weekly environmental site inspections. These inspections audit the ecological mitigation measures implemented within the active works area to ensure that the activities do not significantly impact the ecologically sensitive receivers in the active works areas.

Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley

6.2.2 As stipulated in Section 12.3.2.5 of the Updated EM&A Manual, if development under the NDAs project occurs within 200m of Sheung Yue River, Ng Tung River, Shek Sheung River and Long Valley, weekly transect monitoring at high and low tides (above/below 1.5m at Tsim Bei Tsui Station) should be conducted. The monitoring aims to identify and count bird species in the river channels and Long Valley Nature Park (LVNP) and detect any disturbances from construction activities, following the methodology in Table 12.1 of the Updated EM&A Manual. Monitoring in Long Valley should follow the Hong Kong Bird Watching Society (HKBWS) bird monitoring programme's methodology for comparable and comprehensive results.

Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley

6.2.3 As stipulated in Section 12.3.2.14 of the Updated EM&A Manual, aquatic fauna monitoring should be conducted monthly during the wet season (April – October) of the construction phase.

Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution

6.2.4 As stipulated in Section 12.3.2.17 of the Updated EM&A Manual, measures to minimize impacts should be monitored during the construction phase. The purpose of these surveys is to assess the effectiveness of measures aimed at reducing disturbances and pollution in ecologically sensitive habitats through standard fauna transect surveys.

6.2.5 For this reporting month, only transects that are relevant to the active works of Works Contract ND/2024/01, Contract No. ND/2024/04, Contract No. ND/2024/06 and Contract No. ND/2024/07, were included. The active works for the mentioned contracts are described in **Section 1.3.1** of this report and shown in **Figure 1.1 and Figure 1.2**.

6.2.6 **Table 6.1** summarizes the relevant transects and monitoring station to each contract under the remaining phase, categorised under the column "First Phase ET" and "Remaining Phase ET" according to the current survey efforts. The locations of these contracts relative to the monitoring locations are shown in **Figure 6.1** and **Figure 6.2**.

Table 6.1 Summary of Monitoring Activities, Relevant Contracts, and Corresponding Transects

Monitoring Activity	Relevant Works Contract(s)	Relevant Transect(s)/Monitoring Station(s)	
		First Phase ET	Remaining Phase ET
Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung, Sheung Yue, and Shek Sheung Rivers and Long Valley	ND/2024/01*	T1, T2, T3, T5	-
	ND/2024/02	T1, T2, T3, T5	T4
	ND/2024/03	T1, T2, T3, T5	-
	ND/2024/04*	-	T4
	ND/2024/05	N/A(1)	N/A(1)
	ND/2024/06*	T1, T2, T3	-
	ND/2024/07*	T1, T2, T3	T4
	ND/2024/08	T1, T2, T3	T4
Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley	ND/2024/01*^	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10	-
	ND/2024/02	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10	-
	ND/2024/03	N/A(2)	N/A(2)
	ND/2024/04*	N/A(2)	N/A(2)
	ND/2024/05	N/A(2)	N/A(2)
	ND/2024/06*	N/A(2)	N/A(2)
	ND/2024/07*^	MS_11, MS_12, MS_13, MS_14, MS_15	-
	ND/2024/08	N/A(2)	N/A(2)
Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	ND/2024/01*	T1	-
	ND/2024/02	T1, T6	-
	ND/2024/03	T4	-
	ND/2024/04*	N/A(3)	N/A(3)
	ND/2024/05	T4, T6	-
	ND/2024/06*	-	T2
	ND/2024/07*	T3	-
	ND/2024/08	T3	-

Remarks:

(1) Contracts that are located relatively far from river channels.

(2) Contracts that are located relatively far from Ma Tso Lung and Siu Hang San Tsuen streams.
(3) Contracts that are located relatively far from the Ecological Sensitive Habitats as identified in the EIA.
(4) * = active works contracts (ND/2024/01, ND/2024/04, ND/2024/06 and ND/2024/07); ^ = monitoring only in April – October.

6.2.7 The details of the relevant monitoring activities are discussed in the succeeding sections.

6.3 Results and Observations

Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley

Monitoring Methodology

6.3.1 Birds identified by their calls but not visually located were recorded as "heard", while those observed flying over the survey area were noted as "in flight." Species of conservation importance were also specified. Additional information at the time of the survey, such as weather conditions, tidal conditions, tide levels, and noticeable natural or anthropogenic activities, were documented. For the avifauna survey, ornithological nomenclature referenced The Avifauna of Hong Kong (Carey et al., 2001), The Birds of Hong Kong and South China (Viney et al., 2005), and the most recent updated lists from other sources (e.g., Hong Kong Bird Watching Society).

Monitoring Parameters

6.3.2 The monitoring parameters are as follows:

- Abundance of birds;
- Types of habitats utilized by birds; and
- Notable bird behaviours such as roosting, feeding, nesting and presence of juveniles.

Monitoring Location

6.3.3 For this reporting month, the First Phase ET conducted avifauna monitoring at Ng Tung River, Sheung Yue River, and Long Valley, while the Remaining Phase ET conducted avifauna monitoring at Shek Sheung River. Specifically, the transect routes relevant for the active works under Works Contract ND/2024/01 are:

- T1. Ng Tung River
- T2. Ng Tung River
- T3. Sheung Yue River and
- T5. Long Valley

relevant transect for Works Contract ND/2024/04 is:

- T4. Shek Sheung River

relevant transects for Works Contract ND/2024/06 are:

- T1. Ng Tung River
- T2. Ng Tung River and
- T3. Sheung Yue River

and the relevant transects for Works Contract ND/2024/07 are:

- T1. Ng Tung River
- T2. Ng Tung River
- T3. Sheung Yue River and
- T4. Shek Sheung River

6.3.4 The above transect routes are summarized in **Table 6.1** and shown in **Figure 6.2**. As the sensitive receivers are large waterbirds and are easily visible, the transect routes only needed to follow one riverbank.

Monitoring Frequency

6.3.5 Avifauna monitoring at high and low tides should be conducted weekly. Additionally, nighttime monitoring in Long Valley should be conducted twice a month from September to April, which is not required for the reporting month.

6.3.6 For this reporting month, waterbird monitoring were conducted by both the First Phase ET (T1, T2, T3 and T5) and Remaining Phase ET (T4). Survey date for each monitoring is shown in **Table 6.2**.

Table 6.2 Monitoring Programme for Waterbirds Monitoring, May 2025

Week	Date	Transect(1)
1	6 May	T4
	8 May	T1, T2
	9 May	T3, T4, T5
2	12 May	T3, T5
	14 May	T4
	16 May	T1, T2, T4
3	19 May	T4
	22 May	T1, T2, T4
	23 May	T3, T5
4	26 May	T1, T2, T4
	27 May	T3, T5
	30 May	T4

Remarks:

(1) Transects T1, T2, T3, and T5 are relevant to Works Contract ND/2024/01; Transect T4 is relevant to Works Contract ND/2024/04; Transects T1, T2, and T3 are relevant to Works Contract ND/2024/06; Transects T1, T2, T3 and T4 are relevant to Works Contract ND/2024/07.

Monitoring Results

6.3.7 For this reporting month, only monitoring results in Transects T1, T2, T3, T4 and T5 are reported as not all of these monitoring data are relevant to active Works Contract ND/2024/01, ND/2024/04, ND/2024/06 and ND/2024/07 as summarised in **Table 6.1**.

6.3.8 Transect T1 and T2 were conducted along the Ng Tung River. For Transect T1, a total of 3 species of large waterbirds, namely Grey Heron (3 individuals), Great Egret (5 individuals) and Little Egret (9 individuals), were recorded in the reporting month. For Transect T2, a total of 3 species of large waterbirds, namely Grey Heron (7 individuals), Great Egret (4 individuals) and Little Egret (29 individuals), were recorded in the reporting month.

6.3.9 Transect T3 was conducted along the Sheung Yue River. A total of 3 large waterbirds, namely Grey Heron (12 individuals), Great Egret (14 individuals) and Little Egret (191 individuals), were recorded for the reporting month.

6.3.10 Transect T4 was conducted along the Shek Sheung River. A total of 25 species were recorded in the reporting month with 3 species of large waterbirds, namely Grey Heron (5 individuals), Great Egret (5 individuals) and Little Egret (21 individuals).

6.3.11 Transect T5 was conducted in Long Valley Nature Park with the highest species diversity and abundance recorded. A total of 3 species of large waterbirds, namely Great Egret, Intermediate Egret and Little Egret, were also found to utilise the habitat.

6.3.12 Chinese Pond Heron, the most abundant waterbird species recorded during the baseline survey, which is strictly associated with wetlands, was widely noted across different transect routes in the reporting month 125 individuals recorded in total. 9 individuals were noted along Transect T1, 19 individuals along Transect T2, 16 individuals along Transect T3, 32 individuals along Transect T4 and 49 individuals were noted along Transect T5.

6.3.13 Relevant results of the avifauna monitoring conducted by the First Phase ET during this reporting month are detailed in **Appendix 6.1a to Appendix 6.1h**. Findings of surveys conducted by the Remaining Phase ET during this reporting month are detailed in **Appendix 6.1i to Appendix 6.1l**.

6.3.14 **Table 6.3** summarizes the results of the monitoring of measures to minimize disturbance to waterbirds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley of the reporting month.

Table 6.3 Summary Table of Waterbird Monitoring Results Relative to Corresponding Action and Limit Levels, May, Transects T1, T2, T3, T4 and T5

Monitoring Parameter	Result in Reporting Month (May 2025)	Baseline Level in Corresponding Month (May 2020)	Action Level (1)	Limit Level (2)
T1, T2 and T3				
Mean abundance of large waterbirds using Ng Tung River, Sheung Yue River and Shek Sheung River (3)	69	17	12	8
Mean abundance of Chinese Pond Heron using Ng Tung River, Sheung Yue River and Shek Sheung River	11	8	5	4
T4				
Mean abundance of large waterbirds using Shek Sheung River (3)	8	3	2	2
Mean abundance of Chinese Pond Heron using Shek Sheung River	8	3	2	2
T5 Long Valley				
Mean Abundance of birds (all species) recorded in LVNP	497	408	286	204
Mean abundance of the Chinese Pond Heron	12	14	10	7
Environmental disturbance and damage from activities in LVNP	-	-	Activity likely to cause unacceptable environmental disturbance or damage noted in LVNP.	Activity likely to cause unacceptable environmental disturbance or damage noted in LVNP.

Remarks:

(1) Exceedance of Action Level occurs when the monitoring result is lower than the Action Level.
(2) Exceedance of Limit Level occurs when the monitoring result is lower than the Limit Level.
(3) Large waterbird species for mean abundance calculation include Great Cormorant (*Phalacrocorax carbo*); Grey Heron (*Ardea cinerea*); Great Egret (*Ardea alba*); Intermediate Egret (*Ardea intermedia*); Little Egret (*Egretta garzetta*) and Chinese Egret (*Egretta eulophotes*).

6.3.15 No exceedance in Action or Limit Level was recorded for the reporting month.

Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley

Monitoring Methodology

6.3.16 Monitoring of larger organisms such as fish species will be carried out through direct counting, while sampling aquatic invertebrates will involve kick-netting and sweep-netting. Three replicates will be conducted for invertebrate sampling at each sampling point. During kick-netting, the net will be positioned at a location with the opening facing the water current while disturbing the substrate through kicking to dislodge organisms from the stream bed. Sweep-

netting will be applied to water bodies without water current according to on-site conditions. Species observed will be identified to the lowest possible taxonomic level with their relative abundance recorded, with the use of dissecting microscope especially for small organisms not identifiable through the naked eye.

Monitoring Parameters

6.3.17 The monitoring parameters are as follows:

- Species composition and abundance;
- Distribution of invertebrates and fish fauna; and
- Specify species of conservation importance, if any.

Monitoring Locations

6.3.18 For this reporting month, the First Phase ET conducted the aquatic fauna monitoring along Ma Tso Lung Stream and Siu Hang Sang Tsuen Stream. Specifically, the monitoring stations relevant for the active works under Works Contract ND/2024/01 are:

- MS_01
- MS_02
- MS_03
- MS_04
- MS_05
- MS_06
- MS_07
- MS_08
- MS_09
- MS_10

And the relevant monitoring stations for Works Contract ND/2024/07 are:

- MS_11
- MS_12
- MS_13
- MS_14
- MS_15

6.3.19 The above monitoring stations are shown in **Figure 6.1 and Figure 6.2**.

Monitoring Frequency

6.3.20 As stated in Section 12.3.2.14 of the Updated EM&A Manual, aquatic fauna monitoring should be conducted monthly during the wet season (April – October) during the construction phase.

6.3.21 For this reporting month, aquatic fauna monitoring was conducted by the First Phase ET on 15 May 2025.

Monitoring Results

6.3.22 A total of 24 species of aquatic invertebrates and 7 species of fish were recorded along the Ma Tso Lung Stream and Siu Hang San Tsuen Stream for the reporting month. 1 native species of fish of conservation importance, namely the Predaceous Chub, was recorded at MS_09 and MS_10 for the reporting month, according to the findings of the First Phase ET. A complete species list is enclosed as **Appendix 6.2**.

6.3.23 3 monitoring stations, as MS_01, MS_05 and MS_12, were found to be dried-up. Thus, no aquatic fauna species were recorded.

6.3.24 **Table 6.4 and Table 6.5** summarized the aquatic monitoring results for the reporting month.

Table 6.4 Summary Table of Monitoring Results for Aquatic Invertebrates Relative to Action and Limit Levels, May, Monitoring Station MS_01 – MS_15

Monitoring Station	Result in Reporting Month (May 2025) (1)	Baseline Level in Corresponding Month (May 2020) (1)	Action Level(2)	Limit Level(3)
MS_01	0	N/A	N/A	N/A
MS_02 and MS_03	2	3	2	1
MS_04, MS_06 and MS_07	6	9	6	5
MS_05	0	0	N/A	N/A
MS_08, MS_09 and MS_10	6	8	6	4
MS_11	0	0	N/A	N/A
MS_12	0	0	N/A	N/A
MS_13 and MS_14	5	1	N/A	N/A
MS_15	2	1	N/A	N/A

Remarks:

(1) Number of native species (species richness) recorded.
(2) Exceedance of Action Level occurs when the monitoring result is lower than the Action Level.
(3) Exceedance of Limit Level occurs when the monitoring result is lower than the Limit Level.

Table 6.5 Summary Table of Monitoring Results for Fish Species Relative to Action and Limit Levels, May, Monitoring Station MS_01 – MS_15

Monitoring Station	Result in Reporting Month (May 2025) (1)	Baseline Level in Corresponding Month (May 2020) (1)	Action Level(2)	Limit Level(3)
MS_01	0	0	N/A	N/A
MS_02 and MS_03	0	1	N/A	N/A
MS_04, MS_06 and MS_07	2	3	2	1
MS_05	0	0	N/A	N/A
MS_08, MS_09 and MS_10	1	1	N/A	N/A
MS_11	0	0	N/A	N/A
MS_12	0	0	N/A	N/A
MS_13 and MS_14	0	0	N/A	N/A
MS_15	0	0	N/A	N/A

Remarks:

(1) Number of native species (species richness) recorded.
(2) Exceedance of Action Level occurs when the monitoring result is lower than the Action Level.
(3) Exceedance of Limit Level occurs when the monitoring result is lower than the Limit Level.

6.3.25 No exceedance in Action or Limit Level was recorded for the reporting month.

Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance

Monitoring Methodology

Terrestrial Mammal

6.3.26 Mammal surveys were conducted both during the day and at night along transect routes that may be potentially utilized by terrestrial mammals. Observations included field signs such as droppings, footprints, diggings, and burrows left by larger terrestrial mammals. Any mammals directly observed were recorded, and identification was as accurate as possible based on the field signs.

6.3.27 Bat surveys were conducted along the transect routes shortly after sunset using a bat detector to record echolocation calls. The relative abundance of the species encountered were estimated with reference to the baseline monitoring results, using a scale from one (species recorded within transect routes) to three (dominant species within transect routes), for comparison between baseline and current monitoring results. Mammal nomenclature followed Shek (2006).

6.3.28 Echolocation calls of bats were recorded using a bat detector, which listed possible bat species with similar call patterns and frequencies. The structure of the recorded echolocation calls was later analysed to identify species as accurately as possible. Due to the lack of literature on echolocation call structures, field identification of some bat species in Hong Kong is challenging, and some species could only be identified to the genus level or remain unidentified from the recordings.

6.3.29 Identification of bat species encountered in the surveys was made by considering the possible species suggested by the bat detector, their distribution in Hong Kong, previous records in the EIA Report and Baseline Monitoring Report, and the structure of the echolocation calls (including call structure, frequency, duration, and inter-pulse interval) with reference to relevant literature.

Herpetofauna (Amphibians and Reptiles)

6.3.30 Both daytime and nighttime amphibian surveys were conducted whenever possible following or during periods of rainfall, focusing on areas suitable for amphibians (e.g., forests, shrublands, grasslands, streams, ponds, marshes, etc.). Calling amphibians were recorded, supplemented by visual observations of eggs, tadpoles, adult frogs, and toads.

6.3.31 Active searches of appropriate microhabitats, such as stones, pond bunds, crevices, and leaf debris, was primarily conducted. Observations of exposed, basking, and foraging reptiles were also carried out. Nomenclature for amphibians and reptiles followed Chan et al. (2005) and Karsen et al. (1998), respectively.

Butterfly and Odonates

6.3.32 Butterflies and dragonflies observed along the transects were identified and counted. Special attention was given to their preferred habitats, such as watercourses, fishponds, and vegetated areas. Nomenclature and protection status of the species followed Lo et al. (2005) for butterflies and Tam et al. (2011) for dragonflies.

Monitoring Parameters

6.3.33 The monitoring parameters are as follows:

- Species composition;
- Abundance;
- Distribution for fauna observed; and
- Species of conservation importance would be specified.

Monitoring Location

6.3.34 According to the Updated EM&A Manual, the transect routes for monitoring of ecologically sensitive receivers should follow the following:

- T1. Ma Tso Lung riparian zone and associated wetland habitats; green belt areas E1-8, D1-8 and G1-3 in KTN NDA; AGR zone C2-4 and C2-2 in KTN NDA, and area north of Ng Tung River;
- T2. Fanling North Freshwater Service Reservoir
- T3. Area west of Siu Hang San Tsuen Stream;
- T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au;
- T5. Area west and east of the southern limit of the FLN NDA work area; and
- T6. Areas in the western part of KTN.

6.3.35 The above transects are shown in **Figure 6.1** and **Figure 6.2**. Relevant transect to Works Contract ND/2024/01 is Transect T1 which covers areas of Ma Tso Lung riparian zone and associated wetland habitats, green belt areas E1-8, D1-8 and G1-3 in KTN NDA, AGR zone C2-4 and C2-2 in KTN NDA, and areas North of Ng Tung River; relevant transect to Works Contract ND/2024/06 is Transect T2 which covers areas of the Fanling North Freshwater Service Reservoir; and for Works Contract ND/2024/07 is Transect T3 which covers the area west of Siu Hang San Tsuen stream.

Monitoring Frequency

6.3.36 Monthly monitoring should be conducted for non-aquatic fauna, including terrestrial mammals, insects (butterflies and odonates), and herpetofauna. For this reporting month, monthly monitoring for non-aquatic fauna were conducted by both the First Phase ET (T1 and T3) and Remaining Phase ET (T2). Survey dates for each monitoring are shown in **Table 6.6**.

Table 6.6 Monitoring Programme for Non-aquatic Fauna Monitoring, May 2025

Responsible ET	Date	Transect(1)
First Phase ET	13 May	T1
	20 May	T3
Remaining Phase ET	21 May	T2

Remarks:

(1) Transect T1 is relevant to Works Contract ND/2024/01; Transect T2 is relevant to Works Contract ND/2024/06; Transect T3 is relevant to Works Contract ND/2024/07.

Monitoring Results

Terrestrial Mammals

6.3.37 A total of 3 species of terrestrial mammals were recorded along Transect T1 with 1 native species of conservation importance, namely Japanese Pipistrelle, was noted. A total of 5 species of terrestrial mammals, namely Chinese Noctule, Japanese Pipistrelle, Least Pipistrelle, Lesser Bamboo Bat and Lesser Yellow Bat, were recorded along Transect T2. A total of 2 species of terrestrial mammals were noted along Transect T3 with 1 native species of conservation importance, namely Japanese Pipistrelle, was noted. All captioned bat species are of conservation importance. A complete species list is enclosed as **Appendix 6.3**.

Herpetofauna (Amphibians and Reptiles)

6.3.38 A total of 9 herpetofauna species were recorded along Transect T1, with 5 species of amphibians (Asian Common Toad, Ornate Pigmy Frog, Paddy Frog, Günther's Frog and Brown Tree Frog) and 4 species of reptiles (Changeable Lizard, Chinese Gecko, Bowring's Gecko and Red-necked Keelback). All species are considered as widespread natives. A total of 9 herpetofauna species were recorded along Transect T2, including 5 species of amphibians (Asian Common Toad, Ornate Pigmy Frog, Paddy Frog, Günther's Frog and Brown Tree Frog) and 4 species of reptiles (Long-tailed Skink, Chinese Gecko, Bowring's Gecko and Bamboo Snake). All species are considered common and widespread. No species of conservation importance were noted. A total of 3 herpetofauna species were recorded along Transect T3 with 2 species of amphibians (Asian Common Toad and Paddy Frog) and 1 species of reptile (Chinese Gecko). All species are considered as widespread natives, and no species of conservation importance were noted. A complete species list is enclosed as **Appendix 6.3**.

Butterfly and Odonates

6.3.39 A total of 23 butterfly species were recorded along Transect T1, with 2 rare species, namely the Red-breast Jezebel and Small Cabbage White, were of conservation importance. Other species recorded are considered as widespread and common natives. 8 odonate species were recorded along Transect T1. 1 species of conservation importance, namely the Scarlet Basker, was noted. Other species recorded are considered common natives. A total of 16 butterfly species were recorded along Transect T2. All species are considered widespread in Hong Kong with no species of conservation importance noted. 3 species of odonates, namely Common Blue Skimmer, Wandering Glider and Variegated Flutterer, were recorded along Transect T2. All species are considered as locally common. No odonate species of conservation importance were noted. A total of 12 butterfly species were recorded along Transect T3. All species

recorded are considered as common natives and no species of conservation importance was noted. 6 odonate species were recorded along Transect T3. All species recorded are considered as common and widespread with no species of conservation importance noted. A complete species list is enclosed as **Appendix 6.3**.

Summary of Monitoring Results

6.3.40 Monitoring for non-aquatic (terrestrial mammals, butterflies, dragonflies, and herpetofauna) taxa was conducted by both the First Phase and Remaining Phase ETs. Relevant results of the non-aquatic fauna monitoring conducted by the First Phase ET during this reporting month are detailed in **Appendix 6.3a** to **Appendix 6.3d**. Findings of surveys conducted by the Remaining Phase ET during this reporting month are detailed in **Appendix 6.3e to Appendix 6.3h**.

6.3.41 **Tables 6.7** summarizes the monitoring results of Transect T1, T2 and T3 for this reporting month.

Table 6.7 Summary Table of Monitoring Results for Non-aquatic Fauna Relative to Action and Limit Levels, May, Transect T1, T2 and T3

Monitoring Parameter	Result in Reporting Month (May 2025) (1)	Baseline Level in Corresponding Month (May 2020) (1)	Action Level(2)	Limit Level(3)
T1				
Terrestrial Mammals	1	1	N/A	N/A
Herpetofauna	9	7	5	4
Odonates	8	8	6	4
Butterflies	23	11	8	6
T2				
Terrestrial Mammals	5	0	N/A	N/A
Herpetofauna	9	1	N/A	N/A
Odonates	3	3	2	1
Butterflies	16	5	4	3
T3				
Terrestrial Mammals	1	1	N/A	N/A
Herpetofauna	3	4	3	2
Odonates	6	9	6	5
Butterflies	12	6	4	3

Remarks:

(1) Number of species (species richness) recorded; the results in the reporting month for terrestrial mammals, herpetofauna and odonates are calculated based on the number of native species recorded along the transects.
(2) Exceedance of Action Level occurs when the monitoring result is lower than the Action Level.
(3) Exceedance of Limit Level occurs when the monitoring result is lower than the Limit Level.

6.3.42 No exceedance in Action or Limit Level was recorded for the reporting month.

Details of the Influencing Factors

6.3.43 The details of the influencing factors were adopted from the observations of the First Phase ET. During the monitoring of measures to minimize disturbance to waterbirds in Long Valley and Sheung Yue River, anthropogenic activities such as excavation and other construction activities were observed near Long Valley. It should also be noted that the Long Valley Nature Park has been opened to the public since 09 November 2024. Potential increase in people visiting the park may potentially impact the habitats in Long Valley and cause disturbances to the bird communities in this area. Construction works were also observed along Sheung Yue River.

6.3.44 During the monitoring of measures to minimize disturbance to waterbirds in Ng Tung River, various anthropogenic activities were observed, such as construction works along Transect T2, recreational use of remote-control boats and toy helicopters in both Transects T1 and T2, and recreational fishing along these two transects.

Survey Summary

6.3.45 All ecological monitoring surveys for the reporting month have been carried out as scheduled, with no exceedances in Action or Limit Level were noted for ecological monitoring surveys for the reporting month.

6.4 Event and Action Plan

6.4.1 Should non-compliance of the ecological monitoring criteria occur, actions in accordance with the Event and Action Plan in **Appendix 6.4** shall be carried out.

7 Landscape and Visual

7.1 Audit Requirements

7.1.1 According to the approved EM&A manual and Updated EM&A Manual for the First Phase, site audits should be undertaken at least once every two weeks during the construction period, by a Registered Landscape Architect (RLA). Particularly, to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Mitigation measures recommended in the EIA Report as the audit requirements including, preservation of existing vegetation, transplanting of affected trees, compensatory tree planting, control of night-time lighting glare, erection of decorative screen hoarding and management of construction activities and facilities.

7.2 Results and Observations

7.2.1 Bi-weekly landscape and visual site audits were carried out by a Registered Landscape Architect (RLA) on 9 and 20 May 2025 for ND/2024/01, 13 and 30 May 2025 for ND/2024/04, 7 and 19 May 2025 for ND/2024/06, 8 and 22 May 2025 for ND/2024/07. No particular observation was recorded in this reporting period.

7.3 Event and Action Plan

7.3.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 7.1** shall be followed.

8 Land Contamination (Ambient Arsenic Monitoring)

8.1 Monitoring Requirements

8.1.1 According to the approved EM&A Manual and Updated EM&A Manual for the First Phase, an ambient arsenic monitoring is required to be conducted in KTN during the clean-up processes of arsenic containing soil and the construction phase.

8.1.2 The RSP concentration was measured by HVS equipped with PM10 selector (PM10 HVS) following the "Reference Method for the Determination of Particulate Matter as PM10 in the Atmosphere" Part 50 Chapter 1 Appendix J, Title 40 of the Code of Federal Regulations of the USEPA.

8.1.3 The Dust-laden air was drawn through PM10 HVS fitted with a conditioned pre-weighting filter paper, at a controlled rate. After sampling for 24-hour, the filter paper with retained PM10 particulates was collected and returned to the laboratory for drying in a desiccators followed by accurate weighting. 24-hour average RSP levels were calculated from the ratio of the mass of PM10 particulates retained on the filter paper to the total volume of air sampled.

8.1.4 The weighted filter paper was prepared for arsenic testing through a "Hot Acid Extraction Procedure". The extracted material was tested for arsenic by using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS). The extraction and testing were referenced to the following methods:

- Compendium Method 1O-3.1 Selection, Preparation and Extraction of Filter Material, Center for Environmental Research Information, Office of Research and Development, USEPA, June 1999; and Compendium Method 1O-3.5 determination of Metals in Ambient Particulate Matter using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS., Center for Environmental Research Information, Office of Research and Development, USEPA, June 1999.

8.2 Monitoring Locations

8.2.1 Ambient arsenic monitoring was conducted at the monitoring station(s) under the Work Contract(s), as shown in **Table 8.1** describes the location of the ambient arsenic monitoring station. The location of the ambient arsenic monitoring station is presented in **Figure 8.1**.

Table 8.1 Location of Ambient Arsenic Monitoring station

Monitoring Station(s)	Location(s)	Works Contract(s)
KTN-DMS-4A(1)(2)	Temporary Structure at Pak Shek Au	ND/2024/01

Remarks:
(1) Monitoring at the original location of KTN-DMS-4 (originally proposed in the approved EM&A Manual) was denied as there was no electricity supply. An alternative location (KTN-DMS-4A) was proposed by First Phase ET.
(2) The ambient arsenic monitoring was conducted by First Phase ET during the reporting period.

8.3 Monitoring Equipment

8.3.1 **Table 8.2** summarises the equipment used in the ambient arsenic monitoring. Copies of the calibration certificates for ambient arsenic monitoring are shown in **Appendix 8.1**

Table 8.2 Ambient Arsenic Monitoring Equipment

Monitoring Station	Equipment	Manufacturer	Model	No. of Equipment
KTN-DMS-4A(1)(2)	Calibrator	TISCH	TE-5025A	1
	HVS Sampler (RSP)	TISCH	TE-6070X	1

Remarks:
(1) Monitoring at the original location of KTN-DMS-4 (originally proposed in the approved EM&A Manual) was denied as there was no electricity supply. An alternative location (KTN-DMS-4A) was proposed by First Phase ET.
(2) The ambient arsenic monitoring was conducted by First Phase ET during the reporting period.

8.4 Monitoring Parameters, Frequency and Duration

8.4.1 **Table 8.3** summarises the monitoring parameters and frequencies of ambient arsenic during the clean-up processes of arsenic-containing soil and construction. The ambient arsenic monitoring schedule for the reporting month shown in **Appendix 2.1**.

Table 8.3 Impact Ambient Arsenic Monitoring Parameters, Frequency and Duration

Parameters	Frequency(1)
24-hr RSP (Ambient Arsenic)	Once/ 6 days

Remark:
1. The ambient arsenic monitoring was conducted by First Phase ET during the reporting period.

8.5 Monitoring Methodology and QA/QC Procedure

Instrumentation

8.5.1 HVS (GMW PM10 (TE6070X)) complete with appropriate sampling inlets was employed for 24-hour RSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

8.5.2 The following guidelines were adopted during the installation of HVS:

- a horizontal platform with appropriate support to secure the samplers against gusty wind was provided;
- no two samplers was placed less than 2 meters apart;
- the distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler;
- a minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samplers;
- a minimum of 2 meters separation from any supporting structure, measured horizontally was required;
- no furnace or incinerator flue was nearby;
- airflow around the sampler was unrestricted;
- the sampler was more than 20 meters from the dripline;
- any wire fence and gate, to protect the sampler, were not cause any obstruction during monitoring;
- permission was obtained to set up the samplers and to obtain access to the monitoring stations; and
- a secured supply of electricity was needed to operate the samplers

Operating/analytical procedures for the operation of HVS

- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m^3 /min. and 1.4 m^3 /min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50;
- The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station;
- The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen;

- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. The filter holding frame was then tightened to the filter holder with swing bolts. The applied pressure was sufficient to avoid air leakage at the edges;
- The shelter lid was closed and secured with the aluminum strip;
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number);
- After sampling, the filter was removed and sent to the Wellab Ltd. for weighing. The elapsed time was also recorded; and
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature was between 25°C and 30°C and did not vary by more than ±3°C; the relative humidity (RH) was < 50% and did not vary by more than ±5%. A convenient working RH was 40%. Weighing results were further analysis of RSP concentrations collected by each filter.

8.6 Maintenance/Calibration

8.6.1 The following maintenance/calibration was required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply were in good working condition; and
- High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the ambient arsenic monitoring.

8.7 Laboratory Measurement / Analysis

8.7.1 Quartz filters of size 8” x 10” were labelled before sampling. A HOKLAS accredited laboratory, Wellab Ltd., was responsible for the preparation of 24-hour conditioned and pre-weighed filter papers for the monitoring team. The balance for weighting filter paper was regularly calibrated against a traceable standard.

8.7.2 All filters, which were prepared and equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C; the relative humidity (RH) was < 50% and not variable by more than ±5%. A convenient working RH was 40%.

8.7.3 Wellab Ltd. (HOKLAS Registration No. HOKLAS083), was responsible for the extraction and testing procedure for Arsenic and comprehensive quality assurance and quality control programmes were conducted.

8.8 Result and Observations

8.8.1 The ambient arsenic monitoring results are summarised in **Table 8.4**.

Table 8.4 Result Summary Against Action and Limit Levels for 24-hour RSP Monitoring Results (Ambient Arsenic)

Contract No.	Monitoring Date	Monitoring Station	Concentration (ηg/m^3)	AL (ηg/m^3)	LL (ηg/m^3)
ND/2024/01	02/05/2025	KTN-DMS4A*	6.08	9.36	11.7
	08/05/2025		5.42		
	14/05/2025		4.67		
	20/05/2025		5.54		
	26/05/2025		5.15		
	30/05/2025		4.05		

Remark:
* The 24-hour RSP monitoring for ambient arsenic was conducted by First Phase ET during the reporting period.

8.8.2 All ambient arsenic monitoring was conducted as scheduled in the reporting month. No AL or LL exceedances were recorded.

8.9 Event and Action Plan

8.9.1 Should any non-compliance of the criteria occur, actions in accordance with the Event/Action Plan in **Appendix 8.2** shall be carried out.

9 Landfill Gas Monitoring

9.1 Monitoring Requirements

9.1.1 In accordance with the updated EM&A Manual, monitoring of landfill gas (LFG) is required for the construction works within the 250m Landfill Consultation Zone of Ma Tso Lung (MTLL, close to KTN NDA) during the construction phase. This section presents the results of landfill gas measurements performed by the Contractor.

9.1.2 The MTLL is situated in the vicinity of the KTN NDA. A portion of the development falls within the 250m Landfill Consultation Zone of MTLL.

9.2 Monitoring Parameters and Frequency

9.2.1 Monitoring parameters for Landfill gas monitoring include Methane, Carbon dioxide and Oxygen.

9.2.2 Monitoring According to the mitigation measures of the updated EM&A Manual, measurements of the following frequencies should be carried out according to the monitoring requirements and procedures specified in Paragraphs 8.23 to 8.28 of EPD's Guidance Note, “LANDFILL GAS HAZARD ASSESSMENT GUIDANCE NOTE”.

9.2.3 The frequency of monitoring of LFG was made reference to the updated EM&A Manual - Monitoring of any LFG which may be migrated to the site should be undertaken during construction of the infrastructure and the development within the Consultation Zone and within MTLL when the works involve confined spaces. Routine gas monitoring should be undertaken during groundwork construction and in all excavations. Monthly gas monitoring should also be conducted for set up on site such as offices, stores etc.

9.3 Monitoring Locations

9.3.1 As confirmed by the Supervisor Team, no ground disturbance works were carried out in the work area within 250m Landfill Consultation Zone of Ma Tso Lung Landfill including construction of the infrastructure, development works, excavation works and works involve confined spaces. Routine gas monitoring should be undertaken during groundwork construction and in all excavations. Thus, in this reporting month, the area is not required to be monitored for landfill gas are shown below.

- Excavation Locations: N/A
- Manholes and Chambers: N/A
- Relocation of monitoring wells: N/A
- Any other Confined Spaces: N/A

9.4 Result and Observations

9.4.1 As confirmed by the Supervisor Team, no ground disturbance works were carried out in the work area within 250m Landfill Consultation Zone of Ma Tso Lung Landfill including construction of the infrastructure, development works, excavation works and works involve confined spaces. Routine gas monitoring should be undertaken during groundwork construction and in all excavations. Therefore, no landfill gas monitoring was carried out.

10 Environmental Site Inspection and Audit

10.1 Implementation Status of Environmental Mitigation Measures

10.1.1 Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, Works Contract No. ND/2024/01 on 9, 13, 20 and 27 May 2025. For Works Contact No. ND/2024/04 were carried out on 13, 23 and 30 May 2025. For Works Contact No. ND/2024/06 were carried out on 7, 14, 19 and 30 May 2025. For Works Contract No. ND/2024/07 were carried out on 8, 15, 22 and 29 May 2025.

10.1.2 Some major environmental deficiencies were observed during weekly site inspection in the report period and some general reminders regarding environmental aspects were given to the Contractor. Key observations and reminders observed during the site inspections at Works Contract No. ND/2024/01, ND/2024/04, ND/2024/06 and ND/2024/07 in the reporting period are summarized in **Table 10.1**.

Table 10.1 Site Observations at Works Contract No. ND/2024/01, ND/2024/04, ND/2024/06 and ND/2024/07 during the Reporting Period

Works Contracts	Inspection Date	Key Observations/ Reminders	Follow-up Action
ND/2024/01	09 May 2025	**Observation:** Nil	Nil
		Reminder: Nil	Nil
	13 May 2025	**Observation:** 1. Water spraying on haul road at Portion 40 shall be conducted regularly to avoid fugitive dust emissions.	1. Water spraying was provided to avoid fugitive dust emission. (Rectified on 13 May 2025)
		Reminder: Nil	Nil
	20 May 2025	**Observation:** Nil	Nil
		Reminder: 1. The contractor was reminded to clear the accumulated slit regularly on the temporary drainage channel at Portion 40 to ensure the efficiency of the drainage channel. 2. The contractor was reminded to ensure that preventive/ precautionary measures for water quality impacts are in place along the edge of Portion 59 in order to avoid potential muddy runoff from being washed into the near-by drainage channel, especially during heavy rainfall events.	Nil

Works Contracts	Inspection Date	Key Observations/ Reminders	Follow-up Action
	27 May 2025	**Observation:** Nil	Nil
		Reminder: Nil	Nil
ND/2024/04	13 May 2025	**Observation:** 1. The NRMM labels that affixed onto the machineries (i.e. excavator and diesel generator) at Portion 1 should be printed in colour instead of being printed in B&W with use of pain paper or the one in blue. The Contractor was reminded to have appropriate NRMM label affixed onto the machineries.	1. The NRMM label was renewed and provided onto the machinery. (Rectified on 15 May 2025)
		Reminder: Nil	Nil
	23 May 2025	**Observation:** 1. Drip tray shall be provided under the portable diesel generator to avoid land contamination by oil spill.	1. Drip tray was provided under the portable diesel generator. (Rectified on 23 May 2025)
		Reminder: Nil	Nil
	30 May 2025	**Observation:** Nil	Nil
		Reminder: 1. The Contractor was reminded to clear the near-by earth materials on a regular basis in order to avoid the materials from being entering the drainage channel being covered by plastic trenching cover	Nil
ND/2024/06	07 May 2025	**Observation:** Nil	Nil
		Reminder: Nil	Nil
	14 May 2025	**Observation:** Nil.	Nil
		Reminder: 1. The contractor was reminded that water spraying should be conducted regularly at Portion D to avoid fugitive dust emission.	Nil
	19 May 2025	**Observation:** Nil	Nil

Works Contracts	Inspection Date	Key Observations/ Reminders	Follow-up Action
		Reminder: Nil	Nil
	30 May 2025	**Observation:** 1. The Contractor was reminded that the accumulated silty materials in car parking area at Portion A should be cleared regularly in order to avoid the materials being brought to haul road by vehicles' wheels 2. The Contractor was reminded that silty runoff shall be properly treated through desilting process and ensure that all surface runoff shall be directed to the on-site wastewater treatment facilities (e.g. sump pits) for temporary treatment. 3. The Contractor was reminded that drip tray should be provided to portable diesel generator for oil spilling avoidance	1. The accumulated silty materials in car parking area at Portion A was cleaned. (Rectified on 30 May 2025) 2. Silty runoff was treated through desilting process and ensured that all surface runoff was directed to the on-site wastewater treatment facilities. (Rectified on 30 May 2025) 3. Drip tray was provided under the portable diesel generator. (Rectified on 30 May 2025)
		Reminder: Nil	Nil
ND/2024/07	08 May 2025	**Observation:** Nil	Nil
		Reminder: Nil	Nil
	15 May 2025	**Observation:** Nil	Nil
		Reminder: Nil	Nil
	22 May 2025	**Observation:** Nil	Nil
		Reminder: 1. The Contractor was reminded to clear the temporary waste storage area regularly to reach good site practice.	Nil
	29 May 2025	**Observation:** Nil	Nil

Works Contracts	Inspection Date	Key Observations/ Reminders	Follow-up Action
		Reminder: Nil	Nil

10.1.3 According to the EIA Study Report, Environmental Permit, contract documents and Updated EM&A Manual, the mitigation measures detailed in the documents should be implemented as much as practical during the reporting period. An updated implementation status of environmental mitigation measures is provided in **Appendix 1.3**.

11 Summary of Monitoring Exceedance, Complaints, Notification of Summons and Prosecutions

11.1 Summary of Exceedance

11.1.1 No Action Level or Limit Level exceedance was recorded for air quality monitoring in the reporting period.

11.1.2 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

11.1.3 No Action Level or Limit Level exceedance was recorded for ambient arsenic monitoring in the reporting period.

11.1.4 No Action Level or Limit Level exceedance was recorded for ecological monitoring in the reporting period.

11.2 Summary of Environmental Non-Compliance

11.2.1 No environmental non-compliance was recorded in the reporting period.

11.3 Summary of Environmental Complaint

11.3.1 No environmental complaint was received in the reporting period. The summary of environmental complaint is presented in **Appendix 11.1**.

11.4 Summary of Environmental Summon and Successful Prosecution

11.4.1 There was no successful environmental prosecution or notification of summons received since the Project commencement. The summary of environmental summon and successful prosecution is presented in **Appendix 11.1**.

12 Future Key Issues

12.1 Works and Potential Environmental Issues in the next Reporting Period

12.1.1 The upcoming construction works programme, and the construction works area of the Project are presented in **Appendix 1.1**. Works to be undertaken in the next reporting period are summarized below:

Contract No. ND/2024/01

- All Site Resumption Area(s)
    1. Tree survey
    2. Site Clearance
- Portion XL (40)
    1. Excavation, Mixing with General fill & Backfilling
    2. Construct Retaining Wall & Backfilling
- Portion LIX (59)
    1. Site Clearance
    2. Setting Up including T&C of High Arsenic-Containing Soil (HAS) Treatment Plant

Contract No. ND/2024/03

- Portion XVI
    1. Site Clearance and Tree Works
    2. Watermain and Sewer Pipe Laying
- Portion IX
    1. Asbestos Removal Works
- Portion XI
    1. Site Clearance and Tree Works
    2. Ground Investigation
- TTA stage 1 Works
    1. Tree Works
    2. Demolish of Central Divider & Barrier
- TTA stage 1B
    1. Site Clearance
- TTA stage 3
    1. Predrilling & Piling Works
- Works Areas – WA1, WA2, WA3 & WA4
    1. Site Clearance and Site Formation

2. Hoarding Works
3. Asbestos Removal Works

Contract No. ND/2024/04

- Site Clearance
- Site Establishment
- Tree works
- Demolition of existing structures
- Pre-drilling

Contract No. ND/2024/06

- Forming Haul Road beside Existing THFWSR For Excavation Works of Portion A;
- Transplantation of fern (2nd batch);
- Ground investigation works
- Slope trimming and soil nailing works of cut slope S1 & S2 / access road of Portion A;
- Preservation Works for Plant with Conservation Importance (2nd Stage);
- Demolition of DN2000 pipes and associated thrust blocks of Portion D &
- Watermains laying works at Fu Tei Au Road of Portion C

Contract No. ND/2024/07

- Site Clearance
- Site Formation
- Construction of Site Accommodation
- Pre-bored Socketed H Pile Construction
- Sheet Piling
- Trial Pit Excavation
- Foundation Works at Footbridge FB4 &FB5
- Tree Felling & Transplantation
- Asbestos Containing Materials Survey
- Archaeological Impact Assessment
- Construction of Underground Utilities (subject to TMLG approval)
- Land Contamination Investigation
- Internal Movement, Importation & Exportation of C&D materials

12.1.2 Potential environmental impacts arising from the above construction activities are mainly associated with construction noise impact, water quality impact, ecological impact, waste management, and landscape and visual.

12.2 Recommendation

12.2.1 The key environmental mitigation measures for the Project in the coming reporting period expected to be associated with the construction activities include:

Dust

- Regular watering to reduce dust emissions from exposed site surface;
- Stockpile of dusty materials shall be covered entirely by impervious sheeting;
- Provide vehicles washing facilities at all site exits to wash away any dusty materials from vehicle body;
- NRMM Labels should be displayed on the applicable equipment on site by the Contractor;
- Provision of water sprinklers along the haul road for dust suppression.

Noise

- Only well-maintained plant should be operated on-site, and plant should be maintained regularly during the construction programme; and
- Quality Powered Mechanical Equipment (QPME) should be adopted as far as possible.

Water Quality

- No effluent discharge would be allowed before acquired the effluent discharge license;
- Surface run-off from construction sites should be discharged into dedicated discharge point via adequately designed sand/ silt removal facilities;
- Channels/ earth bunds/ sandbags barriers should be provided on site to properly direct stormwater to silt removal facilities;
- Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly;
- Open stockpiles of construction materials on sites should be covered with tarpaulin or similar fabric during rainstorms; and
- Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site.

Waste Management

- Provision of sufficient waste disposal points and regular collection of waste;
- Regular cleaning and maintenance programme for drainage system; and

- Chemical containers shall be stored with drip tray underneath.

Landscape and Visual

- Construction activities shall be carefully designed to minimize impact on existing retained trees

Land Contamination

- Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of soil to minimise runoff.

Landfill Gas Hazard

- "No Smoking" and "No Naked Flame" notices in Chinese and English should be posted prominently around the construction site.

Ecology

- Properly erect and maintain 2m high solid barriers for protection.

12.2.2 The tentative impact monitoring schedule for the next reporting period is shown in the **Appendix 12.1**. The regular impact monitoring will be conducted at the same monitoring locations in the next reporting period.

13 Conclusions

13.1 Conclusion

13.1.1 This is the 5th Monthly EM&A Report summarizing the findings of EM&A works at Works Contract No. ND/2024/01 under the Project with EP-467/2013/A and EP-468/2013/A, Works Contract No. ND/2024/04 under the Project with EP-465/2013/A and EP-471/2013/A, Works Contract No. ND/2024/06 under Environmental Permit No. EP-470/2013/A and for Contract No. ND/2024/07 under Environmental Permit No. EP-476/2013 during the reporting period from 01 to 31 May 2025. No construction works occur in the remaining contracts during the reporting period for Contract No. ND/2024/02, ND/2024/03, ND/2024/05 and ND/2024/08.

13.1.2 No Action Level or Limit Level exceedance was recorded for air quality and construction noise monitoring in the reporting period.

13.1.3 All ambient arsenic monitoring was conducted as scheduled in the reporting period. No Action or Limit Level exceedance was recorded during ambient arsenic monitoring in the reporting period.

13.1.4 All ecological monitoring was conducted as scheduled in the reporting period. No Action or Limit Level exceedance was recorded during the ecological monitoring in the reporting period.

13.1.5 Environmental site inspections were conducted at Works Contract No. ND/2024/01 on 9, 13, 20 and 27 May 2025. For Works Contact No. ND/2024/04 were carried out on 13 and 23 May 2025. For Works Contact No. ND/2024/06 were carried out on 7, 14 and 19 May 2025. For Works Contract No. ND/2024/07 were carried out on 8, 15, 22 and 24 May 2025.

13.1.6 No environmental complaint was received in the reporting period.

13.1.7 No notification of summons and prosecution was received in the reporting period.

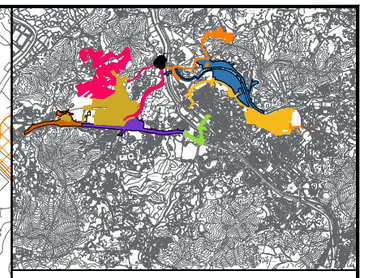
13.1.8 The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

13.1.9 No change to the EM&A programme was made in this reporting period.

13.2 Comments/ Recommendations

13.2.1 The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.

Figure 1.1 Location and Site Layout Plan (KTN)



Key Plan

Legend

- ND/2024/01
- ND/2024/02
- ND/2024/03
- ND/2024/04
- ND/2024/05
- ND/2024/06
- ND/2024/07
- ND/2024/08

Client

Project

Contract No. NDO 05/2024
Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tong North and Fanling North New Development Areas

Drawing Title

Location and Site Layout Plan
KTN

Consultant

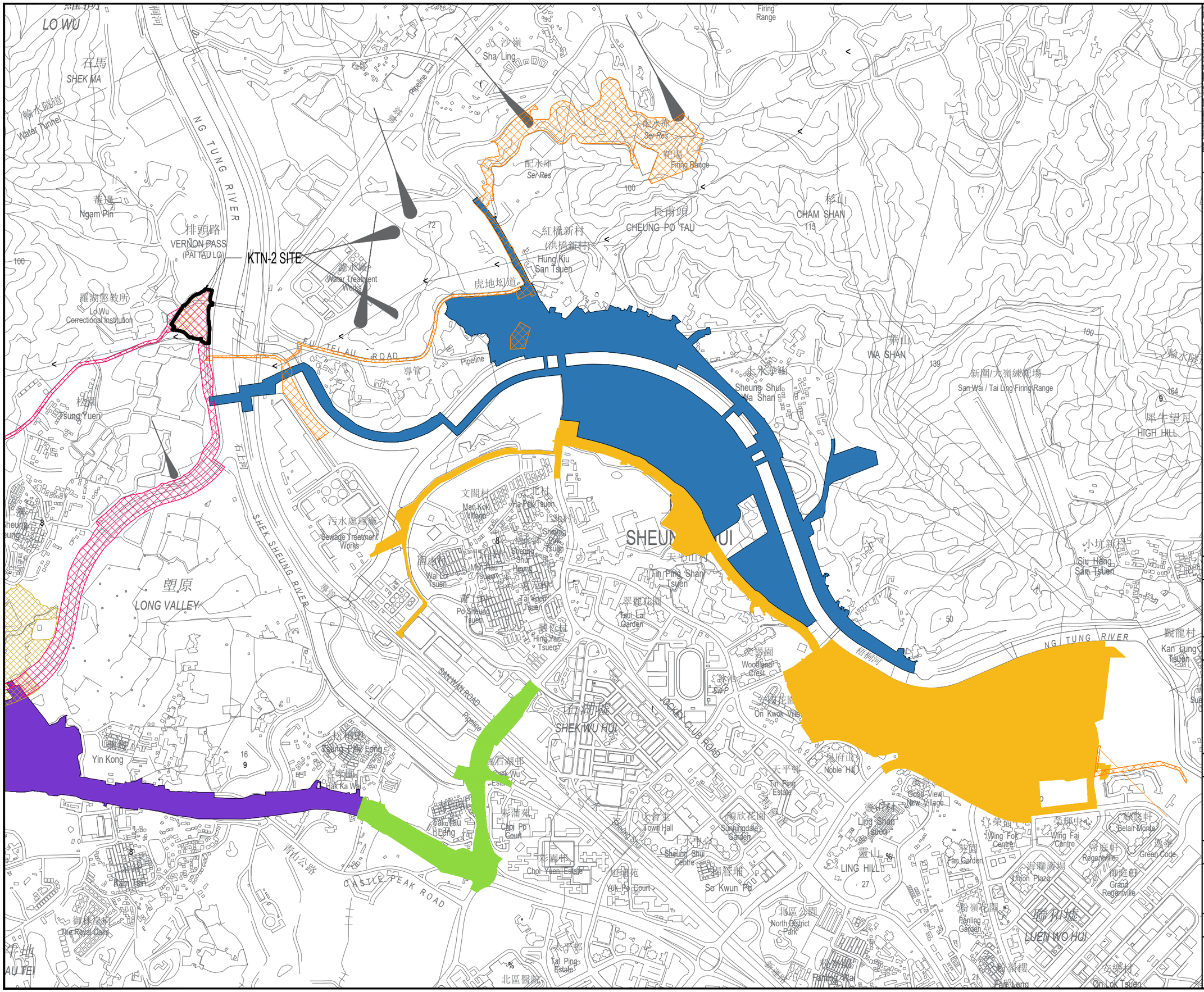
aurecon
www.aurecongroup.com

Scale	Date	Rev
Not to Scale	24 Oct 2024	0

Drawing Number

Figure 1.1

Figure 1.2 Location and Site Layout Plan (FLN)



Client

Project

Contract No. NDO 05/2024
Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tong North and Fanling North New Development Areas

Drawing Title

Location and Site Layout Plan
FLN

Consultant

aurecon
www.aurecongroup.com

Scale	Date	Rev
Not to Scale	24 Oct 2024	0

Drawing Number

Figure 1.2

Figure 2.1 Location of Air Quality Monitoring Stations for KTN NDA

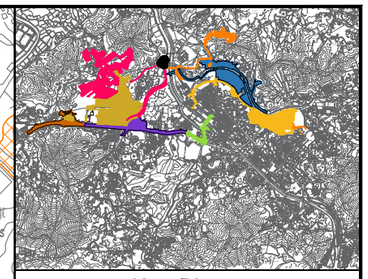
KTN-DMS2

KTN-DMS3

KTN-DMS1

KTN-DMS4(B)

KTN-2 SITE



Key Plan

Legend

- ND/2024/01
- ND/2024/02
- ND/2024/03
- ND/2024/04
- ND/2024/05
- ND/2024/06
- ND/2024/07
- ND/2024/08
- Air Quality Monitoring Station

Remarks:
For air quality monitoring station (i.e. FLN-DMS3) is not relevant to the Remaining Phase of KTN/FLN NDAs Projec as the distance between the location of that monitoring sta and the works boundaries of the nearest works contracts (Contract Nos. ND/2024/06 and ND/2024/07)

Client

Project

Contract No. NDO 05/2024
Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tong North and Fanling North New Development Areas

Drawing Title

Location of Air Quality Monitoring Stations for KTN NDA

Consultant

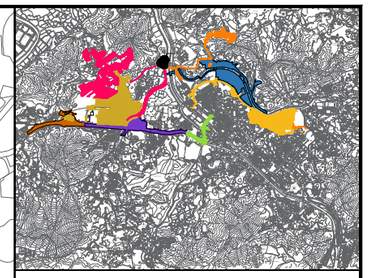
aurecon
www.aurecongroup.com

Scale	Date	Rev
Not to Scale	24 Oct 2024	0

Drawing Number

Figure 2.1

Figure 2.2 Location of Air Quality Monitoring Stations for FLN NDA



Key Plan

Legend

- ND/2024/01
- ND/2024/02
- ND/2024/03
- ND/2024/04
- ND/2024/05
- ND/2024/06
- ND/2024/07
- ND/2024/08
- Air Quality Monitoring Station

Remarks:
For air quality monitoring station (i.e. FLN-DMS3) is not relevant to the Remaining Phase of KTN/FLN NDAs Project, as the distance between the location of that monitoring station and the works boundaries of the nearest works contracts (i.e. Contract Nos. ND/2024/06 and ND/2024/07)

Client

Project

Contract No. NDO 05/2024
Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tong North and Fanling North New Development Areas

Drawing Title

Location of Air Quality Monitoring Stations for FLN NDA

Consultant

aurecon
www.aurecongroup.com

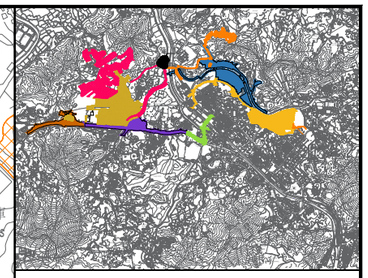
Scale	Date	Rev
Not to Scale	24 Oct 2024	0

Drawing Number

Figure 2.2

Figure 3.1 Location of Noise Monitoring Stations for KTN NDA

CP-KTN-NMS1
CP-KTN-NMS2
CP-KTN-NMS3
CP-KTN-NMS4
CP-KTN-NMS5
CP-KTN-NMS6
CP-KTN-NMS7
KTN-2 SITE



Key Plan

Legend

- ND/2024/01
- ND/2024/02
- ND/2024/03
- ND/2024/04
- ND/2024/05
- ND/2024/06
- ND/2024/07
- ND/2024/08
- Noise Monitoring Station

Client

Project

Contract No. NDO 05/2024
Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tong North and Fanling North New Development Areas

Drawing Title

Location of Noise Monitoring Stations for KTN NDA

Consultant

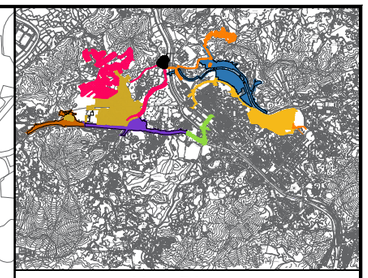
aurecon
www.aurecongroup.com

Scale	Date	Rev
Not to Scale	24 Oct 2024	0

Drawing Number

Figure 3.1

Figure 3.2 Location of Noise Monitoring Stations for FLN NDA



Key Plan

Legend

- ND/2024/01
- ND/2024/02
- ND/2024/03
- ND/2024/04
- ND/2024/05
- ND/2024/06
- ND/2024/07
- ND/2024/08
- Noise Monitoring Station

Client

Project

Contract No. NDO 05/2024
Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tong North and Fanling North New Development Areas

Drawing Title

Location of Noise Monitoring Stations for FLN NDA

Consultant

aurecon
www.aurecongroup.com

Scale	Date	Rev
Not to Scale	24 Oct 2024	0

Drawing Number

Figure 3.2

Figure 6.1 Transect Routes for Non-aquatic Fauna Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution (T1, T4 and T6), Aquatic Fauna Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley (MS_01 - MS_10), and Waterbirds Monitoring of Measures to Minimise Disturbance to Waterbird (T3 and T5) for KTN NDA

LEGEND:

- ND/2019/01
- ND/2019/02
- ND/2019/04
- ND/2019/05
- ND/2024/01
- ND/2024/02
- ND/2024/03
- ND/2024/04
- ND/2024/05
- ND/2024/06
- ND/2024/07
- ND/2024/08

Monitoring of Non-aquatic Fauna
T1* Ma Tso Lung Riparian Zone and Associated Wetland Habitats; Green Belt Areas E1-8, D1-8 and G1-3 in KTN NDA; AGR Zone C2-4 and C2-2 in KTN NDA; Areas North of Ng Tung River (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS7* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS10* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS8* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS9* Ma Tso Lung Stream (Contract #01 & #02)

KTN-2 SITE

Monitoring of Aquatic Fauna
MS4* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS6* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS2* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS3* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS1* Ma Tso Lung Stream (Contract #01 & #02)

Monitoring of Aquatic Fauna
MS5^ Ma Tso Lung Stream (Contract #01; #02)

Monitoring of Waterbirds
T5* Long Valley (Contract #01; #02 & #03)
Monitoring of Non-aquatic Fauna
T7* Long Valley (Contract #01; #02 & #03)

Monitoring of Non-aquatic Fauna
T6* Areas West and East of the Southern Limit of the FLN NDA Work Area (Contract #02 & #05)

Monitoring of Waterbirds
T3* Sheung Yue River (Contract #01; #02; #03; #06; #07 & #08)

Monitoring of Non-aquatic Fauna
T4* South Side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au (Contract #03 & #05)

LEGENDS :

- Locations for Monitoring of Aquatic Fauna
- Transects for Monitoring of Non-aquatic Fauna
- Transects for Monitoring of Waterbirds at Long Valley
- Transects for Monitoring of Waterbirds at Sheung Yue River

Remarks:
(1) Contract numbers (i.e. Contract #01) annotated in the figure are the contracts under Remaining Phase. (Contract #01 refers to ND/2024/01)
^ Environmental monitoring works to be carried by the First Phase Environmental Team (Wellab) under Service Contract No. NDO 04/2019
* Environmental monitoring works to be carried by the Remaining Phase Environmental Team (Aurecon) under Service Contract No. NDO 05/2024

修訂 REVISION

	姓名 name	簽署 initial	日期 date
繪圖 drawn	K S WONG		09.07.24
核對 checked	M K KWAN		09.07.24

核准 approved

日期 date

工程編號 project no.

檔案編號 file no.

合約編號 contract no.

合約 contract

圖則名稱 drawing title

Transect Routes for Non-aquatic Fauna Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution (T1, T4 and T6), Aquatic Fauna Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley (MS_01 - MS_10), and Waterbirds Monitoring of Measures to Minimise Disturbance to Waterbird (T3 and T5) for KTN NDA

圖則編號 drawing no.
CDNKFNZ0446

比例 scale
1:15000

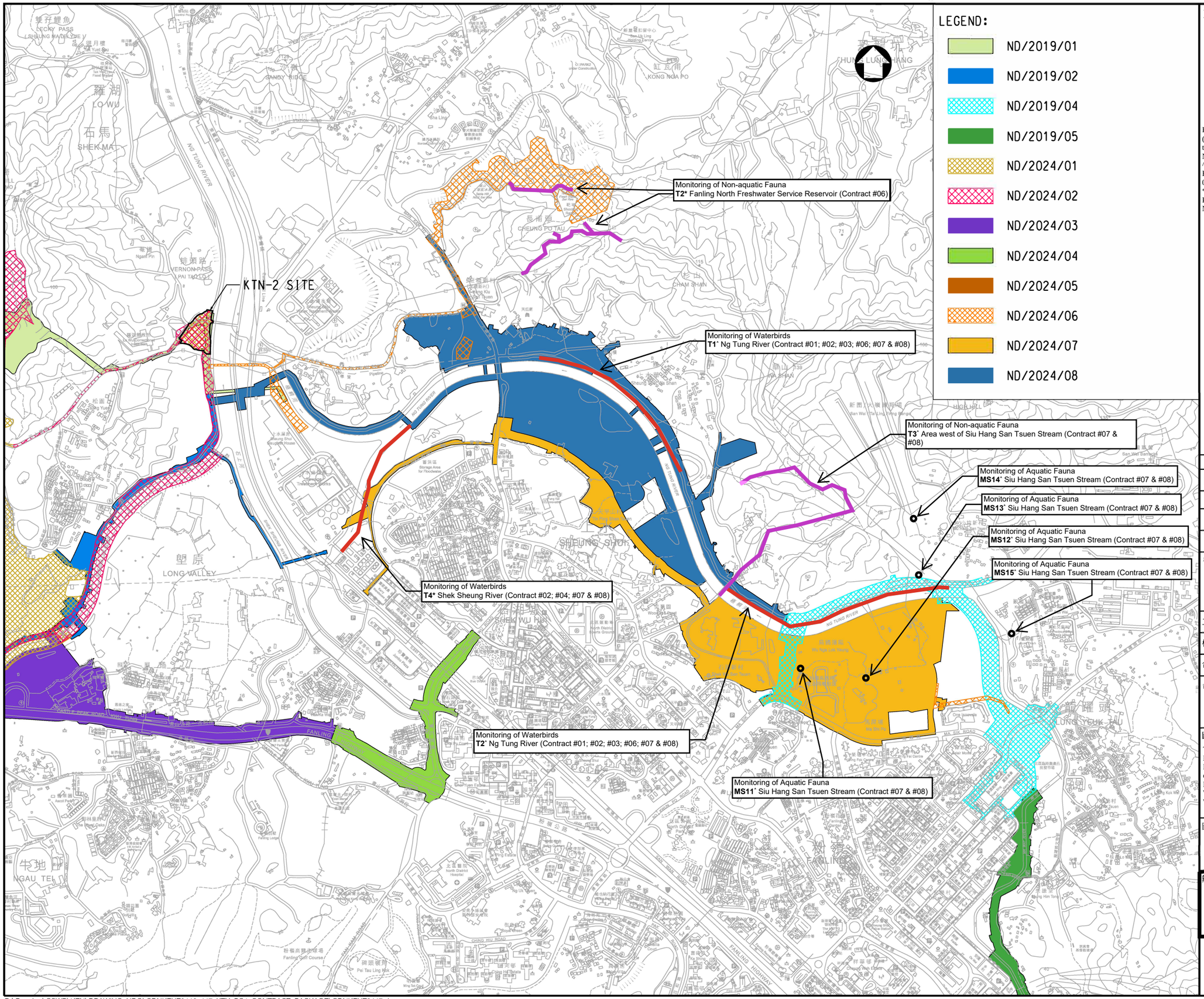
辦事處 office
北拓展處
NORTH DEVELOPMENT OFFICE

CEDD
土木工程拓展署
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

R:\Drawing\CSWP\KFN\DRAWING_NDO\CDNKFNZ0446-447_KTN_PC4_CONTRACT PACKAGE\CDNKFNZ0446.dgn

A3 420MM X 297MM

Figure 6.2 Transect Routes for Non-aquatic Fauna Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution (T2 and T3), Aquatic Fauna Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley (MS_11 - MS_15), and Waterbirds Monitoring of Measures to Minimise Disturbance to Waterbird (T1, T2 and T4) for FLN NDA



LEGENDS :

- Locations for Monitoring of Aquatic Fauna
- Transects for Monitoring of Non-aquatic Fauna
- Transects for Monitoring of Waterbirds at Shek Sheung River and Ng Tung River

Remarks:
(1) Contract numbers (i.e. Contract #01) annotated in the figure are the contracts under Remaining Phase. (Contract #01 refers to ND/2024/01)
^ Environmental monitoring works to be carried by the First Phase Environmental Team (Wellab) under Service Contract No. NDO 04/2019
* Environmental monitoring works to be carried by the Remaining Phase Environmental Team (Aurecon) under Service Contract No. NDO 05/2024

編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved

修訂 REVISION

	姓名 name	簽署 initial	日期 date
繪圖 drawn	K S WONG		09.07.24
核對 checked	M K KWAN		09.07.24

核准 approved

日期 date

工程編號 project no.

檔案編號 file no.

合約編號 contract no.

合約 contract

圖則名稱 drawing title

Transect Routes for Non-aquatic Fauna Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution (T2 and T3), Aquatic Fauna Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley (MS_11 - MS_15), and Waterbirds Monitoring of Measures to Minimise Disturbance to Waterbird (T1, T2 and T4) for FLN NDA

圖則編號 drawing no.

CDNKFNZ0447

比例 scale

1:15000

辦事處 office

北拓展處
NORTH DEVELOPMENT OFFICE

土木工程拓展署
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

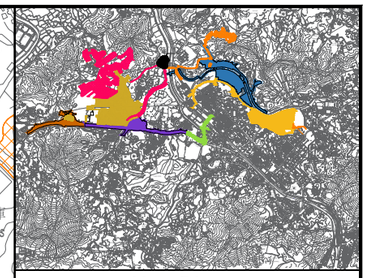
R:\Drawing\CSWP\KFN\DRAWING_NDO\CDNKFNZ0446-447_KTN_PC4_CONTRACT PACKAGE\CDNKFNZ0447.dgn

A3 420MM X 297MM

Figure 8.1 Location of Ambient Arsenic Monitoring Stations for KTN NDA

KTN-2 SITE

KTN-DMS-4A



Key Plan

Legend

- ND/2024/01
- ND/2024/02
- ND/2024/03
- ND/2024/04
- ND/2024/05
- ND/2024/06
- ND/2024/07
- ND/2024/08
- Ambient Arsenic Monitoring Station

Client

Project

Contract No. NDO 05/2024
Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tong North and Fanling North New Development Areas

Drawing Title

Location of Ambient Arsenic Monitoring Stations for KTN NDA

Consultant

aurecon
www.aurecongroup.com

Scale	Date	Rev
Not to Scale	24 Oct 2024	0

Drawing Number

Figure 8.1

Appendix 1.1 Construction Programme

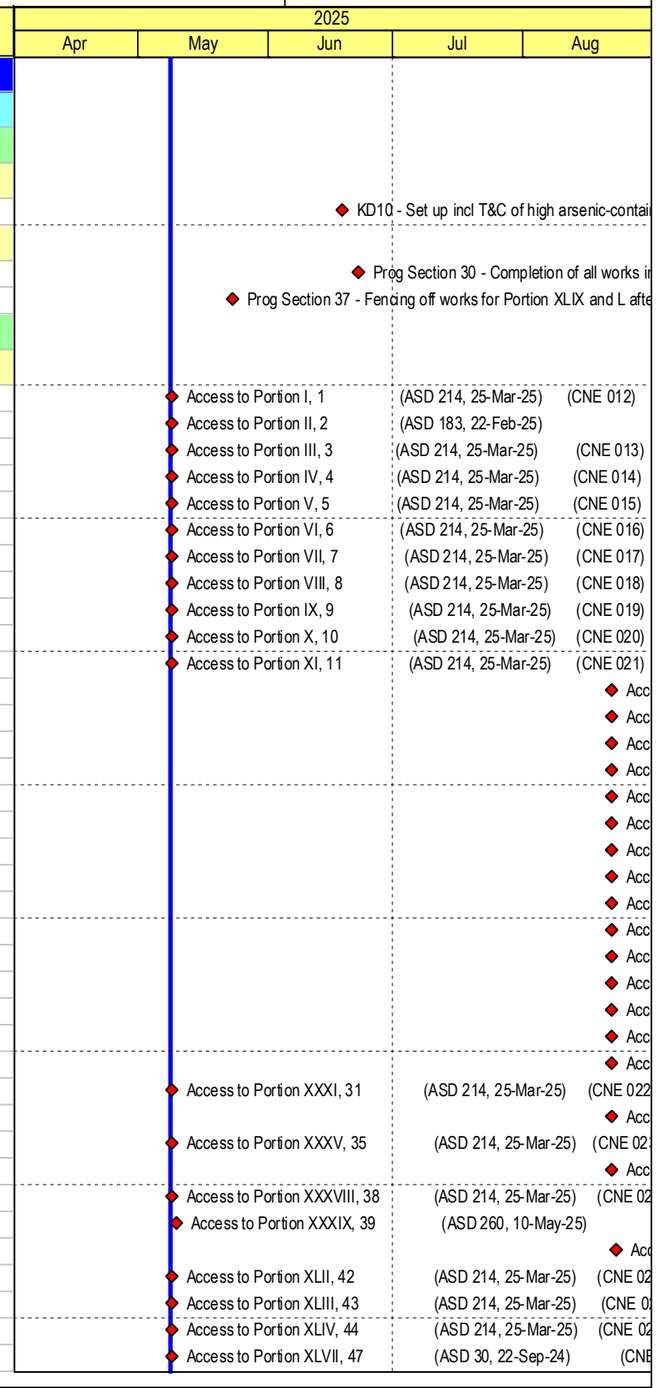
Construction Programme for Works Contract No. ND/2024/01

ND/2024/01 - KWU TUNG NORTH NEW DEVELOPMENT AREA, REMAINING PHASE: SITE FORMATION & INFRASTRUCTURE WORKS (SOUTH)

AECOM

CEDD 土木工程拓展署 Civil Engineering and Development Department

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
ND/2024/01 Revised Programme (2025-05-08) Rev 0 draft Final							
CONTR. / PROG. KEY DATES (COMMENCEMENT, PROJ. STARTING, COMPL. OF WHOLE OF THE WORKS ASD2210)							
CONTRACT COMPL. OF 14 KD (ASD 299 TO 1740) AND 41 SECTION (ASD 214 TO 1859+365DAY) IN TIMELY ORDER							
KEY DATES (14 NOS.) - KD1 TO KD 12 (FROM ASD 299 TO ASD 1740 IN 14 TIMELY ORDER)							
CD.KD-010	KD10 - Set up incl T&C of high arsenic-contain soil treat plants in Port LIX as stipulated in PS30 (ASD299, 18-Jun-25)	0	0		18-Jun-25*	0	1-7WD
SECTIONS (41 NOS.) - SECTION 1 TO SECTION 41 (FROM ASD 214 TO ASD 1859 + 365DAY, IN TIMELY ORDER)							
CD.SEC-030	Prog Section 30 - Completion of all works in Area AD (ASD 303, 22-Jun-25)	0	0		22-Jun-25*	0	1-7WD
CD.SEC-037	Prog Section 37 - Fencing off works for Portion XLIX and L after land resumption by Lands Depart (ASD 273, 23-May-25)	0	0		23-May-25*	0	1-7WD
ACCESS DATES - 60 POR IN 15 ORDER FR ASD30 (7 POR) TO ASD214 (17 POR) TO ASD364 (18 POR) TO ASD1461							
ACCESS DATES							
AD-1000	Access to Portion I, 1 (ASD 214, 25-Mar-25) (CNE 012)	0	0	09-May-25*		-45	1-7WD
AD-1010	Access to Portion II, 2 (ASD 183, 22-Feb-25)	0	0	09-May-25*		-87	1-7WD
AD-1020	Access to Portion III, 3 (ASD 214, 25-Mar-25) (CNE 013)	0	0	09-May-25*		-165	1-7WD
AD-1030	Access to Portion IV, 4 (ASD 214, 25-Mar-25) (CNE 014)	0	0	09-May-25*		-87	1-7WD
AD-1040	Access to Portion V, 5 (ASD 214, 25-Mar-25) (CNE 015)	0	0	09-May-25*		-97	1-7WD
AD-1050	Access to Portion VI, 6 (ASD 214, 25-Mar-25) (CNE 016)	0	0	09-May-25*		-113	1-7WD
AD-1060	Access to Portion VII, 7 (ASD 214, 25-Mar-25) (CNE 017)	0	0	09-May-25*		-45	1-7WD
AD-1070	Access to Portion VIII, 8 (ASD 214, 25-Mar-25) (CNE 018)	0	0	09-May-25*		-45	1-7WD
AD-1080	Access to Portion IX, 9 (ASD 214, 25-Mar-25) (CNE 019)	0	0	09-May-25*		-45	1-7WD
AD-1090	Access to Portion X, 10 (ASD 214, 25-Mar-25) (CNE 020)	0	0	09-May-25*		-45	1-7WD
AD-1100	Access to Portion XI, 11 (ASD 214, 25-Mar-25) (CNE 021)	0	0	09-May-25*		-45	1-7WD
AD-1110	Access to Portion XII, 12 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1120	Access to Portion XIII, 13 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1130	Access to Portion XIV, 14 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1140	Access to Portion XV, 15 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1150	Access to Portion XVI, 16 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1160	Access to Portion XVII, 17 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1170	Access to Portion XVIII, 18 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1180	Access to Portion XIX, 19 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		-20	1-7WD
AD-1200	Access to Portion XXI, 21 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1210	Access to Portion XXII, 22 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1220	Access to Portion XXIII, 23 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1240	Access to Portion XXV, 25 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1260	Access to Portion XXVII, 27 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1270	Access to Portion XXVIII, 28 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1290	Access to Portion XXX, 30 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1300	Access to Portion XXXI, 31 (ASD 214, 25-Mar-25) (CNE 022)	0	0	09-May-25*		-45	1-7WD
AD-1320	Access to Portion XXXIII, 33 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1340	Access to Portion XXXV, 35 (ASD 214, 25-Mar-25) (CNE 023)	0	0	09-May-25*		-45	1-7WD
AD-1350	Access to Portion XXXVI, 36 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1370	Access to Portion XXXVIII, 38 (ASD 214, 25-Mar-25) (CNE 024)	0	0	09-May-25*		-46	1-7WD
AD-1380	Access to Portion XXXIX, 39 (ASD 260, 10-May-25)	0	0	10-May-25*		0	1-7WD
AD-1400	Access to Portion XLI, 41 (ASD 365, 23-Aug-25)	0	0	23-Aug-25*		0	1-7WD
AD-1410	Access to Portion XLII, 42 (ASD 214, 25-Mar-25) (CNE 025)	0	0	09-May-25*		-45	1-7WD
AD-1420	Access to Portion XLIII, 43 (ASD 214, 25-Mar-25) (CNE 026)	0	0	09-May-25*		-45	1-7WD
AD-1430	Access to Portion XLIV, 44 (ASD 214, 25-Mar-25) (CNE 027)	0	0	09-May-25*		-45	1-7WD
AD-1450	Access to Portion XLVII, 47 (ASD 30, 22-Sep-24) (CNE 002)	0	0	09-May-25*		-229	1-7WD



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

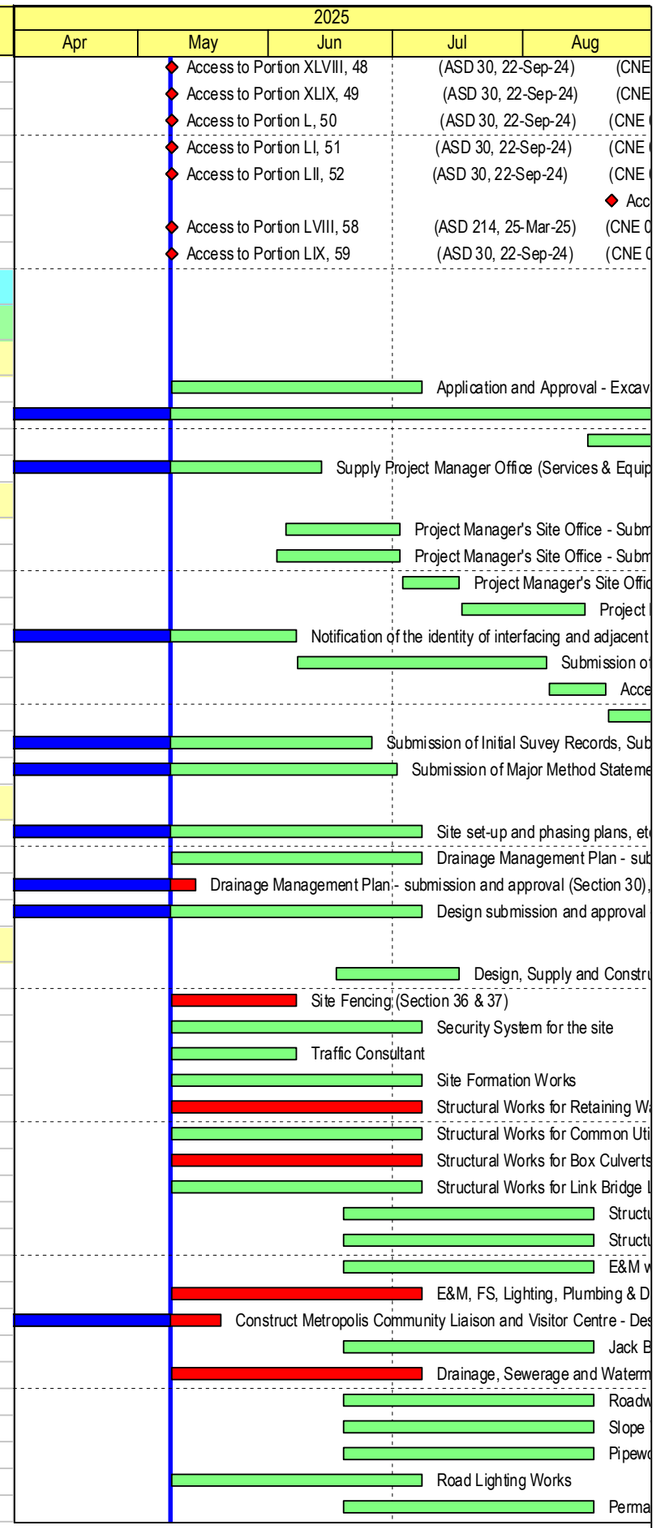
(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
AD-1460	Access to Portion XLVIII, 48 (ASD 30, 22-Sep-24) (CNE 003)	0	0	09-May-25*		-229	1-7WD
AD-1470	Access to Portion XLIX, 49 (ASD 30, 22-Sep-24) (CNE 004)	0	0	09-May-25*		-229	1-7WD
AD-1480	Access to Portion L, 50 (ASD 30, 22-Sep-24) (CNE 005)	0	0	09-May-25*		-229	1-7WD
AD-1490	Access to Portion LI, 51 (ASD 30, 22-Sep-24) (CNE 006)	0	0	09-May-25*		-229	1-7WD
AD-1500	Access to Portion LII, 52 (ASD 30, 22-Sep-24) (CNE 007)	0	0	09-May-25*		-229	1-7WD
AD-1510	Access to Portion LIII, 53 (ASD 364, 22-Aug-25)	0	0	22-Aug-25*		0	1-7WD
AD-1520	Access to Portion LVIII, 58 (ASD 214, 25-Mar-25) (CNE 028)	0	0	09-May-25*		-45	1-7WD
AD-1530	Access to Portion LIX, 59 (ASD 30, 22-Sep-24) (CNE 008)	0	0	09-May-25*		-229	1-7WD
PROGRAMME SUMMARY (PRELIM, INTERFACE, S TREATMENT, CUE, STRUCTUE, SITE FORM, R&D, DCS, OPS, LS, ETC)							
PRELIMINARY WORKS, SUBMISSION & APPROVAL, INTERFACE MANAGEMENT, TEMPORARY TRAFFIC MANAGEMENT							
PRELIMINARIES - EXCAVATION PERMIT, PRE-CONSTRUCTION SURVEY, ETC							
PRE.000020	Application and Approval - Excavation Permit	60	60	09-May-25	07-Jul-25	1	1-7WD
PRE.000030	Conduct Pre-Construction Condition Survey	1200	1038	28-Oct-24 A	04-Nov-28	125	2-6WD_GH_31
PRE.000050	Construct Project Manager's Site Office (including Services, Equipment, Furniture, etc)	180	180	16-Aug-25	11-Feb-26	1155	1-7WD
PRE.000060	Supply Project Manager Office (Services & Equipment)	60	30	03-Feb-25 A	13-Jun-25	1133	2-6WD_GH_31
GENERAL SUBMISSION							
GS-1000	Project Manager's Site Office - Submit Details (Layout, Accesses, Structural designs, Furnish, etc)	28	28	05-Jun-25	02-Jul-25	1155	1-7WD
GS-1010	Project Manager's Site Office - Submit Design of Green Roof	30	30	03-Jun-25	02-Jul-25	1155	1-7WD
GS-1020	Project Manager's Site Office - Recieve Project Manger's Comments	14	14	03-Jul-25	16-Jul-25	1155	1-7WD
GS-1022	Project Manager's Site Office - Resubmission and Project Manager's Instruction	30	30	17-Jul-25	15-Aug-25	1155	1-7WD
GS-1170	Notification of the identity of interfacing and adjacent contractors (by the Supervisor)	30	30	23-Aug-24 A	07-Jun-25	418	1-7WD
GS-1180	Submission of Interface Management Plan	60	60	08-Jun-25	06-Aug-25	418	1-7WD
GS-1190	Acceptance of Interface Management Plan	14	14	07-Aug-25	20-Aug-25	418	1-7WD
GS-1200	Submission of Detailed Interface Document	30	30	21-Aug-25	19-Sep-25	418	1-7WD
GS-1260	Submission of Initial Suvey Records	60	48	10-Sep-24 A	25-Jun-25	1298	1-7WD
GS-1280	Submission of Major Method Statements	60	54	16-Sep-24 A	01-Jul-25	1547	1-7WD
SITE SET-UP, PHASING PLAN, DRAINAGE, TEMP WORKS, ICE, MS, QSEP, MATERIAL, SHOP DWG, ETC							
SUB.000110	Site set-up and phasing plans, etc - submission and approval	60	60	23-Aug-24 A	07-Jul-25	67	1-7WD
SUB.000120	Drainage Management Plan - submission and approval (Remaining)	60	60	09-May-25	07-Jul-25	67	1-7WD
SUB.000130	Drainage Management Plan - submission and approval (Section 30)	60	6	03-Jan-25 A	14-May-25	-83	1-7WD
SUB.000140	Design submission and approval - Temporary works, method statements, ICE	60	60	23-Aug-24 A	07-Jul-25	67	1-7WD
Subletting Packages							
SP-1000	Design, Supply and Construct Project Manager's Site Office	30	30	17-Jun-25	16-Jul-25	1155	1-7WD
SP-1010	Site Fencing (Section 36 & 37)	30	30	09-May-25	07-Jun-25	-192	1-7WD
SP-1070	Security System for the site	60	60	09-May-25	07-Jul-25	1906	1-7WD
SP-1090	Traffic Consultant	30	30	09-May-25	07-Jun-25	62	1-7WD
SP-1100	Site Formation Works	60	60	09-May-25	07-Jul-25	53	1-7WD
SP-1120	Structural Works for Retaining Walls (RW05, RW06, RW07, RW08)	60	60	09-May-25	07-Jul-25	-53	1-7WD
SP-1130	Structural Works for Common Utility Enclosure (CUE 1, CUE 2, CUE 3)	60	60	09-May-25	07-Jul-25	4	1-7WD
SP-1140	Structural Works for Box Culverts (CHA, CHB, CHC, CHD, CHE)	60	60	09-May-25	07-Jul-25	-12	1-7WD
SP-1150	Structural Works for Link Bridge L1 & L2 (RW03, RW04, RW09, RW10)	60	60	09-May-25	07-Jul-25	13	1-7WD
SP-1160	Structural Works for Foot Bridges (P1, P2, P3)	60	60	19-Jun-25	17-Aug-25	327	1-7WD
SP-1170	Structural Works for Noise Barriers (NB07, NB08, NB09, NB10, NB11, NB12, NB13, NB14, NB15, NB16, NB54)	60	60	19-Jun-25	17-Aug-25	227	1-7WD
SP-1180	E&M works and Lift Installation for Foot Bridges (P1, P2, P3)	60	60	19-Jun-25	17-Aug-25	813	1-7WD
SP-1190	E&M, FS, Lighting, Plumbing & Drainage works for Common Utility Enclosures (CUE 1, CUE 2, CUE 3)	60	60	09-May-25	07-Jul-25	-116	1-7WD
SP-1200	Construct Metropolis Community Liaison and Visitor Centre - Design	60	12	02-Jan-25 A	20-May-25	-170	1-7WD
SP-1230	Jack Box Method	60	60	19-Jun-25	17-Aug-25	105	1-7WD
SP-1240	Drainage, Sewerage and Watermain Laying Works	60	60	09-May-25	07-Jul-25	-92	1-7WD
SP-1250	Roadworks	60	60	19-Jun-25	17-Aug-25	388	1-7WD
SP-1260	Slope Works - Soil Nailing	60	60	19-Jun-25	17-Aug-25	555	1-7WD
SP-1270	Pipework for District Cooling System (DCS)	60	60	19-Jun-25	17-Aug-25	106	1-7WD
SP-1300	Road Lighting Works	60	60	09-May-25	07-Jul-25	279	1-7WD
SP-1310	Permanent Noise Barrier - Panel Installation	60	60	19-Jun-25	17-Aug-25	616	1-7WD



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

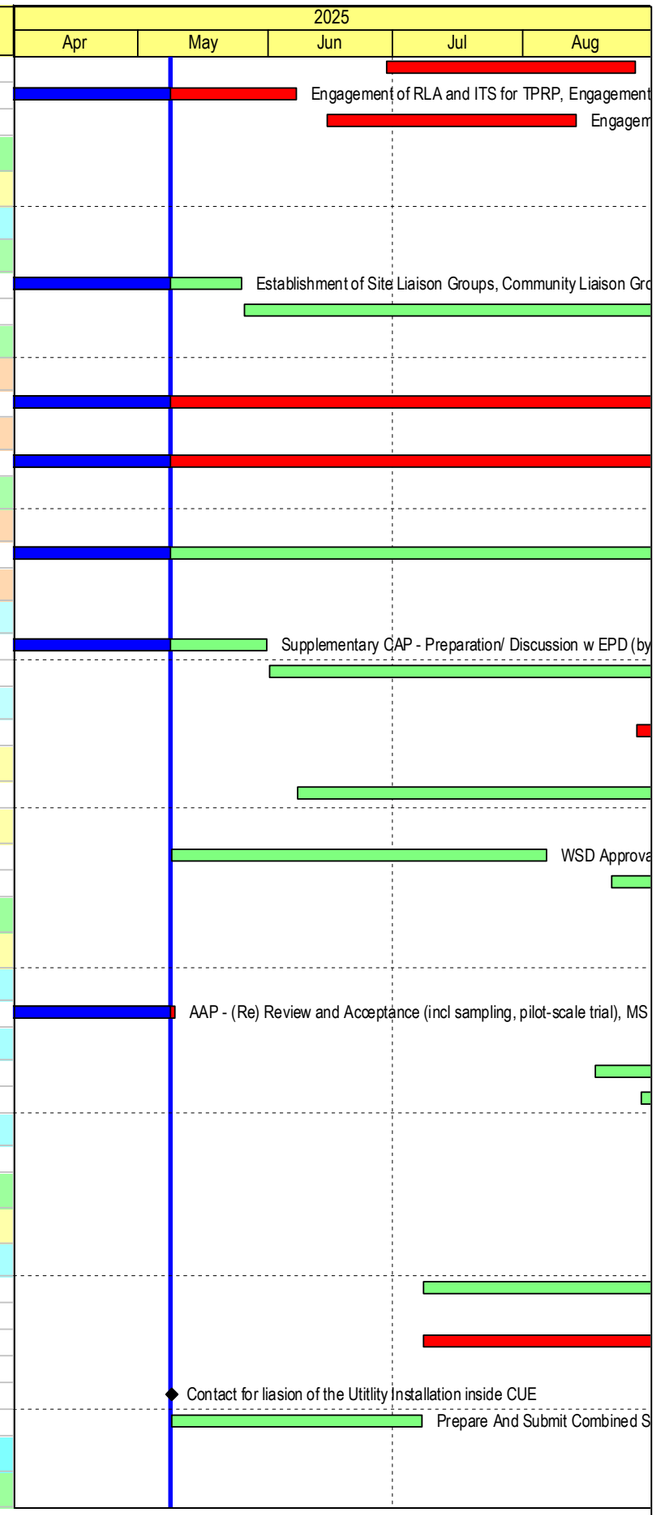
(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
SP-1320	Public Open Spaces - Design	60	60	29-Jun-25	27-Aug-25	-40	1-7WD
SP-1360	Engagement of RLA and ITS for TPRP	60	30	04-Dec-24 A	07-Jun-25	-198	1-7WD
SP-1370	Engagement of RLA for submissions (i.e. Landscape Plan and Compensatory Tree Planting Plan) PS 25 clearance	60	60	15-Jun-25	13-Aug-25	-130	1-7WD
LIAISON & INTERFACE MGT, TTA, UTILITIES INTERFACE, 18 STAKEHOLDERS, TENDERS4.b(ii)),PS1.31A,113,114A							
LISIAON AND INTERFACE MANAGEMENT, REF. TENDER ITEM (V) & (VI), PS 1.31A , 113, 114, 114A (HD)							
INTERFACE MANAGEMENT AND LIAISONS WITH OTHERS (TOTAL 18NR PLUS AUTHORITIES),REF.PS1.31A,113,114&114A							
ESTABLISHMENT OF SITE/COMMUNITY LAISION GROUPS AND INTERFACEMENT MANAGMENT PLAN (IMP) & DETAILED IMP							
INT.PRE.000010	Establishment of Site Liaison Groups, Community Liaison Groups, and Perodic Meeting and Resolution	90	17	16-Oct-24 A	25-May-25	295	1-7WD
INT.PRE.000100	Inteface Management Plan (IMP) and Detailed (DIMP) - Development, meetings, liaison, subm and approval (ongoing)	240	240	26-May-25	20-Jan-26	295	1-7WD
PUBLIC & PRIVATE PROJECTS							
PRIVATE DEVELOPER'S CONTRACTORS, REF PS 1.31A(2)(i)							
INT.PRIVATE.DEVEL	Interface - Private Developer's Contractors, ref. PS 1.31A(2)(i)	1824	1601	23-Aug-24 A	25-Sep-29	0	1-7WD
PROJECT OF CONSTRUCTION OF SCHOOLS, JOINT GOV COMPLEX, WET MARKET COMPLEX, ETC, PS 1.31A(2)(j)							
INT.PUBLIC.DEVEL	Interface - Project of construction of schools, joint government complex, wet market complex, ref. PS 1.31A(2)(j)	1824	1601	23-Aug-24 A	25-Sep-29	0	1-7WD
MTR NORTHER LINK (INCL KWU TUNG STN),EMSD (DISTRICT COOLING SYS), EPD (HIGH ARSENIC/CONTAM SOIL),ETC							
PROJECT OF CONSTRUCTION OF NORTHERN LINK (INCLUDING KWU TUNG STATION) BY MTRC, PS1.31A(2)(k)							
INT.MTR.NORTHLINK	Interface - Project of consturction of Northern Link (incl Kwu Tung Station) by MTRC, ref. PS 1.31A(2)(k)	1352	1093	23-Aug-24 A	05-May-28	38	1-7WD
AUTHORITIES - EPD (CONTAMINATED SOIL), WSD, DSD (MTG,INSPECTION, DIVERSION, CONNECTION), ETC							
AUTHORITIES - EPD CONTAMINATED SOIL (SCAP,CAR/RAP, IRR,RR)							
CST.STA-D1100.EPD	Supplementary CAP - Preparation/ Discussion w EPD (by LC&EC) - Submission and Approval by EPD (0 / 6 Stages Approved)	90	23	02-Dec-24 A	31-May-25	620	1-7WD
CST.STA-D1102.EPD	EPD - SCAP, CAR / RAP, IRR - Preparation/discussion w EPD (by LC&EC), Submission and approval	378	378	01-Jun-25	13-Jun-26	620	1-7WD
AUTHORITIES - EMSD & LCSD - CONSTRUCT/INSPECT/HO OF OPEN PUBLIC SPACE (AREA AA,AB & AC) &LANDSCAPING							
DES.LCSD.OPS10	Public Open Spaces 'Design Approval in Principles (AIP)' - Preparation, Submission and Approval (Remaining)	150	150	28-Aug-25	28-Feb-26	-34	2-6WD_GH_31
TEMPORARY TRAFFIC MANAGMENT &TMLG (SITE ENTRANCE, INTERFACE W EX ROADS, REF.DWG 4.04, 4.11 & 4.13							
PRE.TTA.000010	TTM - Design, ICE, Submission and Approval, TMLG Meetings	180	180	08-Jun-25	04-Dec-25	62	1-7WD
DIVERSION OF EXISTING WATERMAIN							
DIV.DSD.1010	WSD Approval for temporary diversion of existing 700mm watermain	90	90	09-May-25	06-Aug-25	143	1-7WD
DIV.DSD.1020	Installation of temporary pipes for diversion	90	90	22-Aug-25	19-Nov-25	128	1-7WD
TREATMENT OF HIGH ARSENIC SOIL (HAS) - EPD SUBM & APPR							
TREATMENT OF HAS- PM/EPD SUBM&APPROV- AAP&MS, PILOT SCALE TRIALS, PSTR, AAR&ATP, FULL TREATMENT, ATR							
PM/EPD - SUBMISSION AND APPROVAL - PLANT, AAP/MS , PSTR (PILOT), AAR/ATP , ATR (FINAL)							
CST.HAS.02020	AAP - (Re) Review and Acceptance (incl sampling, pilot-scale trial), MS &BF by PM and EPD	90	1	21-Nov-24 A	09-May-25	-33	1-7WD
PILOT-SCALE TRIALS (PST) - SAMPLING (16 NR, PS APP30.1) INSITU AND LAB TEST, PREAPARE PST REPORT							
CST.HAS.04020	Pilot-Scale Trails (PST) - 1800m3- Suitabilty of technique/method b/f,optimal ratio, cur method,etc (2 wk,PS30.07) EGI	151	151	18-Aug-25	16-Feb-26	493	2-6WD_GH_31
CST.HAS.04030	Pilot-Scale Trials Report (PSTR) - Preparation and review (by S/S Specialist, LC & EC), and submission to PM & EPD	172	172	29-Aug-25	27-Mar-26	493	2-6WD_GH_31
TREATMENT BY CEMENT S/S (18,000M3), VERFICATION TESTINGS, BACKFILL IN COMPLIANCE W APPR H&S,QA &QC							
CST.HAS.06010	S/S Treatment - Handling in compliance w H&S/QA/QC requir,operate,mainten&monitoring-Metal C/S Type A	150	150	04-Sep-25	07-Mar-26	489	2-6WD_GH_31
CUE1, 2 & 3 - PRELIM, DESIGN & APPR, TEMP WORKS, STRUCTURE, FINISHES, E&M, TEST, FSD INSPECTION, ETC							
PRELIM - DESIGN & APPR, SITE FORMATION, HAUL ROAD, MOBILISATION, INSTRUMENATION, TW, TTA, ETC							
E&M - MVAC, ELEC, PLUMB & DRAIN, FS DESIGN, GBP, COMBINED SERVICES AND APPROVAL							
CE2.1EM.000010	Prepare And Submit Design for MVA, Elect, Plumb & Drain, Fire Servies to Project Manager for Comments	60	60	08-Jul-25	05-Sep-25	421	1-7WD
CE2.1EM.000020	Review and Comments by Project Manager	14	14	06-Sep-25	19-Sep-25	421	1-7WD
CE2.1EM.000050	Prepare And Submit General Plan (GBP) of the CUE for FSD Approval	60	60	08-Jul-25	05-Sep-25	-116	1-7WD
CE2.1EM.000060	Review and Apporval of General Plan (GBP) of the CUE by FSD	60	60	06-Sep-25	04-Nov-25	-116	1-7WD
CE2.1EM.000070	Contact for liasion of the Utitlity Installation inside CUE	0	0	09-May-25		3	2-6WD_GH_31
CE2.1EM.000080	Prepare And Submit Combined Services drawings of the CUE	60	60	09-May-25	07-Jul-25	4	1-7WD
CONSTRUCTION							
SECTION 1							



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

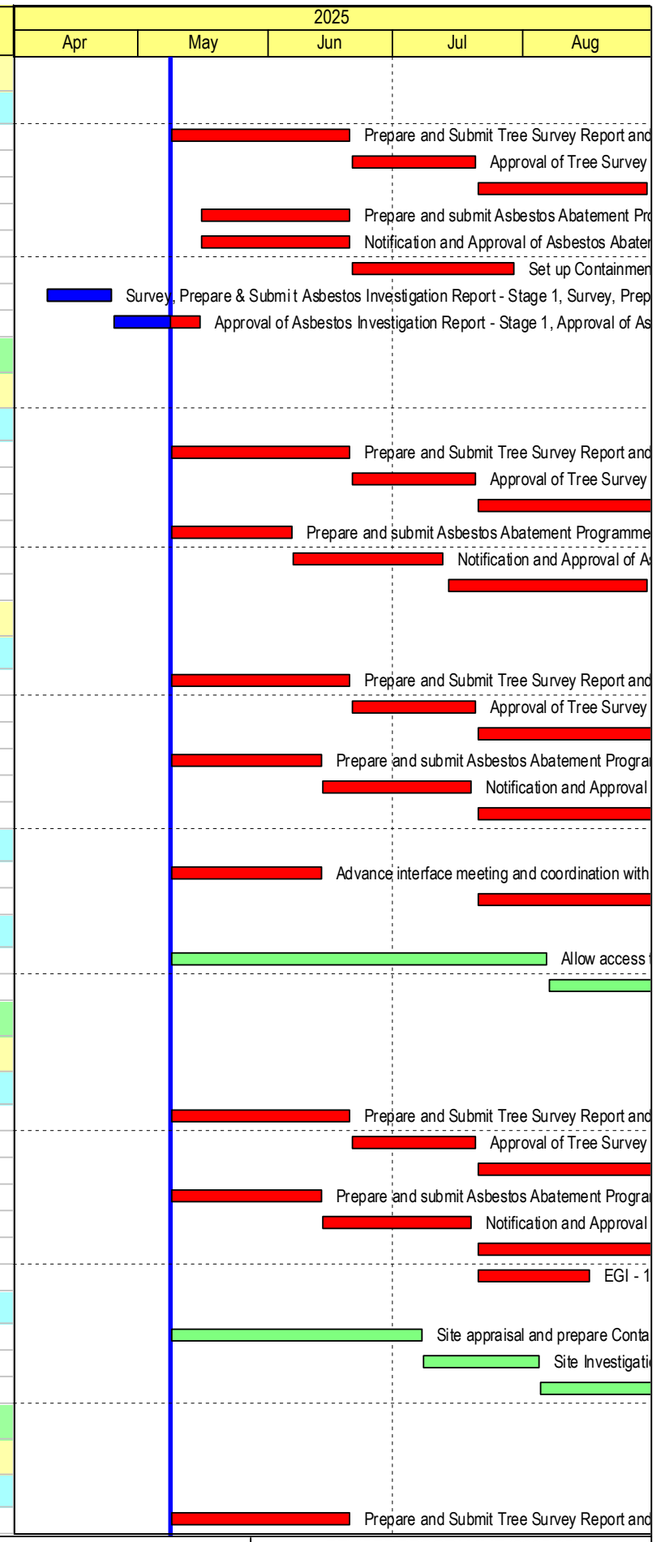
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
Portion 1 in Area A (ASD 214, 25-Mar-25)							
Preparatoin Works							
S01P01-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-32	2-6WD_GH_31
S01P01-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-38	1-7WD
S01P01-1030	Site Clearance, Haul Road, Demolition and Tree Felling	36	36	21-Jul-25	30-Aug-25	-31	2-6WD_GH_31
S01P01-1060	Prepare and submit Asbestos Abatement Programme	30	30	16-May-25	20-Jun-25	-3	2-6WD_GH_31
S01P01-1070	Notification and Approval of Asbestos Abatement Programme	36	36	16-May-25	20-Jun-25	-3	1-7WD
S01P01-1080	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	32	32	21-Jun-25	29-Jul-25	-3	2-6WD_GH_31
S01P01-1200	Survey, Prepare & Submit Asbestos Investigation Report - Stage 1	10	0	09-Apr-25 A	24-Apr-25 A		2-6WD_GH_31
S01P01-1210	Approval of Asbestos Investigation Report - Stage 1	24	6	25-Apr-25 A	15-May-25	-3	2-6WD_GH_31
SECTION 2							
Portion 2 in Area B (ASD 183, 22-Feb-25),							
Preparatoin Works							
S02P02-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-69	2-6WD_GH_31
S02P02-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-88	1-7WD
S02P02-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	-71	2-6WD_GH_31
S02P02-1040	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	-55	2-6WD_GH_31
S02P02-1050	Notification and Approval of Asbestos Abatement Programme	36	36	07-Jun-25	12-Jul-25	-72	1-7WD
S02P02-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	14-Jul-25	30-Aug-25	-59	2-6WD_GH_31
Portion 3 in Area B (ASD 214, 25-Mar-25)							
Preparatoin Works							
S02P03-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-130	2-6WD_GH_31
S02P03-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-163	1-7WD
S02P03-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	-131	2-6WD_GH_31
S02P03-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-123	2-6WD_GH_31
S02P03-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-155	1-7WD
S02P03-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	-125	2-6WD_GH_31
Temporary Drainage Diversion KD9							
S02P03-3030	Advance interface meeting and coordination with Contractors of ND/2019/01 and MTRC Northern Link	30	30	09-May-25	13-Jun-25	-2	2-6WD_GH_31
S02P03-3040	Temporary drainage DN1650, 100m, CCTV	40	40	21-Jul-25	04-Sep-25	-32	2-6WD_GH_31
Interface With Housing Dept. Ground Investigation Works in HD Area 20 (PS 1.14A)							
S02P03-4010	Allow access to (HD) Contractor for Stage 1 GI works (10 nr GI, Jun to Aug 2024; subject to change and confirm by HD)	90	90	09-May-25	06-Aug-25	1237	1-7WD
S02P03-4020	Allow access to (HD) Contractor for Stage 2 GI works (20 nr GI, subject to change and confirm by HD)	90	90	07-Aug-25	04-Nov-25	1237	1-7WD
SECTION 3							
Portion 4 in Area C (ASD 214, 25-Mar-25)							
Preparatoin Works							
S03P04-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-69	2-6WD_GH_31
S03P04-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-88	1-7WD
S03P04-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	-71	2-6WD_GH_31
S03P04-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-61	2-6WD_GH_31
S03P04-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-79	1-7WD
S03P04-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	-65	2-6WD_GH_31
S03P04-1080	EGI - 1nr (60x60m-grid,PS App.30.1), inspect pit, sampliing, situ/lab test,confirmatory extent, report	24	24	21-Jul-25	16-Aug-25	-23	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S03P04-3000	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	20	1-7WD
S03P04-3010	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	17	2-6WD_GH_31
S03P04-3020	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	36	36	05-Aug-25	09-Sep-25	19	1-7WD
SECTION 4							
Portion 5 in Area D (ASD 214, 25-Mar-25)							
Preparatoin Works							
S04P05-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-77	2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

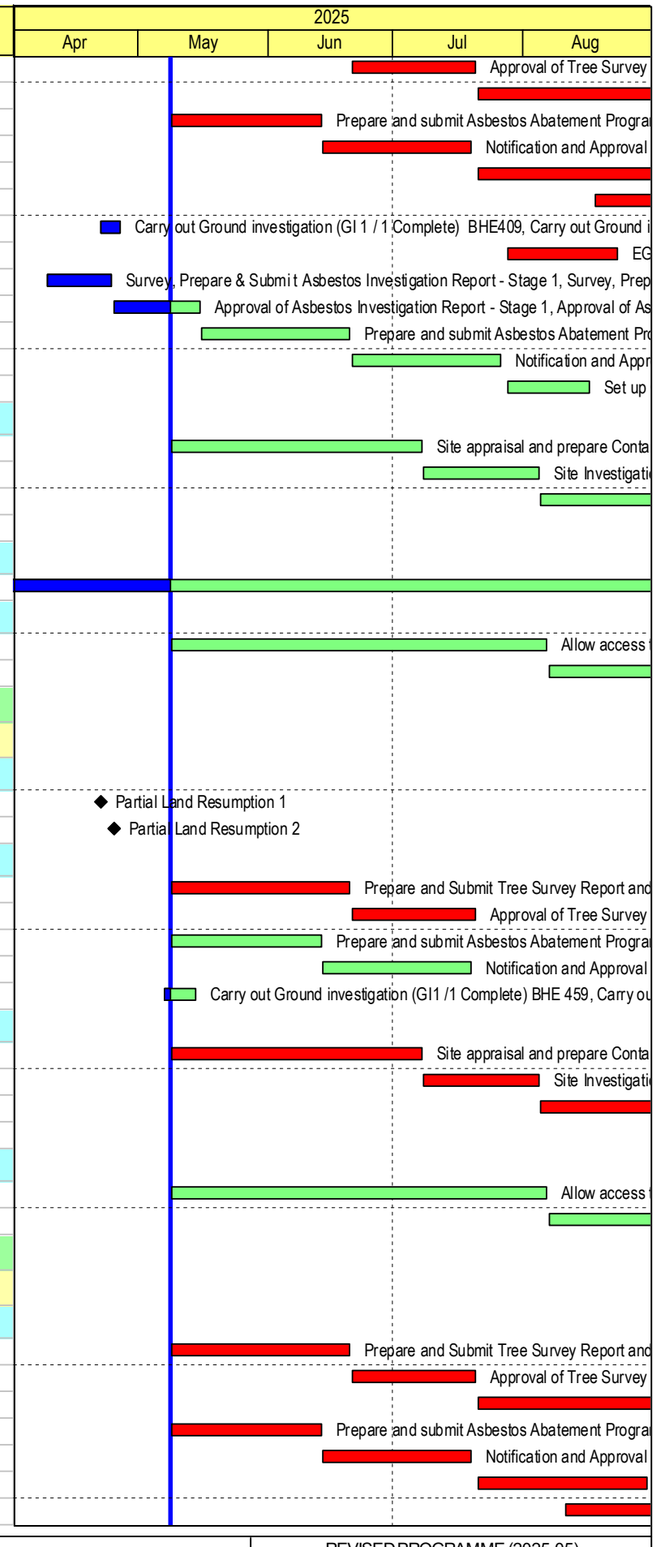
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S04P05-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-98	1-7WD
S04P05-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	-77	2-6WD_GH_31
S04P05-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-76	2-6WD_GH_31
S04P05-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-97	1-7WD
S04P05-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	48	48	21-Jul-25	13-Sep-25	-77	2-6WD_GH_31
S04P05-1070	Carry out Remaining Ground investigation (GI 0 / 1 Complete) BHE411	24	24	18-Aug-25	13-Sep-25	-77	2-6WD_GH_31
S04P05-1072	Carry out Ground investigation (GI 1 / 1 Complete) BHE409	6	0	22-Apr-25 A	26-Apr-25 A		2-6WD_GH_31
S04P05-1080	EGI - 2nr (60x60m-grid,PS App.30.1), inspect pit, sampliing, situ/lab test,confirmatory extent, report	24	24	28-Jul-25	23-Aug-25	-59	2-6WD_GH_31
S04P05-1200	Survey, Prepare & Submit Asbestos Investigation Report - Stage 1	10	0	09-Apr-25 A	24-Apr-25 A		2-6WD_GH_31
S04P05-1210	Approval of Asbestos Investigation Report - Stage 1	24	6	25-Apr-25 A	15-May-25	144	2-6WD_GH_31
S04P05-1220	Prepare and submit Asbestos Abatement Programme	30	30	16-May-25	20-Jun-25	144	2-6WD_GH_31
S04P05-1230	Notification and Approval of Asbestos Abatement Programme	36	36	21-Jun-25	26-Jul-25	173	1-7WD
S04P05-1240	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	18	18	28-Jul-25	16-Aug-25	142	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S04P05-3000	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	95	1-7WD
S04P05-3010	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	80	2-6WD_GH_31
S04P05-3020	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	05-Aug-25	03-Sep-25	96	1-7WD
S04P05-3030	Remediation works according to agreed RAP(s)	48	48	04-Sep-25	01-Nov-25	79	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S04P05-1510	Obtain License from AMO by Licensed Archaeologist (Spot D)	180	135	12-Mar-25 A	20-Sep-25	138	1-7WD
Interface With Housing Dept. Ground Investigation Works in HD Area 21 (PS 1.14A)							
S04P05-4010	Allow access to (HD) Contractor for Stage 1 GI works (20 nr GI, Jun to Aug 2024; subject to change and confirm by HD)	90	90	09-May-25	06-Aug-25	1237	1-7WD
S04P05-4020	Allow access to (HD) Contractor for Stage 2 GI works (40 nr GI, subject to change and confirm by HD)	90	90	07-Aug-25	04-Nov-25	1237	1-7WD
SECTION 5							
Portion 6 in Area E (ASD 214, 25-Mar-25)							
Land Resumption Summary							
S05P6-4010	Partial Land Resumption 1	0	0	22-Apr-25 A			2-6WD_GH_31
S05P6-4020	Partial Land Resumption 2	0	0	25-Apr-25 A			2-6WD_GH_31
Preparatoin Works							
S05P06-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-8	2-6WD_GH_31
S05P06-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-9	1-7WD
S05P06-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	162	2-6WD_GH_31
S05P06-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	194	1-7WD
S05P06-1090	Carry out Ground investigation (GI1 /1 Complete) BHE 459	7	5	07-May-25 A	14-May-25	72	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S05P06-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	-113	1-7WD
S05P06-3020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	-89	2-6WD_GH_31
S05P06-3030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	05-Aug-25	03-Sep-25	-112	1-7WD
S05P06-3040	Remediation works according to agreed RAP(s)	48	48	04-Sep-25	01-Nov-25	-94	2-6WD_GH_31
Interface With Housing Dept. Ground Investigation Works in HD Area 26 (PS 1.14A)							
S05P06-4010	Allow access to (HD) Contractor for Stage 1 GI works (18 nr GI, Jun to Aug 2024; subject to change and confirm by HD)	90	90	09-May-25	06-Aug-25	1237	1-7WD
S05P06-4020	Allow access to (HD) Contractor for Stage 2 GI works (36 nr GI, subject to change and confirm by HD)	90	90	07-Aug-25	04-Nov-25	1237	1-7WD
SECTION 6							
Portion 7 in Area F (ASD 214, 25-Mar-25)							
Preparatoin Works							
S06P07-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-27	2-6WD_GH_31
S06P07-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-32	1-7WD
S06P07-1030	Site Clearance, Haul Road, Demolition and Tree Felling	42	42	21-Jul-25	06-Sep-25	-26	2-6WD_GH_31
S06P07-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-20	2-6WD_GH_31
S06P07-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-24	1-7WD
S06P07-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	36	36	21-Jul-25	30-Aug-25	-20	2-6WD_GH_31
S06P07-1070	Carry out Ground investigation (GI 0 / 2 Complete)	24	24	11-Aug-25	06-Sep-25	-26	2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

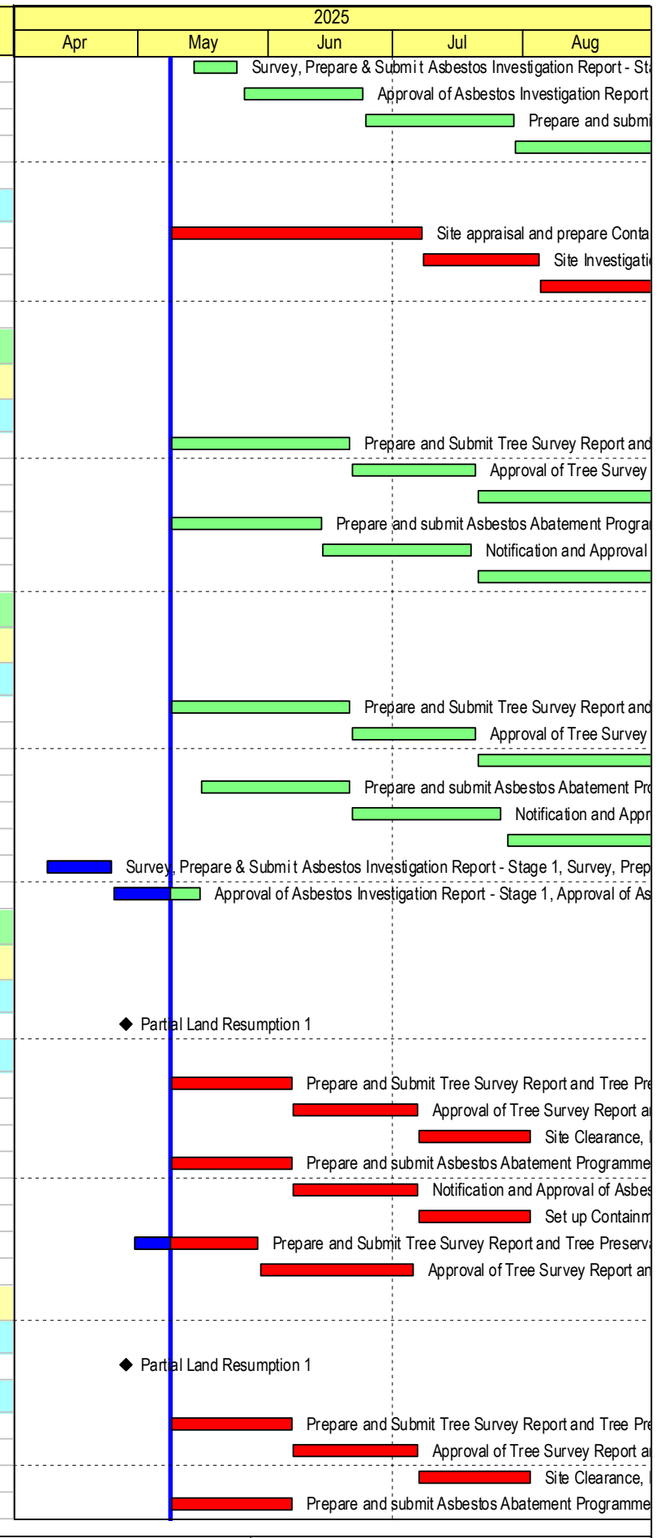
(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S06P07-1080	Survey, Prepare & Submit Asbestos Investigation Report - Stage 1 (3 locations)	10	10	14-May-25	24-May-25	1	2-6WD_GH_31
S06P07-1090	Approval of Asbestos Investigation Report - Stage 1	24	24	26-May-25	23-Jun-25	1	2-6WD_GH_31
S06P07-6020	Prepare and submit Asbestos Abatement Programme	30	30	24-Jun-25	29-Jul-25	1	2-6WD_GH_31
S06P07-6030	Notification and Approval of Asbestos Abatement Programme	36	36	30-Jul-25	03-Sep-25	1	1-7WD
S06P07-6040	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	12	12	04-Sep-25	17-Sep-25	1	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S06P07-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	-42	1-7WD
S06P07-3020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	-34	2-6WD_GH_31
S06P07-3030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	05-Aug-25	03-Sep-25	-41	1-7WD
S06P07-3040	Remediation works according to agreed RAP(s)	48	48	04-Sep-25	01-Nov-25	-35	2-6WD_GH_31
SECTION 7							
Portion 8 in Area G (ASD 214, 25-Mar-25)							
Preparatoin Works							
S07P08-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	14	2-6WD_GH_31
S07P08-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	18	1-7WD
S07P08-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	16	2-6WD_GH_31
S07P08-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	21	2-6WD_GH_31
S07P08-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	26	1-7WD
S07P08-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	22	2-6WD_GH_31
SECTION 8							
Portion 9 in Area H (ASD 214, 25-Mar-25)							
Preparatoin Works							
S08P09-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	14	2-6WD_GH_31
S08P09-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	18	1-7WD
S08P09-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	16	2-6WD_GH_31
S08P09-1040	Prepare and submit Asbestos Abatement Programme	30	30	16-May-25	20-Jun-25	15	2-6WD_GH_31
S08P09-1050	Notification and Approval of Asbestos Abatement Programme	36	36	21-Jun-25	26-Jul-25	19	1-7WD
S08P09-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	28-Jul-25	13-Sep-25	16	2-6WD_GH_31
S08P09-1070	Survey, Prepare & Submit Asbestos Investigation Report - Stage 1	10	0	09-Apr-25 A	24-Apr-25 A		2-6WD_GH_31
S08P09-1080	Approval of Asbestos Investigation Report - Stage 1	24	6	25-Apr-25 A	15-May-25	15	2-6WD_GH_31
SECTION 9							
Portion 10 in Area I (ASD 214, 25-Mar-25)							
Land Resumption Summary							
S09P10-4010	Partial Land Resumption 1	0	0	28-Apr-25 A			2-6WD_GH_31
Preparatoin Works							
S09P10-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remianing	24	24	09-May-25	06-Jun-25	-27	2-6WD_GH_31
S09P10-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remianing	30	30	07-Jun-25	06-Jul-25	-33	1-7WD
S09P10-1030	Site Clearance, Haul Road, Demolition and Tree Felling (EWN 002)	24	24	07-Jul-25	02-Aug-25	-27	2-6WD_GH_31
S09P10-1040	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	-27	2-6WD_GH_31
S09P10-1050	Notification and Approval of Asbestos Abatement Programme	30	30	07-Jun-25	06-Jul-25	-33	1-7WD
S09P10-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	24	07-Jul-25	02-Aug-25	-27	2-6WD_GH_31
S09P10-1070	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	24	18	30-Apr-25 A	29-May-25	-27	2-6WD_GH_31
S09P10-1080	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	30	30	30-May-25	05-Jul-25	-27	2-6WD_GH_31
Portion 11 in Area I (ASD 214, 25-Mar-25)							
Land Resumption Summary							
S09P11-4010	Partial Land Resumption 1	0	0	28-Apr-25 A			2-6WD_GH_31
Preparatoin Works							
S09P11-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remianing	24	24	09-May-25	06-Jun-25	-22	2-6WD_GH_31
S09P11-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remianing	30	30	07-Jun-25	06-Jul-25	-26	1-7WD
S09P11-1030	Site Clearance, Haul Road, Demolition and Tree Felling (EWN 002)	24	24	07-Jul-25	02-Aug-25	-21	2-6WD_GH_31
S09P11-1040	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	-27	2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

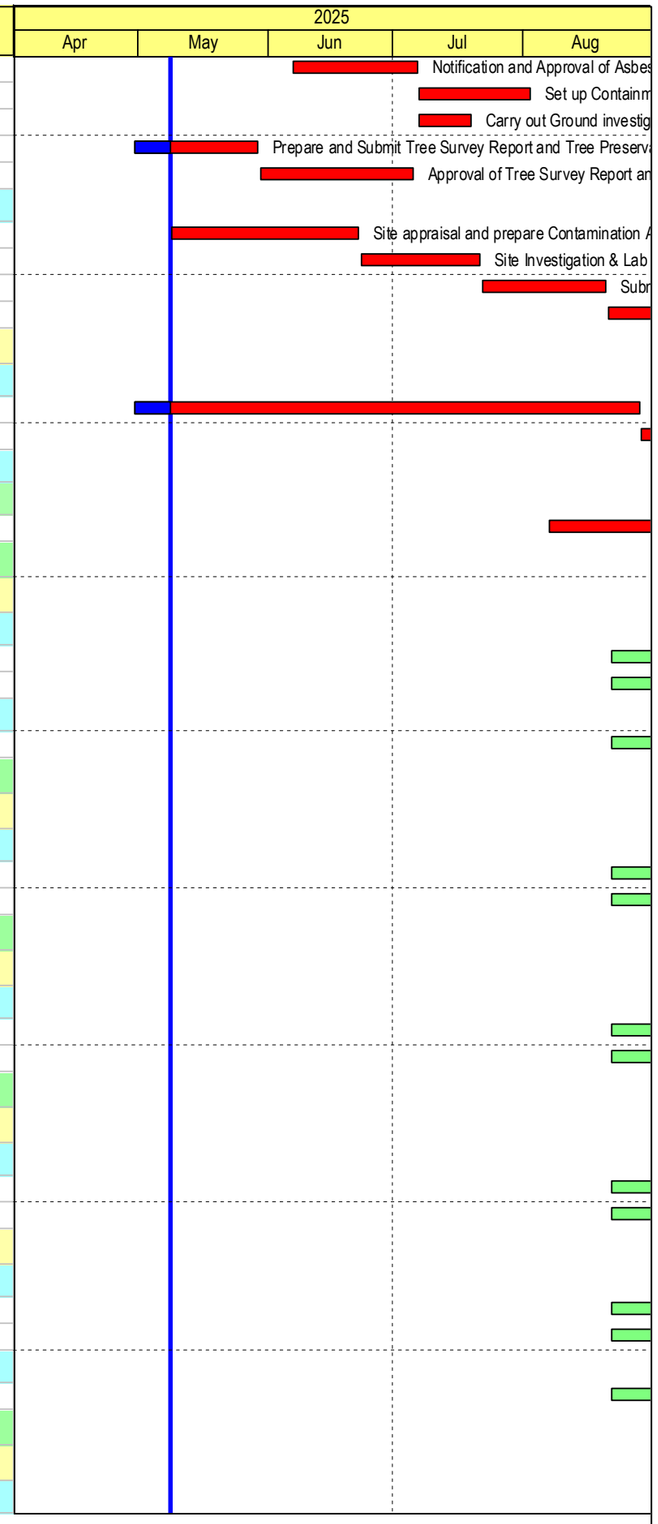
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S09P11-1050	Notification and Approval of Asbestos Abatement Programme	30	30	07-Jun-25	06-Jul-25	-33	1-7WD
S09P11-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	24	07-Jul-25	02-Aug-25	-27	2-6WD_GH_31
S09P11-1070	Carry out Ground investigation (GI 0 / 1 Complete)	12	12	07-Jul-25	19-Jul-25	-15	2-6WD_GH_31
S09P11-1080	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	24	18	30-Apr-25 A	29-May-25	-21	2-6WD_GH_31
S09P11-1090	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	30	30	30-May-25	05-Jul-25	-21	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S09P11-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	-35	1-7WD
S09P11-3020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	-29	2-6WD_GH_31
S09P11-3030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	-35	1-7WD
S09P11-3040	Remediation works according to agreed RAP(s)	48	48	21-Aug-25	17-Oct-25	-30	2-6WD_GH_31
Key Date 4 Completion of the works of Visitor Centre in Phase 1 and 2							
DESIGN, SUBM&APPROV - AIP (5M) & DDA (4M) - AP,ICE,PM, BD,FSD, WSD,DSD, EMSD, AMO&LCSD, REF.PS46.1.1							
CLC.P12.830	AIP - GBP, Structure, BS, Landscape - Design. Subm &approv - AP, ICE, PM, BD,FSD, DSD, EMSD, AMO, LCSD, ref.PS46.1.1	110	100	30-Apr-25 A	28-Aug-25	-170	1-7WD
CLC.P12.840	DDA - GBP, Structure, BS, Landscape - Design. Subm &approv - AP, ICE, PM, BD,FSD, DSD, EMSD, AMO, LCSD, ref.PS46.1.1	120	120	29-Aug-25	26-Dec-25	-170	1-7WD
PHASE 1&2 - TOTAL 2056M2 - BLK B 1077M2, BLK C 697M2, TIME TUNNEL 216M, ANCIL BDG 66M2, TEMP PARKING							
PRELIMINARIES (INCL TREE GR FELLING, 254NR,TG32-330), FOUNDATION (2056M2), STRUCTURE 3NR, (2 LEVEL)							
CLC.P12.860	Allowance of time required for yard waste material treatment, upcycle materials, gabion/bamboo features, etc,PS46.6.2d	60	60	07-Aug-25	17-Oct-25	-30	2-6WD_GH_31
SECTION 10							
Portion 12 in Area J (ASD 364, 22-Aug-25)							
Preparatoin Works							
S10P12-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	48	48	22-Aug-25	18-Oct-25	250	2-6WD_GH_31
S10P12-1040	Prepare and submit Asbestos Abatement Programme	36	36	22-Aug-25	03-Oct-25	265	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S10P12-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	223	1-7WD
SECTION 11							
Portion 13 in Area K (ASD 364, 22-Aug-25)							
Preparatoin Works							
S11P13-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	12	2-6WD_GH_31
S11P13-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	18	2-6WD_GH_31
SECTION 12							
Portion 14 in Area L (ASD 364, 22-Aug-25)							
Preparatoin Works							
S12P14-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	41	2-6WD_GH_31
S12P14-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	50	2-6WD_GH_31
SECTION 13							
Portion 12 in Area M (ASD 364, 22-Aug-25)							
Preparatoin Works							
S13P12-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	188	2-6WD_GH_31
S13P12-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	197	2-6WD_GH_31
Portion 15 in Area M (ASD 364, 22-Aug-25)							
Preparatoin Works							
S13P15-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	151	2-6WD_GH_31
S13P15-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	620	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S10P15-2060	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	83	1-7WD
SECTION 14							
Portion 16 in Area N (ASD 364, 22-Aug-25)							
Preparatoin Works							



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

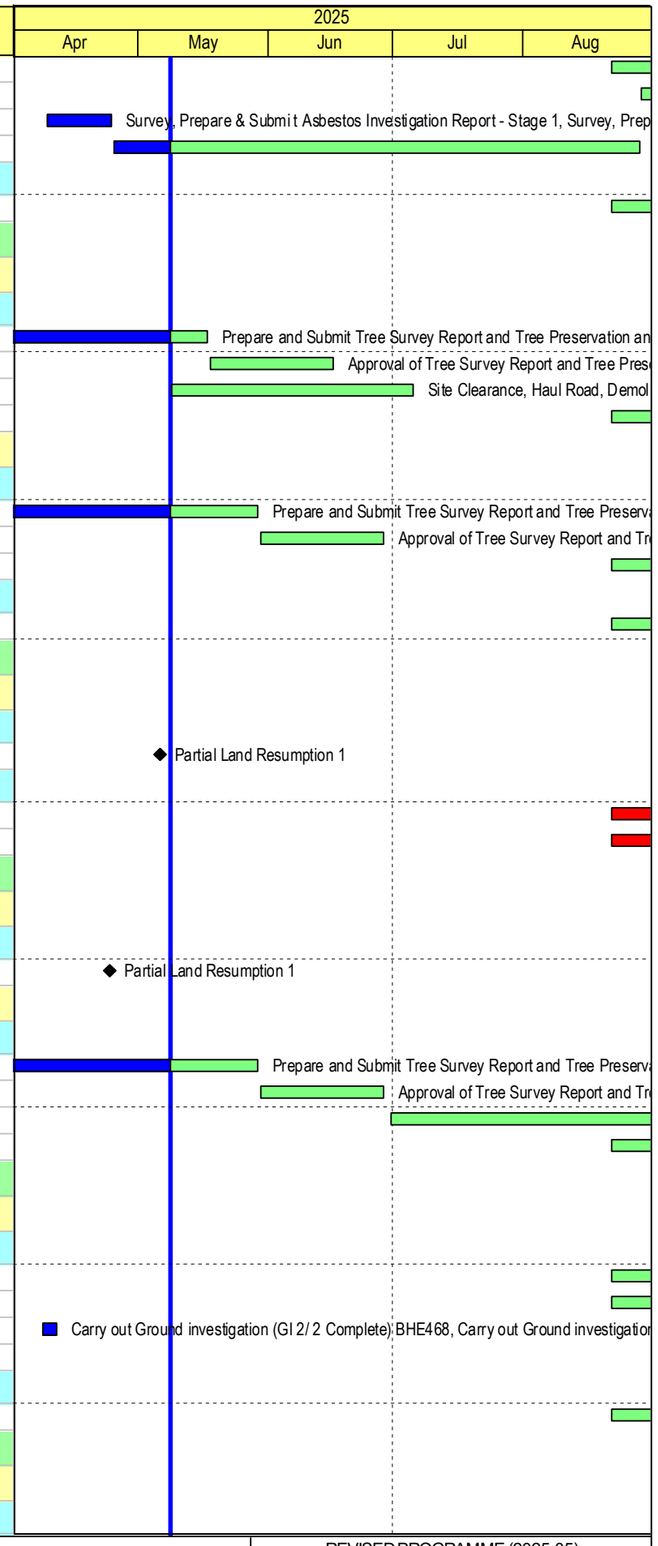
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S14P16-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	175	2-6WD_GH_31
S14P16-1040	Prepare and submit Asbestos Abatement Programme	30	30	29-Aug-25	03-Oct-25	189	2-6WD_GH_31
S14P16-1200	Survey, Prepare & Submit Asbestos Investigation Report - Stage 1	10	0	09-Apr-25 A	24-Apr-25 A		2-6WD_GH_31
S14P16-1210	Approval of Asbestos Investigation Report - Stage 1	24	6	25-Apr-25 A	28-Aug-25	189	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S14P16-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	114	1-7WD
SECTION 15							
Portion 17 in Area O (ASD 364, 22-Aug-25)							
Preparatoin Works							
S15P17-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	8	06-Jan-25 A	17-May-25	1564	2-6WD_GH_31
S15P17-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	18-May-25	16-Jun-25	1927	1-7WD
S15P17-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	09-May-25	05-Jul-25	270	2-6WD_GH_31
S15P17-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	131	2-6WD_GH_31
Portion 18 in Area O (ASD 364, 22-Aug-25)							
Preparatoin Works							
S15P18-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	18	06-Jan-25 A	29-May-25	345	2-6WD_GH_31
S15P18-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	30-May-25	28-Jun-25	425	1-7WD
S15P18-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	325	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S15P18-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	196	1-7WD
SECTION 16							
Portion 19 in Area P (ASD 364, 22-Aug-25)							
Land Resumption Summary							
S16P19-4010	Partial Land Resumption 1	0	0	06-May-25 A			2-6WD_GH_31
Preparatoin Works							
S16P19-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	-17	2-6WD_GH_31
S16P19-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	-4	2-6WD_GH_31
SECTION 17							
Portion 20 in Area Q (ASD 913, 22-Feb-27)							
Land Resumption Summary							
S17P20-4010	Partial Land Resumption 1	0	0	24-Apr-25 A			2-6WD_GH_31
Portion 21 in Area Q (ASD 364, 22-Aug-25)							
Preparatoin Works							
S17P21-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	18	06-Jan-25 A	29-May-25	106	2-6WD_GH_31
S17P21-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	30-May-25	28-Jun-25	127	1-7WD
S17P21-1030	Site Clearance, Haul Road, Demolition and Tree Felling	72	72	30-Jun-25	22-Sep-25	104	2-6WD_GH_31
S17P21-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	12	2-6WD_GH_31
SECTION 18							
Portion 22 in Area R (ASD 364, 22-Aug-25)							
Preparatoin Works							
S18P22-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	561	2-6WD_GH_31
S18P22-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	575	2-6WD_GH_31
S18P22-1071	Carry out Ground investigation (GI 2/2 Complete) BHE468	6	0	08-Apr-25 A	11-Apr-25 A		2-6WD_GH_31
S18P22-1100	Temp Stock Pile Area for Contaminated Soil (Works Area WA5)	953	953	03-Sep-25	12-Apr-28	0	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S18P22-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	237	1-7WD
SECTION 19							
Portion 23 in Area S (ASD 364, 22-Aug-25)							
Land Resumption Summary							



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

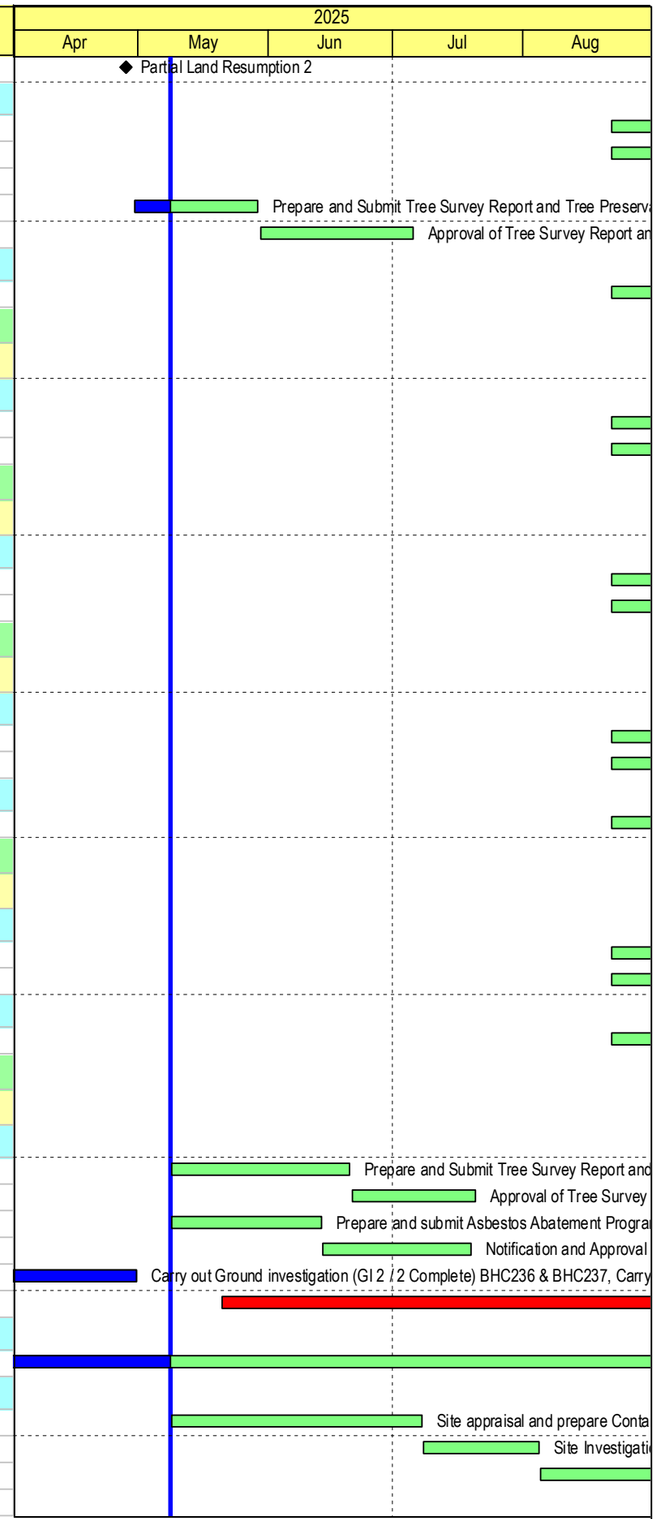
(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S19P23-4020	Partial Land Resumption 2	0	0	28-Apr-25 A			2-6WD_GH_31
Preparatoin Works							
S19P23-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remaining	36	36	22-Aug-25	03-Oct-25	555	2-6WD_GH_31
S19P23-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	568	2-6WD_GH_31
S19P23-1090	Temp Stock Pile Area for Contaminated Soil (Works Area WA5)	953	953	03-Sep-25	12-Apr-28	0	1-7WD
S19P23-1100	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	24	18	30-Apr-25 A	29-May-25	655	2-6WD_GH_31
S19P23-1110	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	30	30	30-May-25	05-Jul-25	655	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S19P23-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	237	1-7WD
SECTION 20							
Portion 25 in Area T (ASD 364, 22-Aug-25)							
Preparatoin Works							
S20P25-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	22	2-6WD_GH_31
S20P25-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	35	2-6WD_GH_31
SECTION 21							
Portion 27 in Area U (ASD 364, 22-Aug-25)							
Preparatoin Works							
S21P27-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	37	2-6WD_GH_31
S21P27-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	47	2-6WD_GH_31
SECTION 22							
Portion 28 in Area V (ASD 364, 22-Aug-25)							
Preparatoin Works							
S22P28-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	103	2-6WD_GH_31
S22P28-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	110	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S22P28-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	21	1-7WD
SECTION 23							
Portion 30 in Area W (ASD 364, 22-Aug-25)							
Preparatoin Works							
S23P30-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	130	2-6WD_GH_31
S23P30-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	143	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S23P30-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	48	1-7WD
SECTION 24							
Portion 31 in Area X (ASD 214, 25-Mar-25)							
Preparation Works							
S24P31-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	408	2-6WD_GH_31
S24P31-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	501	1-7WD
S24P31-1040	Prepare and submit Asbestos Abatement Programme for Remaining Area	30	30	09-May-25	13-Jun-25	421	2-6WD_GH_31
S24P31-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	516	1-7WD
S24P31-1071	Carry out Ground investigation (GI 2 / 2 Complete) BHC236 & BHC237	12	0	01-Apr-25 A	30-Apr-25 A		2-6WD_GH_31
S24P31-1110	Temp Stock Pile Area for Contaminated Soil (Proposed)	833	833	21-May-25	31-Aug-27	-45	1-7WD
Archaeological Survey & Rescue Excavation							
S24P31-1510	Obtain License from AMO by Licensed Archaeologist (Site 3)	180	135	12-Mar-25 A	20-Sep-25	411	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S24P31-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	342	1-7WD
S24P31-3020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	278	2-6WD_GH_31
S24P31-3030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	05-Aug-25	03-Sep-25	344	1-7WD
S24P31-3040	Remediation works according to agreed RAP(s)	48	48	04-Sep-25	01-Nov-25	278	2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

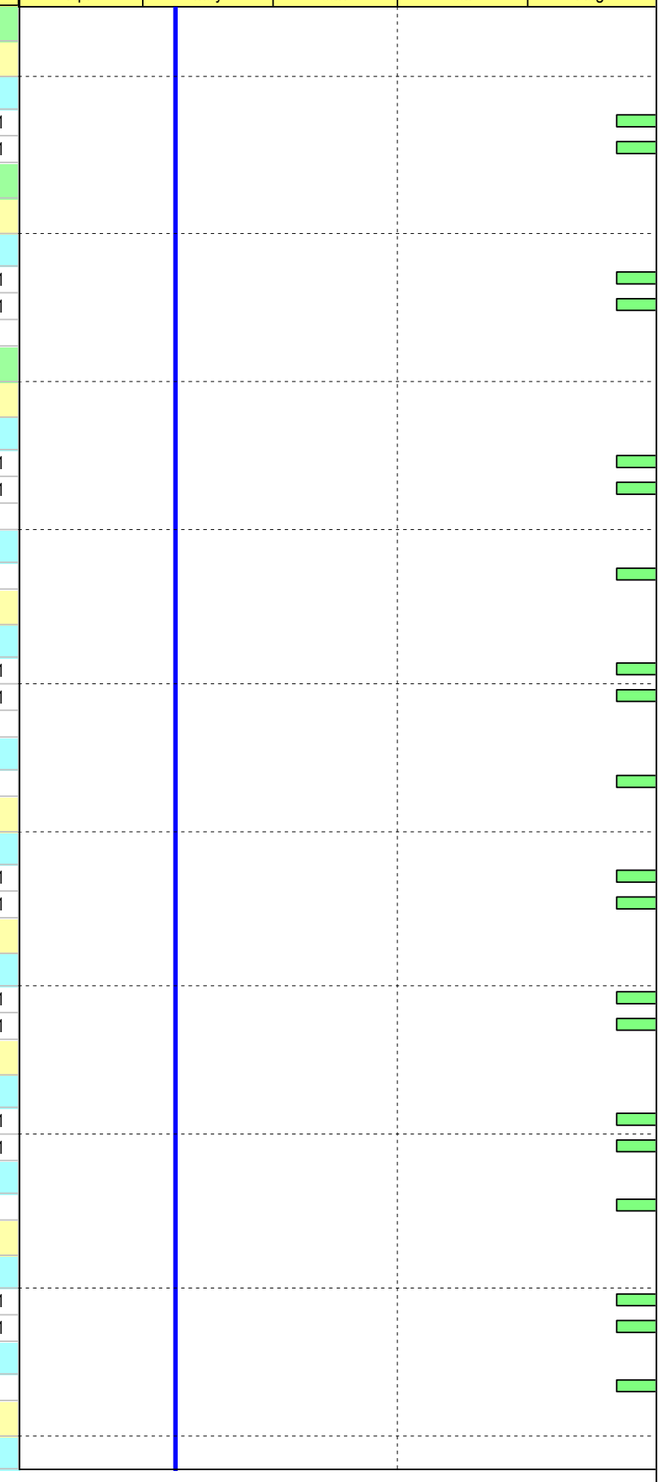
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

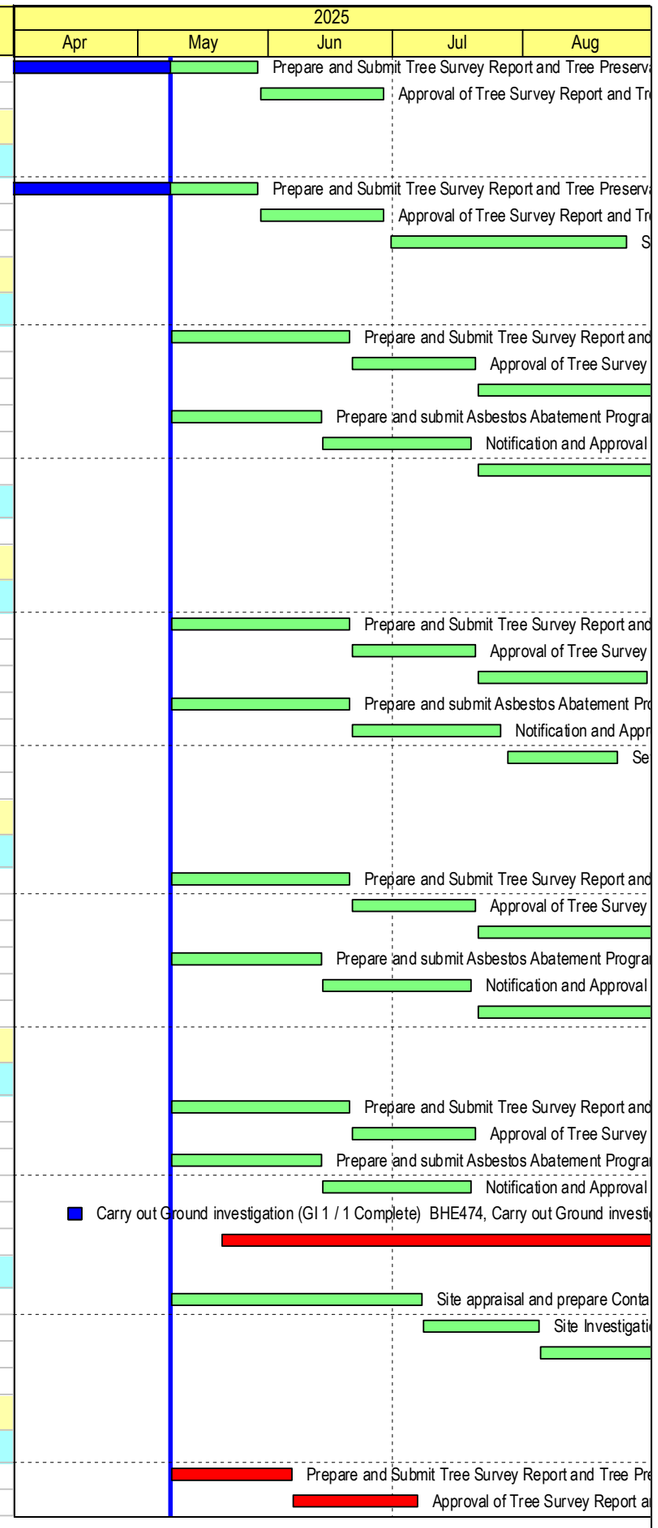
REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
SECTION 25							
Portion 33 in Area Y (ASD 364, 22-Aug-25)							
Preparatoin Works							
S25P33-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	17	2-6WD_GH_31
S25P33-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	24	2-6WD_GH_31
SECTION 26							
Portion 53 in Area Z (ASD 364, 22-Aug-25)							
Preparatoin Works							
S26P53-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	91	2-6WD_GH_31
S26P53-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	98	2-6WD_GH_31
S26P53-1100	Temp Stock Pile Area for Contaminated Soil (Works Area WA6)	953	953	03-Sep-25	12-Apr-28	0	1-7WD
SECTION 27							
Portion 12 in Area AA Public Open Space B3-1b (Right of Portion 35, ASD 364 / 22-Aug-25)							
Preparatoin Works							
S27R12-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	699	2-6WD_GH_31
S27R12-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	706	2-6WD_GH_31
S27R12-1090	Temp Stock Pile Area for Contaminated Soil (Works Area WA5)	1018	1018	03-Sep-25	16-Jun-28	0	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S27R12-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	237	1-7WD
Portion 12 in Area AA Public Open Space B3-1b (Left of Portion 35, ASD 364 / 22-Aug-25)							
Preparatoin Works							
S27L12-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	727	2-6WD_GH_31
S27L12-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	734	2-6WD_GH_31
S27L12-1090	Temp Stock Pile Area for Contaminated Soil (Works Area WA5)	1018	1018	03-Sep-25	16-Jun-28	0	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S27SD2-3070	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	237	1-7WD
Portion 12 in Area AA Public Open Space A1-10k (Left of Road P2, ASD 364 / 22-Aug-25)							
Preparatoin Works							
S27P12-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	118	2-6WD_GH_31
S27P12-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	128	2-6WD_GH_31
Portion 12 in Area AA - Public Open Space D1-7d (North of Portion 30, ASD 364 / 22-Aug-25)							
Preparatoin Works							
S27P12_1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	118	2-6WD_GH_31
S27P12_1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	128	2-6WD_GH_31
Portion 12 in Area AA - Public Open Space D1-7e (South of Portion 30, ASD 364 / 22-Aug-25)							
Preparatoin Works							
S27W12-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	109	2-6WD_GH_31
S27W12-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	119	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S27W12-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	13	1-7WD
Portion 12 in Area AA - Public Open Space D1-4 (North of MTR Facitlities, ASD 364 / 22-Aug-25)							
Preparatoin Works							
S27SL4-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	143	2-6WD_GH_31
S27SL4-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	151	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S27SL4-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	51	1-7WD
Portion 34 in Area AA - Public Open Space A1-10c (North of Link Bridge, ASD 1033 / 22-Jun-27)							
Preparatoin Works							



Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S27NLB-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	18	06-Jan-25 A	29-May-25	799	2-6WD_GH_31
S27NLB-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	30-May-25	28-Jun-25	985	1-7WD
Portion 34 in Area AA - Public Open Space A1-10c (South of Link Bridge, ASD 1033 / 22-Jun-27)							
Preparatoin Works							
S27SLB-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	18	06-Jan-25 A	29-May-25	700	2-6WD_GH_31
S27SLB-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	30-May-25	28-Jun-25	862	1-7WD
S27SLB-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	30-Jun-25	25-Aug-25	700	2-6WD_GH_31
Portion 35 in Area AA -Public Open Space A1-10h (North of MTR Stataion, ASD 214 / 25-Mar-25)							
Preparatoin Works							
S27P35-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	7	2-6WD_GH_31
S27P35-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	9	1-7WD
S27P35-1030	Site Clearance, Haul Road, Demolition and Tree Felling	72	72	21-Jul-25	14-Oct-25	8	2-6WD_GH_31
S27P35-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	8	2-6WD_GH_31
S27P35-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	10	1-7WD
S27P35-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	60	60	21-Jul-25	27-Sep-25	8	2-6WD_GH_31
Temporary Drainage Diversion KD9							
S27P35-3010	Temporary drainage DN1650, 40m, CCTV	20	20	05-Sep-25	27-Sep-25	-32	2-6WD_GH_31
Portion 35 in Area AA - Public Open Space A1-10c (North of Portion 34, ASD 214 / 25-Mar-25)							
Preparatoin Works							
S27P35_1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	116	2-6WD_GH_31
S27P35_1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	140	1-7WD
S27P35_1030	Site Clearance, Haul Road, Demolition and Tree Felling	36	36	21-Jul-25	30-Aug-25	117	2-6WD_GH_31
S27P35_1040	Prepare and submit Asbestos Abatement Programme	36	36	09-May-25	20-Jun-25	123	2-6WD_GH_31
S27P35_1050	Notification and Approval of Asbestos Abatement Programme	36	36	21-Jun-25	26-Jul-25	148	1-7WD
S27P35_1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	24	28-Jul-25	23-Aug-25	123	2-6WD_GH_31
S27P35_1070	Temp Storage / Temp Site Access	788	788	01-Sep-25	03-May-28	117	2-6WD_GH_31
Portion 35 in Area AA - Public Open Space A1-10e (North of Road D2, ASD 214 / 25-Mar-25)							
Preparatoin Works							
S27ND2-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	41	2-6WD_GH_31
S27ND2-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	49	1-7WD
S27ND2-1030	Site Clearance, Haul Road, Demolition and Tree Felling	72	72	21-Jul-25	14-Oct-25	42	2-6WD_GH_31
S27ND2-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	54	2-6WD_GH_31
S27ND2-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	64	1-7WD
S27ND2-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	60	60	21-Jul-25	27-Sep-25	54	2-6WD_GH_31
Portion 35 in Area AA - Public Open Space B3-1b (South of Road D2, ASD 214 / 25-Mar-25)							
Preparatoin Works							
S27SD2-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	775	2-6WD_GH_31
S27SD2-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	956	1-7WD
S27SD2-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	788	2-6WD_GH_31
S27SD2-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	971	1-7WD
S27SD2-1074	Carry out Ground investigation (GI 1 / 1 Complete) BHE474	6	0	14-Apr-25 A	17-Apr-25 A		2-6WD_GH_31
S27SD2-1120	Temp Stock Pile Area for Contaminated Soil (Works Area WA5)	1168	1168	21-May-25	31-Jul-28	-45	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S27SD2-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	342	1-7WD
S27SD2-3020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	278	2-6WD_GH_31
S27SD2-3030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	05-Aug-25	03-Sep-25	344	1-7WD
S27SD2-3040	Remediation works according to agreed RAP(s)	48	48	04-Sep-25	01-Nov-25	278	2-6WD_GH_31
Portion 59 in Area AA (ASD 30, 22-Sep-24)							
Preparation Works							
S27P59-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remaining (NCE 008)	24	24	09-May-25	06-Jun-25	-182	2-6WD_GH_31
S27P59-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remaining (NCE 008)	30	30	07-Jun-25	06-Jul-25	-227	1-7WD



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

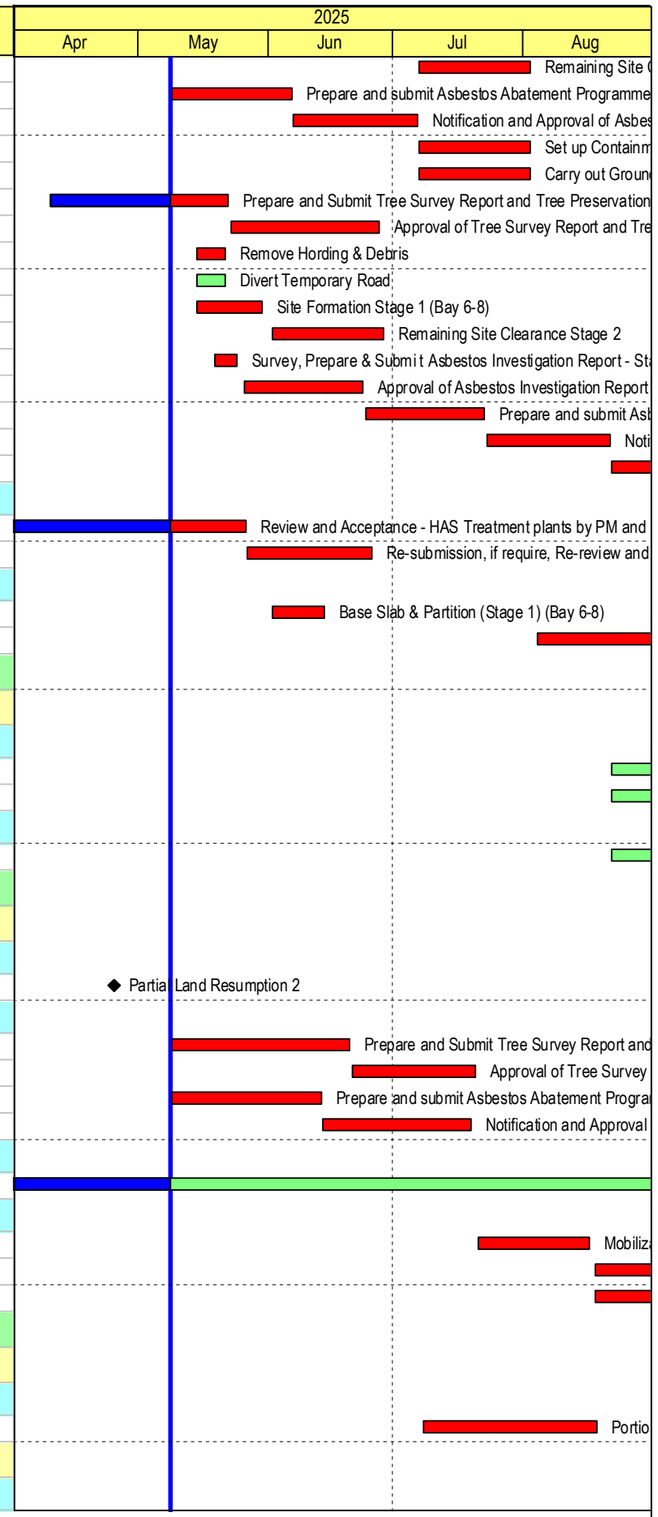
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

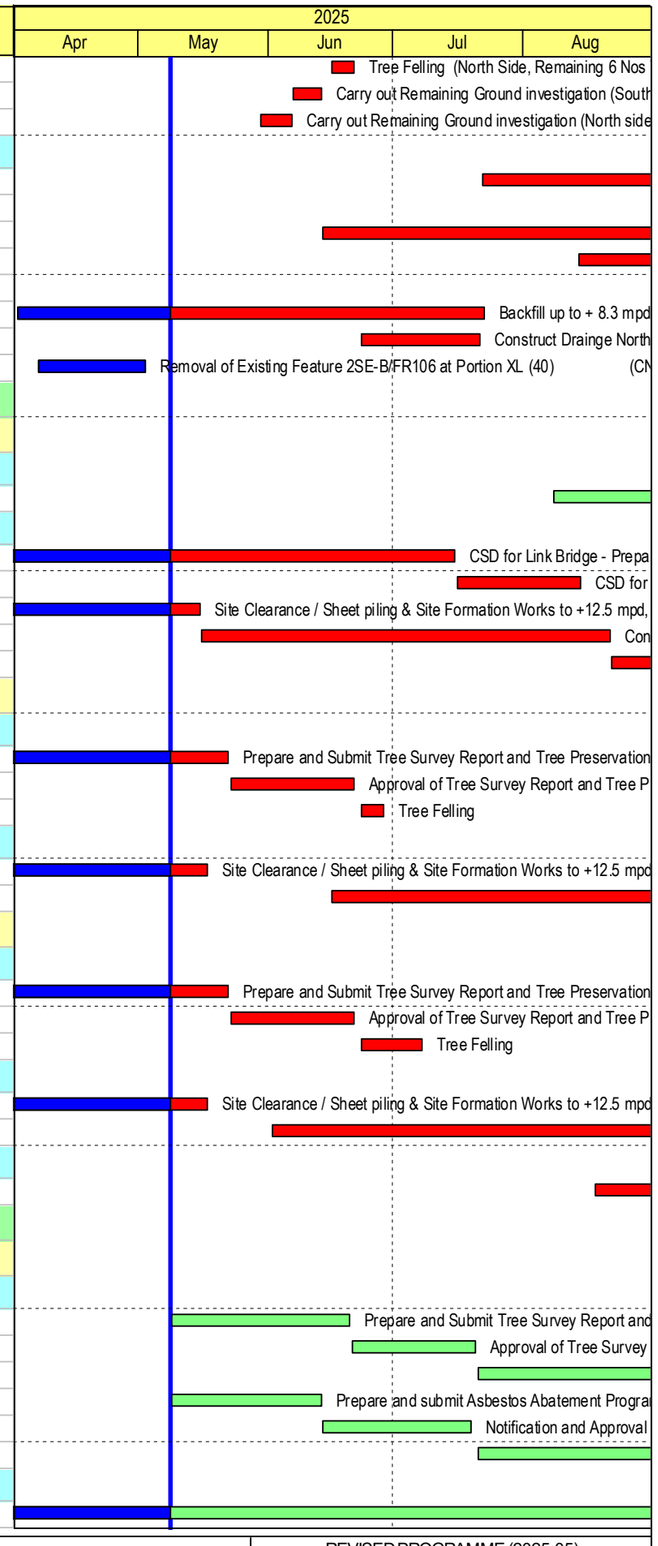
REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S27P59-1030	Remaining Site Clearance, Haul Road, Demolition and Tree Felling (NCE 008)	24	24	07-Jul-25	02-Aug-25	-180	2-6WD_GH_31
S27P59-1040	Prepare and submit Asbestos Abatement Programme (NCE 008)	24	24	09-May-25	06-Jun-25	-182	2-6WD_GH_31
S27P59-1050	Notification and Approval of Asbestos Abatement Programme (NCE 008)	30	30	07-Jun-25	06-Jul-25	-227	1-7WD
S27P59-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works (NCE 008)	24	24	07-Jul-25	02-Aug-25	-180	2-6WD_GH_31
S27P59-1070	Carry out Ground investigation (GI 0 / 2 Complete) (NCE 008)	24	24	07-Jul-25	02-Aug-25	-180	2-6WD_GH_31
S27P59-1090	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1 (NCE 008)	24	12	10-Apr-25 A	22-May-25	-174	2-6WD_GH_31
S27P59-1100	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1 (NCE 008)	30	30	23-May-25	27-Jun-25	-174	2-6WD_GH_31
S27P59-1110	Remove Hording & Debris	6	6	15-May-25	21-May-25	-175	2-6WD_GH_31
S27P59-1120	Divert Temporary Road	6	6	15-May-25	21-May-25	1586	2-6WD_GH_31
S27P59-1130	Site Formation Stage 1 (Bay 6-8)	14	14	15-May-25	30-May-25	-175	2-6WD_GH_31
S27P59-1140	Remaining Site Clearance Stage 2	24	24	02-Jun-25	28-Jun-25	-175	2-6WD_GH_31
S27P59-1150	Survey, Prepare & Submit Asbestos Investigation Report - Stage 1	6	6	19-May-25	24-May-25	-145	2-6WD_GH_31
S27P59-1160	Approval of Asbestos Investigation Report - Stage 1	24	24	26-May-25	23-Jun-25	-145	2-6WD_GH_31
S27P59-1170	Prepare and submit Asbestos Abatement Programme (NCE 008)	24	24	24-Jun-25	22-Jul-25	-145	2-6WD_GH_31
S27P59-1180	Notification and Approval of Asbestos Abatement Programme (NCE 008)	30	30	23-Jul-25	21-Aug-25	-182	1-7WD
S27P59-1190	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works (NCE 008)	24	24	22-Aug-25	18-Sep-25	-148	2-6WD_GH_31
Design & Method Statement - Submission (Within 2 Weeks ASD) To PM & EPD For Acceptance, REF.30.20(1)							
CST.HAS.6040	Review and Acceptance - HAS Treatment plants by PM and EPD	30	18	04-Feb-25 A	26-May-25	-188	1-7WD
CST.HAS.6050	Re-submission, if require, Re-review and Acceptance - HAS Treatment plants by PM and EPD	30	30	27-May-25	25-Jun-25	-188	1-7WD
Setting Up Including T&C Of High Arsenic-Containing Soil (HAS) Treatment Plant							
S27P59-2000	Base Slab & Partition (Stage 1) (Bay 6-8)	12	12	02-Jun-25	14-Jun-25	-139	2-6WD_GH_31
S27P59-2010	Fdn, drain, struct/enclosure, control/decontam room, soil treatment/ stockpiling zone,ABWF,etc (NCE 008)	72	72	04-Aug-25	28-Oct-25	-180	2-6WD_GH_31
SECTION 28							
Portion 36 in Area AB - Public Open Space A1-10a (ASD 364 / 22-Aug-25)							
Preparation Works							
S28P36-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	196	2-6WD_GH_31
S28P36-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	203	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S28P36-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	136	1-7WD
SECTION 29							
Portion 38 in Area AC (ASD 214, 25-Mar-25)							
Land Resumption Summary							
S29P38-4020	Partial Land Resumption 2	0	0	25-Apr-25 A			2-6WD_GH_31
Preparatoin Works							
S29P38-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-34	2-6WD_GH_31
S29P38-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-41	1-7WD
S29P38-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-33	2-6WD_GH_31
S29P38-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-40	1-7WD
Archaeological Survey & Rescue Excavation							
S29P38-1510	Obtain License from AMO by Licensed Archaeologist (Spot A)	180	135	12-Mar-25 A	20-Sep-25	55	1-7WD
Road & Drainage Works							
S29P38-1610	Mobilization,site form,haul rd,tree removal,etc (outside Archaelogical resuce pit)	24	24	21-Jul-25	16-Aug-25	-34	2-6WD_GH_31
S29P38-1620	Box Culvert CHD 0 -143, 10 bays (Excavation, reinforcement, structure, backfill)	300	300	18-Aug-25	21-Aug-26	-34	2-6WD_GH_31
S29P38-1630	Box Culvert CHD 143 - 288, 10 bays (Excavation, reinforcement, structure, backfill)	300	300	18-Aug-25	21-Aug-26	-34	2-6WD_GH_31
SECTION 30							
Portion 39 in Area AD (ASD 260, 10-May-25)							
Preparation/GI/ Drainage/Reinstatement Works							
S30P39-1010	Portion 39 (ASD 260) - Preparation/GI/ Drainage/Reinstatement Works (EWN 001, CNE 011)	36	36	08-Jul-25	18-Aug-25	-48	2-6WD_GH_31
Portion 40 in Area AD (ASD 90, 21-Nov-24)							
Preparation Works							



Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S30P40-1042	Tree Felling (North Side, Remaining 6 Nos Trees)	6	6	16-Jun-25	21-Jun-25	-101	2-6WD_GH_31
S30P40-1076	Carry out Remaining Ground investigation (South side at Slope, GI 0 / 1 Complete) LFBH2 (PMI 001)	6	6	07-Jun-25	13-Jun-25	-122	2-6WD_GH_31
S30P40-1090	Carry out Remaining Ground investigation (North side GI 0 / 1 Complete) LFBH2 (EWN 001, CNE 011) (PMI 001)	6	6	30-May-25	06-Jun-25	-88	2-6WD_GH_31
Civil Works							
S30P40-2010	Construct RW07 - 11 bay (Excavation, Plate load test, Formwork, Rebar, Concrete) North Side (EWN 001, CNE 011)	54	54	22-Jul-25	22-Sep-25	-101	2-6WD_GH_31
S30P40-2020	Backfilling - RW07 (EWN 001, CNE 011)	40	40	03-Sep-25	21-Oct-25	-101	2-6WD_GH_31
S30P40-2030	Construct RW08 - 18 bay (Excavation, Plate load test, Formwork, Rebar, Concrete) South Side	80	80	14-Jun-25	16-Sep-25	-122	2-6WD_GH_31
S30P40-2040	Backfilling - RW08	60	60	14-Aug-25	24-Oct-25	-122	2-6WD_GH_31
S30P40-2050	Construct Drainge South side (0 / 4 MH Complete., Excav, ELS, Formwork, Rebar, Pipe Laying, BF)	60	60	04-Sep-25	15-Nov-25	-122	2-6WD_GH_31
S30P40-2070	Backfill up to + 8.3 mpd	96	62	02-Apr-25 A	22-Jul-25	-122	2-6WD_GH_31
S30P40-2080	Construct Drainge North side (0 / 1 MH Complete., Excav, ELS, Formwork, Rebar, Pipe Laying, BF) (EWN 001, CNE 011)	24	24	23-Jun-25	21-Jul-25	-101	2-6WD_GH_31
S30P40-2090	Removal of Existing Feature 2SE-B/FR106 at Portion XL (40) (CNE 030)	24	0	07-Apr-25 A	02-May-25 A		2-6WD_GH_31
SECTION 31							
Portion 35 in Area AF (ASD 214, 25-Mar-25)							
P/C Beam - Set-Up, Trial Cast, Approval, Casting, Prestress After 37.5MPA and 7-Day Maturity							
S31P35-1000	Precast beam - Set up, trial mix, trial cast - Submission, inspection and approval	60	60	08-Aug-25	18-Oct-25	74	2-6WD_GH_31
Civil & Road Works							
S31P35-2010	CSD for Link Bridge - Preparation & Submission	110	56	01-Mar-25 A	15-Jul-25	-21	2-6WD_GH_31
S31P35-2012	CSD for Link Bridge - Acceptance	30	30	16-Jul-25	14-Aug-25	-26	1-7WD
S31P35-2022	Site Clearance / Sheet piling & Site Formation Works to +12.5 mpd	30	6	24-Feb-25 A	15-May-25	-28	2-6WD_GH_31
S31P35-2030	Construct 610mm Dia. Socketted H-pile 16 No.	82	82	16-May-25	21-Aug-25	-28	2-6WD_GH_31
S31P35-2040	ELS & Excavation for Pile Cap	40	40	22-Aug-25	09-Oct-25	-28	2-6WD_GH_31
Portion 41 in Area AF (ASD 365, 23-Aug-25)							
Preparation Works							
S31P41-1000	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	12	06-Jan-25 A	22-May-25	-21	2-6WD_GH_31
S31P41-1010	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	23-May-25	21-Jun-25	-27	1-7WD
S31P41-1020	Tree Felling	6	6	23-Jun-25	28-Jun-25	-23	2-6WD_GH_31
Civil Works							
S31P41-2032	Site Clearance / Sheet piling & Site Formation Works to +12.5 mpd	60	8	03-Mar-25 A	17-May-25	0	2-6WD_GH_31
S31P41-2050	Construct 610mm Dia. Socketted H-pile 12 No.	90	90	16-Jun-25	29-Sep-25	-23	2-6WD_GH_31
Portion 42 in Area AF (ASD 214, 25-Mar-25)							
Preparation Works							
S31P42-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	12	06-Jan-25 A	22-May-25	-21	2-6WD_GH_31
S31P42-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	23-May-25	21-Jun-25	-27	1-7WD
S31P42-1030	Tree Felling	12	12	23-Jun-25	07-Jul-25	-23	2-6WD_GH_31
Civil Works							
S31P42-2012	Site Clearance / Sheet piling & Site Formation Works to +12.5 mpd	36	8	17-Mar-25 A	17-May-25	-12	2-6WD_GH_31
S31P42-2020	Construct 610mm Dia. Socketted H-pile 16 No.	90	90	02-Jun-25	15-Sep-25	-23	2-6WD_GH_31
Road & Drainage Works							
S31P42-3310	Box Culvert CHE 155.6 -170.6, 1 bays (Excavation, ELS, reinforcement, structure, backfill)	72	72	18-Aug-25	12-Nov-25	-35	2-6WD_GH_31
SECTION 32							
Portion 35 in Area AG - Adjacent to HSH Road (ASD 214, 25-Mar-25)							
Preparatoin Works							
S32P35- 2010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	1488	2-6WD_GH_31
S32P35- 2020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	1836	1-7WD
S32P35- 2030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	1489	2-6WD_GH_31
S32P35- 2040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	1494	2-6WD_GH_31
S32P35- 2050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	1844	1-7WD
S32P35- 2060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	1495	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S32P35- 3010	Obtain License from AMO by Licensed Archaeologist	180	135	12-Mar-25 A	20-Sep-25	26	1-7WD



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

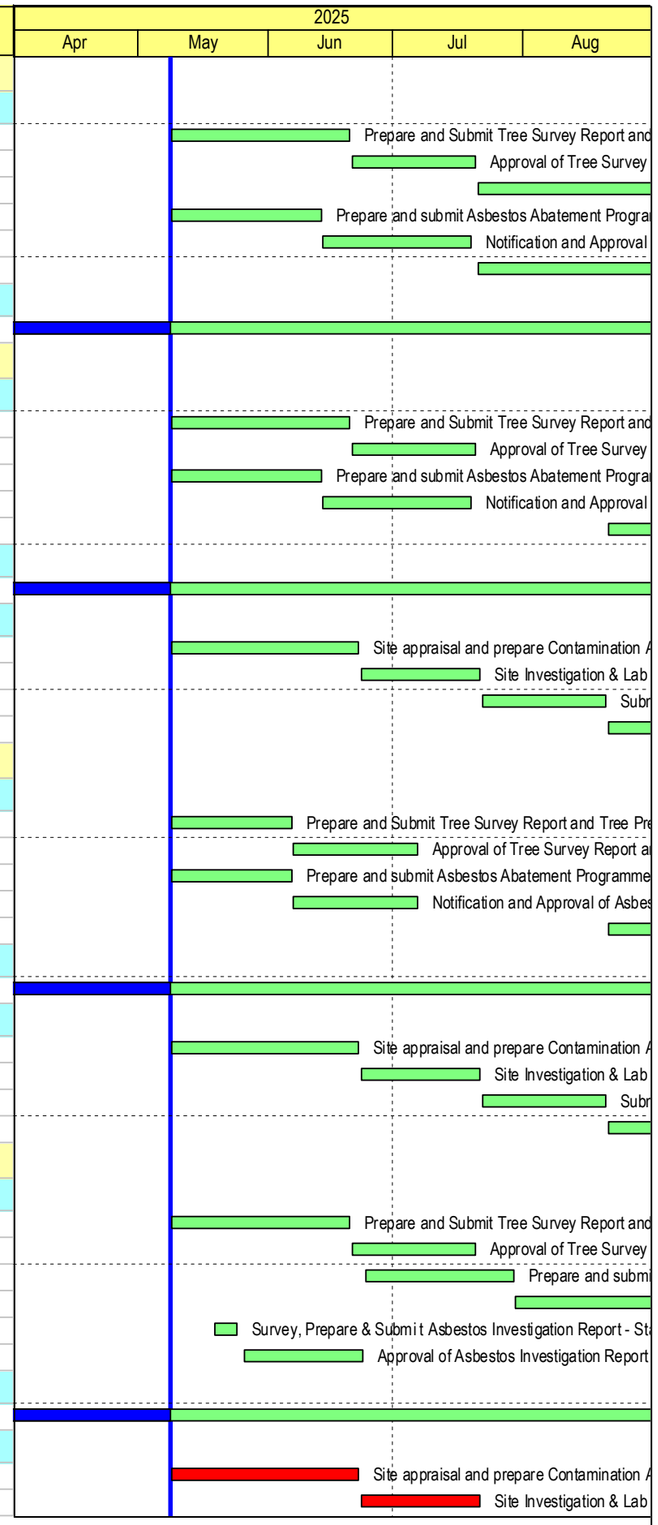
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
Portion 44 in Area AG - HSH Road (ASD 214, 25-Mar-25)							
Preparatoin Works							
S32HSH-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	803	2-6WD_GH_31
S32HSH-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	989	1-7WD
S32HSH-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	804	2-6WD_GH_31
S32HSH-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	810	2-6WD_GH_31
S32HSH-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	997	1-7WD
S32HSH-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	810	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S32HSH-3010	Obtain License from AMO by Licensed Archaeologist	180	135	12-Mar-25 A	20-Sep-25	961	1-7WD
Portion 44 in Area AG - Road D5 (ASD 214, 25-Mar-25)							
Preparation Works							
S32RD5-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	89	2-6WD_GH_31
S32RD5-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	106	1-7WD
S32RD5-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	95	2-6WD_GH_31
S32RD5-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	114	1-7WD
S32RD5-1080	EGI - 1nr (60x60m-grid,PS App.30.1), inspect pit, sampliing, situ/lab test,confirmatory extent, report	24	24	21-Aug-25	17-Sep-25	26	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S32RD5-1510	Obtain License from AMO by Licensed Archaeologist	180	135	12-Mar-25 A	20-Sep-25	13	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S32RD5-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	1	1-7WD
S32RD5-2020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	1	2-6WD_GH_31
S32RD5-2030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	1	1-7WD
S32RD5-2040	Remediation works according to agreed RAP(s)	48	48	21-Aug-25	17-Oct-25	1	2-6WD_GH_31
Portion 44 in Area AG - Roundabout C01 (ASD 214, 25-Mar-25)							
Preparation Works							
S32C01-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	24	24	09-May-25	06-Jun-25	90	2-6WD_GH_31
S32C01-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	07-Jun-25	06-Jul-25	107	1-7WD
S32C01-1040	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	90	2-6WD_GH_31
S32C01-1050	Notification and Approval of Asbestos Abatement Programme	30	30	07-Jun-25	06-Jul-25	107	1-7WD
S32C01-1080	EGI - 1nr (60x60m-grid,PS App.30.1), inspect pit, sampliing, situ/lab test,confirmatory extent, report	24	24	21-Aug-25	17-Sep-25	53	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S32C01-1510	Obtain License from AMO by Licensed Archaeologist	180	135	12-Mar-25 A	20-Sep-25	1	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S32C01-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	2	1-7WD
S32C01-2020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	2	2-6WD_GH_31
S32C01-2030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	2	1-7WD
S32C01-2040	Remediation works according to agreed RAP(s)	48	48	21-Aug-25	17-Oct-25	2	2-6WD_GH_31
Portion 44 in Area AG - Road L4 (ASD 214, 25-Mar-25)							
Preparation Works							
S32RL4-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	41	2-6WD_GH_31
S32RL4-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	49	1-7WD
S32RL4-1040	Prepare and submit Asbestos Abatement Programme	30	30	24-Jun-25	29-Jul-25	10	2-6WD_GH_31
S32RL4-1050	Notification and Approval of Asbestos Abatement Programme	36	36	30-Jul-25	03-Sep-25	11	1-7WD
S32RL4-1090	Survey, Prepare & Submit Asbestos Investigation Report - Stage 1	6	6	19-May-25	24-May-25	10	2-6WD_GH_31
S32RL4-1100	Approval of Asbestos Investigation Report - Stage 1	24	24	26-May-25	23-Jun-25	10	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S32RL4-1510	Obtain License from AMO by Licensed Archaeologist (Site 3)	180	135	12-Mar-25 A	20-Sep-25	134	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S32RL4-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	-38	1-7WD
S32RL4-3020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	-31	2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S32RL4-3030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	-38	1-7WD
S32RL4-3040	Remediation works according to agreed RAP(s)	48	48	21-Aug-25	17-Oct-25	-33	2-6WD_GH_31
Portion 44 in Area AG - Cycle Track CT5 (ASD 214, 25-Mar-25)							
Preparation Works							
S32CT5-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-17	2-6WD_GH_31
S32CT5-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-21	1-7WD
S32CT5-1030	Site Clearance, Haul Road, Demolition and Tree Felling	36	36	21-Jul-25	30-Aug-25	-17	2-6WD_GH_31
S32CT5-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-11	2-6WD_GH_31
S32CT5-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-12	1-7WD
S32CT5-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	30	30	21-Jul-25	23-Aug-25	-11	2-6WD_GH_31
S32CT5-1070	Temp Storage / Temp Site Access	530	530	01-Sep-25	18-Jun-27	-17	2-6WD_GH_31
Portion 44 in Area AG - Roundabout C02 (ASD 214, 25-Mar-25)							
Preparation Works							
S32C02-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	24	24	09-May-25	06-Jun-25	48	2-6WD_GH_31
S32C02-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	07-Jun-25	06-Jul-25	58	1-7WD
S32C02-1040	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	63	2-6WD_GH_31
S32C02-1050	Notification and Approval of Asbestos Abatement Programme	30	30	07-Jun-25	06-Jul-25	75	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S32C02-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	-44	1-7WD
S32C02-2020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	-36	2-6WD_GH_31
S32C02-2030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	-43	1-7WD
S32C02-2040	Remediation works according to agreed RAP(s)	48	48	21-Aug-25	17-Oct-25	-37	2-6WD_GH_31
Portion 44 in Area AG - Road D2, Road CH 300 - 475 (ASD 214, 25-Mar-25)							
Preparation Works							
S32RD2-1510	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	09-May-25	13-Jun-25	-29	2-6WD_GH_31
S32RD2-1520	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	14-Jun-25	13-Jul-25	-35	1-7WD
S32RD2-1530	Site Clearance, Haul Road, Demolition and Tree Felling	24	24	14-Jul-25	09-Aug-25	-29	2-6WD_GH_31
S32RD2-1540	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-33	2-6WD_GH_31
S32RD2-1550	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-41	1-7WD
S32RD2-1560	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	24	21-Jul-25	16-Aug-25	-35	2-6WD_GH_31
S32RD2-1800	Demolish & Remove Debries Part of Lee Kam Kee Factory	6	6	09-May-25	15-May-25	43	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S32RD2-6020	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	15	1-7WD
S32RD2-6030	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	12	2-6WD_GH_31
S32RD2-6040	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	14	1-7WD
Road & Drainage Works							
S32RD2-4030	Box Culvert CHE 170.6 - 265.8, 7 bays (Excavation, reinforcement, structure, backfill)	210	210	18-Aug-25	05-May-26	-35	2-6WD_GH_31
Portion 44 in Area AG - Road D2, Raod CH 475 - 960 (ASD 214, 25-Mar-25)							
Preparation Works							
S32RD2-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	48	2-6WD_GH_31
S32RD2-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	58	1-7WD
S32RD2-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	55	2-6WD_GH_31
S32RD2-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	66	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S32RD2-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	-30	1-7WD
S32RD2-2020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	-24	2-6WD_GH_31
S32RD2-2030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	-29	1-7WD
S32RD2-2040	Remediation works according to agreed RAP(s)	48	48	21-Aug-25	17-Oct-25	-25	2-6WD_GH_31
Portion 44 in Area AG - Road D2-1 (ASD 214, 25-Mar-25)							
Land Resumption Summary							
S32RD21-4010	Partial Land Resumption 1	0	0	24-Apr-25 A			2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

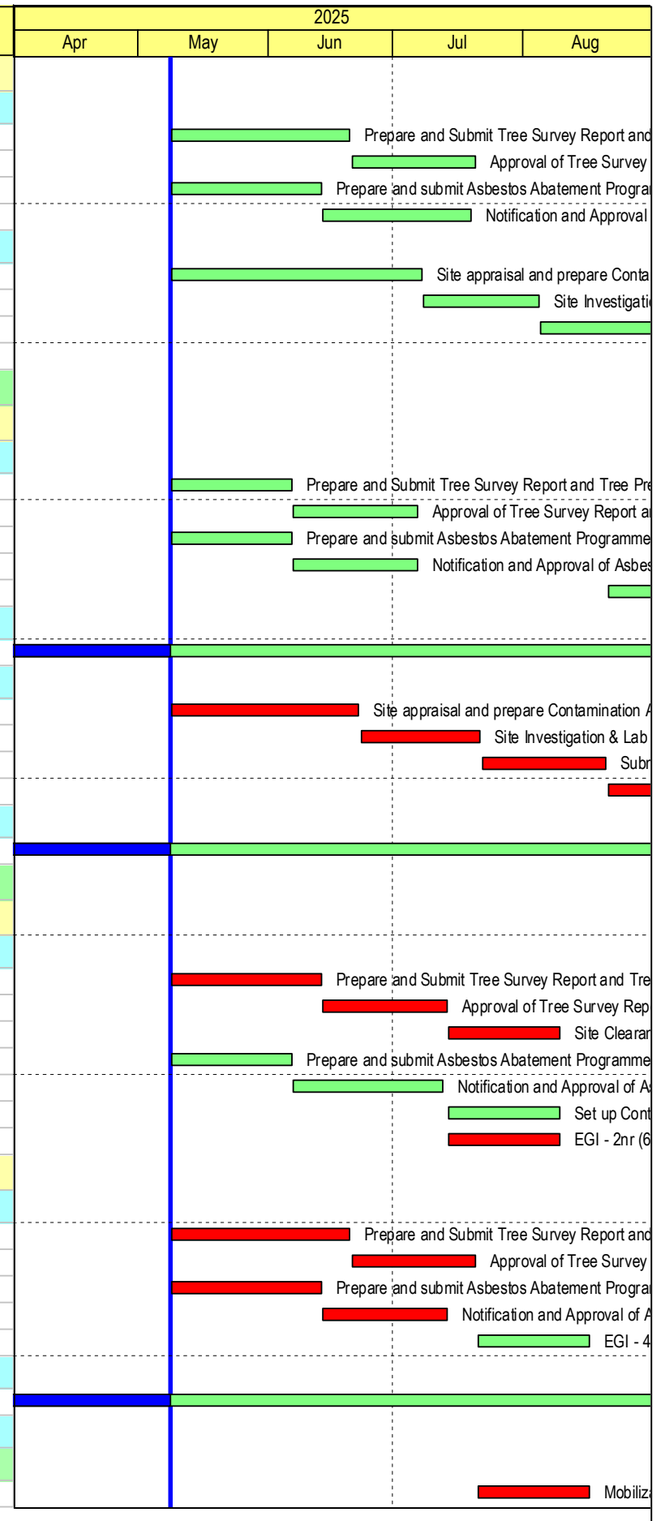
(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
Portion 44 in Area AG - Cycle Track CT4 (ASD 214, 25-Mar-25)							
Preparation Works							
S32CT4-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	314	2-6WD_GH_31
S32CT4-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	388	1-7WD
S32CT4-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	321	2-6WD_GH_31
S32CT4-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	396	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S32CT4-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	266	1-7WD
S32CT4-2020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	219	2-6WD_GH_31
S32CT4-2030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	05-Aug-25	03-Sep-25	271	1-7WD
S32CT4-2040	Remediation works according to agreed RAP(s)	48	48	04-Sep-25	01-Nov-25	217	2-6WD_GH_31
SECTION 33							
Portion 58 in Area AH (ASD 214, 25-Mar-25)							
Preparation Works							
S33P58-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	24	24	09-May-25	06-Jun-25	47	2-6WD_GH_31
S33P58-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	07-Jun-25	06-Jul-25	56	1-7WD
S33P58-1040	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	303	2-6WD_GH_31
S33P58-1050	Notification and Approval of Asbestos Abatement Programme	30	30	07-Jun-25	06-Jul-25	372	1-7WD
S33P58-1080	EGI - 1nr (60x60m-grid,PS App.30.1), inspect pit, sampliing, situ/lab test,confirmatory extent, report	24	24	21-Aug-25	17-Sep-25	177	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S33P58-1510	Obtain License from AMO by Licensed Archaeologist (Spot I & Site 2)	180	135	12-Mar-25 A	20-Sep-25	296	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S33P58-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	09-May-25	22-Jun-25	-45	1-7WD
S33P58-2020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	23-Jun-25	21-Jul-25	-37	2-6WD_GH_31
S33P58-2030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	22-Jul-25	20-Aug-25	-45	1-7WD
S33P58-2040	Remediation works according to agreed RAP(s)	48	48	21-Aug-25	17-Oct-25	-39	2-6WD_GH_31
Road & Drainage Works							
S33P58-6080	MTR Zone CHA 660-720 (Bay B52-B55, 4bay, 60m) - Initial Survey, preperation & submission of CIA	295	262	06-Mar-25 A	23-Mar-26	151	2-6WD_GH_31
SECTION 34							
Portion 43 in Area AI - Road D3, Road CH 150 - 400 (ASD 214, 25-Mar-25)							
Preparation Works							
S34P43-1530	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	09-May-25	13-Jun-25	-3	2-6WD_GH_31
S34P43-1540	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	14-Jun-25	13-Jul-25	-3	1-7WD
S34P43-1550	Site Clearance, Haul Road, Demolition and Tree Felling	24	24	14-Jul-25	09-Aug-25	-2	2-6WD_GH_31
S34P43-1560	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	21	2-6WD_GH_31
S34P43-1570	Notification and Approval of Asbestos Abatement Programme	36	36	07-Jun-25	12-Jul-25	26	1-7WD
S34P43-1580	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	24	14-Jul-25	09-Aug-25	22	2-6WD_GH_31
S34P43-1590	EGI - 2nr (60x60m-grid,PS App.30.1), inspect pit, sampliing, situ/lab test,confirmatory extent, report	24	24	14-Jul-25	09-Aug-25	-2	2-6WD_GH_31
Portion 43 in Area AI - Road D3, Road CH 400 - 730 (ASD 214, 25-Mar-25)							
Preparation Works							
S34P43-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	-32	2-6WD_GH_31
S34P43-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	-38	1-7WD
S34P43-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-26	2-6WD_GH_31
S34P43-1050	Notification and Approval of Asbestos Abatement Programme	30	30	14-Jun-25	13-Jul-25	-31	1-7WD
S34P43-7450	EGI - 4nr (60x60m-grid,PS App.30.1), inspect pit, sampliing, situ/lab test,confirmatory extent, report	24	24	21-Jul-25	16-Aug-25	49	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S34P43-1510	Obtain License from AMO by Licensed Archaeologist (Spot E & Site 1)	180	135	12-Mar-25 A	20-Sep-25	248	1-7WD
CUE1 (180-340, 8BAY) - SP 1313T, EXC 51,796M3,ELS 752T,RF 1668M3,REBAR 2354T,CONC 8567M3,BF 23,753M3							
OPEN CUT 16,462M3, SHT PILE 6254M2, 1313T, EXCAV 37,474M3,ESL 3-LEV 1302T (S1065T,W237T), LOAD TEST							
S34P43-7010	Mobilization,site form,haul rd,tree removal,etc (outside Archaelogical resuce pit)	24	24	21-Jul-25	16-Aug-25	-31	2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

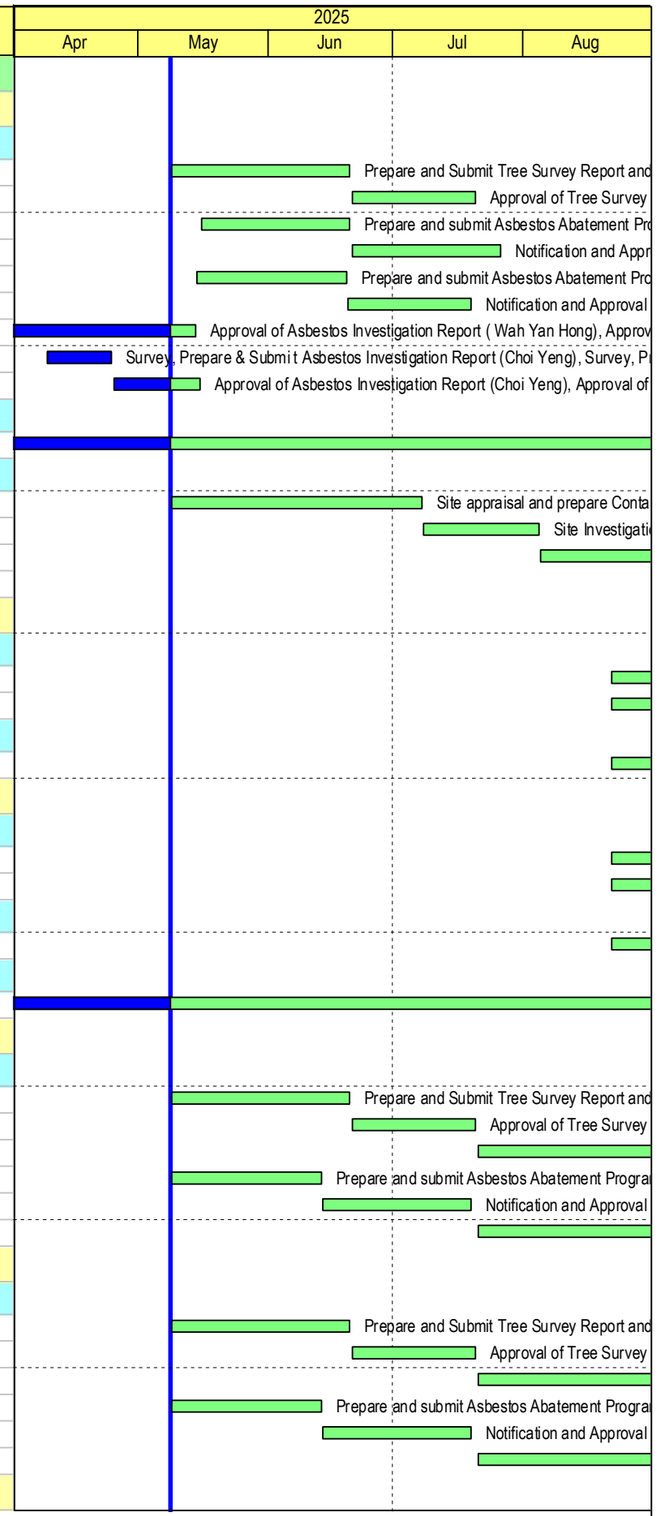
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)

Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
SECTION 35							
Portion 42 in Area AE Road L6 (ASD 214, 25-Mar-25)							
Preparation Works							
S35RL6-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	100	2-6WD_GH_31
S35RL6-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	121	1-7WD
S35RL6-1040	Prepare and submit Asbestos Abatement Programme	30	30	16-May-25	20-Jun-25	101	2-6WD_GH_31
S35RL6-1050	Notification and Approval of Asbestos Abatement Programme	36	36	21-Jun-25	26-Jul-25	122	1-7WD
S35RL6-1080	Prepare and submit Asbestos Abatement Programme (Wah Yan Hong)	30	30	15-May-25	19-Jun-25	107	2-6WD_GH_31
S35RL6-1090	Notification and Approval of Asbestos Abatement Programme (Wah Yan Hong)	30	30	20-Jun-25	19-Jul-25	129	1-7WD
S35RL6-1094	Approval of Asbestos Investigation Report (Wah Yan Hong)	30	6	13-Feb-25 A	14-May-25	121	1-7WD
S35RL6-1100	Survey, Prepare & Submit Asbestos Investigation Report (Choi Yeng)	10	0	09-Apr-25 A	24-Apr-25 A		2-6WD_GH_31
S35RL6-1110	Approval of Asbestos Investigation Report (Choi Yeng)	6	6	25-Apr-25 A	15-May-25	101	2-6WD_GH_31
Archaeological Survey & Rescue Excavation							
S35RL6-1510	Obtain License from AMO by Licensed Archaeologist (Spot D)	180	135	12-Mar-25 A	20-Sep-25	30	1-7WD
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S35RL6-3010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	09-May-25	07-Jul-25	16	1-7WD
S35RL6-3020	Site Investigation & Lab Testing According to Agreed CAP(s)	24	24	08-Jul-25	04-Aug-25	14	2-6WD_GH_31
S35RL6-3030	Submit Contamination Assessment Report(s) (CAR(s) and Remediation Action Plan(s) (RAP(s) & Approval	30	30	05-Aug-25	03-Sep-25	16	1-7WD
S35RL6-3040	Remediation works according to agreed RAP(s)	48	48	04-Sep-25	01-Nov-25	14	2-6WD_GH_31
Portion 16 in Area AE - CT01 & Open Public Space A1-10j (ASD 364, 22-Aug-25)							
Preparation Works							
S35P16-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	79	2-6WD_GH_31
S35P16-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	86	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S35P16-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	45	45	22-Aug-25	05-Oct-25	7	1-7WD
Portion 36 in Area AE - CT01 & Open Public Space A1-10a (ASD 364, 22-Aug-25)							
Preparation Works							
S35P36-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	22-Aug-25	03-Oct-25	147	2-6WD_GH_31
S35P36-1040	Prepare and submit Asbestos Abatement Programme	30	30	22-Aug-25	25-Sep-25	149	2-6WD_GH_31
Contam Soil - EPD Subm&Appr, GI, Setup, Exca, Treatment and Backfill							
S35P36-2010	Site appraisal and prepare Contamination Assessment Plan(s) (CAP(s) & Approval	60	60	22-Aug-25	20-Oct-25	76	1-7WD
Road & Drainage Works							
S35P36-4020	Initial Survey, Preperation & Submission of CIA	235	164	06-Mar-25 A	21-Nov-25	7	2-6WD_GH_31
Portion 42 in Area AE - CT01 & Open Public Space A1-10f (ASD 214, 25-Mar-25)							
Preparation Works							
S35CT1-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	7	2-6WD_GH_31
S35CT1-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	8	1-7WD
S35CT1-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	7	2-6WD_GH_31
S35CT1-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	13	2-6WD_GH_31
S35CT1-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	16	1-7WD
S35CT1-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	13	2-6WD_GH_31
Portion 42 in Area AE Road L3 - North of Road D2 (ASD 214, 25-Mar-25)							
Preparation Works							
S35NL3-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	36	36	09-May-25	20-Jun-25	30	2-6WD_GH_31
S35NL3-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	21-Jun-25	20-Jul-25	36	1-7WD
S35NL3-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	31	2-6WD_GH_31
S35NL3-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	36	2-6WD_GH_31
S35NL3-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	44	1-7WD
S35NL3-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	37	2-6WD_GH_31
Portion 42 in Area AE Road L3 - South of Road D2 (ASD 214, 25-Mar-25)							



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
Land Resumption Summary							
S35SL3-4010	Partial Land Resumption 1	0	0	28-Apr-25 A			2-6WD_GH_31
Preparation Works							
S35SL3-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remaining	36	36	09-May-25	20-Jun-25	-22	2-6WD_GH_31
S35SL3-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remaining	30	30	21-Jun-25	20-Jul-25	-26	1-7WD
S35SL3-1030	Site Clearance, Haul Road, Demolition and Tree Felling	48	48	21-Jul-25	13-Sep-25	-21	2-6WD_GH_31
S35SL3-1040	Prepare and submit Asbestos Abatement Programme	30	30	09-May-25	13-Jun-25	-14	2-6WD_GH_31
S35SL3-1050	Notification and Approval of Asbestos Abatement Programme	36	36	14-Jun-25	19-Jul-25	-17	1-7WD
S35SL3-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	42	42	21-Jul-25	06-Sep-25	-15	2-6WD_GH_31
S35SL3-1080	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	24	18	30-Apr-25 A	29-May-25	-9	2-6WD_GH_31
S35SL3-1090	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	30	30	30-May-25	05-Jul-25	-9	2-6WD_GH_31
Portion 41 in Area AE Road L3 - South of Road D2 (ASD 365, 23-Aug-25)							
Preparation Works							
S35P41-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Remaining	36	36	23-Aug-25	04-Oct-25	338	2-6WD_GH_31
S35P41-1040	Prepare and submit Asbestos Abatement Programme	30	30	23-Aug-25	26-Sep-25	338	2-6WD_GH_31
S35P41-1070	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	24	18	30-Apr-25 A	29-May-25	438	2-6WD_GH_31
S35P41-1080	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP) Stage 1	30	30	30-May-25	05-Jul-25	438	2-6WD_GH_31
Drainage Works							
S35P41-2010	Preperation of CDIA report and Submission	144	144	09-May-25	28-Oct-25	241	2-6WD_GH_31
Portion 42 in Area AE South of C02 (ASD 214, 25-Mar-25)							
Preparation Works							
S35P42-1010	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	24	24	09-May-25	06-Jun-25	-32	2-6WD_GH_31
S35P42-1020	Approval of Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	30	30	07-Jun-25	06-Jul-25	-40	1-7WD
S35P42-1030	Site Clearance, Haul Road, Demolition and Tree Felling	24	24	07-Jul-25	02-Aug-25	-32	2-6WD_GH_31
S35P42-1040	Prepare and submit Asbestos Abatement Programme	24	24	09-May-25	06-Jun-25	-32	2-6WD_GH_31
S35P42-1050	Notification and Approval of Asbestos Abatement Programme	30	30	07-Jun-25	06-Jul-25	-40	1-7WD
S35P42-1060	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	24	07-Jul-25	02-Aug-25	-32	2-6WD_GH_31
S35P42-1070	Carry out Ground investigation (GI 0 / 1 Complete)	24	24	07-Jul-25	02-Aug-25	-32	2-6WD_GH_31
Road & Drainage Works							
S35P42-2020	P2 - CHA 832-932 100m x2cell x6Wx4H - Excav, rockfill, structure, backfill	268	268	04-Aug-25	30-Jun-26	-32	2-6WD_GH_31
Portion 41 in Area AE South of C02 (ASD 365, 23-Aug-25)							
Preparation Works							
S35P41-3020	Prepare and Submit Tree Survey Report and Tree Preservation and Removal Proposals (TPRP)	33	33	23-Aug-25	30-Sep-25	149	2-6WD_GH_31
S35P41-3050	Prepare and submit Asbestos Abatement Programme	30	30	23-Aug-25	26-Sep-25	151	2-6WD_GH_31
Drainage Works							
S35P41-4010	Preperation of CDIA report and Submission	144	144	09-May-25	28-Oct-25	54	2-6WD_GH_31
SECTION 36							
Portion 47 (ASD 30, 22-Sep-24)							
Fencing off Works							
S36P47-1010	Fencing off works for Portion XLVII, 47 after land resumption by Lands (NCE 002)	90	90	09-Jun-25	22-Sep-25	-152	2-6WD_GH_31
Interface With Housing Dept. Ground Investigation Works in HD Area 12 (PS 1.14A)							
S36P47-2010	Allow access to (HD) Contractor for Stage 1 GI works (27 nr GI, subject to change and confirm by HD)	91	91	09-May-25	07-Aug-25	1208	1-7WD
S36P47-2020	Allow access to (HD) Contractor for Stage 2 GI works (54 nr GI, subject to change and confirm by HD)	120	120	08-Aug-25	05-Dec-25	1208	1-7WD
Portion 48 (ASD 30, 22-Sep-24)							
Fencing off Works							
S36P48-1010	Fencing off works for Portion XLVIII, 48 after land resumption by Lands (NCE 003)	90	90	09-Jun-25	22-Sep-25	-152	2-6WD_GH_31
Interface With Housing Dept. Ground Investigation Works in HD Area 13 (PS 1.14A)							
S36P48-2010	Allow access to (HD) Contractor for Stage 1 GI works (27 nr GI, subject to change and confirm by HD)	182	182	09-May-25	06-Nov-25	1054	1-7WD
Portion 51 (ASD 30, 22-Sep-24)							
Land Resumption Summary							



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

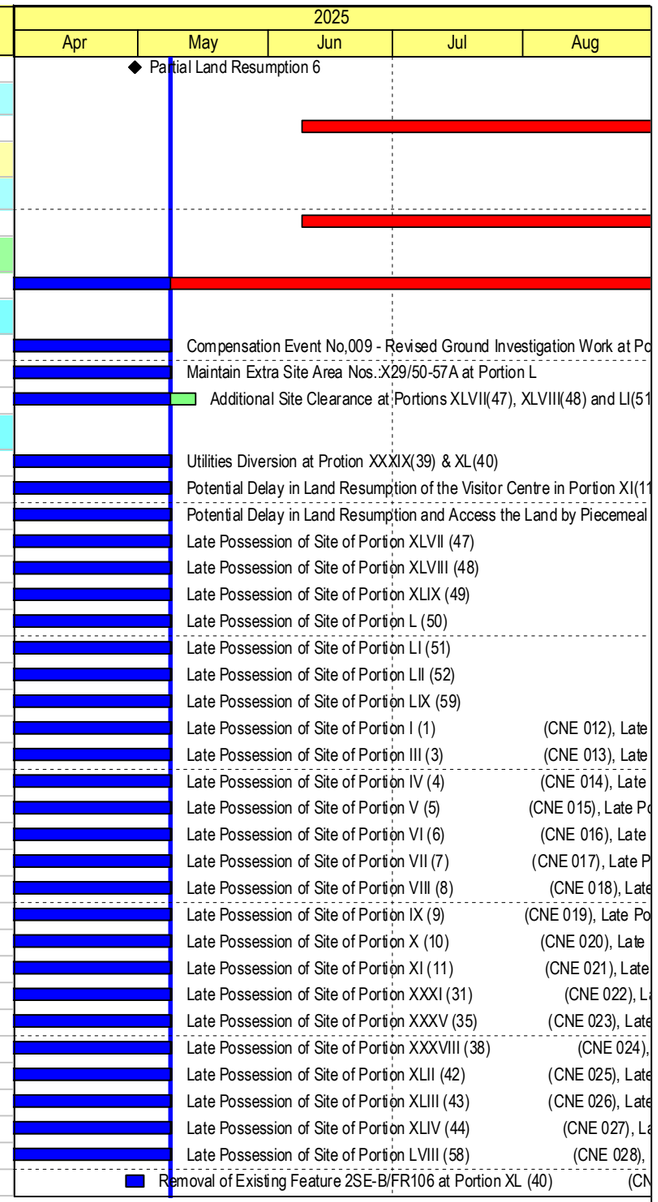
(May 2025 - Aug 2025)

Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Calendar
S36P51-2050	Partial Land Resumption 6	0	0	30-Apr-25 A			2-6WD_GH_31
Fencing off Works							
S36P51-1010	Fencing off works for Portion LI, 51 after land resumption by LandS (NCE 006)	90	90	09-Jun-25	22-Sep-25	-152	2-6WD_GH_31
Portion 52 (ASD 30, 22-Sep-24)							
Fencing off Works							
S36P52-1010	Fencing off works for Portion LII, 52 after land resumption by LandS (NCE 007)	90	90	09-Jun-25	22-Sep-25	-152	2-6WD_GH_31
SECTION 38 PRESERVATION AND PROTECTION OF EXISTING TREES							
S38.PPT.290827	Section 38 - Preservation and Protection of Existing Trees	1859	1601	24-Aug-24 A	25-Sep-29	0	1-7WD
Major PMI / CE							
CE-0030	Compensation Event No,009 - Revised Ground Investigation Work at Portion XL (PMI 001)	5	0	03-Jan-25 A	09-May-25	-156	1-7WD
CE-0040	Maintain Extra Site Area Nos.:X29/50-57A at Portion L (PMI 002)	5	0	27-Dec-24 A	09-May-25	1966	1-7WD
CE-0060	Additional Site Clearance at Portions XLVII(47), XLVIII(48) and LI(51) (PMI 004)	5	5	28-Jan-25 A	14-May-25	1592	2-6WD_GH_31
Major EWN / CNE							
EC-0000	Utilities Diversion at Protion XXXIX(39) & XL(40) (EWN 001, CNE 011)	5	0	16-Oct-24 A	09-May-25	-129	1-7WD
EC-0000.1	Potential Delay in Land Resumption of the Visitor Centre in Portion XI(11) (EWN 002)	5	0	23-Dec-24 A	09-May-25	26	1-7WD
EC-0000.2	Potential Delay in Land Resumption and Access the Land by Piecemeal (EWN 003)	5	0	30-Dec-24 A	09-May-25	1966	1-7WD
EC-0004	Late Possession of Site of Portion XLVII (47) (CNE 002)	5	0	22-Sep-24 A	09-May-25	-229	1-7WD
EC-0006	Late Possession of Site of Portion XLVIII (48) (CNE 003)	5	0	22-Sep-24 A	09-May-25	-229	1-7WD
EC-0008	Late Possession of Site of Portion XLIX (49) (CNE 004)	5	0	22-Sep-24 A	09-May-25	-229	1-7WD
EC-0010	Late Possession of Site of Portion L (50) (CNE 005)	5	0	22-Sep-24 A	09-May-25	-229	1-7WD
EC-0012	Late Possession of Site of Portion LI (51) (CNE 006)	5	0	22-Sep-24 A	09-May-25	-229	1-7WD
EC-0014	Late Possession of Site of Portion LII (52) (CNE 007)	5	0	22-Sep-24 A	09-May-25	-229	1-7WD
EC-0016	Late Possession of Site of Portion LIX (59) (CNE 008)	5	0	22-Sep-24 A	09-May-25	-229	1-7WD
EC-0022	Late Possession of Site of Portion I (1) (CNE 012)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0024	Late Possession of Site of Portion III (3) (CNE 013)	5	0	25-Mar-25 A	09-May-25	-130	2-6WD_GH_31
EC-0026	Late Possession of Site of Portion IV (4) (CNE 014)	5	0	25-Mar-25 A	09-May-25	-69	2-6WD_GH_31
EC-0028	Late Possession of Site of Portion V (5) (CNE 015)	5	0	25-Mar-25 A	09-May-25	-77	2-6WD_GH_31
EC-0030	Late Possession of Site of Portion VI (6) (CNE 016)	5	0	25-Mar-25 A	09-May-25	-88	2-6WD_GH_31
EC-0032	Late Possession of Site of Portion VII (7) (CNE 017)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0034	Late Possession of Site of Portion VIII (8) (CNE 018)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0036	Late Possession of Site of Portion IX (9) (CNE 019)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0038	Late Possession of Site of Portion X (10) (CNE 020)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0040	Late Possession of Site of Portion XI (11) (CNE 021)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0042	Late Possession of Site of Portion XXXI (31) (CNE 022)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0044	Late Possession of Site of Portion XXXV (35) (CNE 023)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0046	Late Possession of Site of Portion XXXVIII (38) (CNE 024)	5	0	25-Mar-25 A	09-May-25	-34	2-6WD_GH_31
EC-0048	Late Possession of Site of Portion XLII (42) (CNE 025)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0050	Late Possession of Site of Portion XLIII (43) (CNE 026)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0052	Late Possession of Site of Portion XLIV (44) (CNE 027)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0054	Late Possession of Site of Portion LVIII (58) (CNE 028)	5	0	25-Mar-25 A	09-May-25	-33	2-6WD_GH_31
EC-0058	Removal of Existing Feature 2SE-B/FR106 at Portion XL (40) (CNE 030)	5	0	28-Apr-25 A	02-May-25 A		2-6WD_GH_31



Build King – Richwell Engineering Joint Venture

Planned Work
Critical Work
Actual Work
Milestone
Milestone Critical
Summary LOE
Su...

ND/2024/01 - Rolling Programme

(May 2025 - Aug 2025)

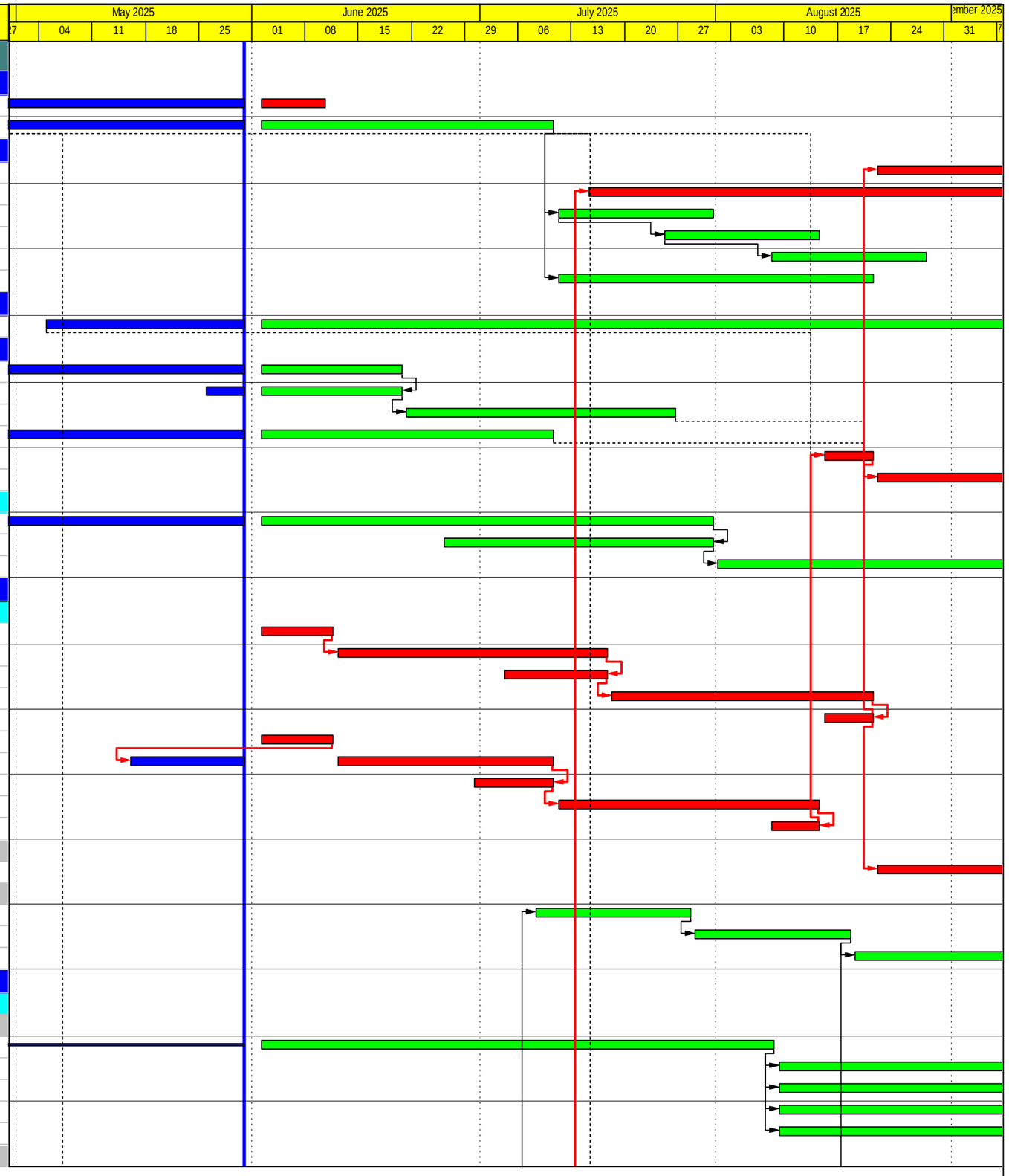
Data Date: 08-May-25 Run Date: 28-May-25

Project ID: ND202401-RP_07
Layout: ND-2024-01 (May 2025- Aug 2025)

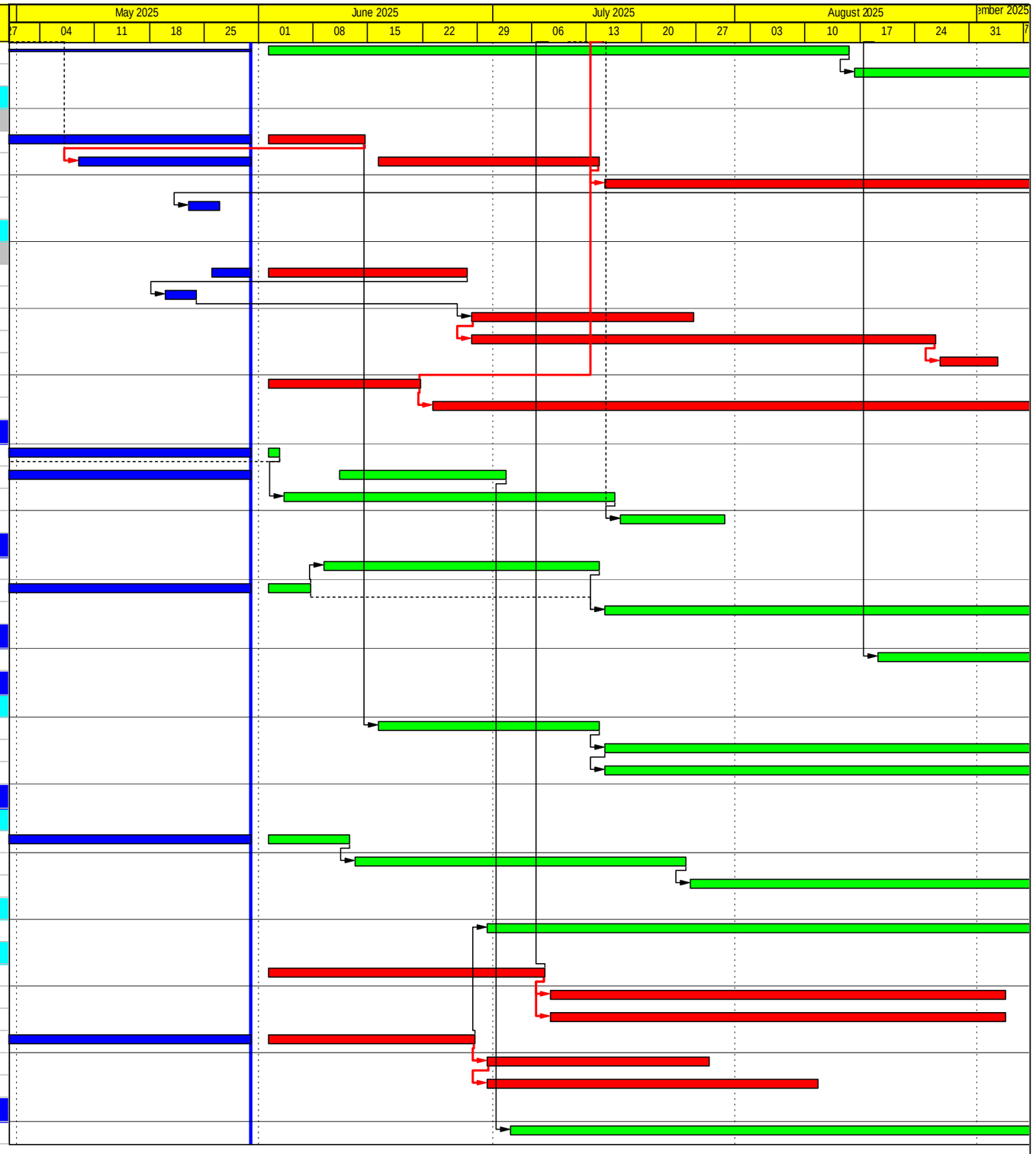
REVISED PROGRAMME (2025-05)			
Date	Revision	Checked	Approv...
28-May-25	Rev.0		PC

Construction Programme for Works Contract No. ND/2024/04

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
3MRP (June 2025)				
Preliminaries				
PRE-1800	Tree Treatment Subletting	8	19-Feb-25 A	10-Jun-25
PRE-2300	Utility Detection and Trial Pits	33	25-Jan-25 A	10-Jul-25
Demolition Works				
DEM-1300	Demolition of 3SW-A/R152 Near Pier P8	36	22-Aug-25	03-Oct-25
DEM-1350	Demolish Existing Stair Near Pier P8	60	15-Jul-25	22-Sep-25
DEM-1400	Demolition of Unregistered Feature U16	18	11-Jul-25	31-Jul-25
DEM-1500	Demolition of Unregistered Feature U17	18	25-Jul-25	14-Aug-25
DEM-1600	Demolition of Unregistered Feature U18	18	08-Aug-25	28-Aug-25
DEM-1700	Demolition of 3SW-A/FR164, 3SW-A/FR90 and 3SW-AFR209	36	11-Jul-25	21-Aug-25
Geothechnical Monitoring Works				
INS-1000	Instrumentation Installation	174	05-May-25 A	27-Dec-25
Drainage Works				
DRA-1700	Drainage 2100mm dia. - ELS Design	17	31-Dec-24 A	20-Jun-25
DRA-1710	Drainage 2100mm dia. - ICE	17	26-May-25 A	20-Jun-25
DRA-1720	Drainage 2100mm dia. - PM Consent/Acceptance	30	21-Jun-25	26-Jul-25
DRA-1730	Drainage 2100mm dia. - Procurement	33	31-Dec-24 A	10-Jul-25
DRA-1750	Drainage 2100mm dia. P09 to Pier P12 - Site Clearance	6	15-Aug-25	21-Aug-25
DRA-1800	Drainage 2100mm dia. P09 to Pier P12 - Trench Excavation	60	22-Aug-25	03-Nov-25
Box Culvert Portion I				
DRA-1200	Portion 1 Box Culvert - Temporary Box Culvert Diversion Design	51	31-Dec-24 A	31-Jul-25
DRA-1210	Portion 1 Box Culvert - Temporary Box Culvert Diversion ICE	30	26-Jun-25	31-Jul-25
DRA-1220	Portion 1 Box Culvert - Temporary Box Culvert Diversion DSD/PM Acceptar	42	01-Aug-25	18-Sep-25
At-grade Roadworks and Associated Works				
Po Shek Wu Road (PSWR)				
PSW-110	PSWR - N/B TTA for Site Set-up	9	02-Jun-25	11-Jun-25
PSW-120	PSWR - Pier P8 to P13 - N/B Site Clearance and Tree Felling and Protectio	30	12-Jun-25	17-Jul-25
PSW-130	PSWR - Pier P8 to P13 - N/B Site Formation and Temporary Platform	12	04-Jul-25	17-Jul-25
PSW-140	PSWR - Pier P8 to P13 - N/B Temporary Road, Cycle Track and Footpath	30	18-Jul-25	21-Aug-25
PSW-150	PSWR - Pier P8 to P13 - N/B TTA Divert Traffic, Cycle Track and Footpath	6	15-Aug-25	21-Aug-25
PSW-155	PSWR - S/B TTA for Site Set-up	9	02-Jun-25	11-Jun-25
PSW-160	PSWR - Pier P8 to P13 - S/B Site Clearance and Tree Felling	24	16-May-25 A	10-Jul-25
PSW-170	PSWR - Pier P8 to P13 - S/B Site Formation and Temporary Platform	9	30-Jun-25	10-Jul-25
PSW-180	PSWR - Pier P6 to P13 - S/B Temporary Road, Cycle Track and Footpath	30	11-Jul-25	14-Aug-25
PSW-190	PSWR - Pier P8 to P13 - S/B TTA - Divert Traffic, Cycle Track and Footpath	6	08-Aug-25	14-Aug-25
Utility Installation and Diversion				
UTL-110	Utility Installation PSWR N/B for FE01 West (P08 to P09)	90	22-Aug-25	08-Dec-25
PSWR/CYR Junction				
PSW-81	PSWR Junction/North - TTA Stage 1 Set-up and Implementation	18	08-Jul-25	28-Jul-25
PSW-82	PSWR Junction/North - TTA Stage 2 Set-up and Implementation	18	29-Jul-25	18-Aug-25
PSW-83	PSWR Junction/North - TTA Stage 3 Set-up and Implementation	18	19-Aug-25	08-Sep-25
Po Shek Flyover - Bridge A, B and C				
Off-site Fabrication				
Precast Segment				
PCS-10	Precast Segment - Procurement	58	31-Dec-24 A	08-Aug-25
PCS-11	Precast Segment - Off-site Precast Yard Set-up	72	09-Aug-25	04-Nov-25
PCS-12	Precast Segment - Mold Design and Mock-up	72	09-Aug-25	04-Nov-25
PCS-13	Precast Segment - Bridge A Shop Drawings	72	09-Aug-25	04-Nov-25
PCS-131	Precast Segment - Bridge B Shop Drawings	75	09-Aug-25	07-Nov-25
Segment Lifter				



Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
SEL-100	Segment Lifter - Procurement	64	31-Dec-24 A	15-Aug-25
SEL-110	Segment Lifter - Design Preparation	42	16-Aug-25	04-Oct-25
Bridge A				
BA - Bored Piling				
BA-1100	BA - TTA for Site Set-up	12	19-Apr-25 A	14-Jun-25
BA-1200	BA - Site Clearance, Tree Felling, Demolition and UU detection Works	24	09-May-25 A	14-Jul-25
BA-1300	BA - Site Formation, Temporary Working Platform and Site Ingress/Egress	48	15-Jul-25	08-Sep-25
BA-1320	BA - Pre-drilling Pier P05	0	23-May-25 A	27-May-25 A
Bridge B				
BB - Substructure				
BB-2100	BB - Pier P7 TTA for Site Set-up	23	26-May-25 A	27-Jun-25
BB-2150	BB - Pier P7 Site Clearance	0	20-May-25 A	24-May-25 A
BB-2200	BB - Pier P7 Site Formation and Temporary Platform	24	28-Jun-25	26-Jul-25
BB-2300	BB - Pier P7 Temporary Road Widening	50	28-Jun-25	26-Aug-25
BB-2400	BB - Pier P7 TTA - Divert Traffic, Cycle Track and Footpath	7	27-Aug-25	03-Sep-25
BB-3100	BB - Pier P8 TTA for Site Set-up	18	02-Jun-25	21-Jun-25
BB-3200	BB - Pier P8 Tree Treatment and Transplanting	78	23-Jun-25	22-Sep-25
Footbridge No. 6				
FB6-1000	FB6 - Interface Coordination	2	21-Jan-25 A	03-Jun-25
FB6-1100	FB6 - Site Clearance, CLP Pole Removal, Tree Felling and Tree Protection	18	14-Apr-25 A	02-Jul-25
FB6-1200	FB6 - Site Establishment/Set-up and Temporary Platform	36	04-Jun-25	16-Jul-25
FB6-1300	FB6 - Pre-drilling Lift 2, Pier 2 and Abutment 2	12	17-Jul-25	30-Jul-25
Footbridge Cum Cycle Track No. 7				
FB7-1000	FB7 - TTA Preparation and Implementation	30	09-Jun-25	14-Jul-25
FB7-1100	FB7 - MTRC Liaison and Consent / Liason with Stake Holders	6	21-Jan-25 A	07-Jun-25
FB7-1200	FB7 - ERL Temporary Protection, Site Clearance and Establisment	60	15-Jul-25	22-Sep-25
Subway Extension NS201 & NS201A				
SUB-1000	Sub Ext NS201 - Site Clearance and Formation	18	19-Aug-25	08-Sep-25
Retaining Structure				
Retaining Wall RW08				
R08-1100	RW08 - TTA for Site Set-up	24	16-Jun-25	14-Jul-25
R08-1200	RW08 - Site Clearance, Tree Felling, Demolition and UU detection Works	48	15-Jul-25	08-Sep-25
R08-1300	RW08 - Site Formation and Temporary Working Platform	48	15-Jul-25	08-Sep-25
Noise Barrier and Noise Enclosure				
Noise Barrier FLN-NB44				
N44-1000	Noise Barrier FLN-NB44 - AD Design Preparation	10	31-Dec-24 A	12-Jun-25
N44-1100	Noise Barrier FLN-NB44 - AD Design ICE	36	13-Jun-25	25-Jul-25
N44-1200	Noise Barrier FLN-NB44 - AD Design PM Consent / Acceptance	48	26-Jul-25	19-Sep-25
Full Enclosure Noise Barrier FLN-FE01 (P7 to P10)				
FE1-0100	Swmi Noise Enclosure FLN-FE01 - AD Design Preparation	120	30-Jun-25	20-Nov-25
Semi Enclosure Noise Barrier FLN-SE03				
SE3-1100	RW12 (SE03 West) - TTA for Site Set-up	30	02-Jun-25	07-Jul-25
SE3-1200	RW12 (SE03 West) - Site Clearance, Tree Treatment and UU Detection/D	51	08-Jul-25	04-Sep-25
SE3-1300	RW12 (SE03 West) - Site Formation and Temporary Working Platform	51	08-Jul-25	04-Sep-25
SE3-1310	RW12 (SE03 West) - AD Design Preparation	24	31-Dec-24 A	28-Jun-25
SE3-1320	RW12 (SE03 West) - AD Design ICE	24	30-Jun-25	28-Jul-25
SE3-1330	RW12 (SE03 West) - AD Design PM Review	36	30-Jun-25	11-Aug-25
Preservation and Protection of Trees				
TPP-1000	Tree Preservation and Protection	1110	03-Jul-25	28-Mar-29



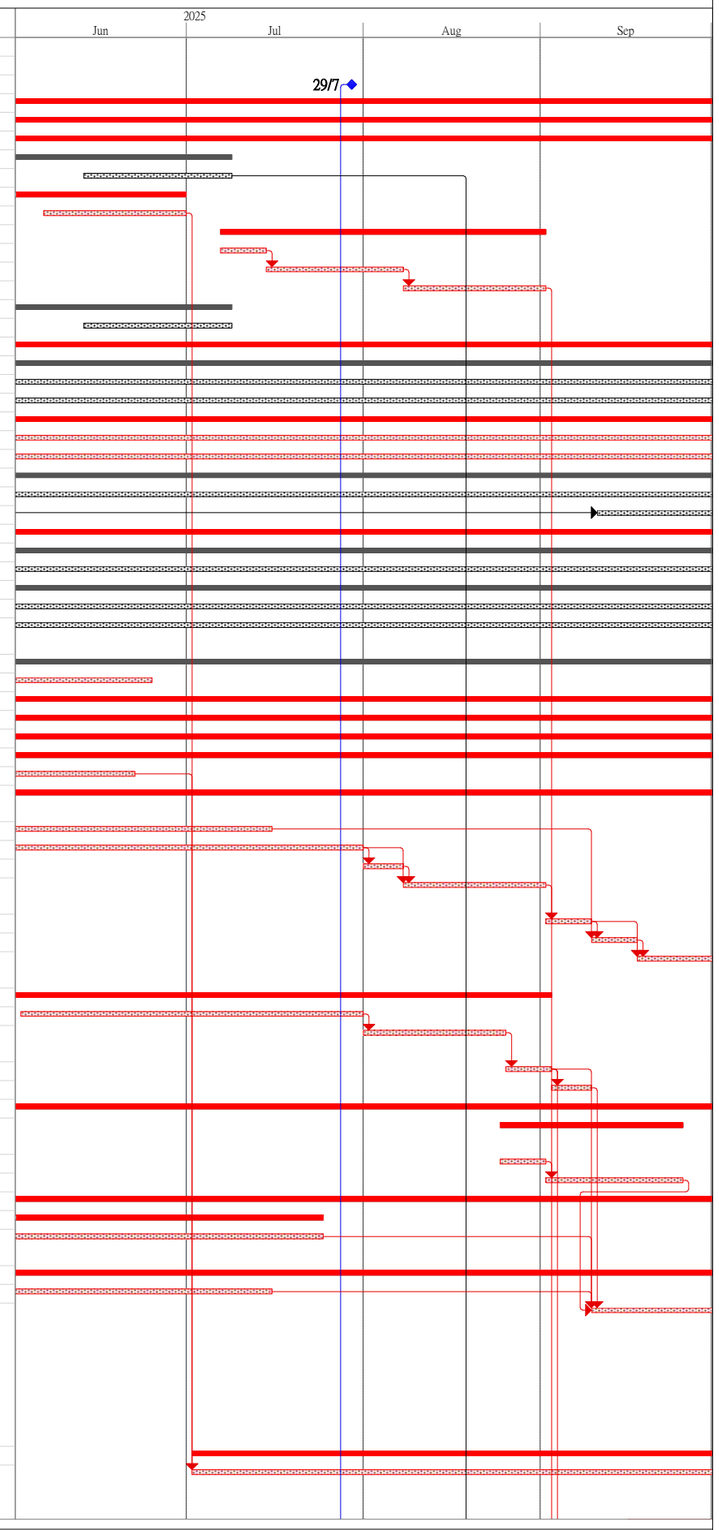
Construction Programme for Works Contract No. ND/2024/06

Contract No. ND/2024/06
Fanling North New Development Area, Remaining Phase:
Fresh Water and Flushing Water Service Reservoirs and Associated Works

3-Month Rolling Programme 2025 Jul to 2025 Sep

Wo Hing - Tsun Yip Joint Venture

ID	Activity ID	Task Name	Duration	Start	Finish	Late Start	Late Finish	Notes	Predecessors	Successors	Total Slack
1	KD0000	**Key Dates**	**1463 days**	**Tue 30/7/24**	**Mon 31/7/28**	**Tue 30/7/24**	**Mon 31/7/28**				**0 days**
3	KD2000	**Contract Access Dates**	**520 days**	**Wed 28/8/24**	**Fri 30/1/26**	**Wed 28/8/24**	**Fri 30/1/26**			**250**	**0 days**
7	KD2200	Portion E & F (365 calender days from the Starting Date)	0 days	Tue 29/7/25	Tue 29/7/25	Tue 29/7/25	Tue 29/7/25		2SS+365 days	733SS,566SS,734SS	**0 days**
18	PW0000	**Preliminary Works**	**1392 days**	**Tue 30/7/24**	**Mon 2/4/29**	**Thu 12/10/95**	**Thu 25/7/58**				**-9016 days**
19	PW1000	**Sub-Contracting Works**	**827 days**	**Tue 30/7/24**	**Sat 15/5/27**	**Thu 12/10/95**	**Thu 25/7/58**				**-9016 days**
21	PW1020	**Subletting**	**789 days**	**Tue 30/7/24**	**Thu 25/3/27**	**Mon 30/10/95**	**Thu 25/7/58**				**-9001 days**
42	PW1080	**Waterworks at Portion F of the Site**	**49 days**	**Sat 10/5/25**	**Tue 8/7/25**	**Mon 7/7/25**	**Mon 1/9/25**				**47 days**
45	PW1083	Subletting and Procurement Procedure	21 days	Fri 13/6/25	Tue 8/7/25	Fri 8/8/25	Mon 1/9/25		44	583	47 days
110	PW1250	**Geotechnical Works for Portion A of the Site**	**49 days**	**Fri 2/5/25**	**Mon 30/6/25**	**Sat 9/11/24**	**Wed 8/1/25**				**-138 days**
113	PW1253	Subletting and Procurement Procedure	21 days	Fri 6/6/25	Mon 30/6/25	Thu 12/12/24	Wed 8/1/25		112	321,353	-138 days
114	PW1250	**Geotechnical Works for Portion B of the Site**	**49 days**	**Mon 7/7/25**	**Mon 1/9/25**	**Thu 21/11/24**	**Mon 20/1/25**				**-181 days**
115	PW1251	Preparation for Tendering Documents	7 days	Mon 7/7/25	Mon 14/7/25	Thu 21/11/24	Thu 28/11/24		20SS	116	-181 days
116	PW1252	Review and Acceptance of Tendering Documents by Project Manager	21 days	Tue 15/7/25	Thu 7/8/25	Fri 29/11/24	Mon 23/12/24		115	117	-181 days
117	PW1253	Subletting and Procurement Procedure	21 days	Fri 8/8/25	Mon 1/9/25	Tue 24/12/24	Mon 20/1/25		116	377	-181 days
174	PW1400	**Road Works**	**49 days**	**Sat 10/5/25**	**Tue 8/7/25**	**Wed 13/8/25**	**Fri 10/10/25**				**79 days**
177	PW1403	Subletting and Procurement Procedure	21 days	Fri 13/6/25	Tue 8/7/25	Mon 15/9/25	Fri 10/10/25		176	358	79 days
190	PW1600	**Major Procurement**	**777 days**	**Fri 27/9/24**	**Sat 15/5/27**	**Tue 20/2/24**	**Sat 26/6/27**				**-188 days**
198	PW1630	**Steel Reinforcement**	**737 days**	**Thu 14/11/24**	**Sat 15/5/27**	**Fri 27/12/24**	**Sat 26/6/27**				**35 days**
200	PW1632	Delivery of Materials by Stages	700 days	Thu 19/12/24	Thu 6/5/27	Wed 5/2/25	Fri 18/6/27		199	201SS+7 days	35 days
201	PW1633	Sampling and Reinforcement Testing	700 days	Mon 30/12/24	Sat 15/5/27	Thu 13/2/25	Sat 26/6/27		200SS+7 days	704	35 days
202	PW1640	**Watermain Pipe Works & Fittings**	**540 days**	**Fri 27/9/24**	**Sat 25/7/26**	**Tue 20/2/24**	**Tue 2/12/25**				**-188 days**
204	PW1642	Delivery of Materials by Stages (include IIB)	400 days	Wed 15/1/25	Tue 26/5/26	Tue 4/6/24	Thu 2/10/25		203FS+60 days	444SS-15 days,435SS-15 day	-188 days
205	PW1643	Carrying Out Site Testing for Valves and Pipe Material	360 days	Sat 10/5/25	Sat 25/7/26	Tue 17/9/24	Tue 2/12/25		204SS+90 days	412	-188 days
206	PW1650	**E&M Material and Equipment (Pumps, Control Panels, Dosing System etc.)**	570 days	Wed 16/4/25	Fri 19/3/27	**Wed 25/6/25**	**Fri 28/5/27**				**54 days**
208	PW1652	Delivery of Materials by Stages	240 days	Tue 27/5/25	Sat 14/3/26	Thu 31/7/25	Fri 22/5/26		207	733,209SS+90 days,734	54 days
209	PW1653	Carrying Out Site Testing	450 days	Thu 11/9/25	Fri 19/3/27	Mon 17/11/25	Fri 28/5/27		208SS+90 days	721FF+30 days	54 days
213	PW2000	**Major Submission**	**1183 days**	**Tue 30/7/24**	**Wed 26/7/28**	**Sat 18/5/24**	**Thu 25/7/58**				**-62 days**
233	PW2200	**BIM Deliverables**	**1070 days**	**Wed 11/12/24**	**Wed 26/7/28**	**Wed 24/2/55**	**Thu 25/7/58**				**9386 days**
235	PW2220	Monthly Report	950 days	Wed 26/2/25	Mon 15/5/28	Wed 5/5/55	Thu 16/5/58		234	236	9386 days
241	PW2280	**Contractor's Design (Temporary Works Design for Construction)**	**715 days**	**Wed 11/12/24**	**Mon 17/5/27**	**Wed 18/12/24**	**Mon 24/5/27**				**6 days**
242	PW2290	Preparation of Submission	715 days	Wed 11/12/24	Mon 17/5/27	Wed 18/12/24	Mon 24/5/27		89,85	688FS-28 days,243SS+28 da	6 days
243	PW2300	Review & Approval (Within 28 days after Each Temp Works Design Submission) by Project Manager	685 days	Thu 16/1/25	Fri 14/5/27	Thu 23/1/25	Fri 21/5/27		242SS+28 days	688	6 days
244	PW3000	**Project Manager's Accommodation Arrangement at Portion G**	**1212 days**	**Wed 5/3/25**	**Mon 2/4/29**	**Wed 12/3/25**	**Thu 25/7/58**				**5 days**
249	PW3050	Furniture and Accessories of Site Office (Modification and Renovation Only)	60 days	Wed 9/4/25	Tue 24/6/25	Wed 12/3/25	Tue 27/5/25		121	250	-23 days
252	CW0000	**Construction Works**	**10266 days**	Wed 7/8/24	Tue 14/8/57	Tue 26/12/95	Sat 31/7/27				**-9382 days**
253	A0000	**Section 1 (Geotechnical Works and Site Formation in Portion A)**	**867 days**	**Wed 7/8/24**	**Mon 12/7/27**	**Mon 2/10/23**	**Mon 29/6/26**				**-306 days**
254	A1000	**Site Establishment Works**	**435 days**	**Wed 7/8/24**	**Wed 21/1/26**	**Mon 2/10/23**	**Thu 20/2/25**				**-273 days**
266	A1070	**Ground Investigation and Monitoring Works**	**363 days**	**Fri 1/11/24**	**Wed 21/1/26**	**Tue 30/4/24**	**Thu 20/2/25**				**-273 days**
269	A1090	Ground Investigation (Piezometer B1, BH-03, BH-06, BH-07)	32 days	Thu 15/5/25	Sat 21/6/25	Fri 29/11/24	Wed 8/1/25		81,173,5SS,310FS+14	353	-131 days
272	A1110	**Temporary Vehicular Access Road to Portion A Between Level +104 Mpd to Ko Nga Po Road**	**346 days**	**Mon 7/10/24**	**Wed 3/12/25**	**Fri 9/2/24**	**Thu 21/11/24**				**-306 days**
278	A1116	Submission and Acceptance of TPRP	60 days	Sat 3/5/25	Tue 15/7/25	Fri 21/6/24	Thu 29/8/24		277	283	-258 days
279	A1117	Ecological Survey for STLA Area (NCE/0014-0 & NCE/0017-0)	116 days	Mon 10/3/25	Thu 31/7/25	Fri 8/3/24	Sat 20/7/24			281,280	-306 days
280	A1118	Preparation of Ecological Survey Report (NCE/0014-0 & NCE/0017-0)	7 days	Fri 1/8/25	Thu 7/8/25	Mon 22/7/24	Sun 28/7/24		279	281	-375 days
281	A1119	Submission & Acceptance of Ecological Survey by Relevant Authorities (CNCE/0017-0)	21 days	Fri 8/8/25	Mon 1/9/25	Mon 29/7/24	Wed 21/8/24		279,280	282	-306 days
282	A1119A	Transplantion of Plant with Conservative Importance (NCE/0014-0 & NCE/0017-0)	7 days	Tue 2/9/25	Tue 9/9/25	Thu 22/8/24	Thu 29/8/24		281	284,283	-306 days
283	A1119B	Tree Felling	7 days	Wed 10/9/25	Wed 17/9/25	Fri 30/8/24	Fri 6/9/24		278,282	284	-306 days
284	A1119C	Forming Temporary Vehicular Access Road to Portion A Between Level +104 Mpd to Ko Nga Po Road	63 days	Thu 18/9/25	Wed 3/12/25	Sat 7/9/24	Thu 21/11/24		282,283,274	315	-306 days
290	A1170	**Tree Survey / Ecological Survey (Part 2 of Portion A)**	**238 days**	**Wed 13/11/24**	**Tue 2/9/25**	**Wed 10/1/24**	**Thu 22/8/24**				**-306 days**
293	A1173	2nd Stage Ecologies Survey (Requirement from AFCD)	51 days	Mon 2/6/25	Thu 31/7/25	Thu 23/5/24	Sat 20/7/24			294	-306 days
294	A1174	2nd Stage Ecologies Survey Report Submission and Acceptance from Relevant Authorities	21 days	Fri 1/8/25	Mon 25/8/25	Mon 22/7/24	Wed 14/8/24		293	295	-306 days
295	A1175	Implement Transplanting Proposal for Plant with Conservation Importance	7 days	Tue 26/8/25	Tue 2/9/25	Thu 15/8/24	Thu 22/8/24		294	297,314,370	-306 days
297	A1181	Tree Felling (Part 2 of Portion A Below +108 Mpd)	6 days	Wed 3/9/25	Tue 9/9/25	Fri 23/8/24	Thu 29/8/24		295	314	-306 days
298	A2000	**Geotechnical Works and Site Formation Works**	**864 days**	**Wed 7/8/24**	**Thu 8/7/27**	**Thu 28/3/24**	**Thu 25/6/26**				**-306 days**
302	A2020	**Submission of Temp Works Design for ELS for Excavation and Slope Retaining Structure and Accepted by Project Manager**	**28 days**	**Mon 25/8/25**	**Thu 25/9/25**	**Mon 25/8/25**	**Thu 25/9/25**				**0 days**
303	A2021	Preparation and Submission with Design Certificate	7 days	Mon 25/8/25	Mon 1/9/25	Mon 25/8/25	Mon 1/9/25		301	304	0 days
304	A2022	Review & Approval by Project Manager	21 days	Tue 2/9/25	Thu 25/9/25	Tue 2/9/25	Thu 25/9/25		303	314FS-14 days	0 days
308	A2100	**Formation Works**	**711 days**	**Tue 11/2/25**	**Thu 8/7/27**	**Thu 28/3/24**	**Thu 25/6/26**				**-306 days**
309	A2110	**Stage 1**	**133 days**	**Tue 11/2/25**	**Thu 24/7/25**	**Thu 28/3/24**	**Thu 29/8/24**				**-266 days**
311	A2130	General Excavation to +108 mPD Platform	73 days	Sat 26/4/25	Thu 24/7/25	Thu 6/6/24	Thu 29/8/24	48,000 cum (ave. 82 load/day)	263,289FS-15 days,310,101,257,301	314	-266 days
312	A2140	**Stage 2**	**354 days**	**Mon 17/2/25**	**Wed 29/4/26**	**Fri 12/4/24**	**Tue 26/8/25**				**-258 days**
313	A2150	Liase and Relocate CLP Power Pole, Overhead Cable for HV (Tentatively)	120 days	Mon 17/2/25	Tue 15/7/25	Fri 12/4/24	Thu 29/8/24		2SS+7 days	314	-258 days
314	A2160	General Excavation to +95 mPD Platform (Following the Completion of Excavation +108mPD and the Acceptance of Transplant of Plant of Conservative Importance and Tree Felling W/O the aid of Temporary Haul Road from Kong Nga Po Road)	70 days	Wed 10/9/25	Wed 3/12/25	Fri 30/8/24	Thu 21/11/24	Part of 130,000 cum which is around 46000cum (ave. 82 load/day i.e. ave 657 cum/day without the aid of Temporary Haul	311,297,313,295,304F days	315	-306 days
352	A2600	**Cut Slope S1 & S2 / Access Road (Design To be Reviewed)**	**300 days**	**Wed 2/7/25**	**Mon 6/7/26**	**Thu 9/1/25**	**Thu 25/6/26**				**-138 days**
353	A2610	Slope Trimming and Soil Nailing Works (Information Provided on 28/02/2025) (+108mPD to +101mPD) (166 nos)(Presume WSD Maintainence Access to be relocated with New Design tends to be issued in June 2025)	82 days	Wed 2/7/25	Mon 6/10/25	Thu 9/1/25	Tue 22/4/25	4 Rigs (2D/hole/rig) +15D	263,288,310,296,264,	354,355FS-15 days	-138 days



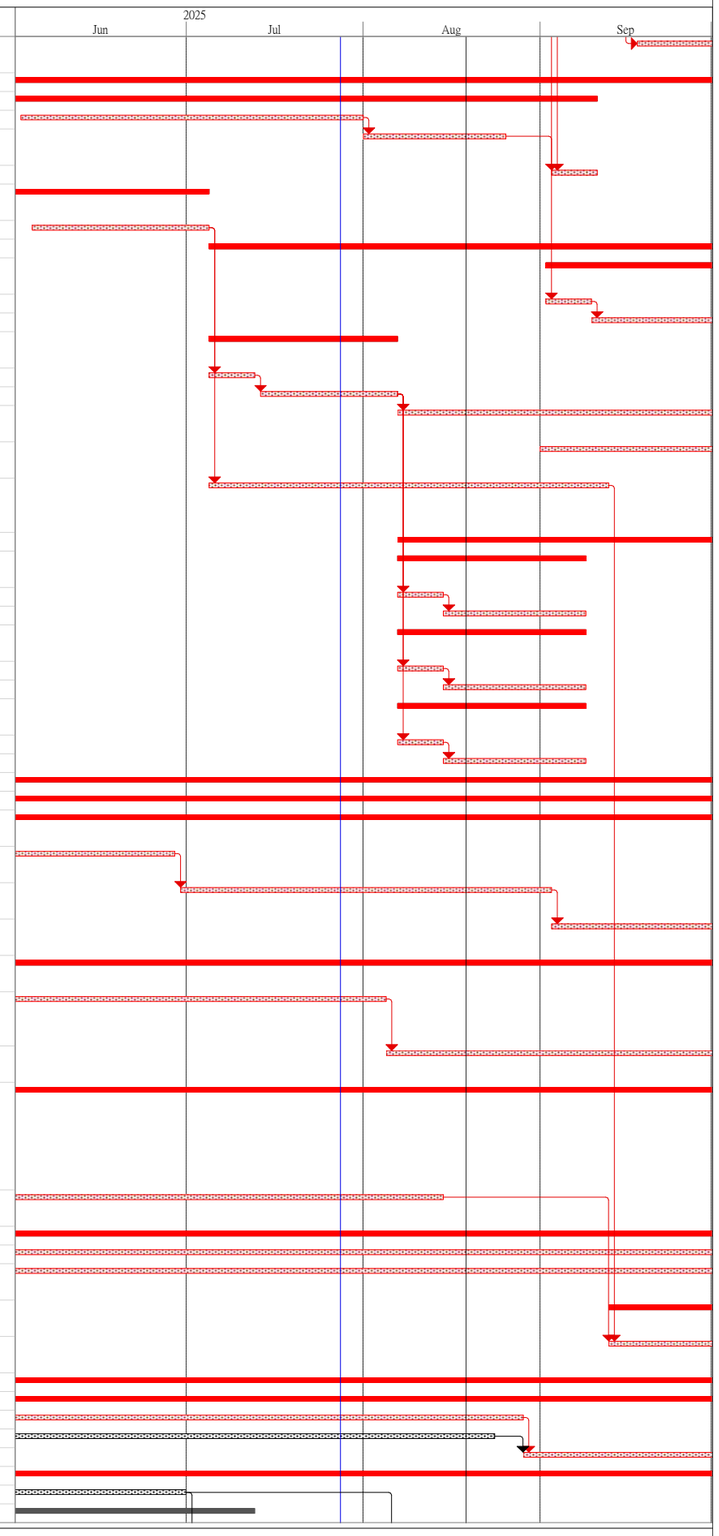
Task Milestone Summary Critical Critical Summary

Contract No. ND/2024/06
Fanling North New Development Area, Remaining Phase:
Fresh Water and Flushing Water Service Reservoirs and Associated Works

3-Month Rolling Programme 2025 Jul to 2025 Sep

Wo Hing - Tsun Yip Joint Venture

ID	Activity ID	Task Name	Duration	Start	Finish	Late Start	Late Finish	Notes	Predecessors	Successors	Total Slack
355	A2630	Slope Trimming and Soil Nailing Works (+101mPD to +94mPD) (250 nos)	115 days	Thu 18/9/25	Thu 5/2/26	Tue 1/4/25	Thu 21/8/25	4 Rigs (2D/hole/rig) +15D	353FS-15 days	356,357FS-15 days	-138 days
361	B0000	**Section 2 (Watermain Laying Works in Portion B)**	**777 days**	**Thu 29/8/24**	**Thu 15/4/27**	**Wed 22/11/23**	**Mon 29/6/26**				**-241 days**
362	B1000	**Site Establishment Works**	**308 days**	**Thu 29/8/24**	**Wed 10/9/25**	**Thu 27/6/24**	**Tue 31/12/24**				**-205 days**
368	B1070	2nd Stage Ecologies Survey (Requirement from AFCD) (Refer to NCE 012)	51 days	Mon 2/6/25	Thu 31/7/25	Fri 27/9/24	Tue 26/11/24		367	369	-198 days
369	B1080	2nd Stage Ecologies Survey Report Submission and Acceptance from Relevant Authorities (Refer to NCE 012)	21 days	Fri 1/8/25	Mon 25/8/25	Wed 27/11/24	Fri 20/12/24		368	370	-198 days
370	B1090	Implement Transplanting Proposal for Plant with Conservation Importance	7 days	Wed 3/9/25	Wed 10/9/25	Sat 21/12/24	Tue 31/12/24		369,295	385	-205 days
371	B1100	**Tree Survey for Remaining Part of Portion B (Late Handover) (Presume Watermain Alignment to be Maintained)**	**52 days**	**Fri 2/5/25**	**Fri 4/7/25**	**Wed 22/11/23**	**Sat 20/1/24**				**-439 days**
374	B1130	Review & Approval by Relevant Authority	26 days	Wed 4/6/25	Fri 4/7/25	Fri 22/12/23	Sat 20/1/24		373	385,384,380	-439 days
375	B2000	**Slope Stablization Works**	**380 days**	**Sat 5/7/25**	**Tue 13/10/26**	**Mon 22/1/24**	**Wed 24/6/26**				**-439 days**
376	B2010	**Submission of Method Statement of Soil Nail Works and Accepted by Project Manager**	**28 days**	**Tue 2/9/25**	**Sat 4/10/25**	**Tue 21/1/25**	**Tue 25/2/25**				**-181 days**
377	B2011	Preparation and Submission	7 days	Tue 2/9/25	Tue 9/9/25	Tue 21/1/25	Tue 28/1/25		117	378	-181 days
378	B2012	Review & Approval by Project Manager	21 days	Wed 10/9/25	Sat 4/10/25	Sat 1/2/25	Tue 25/2/25		377	389	-181 days
379	B2020	**Submission of Method Statement of Tree Felling Works and Accepted by Project Manager**	**28 days**	**Sat 5/7/25**	**Wed 6/8/25**	**Mon 16/9/24**	**Sat 19/10/24**				**-235 days**
380	B2021	Preparation and Submission	7 days	Sat 5/7/25	Sat 12/7/25	Mon 16/9/24	Tue 24/9/24		374	381	-235 days
381	B2022	Review & Approval by Project Manager	21 days	Mon 14/7/25	Wed 6/8/25	Wed 25/9/24	Sat 19/10/24		380	385,396,399,402,382	-235 days
382	B2040	**Tentative Submission and Acceptance of TPRP & Tree Felling (Part 1) by Project Manager prior to Tree Felling (CNCE/0018-0)**	60 days	Thu 7/8/25	Fri 17/10/25	Mon 21/10/24	Tue 31/12/24		381	385	-235 days
383	B2050	**Tentative Submission and Acceptance of TPRP & Tree Felling (Part 2) by Project Manager prior to Tree Felling (CNCE/0018-0)**	60 days	Mon 1/9/25	Thu 30/10/25	Mon 2/6/25	Thu 31/7/25			387	-91 days
384	B2060	**Tentative Submission and Acceptance of TPRP & Tree Felling (Remaining Part of PortionB Due to Late Handover) by Project Manager prior to Tree Felling (CNCE/0018-0)**	60 days	Sat 5/7/25	Fri 12/9/25	Mon 22/1/24	Sat 30/3/24		374	385,489	-439 days
394	B3000	**Watermains Laying Works on Slope**	**496 days**	**Thu 7/8/25**	**Mon 12/4/27**	**Wed 5/2/25**	**Thu 25/6/26**				**-235 days**
395	B3010	**Submission of Temp Works Design for ELS of Excavation Works and Accepted by Project Manager**	**28 days**	**Thu 7/8/25**	**Mon 8/9/25**	**Mon 24/3/25**	**Tue 29/4/25**				**-109 days**
396	B3011	Preparation and Submission	7 days	Thu 7/8/25	Thu 14/8/25	Mon 24/3/25	Mon 31/3/25		381	397	-109 days
397	B3012	Review & Approval by Project Manager	21 days	Fri 15/8/25	Mon 8/9/25	Tue 1/4/25	Tue 29/4/25		396	409	-109 days
398	B3020	**Submission of Method Statement of Watermain Laying and Accepted by Project Manager**	**28 days**	**Thu 7/8/25**	**Mon 8/9/25**	**Wed 12/3/25**	**Mon 14/4/25**				**-119 days**
399	B3021	Preparation and Submission	7 days	Thu 7/8/25	Thu 14/8/25	Wed 12/3/25	Wed 19/3/25		381	400	-119 days
400	B3022	Review & Approval by Project Manager	21 days	Fri 15/8/25	Mon 8/9/25	Thu 20/3/25	Mon 14/4/25		399	408	-119 days
401	B3030	**Submission of Temp Works Design for Pipe Support Works and Accepted by Project Manager**	**28 days**	**Thu 7/8/25**	**Mon 8/9/25**	**Mon 24/3/25**	**Tue 29/4/25**				**-109 days**
402	B3031	Preparation and Submission	7 days	Thu 7/8/25	Thu 14/8/25	Mon 24/3/25	Mon 31/3/25		381	403	-109 days
403	B3032	Review & Approval by Project Manager	21 days	Fri 15/8/25	Mon 8/9/25	Tue 1/4/25	Tue 29/4/25		402	409	-109 days
424	C0000	**Section 3 (Watermain Laying Works in Portion C)**	**10144 days**	**Thu 14/11/24**	**Fri 29/6/57**	**Tue 26/12/95**	**Fri 27/11/26**				**-9540 days**
427	C2000	**Watermains Laying Works at Fu Tei Au Road**	**559 days**	**Wed 11/12/24**	**Mon 2/11/26**	**Fri 16/8/24**	**Tue 7/7/26**				**-98 days**
434	C2100	**Watermains Laying (FLW_I CH2+00 to 6+40 / FW_D2 CH9+20 to 4+80) (440mx2)**	**456 days**	**Thu 16/1/25**	**Mon 3/8/26**	**Thu 19/9/24**	**Wed 1/4/26**				-98 days
437	C2130	Watermains Laying (FLW_I CH2+80 to 3+40 / FW_D2 CH8+40 to 7+80) (60mx2) (Lane towards Sheung Shui Water Treatment Plant)	55 days	Wed 23/4/25	Sat 28/6/25	Wed 18/12/24	Wed 26/2/25		436	438	-98 days
438	C2140	Watermains Laying (FLW_I CH3+40 to 4+00 / FW_D2 CH7+80 to 7+20) (60mx2) (Lane towards Sheung Shui Water Treatment Plant)	55 days	Mon 30/6/25	Tue 2/9/25	Thu 27/2/25	Thu 8/5/25		437	439	-98 days
439	C2150	Watermains Laying (FLW_I CH4+00 to 4+60 / FW_D2 CH7+20 to 6+60) (60mx2) (Lane towards Sheung Shui Water Treatment Plant)	55 days	Wed 3/9/25	Sat 8/11/25	Fri 9/5/25	Mon 14/7/25		438	440	-98 days
443	C2300	**Watermains Laying (FLW_I CH6+40 to 10+80 / FW_D2 CH4+80 to 0+40) (440mx2)**	**456 days**	**Thu 16/1/25**	**Mon 3/8/26**	**Thu 19/9/24**	**Wed 1/4/26**				**-98 days**
446	C2330	Watermains Laying (FLW_I CH7+20 to 7+80 / FW_D2 CH4+00 to 3+40) (60mx2) & Construction of Gate Valve Chamber @FLW_I CH7+05 (Lane towards Sheung Shui Water Treatment Plant)	85 days	Wed 23/4/25	Mon 4/8/25	Wed 18/12/24	Wed 2/4/25		445	447	-98 days
447	C2340	Watermains Laying (FLW_I CH7+80 to 8+40 / FW_D2 CH3+40 to 2+80) (60mx2) (Lane towards Sheung Shui Water Treatment Plant)	55 days	Tue 5/8/25	Thu 9/10/25	Thu 3/4/25	Fri 13/6/25		446	448	-98 days
453	C3000	**Watermains Laying Works at Man Kam To Road (Refer to CNCE/0019-0)**	**9704 days**	**Wed 11/12/24**	**Fri 29/6/57**	**Tue 26/12/95**	**Fri 27/11/26**	**Man Kam To Road Watermian Laying According to Mutually Agreed Production Rate**			**-9123 days**
460	C3030	Inspection Pit for Portion C at STLA Area (As per TMLG Requirement, Trial Pit must be commenced after Trial Run at End of April 2025)	88 days	Wed 30/4/25	Thu 14/8/25	Wed 20/12/23	Sat 30/3/24		189	489	-414 days
461	C3100A	**Southbound - Works to be Carried Out In Concurrent TTAs by Night Works**	**3070 days**	**Wed 7/5/25**	**Thu 3/5/35**	**Sat 27/1/96**	**Wed 28/3/07**				**-9151 days**
462	C3110	Watermains Laying (FW_I CH13+80 to 13+30) (50m)	744 days	Wed 7/5/25	Fri 5/11/27	Sat 27/1/96	Fri 12/6/98		456,459	463SS,464,465	-9151 days
463	C3230	Watermains Laying (FW_I CH11+80 to 11+30 (50m) / FW_O CH11+83 to 11+30 (50m))	744 days	Wed 7/5/25	Fri 5/11/27	Thu 19/8/99	Wed 2/1/02		462SS,456,459	465	-8037 days
488	C3400	**Watermains Laying (FW_I CH10+20 to 10+00 / FW_O CH10+20 to 10+00); Construction of WOV & GV Chambers**	**180 days**	**Sat 13/9/25**	**Sat 25/4/26**	**Mon 1/4/24**	**Tue 29/10/24**				**-439 days**
489	C3410	Construct Base Slab of WOV & GV Chambers (FW_I CH10+20 to 10+00 (20m) / FW_O CH10+25 to 10+00 (20m))	65 days	Sat 13/9/25	Mon 1/12/25	Mon 1/4/24	Fri 14/6/24		460,384	490,501,502	-439 days
515	D0000	**Section 4 (Watermain Laying Works in Portion D)**	**514 days**	**Fri 1/11/24**	**Wed 29/7/26**	**Fri 1/11/24**	**Wed 29/7/26**				**0 days**
523	D2000	**Trenchless Works across Sheung Yue River**	**387 days**	**Mon 17/3/25**	**Thu 9/7/26**	**Mon 17/3/25**	**Thu 9/7/26**				**0 days**
531	D2110	Construction for Jacking Pit (FW_D2 CH12+95) and Receiving Pit (FW_D2 CH11+16	78 days	Wed 28/5/25	Thu 28/8/25	Wed 28/5/25	Thu 28/8/25		530,529	533	0 days
532	D2120	Delivery of TBM	80 days	Wed 21/5/25	Sat 23/8/25	Mon 26/5/25	Thu 28/8/25		41	533	4 days
533	D2130	Setting Up of TBM	40 days	Fri 29/8/25	Thu 16/10/25	Fri 29/8/25	Thu 16/10/25		531,532	535	0 days
541	D3000	**Watermains Laying Works in Portion D**	**496 days**	**Tue 19/11/24**	**Sat 25/7/26**	**Thu 20/3/25**	**Sat 25/7/26**				**0 days**
551	D3040	Additional Requirement for Fireflies Preservation Works (Mar-Jun 2025)	97 days	Sat 1/3/25	Mon 30/6/25	Mon 31/3/25	Wed 30/7/25			556,554	25 days
552	D3100	**Removal of Existing Watermain on Bridge**	**189 days**	**Tue 19/11/24**	**Sat 12/7/25**	**Thu 19/6/25**	**Mon 11/8/25**				**25 days**



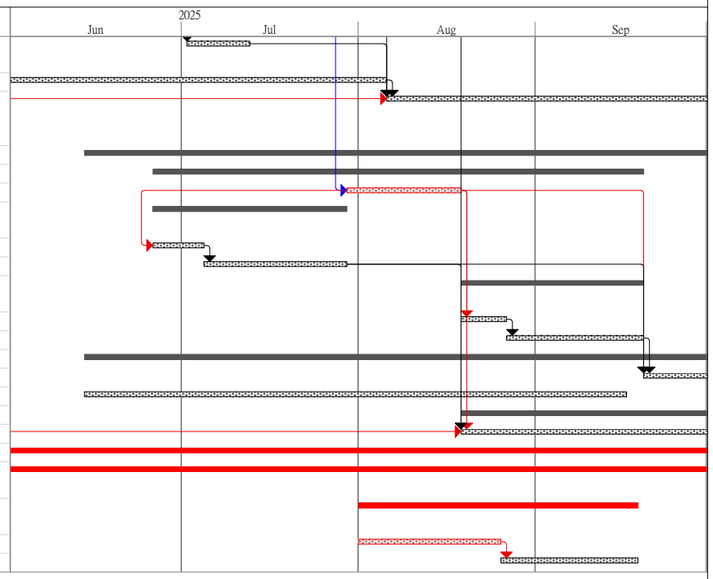
Task | Milestone | Summary | Critical | Critical Summary

Contract No. ND/2024/06
Fanling North New Development Area, Remaining Phase:
Fresh Water and Flushing Water Service Reservoirs and Associated Works

3-Month Rolling Programme 2025 Jul to 2025 Sep

Wo Hing - Tsun Yip Joint Venture

ID	Activity ID	Task Name	Duration	Start	Finish	Late Start	Late Finish	Notes	Predecessors	Successors	Total Slack
554	D3120	Demolition of DN2000 pipes and assoicated thrust blocks (Defer due to Fireflies Preservation Works)	10 days	Wed 2/7/25	Sat 12/7/25	Thu 31/7/25	Mon 11/8/25		544,193,212,551	556	25 days
555	D3130	Watermains Laying (FLW_I CH0+00 to 1+00)	88 days	Thu 17/4/25	Tue 5/8/25	Sat 26/4/25	Mon 11/8/25		204SS-15 days,37,547	556	5 days
556	D3140	Watermains Laying (FW_D2 CH11+16 to CH10+40) & for Dual Pipe, Construction of Gate Valev Chamber, Washout Valve Chamber and Washout Chamber @ FW_D2 CH10+70	127 days	Wed 6/8/25	Wed 7/1/26	Tue 12/8/25	Tue 13/1/26		204SS-15 days,37,554,547,550,2	557,559	5 days
564	E0000	**Section 5 (Watermain Laying Works in Portion F)**	**359 days**	**Sat 14/6/25**	**Thu 27/8/26**	**Wed 30/7/25**	**Fri 28/8/26**				**1 day**
565	E1000	**Site Establishment Works**	**73 days**	**Thu 26/6/25**	**Fri 19/9/25**	**Wed 30/7/25**	**Sat 20/9/25**				**1 day**
566	E1010	General Site Clearance / Initial Survey	17 days	Wed 30/7/25	Mon 18/8/25	Wed 30/7/25	Mon 18/8/25		7SS,149	574,571,568SS-28 days,583	0 days
567	E1020	**Submission of Method Statement of Watermain Laying and Accepted by Project Manager**	**28 days**	**Thu 26/6/25**	**Tue 29/7/25**	**Thu 31/7/25**	**Mon 1/9/25**				**29 days**
568	E1021	Preparation and Submission	7 days	Thu 26/6/25	Fri 4/7/25	Thu 31/7/25	Thu 7/8/25		566SS-28 days	569	29 days
569	E1022	Review & Approval by Project Manager	21 days	Sat 5/7/25	Tue 29/7/25	Fri 8/8/25	Mon 1/9/25		568	574,583	29 days
570	E1030	**Submission of Temp Works Design for Trenchless Works and Accepted by Project Manager**	**28 days**	**Tue 19/8/25**	**Fri 19/9/25**	**Wed 20/8/25**	**Sat 20/9/25**				**1 day**
571	E1031	Preparation and Submission	7 days	Tue 19/8/25	Tue 26/8/25	Wed 20/8/25	Wed 27/8/25		566	572	1 day
572	E1032	Review & Approval by Project Manager	21 days	Wed 27/8/25	Fri 19/9/25	Thu 28/8/25	Sat 20/9/25		571	574	1 day
573	E2000	**Trenchless Works across Highway**	**351 days**	**Sat 14/6/25**	**Tue 18/8/26**	**Mon 22/9/25**	**Wed 19/8/26**				**1 day**
574	E2010	Construction for Jacking Pit (FW_I CH44+65) and Receiving Pit (FW_I CH45+30)	90 days	Sat 20/9/25	Fri 9/1/26	Mon 22/9/25	Sat 10/1/26		566,572,569	576	1 day
575	E2020	Delivery of TBM	80 days	Sat 14/6/25	Tue 16/9/25	Sat 4/10/25	Sat 10/1/26	1 TBM	49	576	94 days
582	E3000	**Watermains Laying Works in Portion F**	**255 days**	**Tue 19/8/25**	**Tue 30/6/26**	**Tue 2/9/25**	**Wed 15/7/26**				**12 days**
583	E3010	Watermains Laying (FW_I CH40+80 to 41+80) (100m)	59 days	Tue 19/8/25	Tue 28/10/25	Tue 2/9/25	Wed 12/11/25		566,45,204SS-15 days	584	12 days
592	F0000	**Section 6 (Remaining Works in Portion A and E&M Works in Portion E)**	**10160 days**	**Wed 11/12/24**	**Tue 14/8/57**	**Fri 1/8/25**	**Sat 31/7/27**				**-9382 days**
593	F1000	**Construction of Flushing Water Service Reservoir**	**1082 days**	**Wed 11/12/24**	**Wed 9/8/28**	**Fri 1/8/25**	**Thu 29/7/27**	65m Jib Tower Crane			**-306 days**
594	F1010	**Submission of Method Statement for Construction and Removal of Tower Crane and Accepted by Project Manager**	**42 days**	**Fri 1/8/25**	**Thu 18/9/25**	**Fri 1/8/25**	**Mon 1/12/25**				**0 days**
595	F1011	Preparation and Submission	21 days	Fri 1/8/25	Mon 25/8/25	Fri 1/8/25	Mon 25/8/25			596	0 days
596	F1012	Review & Approval by Project Manager	21 days	Tue 26/8/25	Thu 18/9/25	Fri 7/11/25	Mon 1/12/25		595	602	60 days

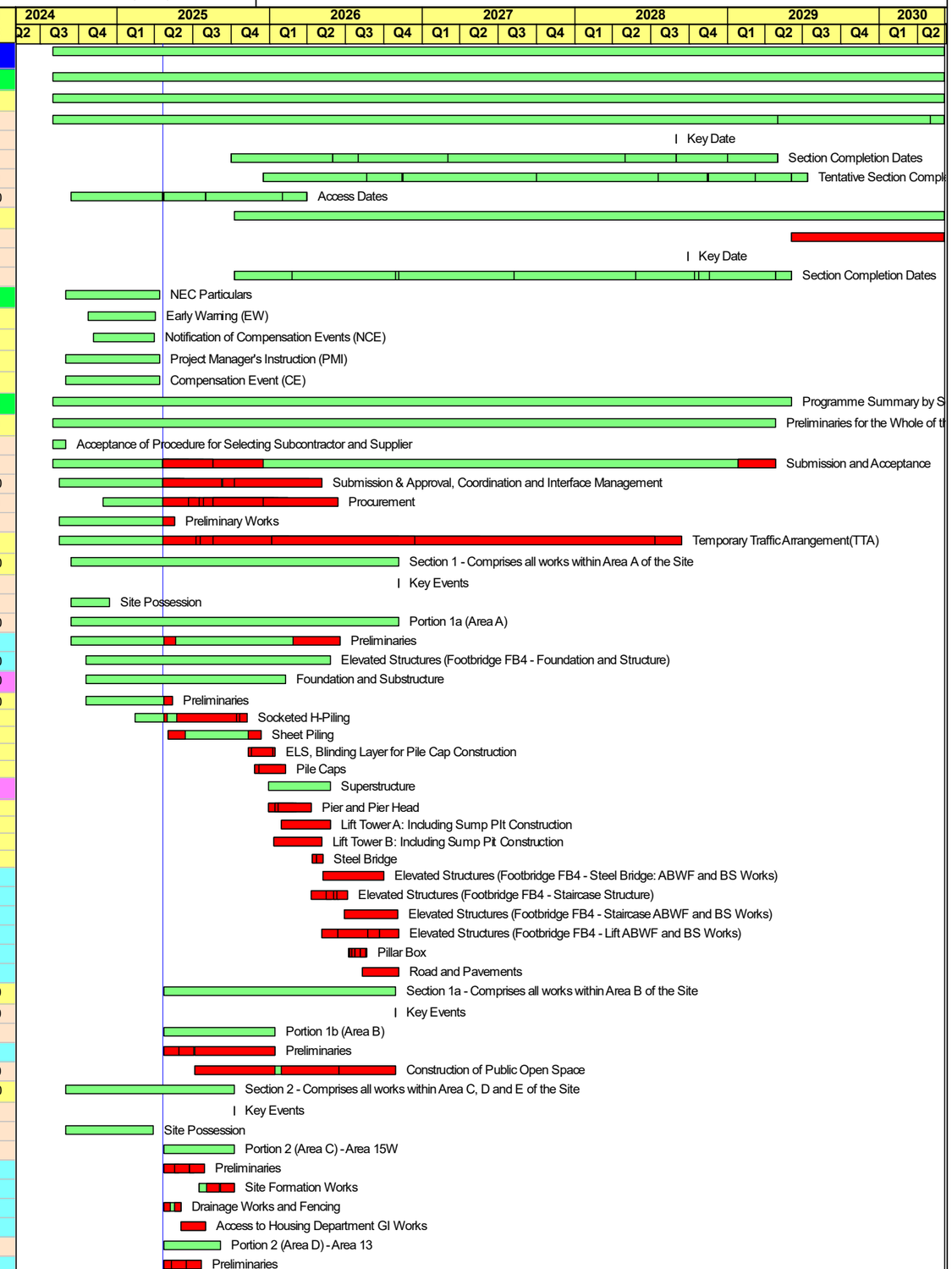


Task | Milestone | Summary | Critical | Critical Summary

Construction Programme for Works Contract No. ND/2024/07

ND202407-FP-01a-20250420 | Fanling North NDA, Remaining Phase: Site Formation and Infrastructure Works (East)

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
	Fanling North NDA, Remaining Phase: Site Formation and Infrastructure Works (East)	1730.0	21-Apr-25	04-Jun-30	12-Nov-24	01-Sep-30	74.0
	Contract Particulars	1730.0	21-Apr-25	04-Jun-30	16-Nov-24	01-Sep-30	74.0
	Contract Dates	1730.0	21-Apr-25	04-Jun-30	16-Nov-24	01-Sep-30	74.0
	Starting and Completion Dates	2135.0	02-May-29	04-Jun-30	02-May-29	02-May-30	-33.0
	Key Date	0.0	31-Aug-28	31-Aug-28	31-Aug-28	31-Aug-28	0.0
	Section Completion Dates	1309.0	01-Oct-25	02-May-29	01-Oct-25	02-May-29	0.0
	Tentative Section Completion Dates	1304.0	17-Dec-25	13-Jul-29	01-Sep-30	01-Sep-30	415.0
	Access Dates	352.0	21-Apr-25	31-Mar-26	16-Nov-24	01-Sep-30	1309.0
	Planned Dates	1375.0	09-Oct-25	04-Jun-30	01-Oct-25	02-May-30	-27.0
	Completion Dates	365.0	04-Jun-29	04-Jun-30	02-May-29	02-May-30	-33.0
	Key Date	0.0	29-Sep-28	29-Sep-28	31-Aug-28	31-Aug-28	-29.0
	Section Completion Dates	1079.0	09-Oct-25	04-Jun-29	01-Oct-25	02-May-29	-27.0
	NEC Particulars	97.0					
	Early Warning (EW)	97.0					
	Notification of Compensation Events (NCE)	97.0					
	Project Manager's Instruction (PMI)	96.0					
	Compensation Event (CE)	96.0					
	Programme Summary by Section 1 to12 of the Works	1434.0	21-Apr-25	04-Jun-29	12-Nov-24	01-Sep-30	370.0
	Preliminaries for the Whole of the Works	1730.0	21-Apr-25	25-Apr-29	07-Dec-24	01-Sep-30	494.0
	Acceptance of Procedure for Selecting Subcontractor and Supplier	35.0					
	Submission and Acceptance	1730.0	21-Apr-25	25-Apr-29	07-Dec-24	02-May-29	7.0
	Submission & Approval, Coordination and Interface Management	631.0	21-Apr-25	06-May-26	12-Dec-24	01-Sep-30	1579.0
	Procurement	510.0	21-Apr-25	14-Jun-26	03-Mar-25	20-Mar-28	645.0
	Preliminary Works	170.0	21-Apr-25	18-May-25	10-Feb-25	09-Mar-25	-70.0
	Temporary Traffic Arrangement(TTA)	1493.0	21-Apr-25	14-Sep-28	27-Jun-25	16-Aug-28	-29.0
	Section 1 - Comprises all works within Area A of the Site	673.0	22-Apr-25	05-Nov-26	10-Jan-25	31-Aug-30	1131.0
	Key Events	0.0	05-Nov-26	05-Nov-26	31-Jul-26	31-Jul-26	-97.0
	Site Possession	94.0					
	Portion 1a (Area A)	635.0	22-Apr-25	05-Nov-26	10-Jan-25	31-Aug-30	1131.0
	Preliminaries	520.0	22-Apr-25	18-Jun-26	10-Jan-25	05-May-26	-37.0
	Elevated Structures (Footbridge FB4 - Foundation and Structure)	477.0	22-Apr-25	26-May-26	18-Jan-25	31-Aug-30	1266.0
	Foundation and Substructure	394.0	22-Apr-25	07-Feb-26	18-Jan-25	31-Aug-30	1349.0
	Preliminaries	144.0	22-Apr-25	13-May-25	18-Jan-25	31-Aug-30	1573.0
	Socketed H-Piling	199.0	22-Apr-25	08-Nov-25	11-Feb-25	04-Aug-25	-80.0
	Sheet Piling	186.0	02-May-25	11-Dec-25	05-Aug-25	23-Sep-25	-65.0
	ELS, Blinding Layer for Pile Cap Construction	52.0	10-Nov-25	12-Jan-26	14-Aug-25	23-Oct-25	-65.0
	Pile Caps	60.0	27-Nov-25	07-Feb-26	30-Aug-25	10-Nov-25	-74.0
	Superstructure	118.0	29-Dec-25	26-May-26	20-Sep-25	04-Mar-26	-65.0
	Pier and Pier Head	82.0	29-Dec-25	11-Apr-26	20-Sep-25	30-Dec-25	-80.0
	Lift Tower A: Including Sump Plt Construction	92.0	29-Jan-26	26-May-26	11-Nov-25	04-Mar-26	-65.0
	Lift Tower B: Including Sump Pit Construction	91.0	10-Jan-26	05-May-26	03-Oct-25	22-Jan-26	-80.0
	Steel Bridge	22.0	13-Apr-26	08-May-26	04-Feb-26	04-Mar-26	-51.0
	Elevated Structures (Footbridge FB4 - Steel Bridge: ABWF and BS Works)	120.0	09-May-26	30-Sep-26	05-Mar-26	31-Jul-26	-51.0
	Elevated Structures (Footbridge FB4 - Staircase Structure)	71.0	11-Apr-26	07-Jul-26	30-Dec-25	26-Mar-26	-80.0
	Elevated Structures (Footbridge FB4 - Staircase ABWF and BS Works)	107.0	29-Jun-26	04-Nov-26	20-Mar-26	31-Jul-26	-79.0
	Elevated Structures (Footbridge FB4 - Lift ABWF and BS Works)	152.0	06-May-26	05-Nov-26	23-Jan-26	31-Jul-26	-80.0
	Pillar Box	39.0	08-Jul-26	21-Aug-26	27-Mar-26	19-May-26	-78.0
	Road and Pavements	72.0	11-Aug-26	05-Nov-26	06-May-26	31-Jul-26	-80.0
	Section 1a - Comprises all works within Area B of the Site	452.0	22-Apr-25	28-Oct-26	16-Nov-24	31-May-26	-124.0
	Key Events	0.0	28-Oct-26	28-Oct-26	31-May-26	31-May-26	-150.0
	Portion 1b (Area B)	220.0	22-Apr-25	14-Jan-26	16-Nov-24	19-Nov-25	-45.0
	Preliminaries	220.0	22-Apr-25	14-Jan-26	16-Nov-24	19-Nov-25	-45.0
	Construction of Public Open Space	392.0	05-Jul-25	28-Oct-26	01-Feb-25	30-May-26	-124.0
	Section 2 - Comprises all works within Area C, D and E of the Site	355.0	21-Apr-25	09-Oct-25	12-Mar-25	31-Aug-30	1449.0
	Key Events	0.0	09-Oct-25	09-Oct-25	13-Aug-25	13-Aug-25	-57.0
	Site Possession	191.0					
	Portion 2 (Area C) - Area 15W	141.0	22-Apr-25	09-Oct-25	21-Mar-25	13-Aug-25	-47.0
	Preliminaries	81.0	22-Apr-25	29-Jul-25	21-Mar-25	06-Jun-25	-44.0
	Site Formation Works	71.0	17-Jul-25	09-Oct-25	07-Jun-25	13-Aug-25	-47.0
	Drainage Works and Fencing	33.0	22-Apr-25	02-Jun-25	24-Mar-25	07-Apr-25	-42.0
	Access to Housing Department GI Works	60.0	03-Jun-25	01-Aug-25	08-Apr-25	06-Jun-25	-56.0
	Portion 2 (Area D) - Area 13	113.0	22-Apr-25	04-Sep-25	12-Mar-25	12-Jul-25	-46.0
	Preliminaries	74.0	22-Apr-25	21-Jul-25	12-Mar-25	27-May-25	-45.0



Build King – Richwell Civil Joint Venture

TTA
Actual Work
Planned Activity
Critical Activity
Milestone
Summary

Contract No.ND/2024/07
First Programme R1 - Programme Update as of 20 April 2025
Executive Summary

Date	Revision	Checked	Appr...
14-Aug-24	Revision R0	KY	SL
24-Sep-24	Revision R1	KY	SL

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
	Site Formation Works	38.0	23-Jul-25	04-Sep-25	28-May-25	12-Jul-25	-46.0
	Drainage Works and Fencing	12.0	10-May-25	23-May-25	15-Mar-25	28-Mar-25	-42.0
	Access to Housing Department GI Works	60.0	24-May-25	22-Jul-25	29-Mar-25	27-May-25	-56.0
	Portion 2 (Area E) - Area 14	164.0	21-Apr-25	20-Aug-25	13-Mar-25	31-Aug-30	1490.0
	Preliminaries	108.0	22-Apr-25	14-Jun-25	14-Mar-25	10-May-25	-29.0
	Site Formation Works	52.0	20-Jun-25	20-Aug-25	12-May-25	12-Jul-25	-33.0
	Drainage Works and Fencing	12.0	22-Apr-25	07-May-25	19-Aug-30	31-Aug-30	1578.0
	Access to Housing Department GI Works	60.0	21-Apr-25	19-Jun-25	13-Mar-25	11-May-25	-39.0
	Section 3 - Comprises all works within Area F of the Site	896.0	22-Apr-25	09-Aug-27	12-Nov-24	03-Mar-27	-128.0
	Key Events	0.0	09-Aug-27	09-Aug-27	03-Mar-27	03-Mar-27	-159.0
	Site Possession	191.0					
	Portion 3a (Area F)	523.0	22-Apr-25	22-Jan-27	19-Jun-25	03-Mar-27	31.0
	Preliminaries	83.0	22-Apr-25	31-Jul-25	19-Jun-25	30-Aug-25	26.0
	Site Formation Works	50.0	04-Sep-26	04-Nov-26	31-Dec-26	03-Mar-27	96.0
	External Utilities	305.0	21-Jul-25	30-Jul-26	30-Jun-25	05-Nov-26	81.0
	Road L1	305.0	21-Jul-25	30-Jul-26	30-Jun-25	16-Jul-26	-12.0
	CH 719 - 440 (ALGN L1)	305.0	21-Jul-25	30-Jul-26	07-Jul-25	16-Jul-26	-12.0
	CH 440 - 125 (ALGN L1)	305.0	21-Jul-25	30-Jul-26	30-Jun-25	10-Jul-26	-17.0
	Road L2	225.0	21-Jul-25	23-Apr-26	18-Jul-25	21-Apr-26	-2.0
	CH 0 - 200 (ALGN L2)	225.0	21-Jul-25	23-Apr-26	18-Jul-25	21-Apr-26	-2.0
	Ma Sik Road	300.0	21-Jul-25	24-Jul-26	01-Nov-25	05-Nov-26	86.0
	CH 225 - 100 (ALGN W) - Part A	150.0	21-Jul-25	17-Jan-26	01-Nov-25	07-May-26	86.0
	CH 100 - 0 (ALGN W) - Part B	150.0	19-Jan-26	24-Jul-26	08-May-26	05-Nov-26	86.0
	Road and Pavements	300.0	19-Jan-26	22-Jan-27	22-Apr-26	03-Mar-27	31.0
	Road L1	145.0	31-Jul-26	22-Jan-27	11-Jul-26	02-Jan-27	-17.0
	CH719 - 440 (ALGN L1)	140.0	31-Jul-26	16-Jan-27	17-Jul-26	02-Jan-27	-12.0
	CH440 - 125 (ALGN L1)	145.0	31-Jul-26	22-Jan-27	11-Jul-26	02-Jan-27	-17.0
	Road L2	130.0	24-Apr-26	28-Sep-26	22-Apr-26	24-Sep-26	-2.0
	CH 0 - 200 (ALGN L2)	130.0	24-Apr-26	28-Sep-26	22-Apr-26	24-Sep-26	-2.0
	Ma Sik Road	245.0	19-Jan-26	16-Nov-26	15-Jul-26	03-Mar-27	86.0
	CH 225 - 100 (ALGN W) - Part A	95.0	19-Jan-26	18-May-26	15-Jul-26	05-Nov-26	141.0
	CH 100 - 0 (ALGN W) - Part B	95.0	25-Jul-26	16-Nov-26	06-Nov-26	03-Mar-27	86.0
	Portion 3b (Area F)	682.0	22-Apr-25	09-Aug-27	12-Nov-24	03-Mar-27	-128.0
	Preliminaries	51.0	22-Apr-25	23-Jun-25	12-Nov-24	13-Jan-25	-128.0
	Site Formation Works	18.0	24-Mar-26	17-Apr-26	25-Mar-26	18-Apr-26	1.0
	Road L1	342.0	24-Jun-25	17-Aug-26	25-Jun-25	18-Aug-26	1.0
	External Utilities	224.0	24-Jun-25	23-Mar-26	25-Jun-25	24-Mar-26	1.0
	Road and Pavements	100.0	17-Apr-26	17-Aug-26	18-Apr-26	18-Aug-26	1.0
	Road L2	272.0	16-Jan-26	15-Dec-26	27-Feb-26	16-Dec-26	1.0
	External Utilities	140.0	16-Jan-26	10-Jul-26	27-Feb-26	18-Aug-26	33.0
	Road and Pavements	100.0	18-Aug-26	15-Dec-26	19-Aug-26	16-Dec-26	1.0
	Ma Sik Road	631.0	24-Jun-25	09-Aug-27	14-Jan-25	03-Mar-27	-128.0
	Footpath	308.0	22-May-26	05-Jun-27	07-Aug-26	03-Mar-27	-75.0
	CH400 - CH300	232.0	22-May-26	02-Mar-27	07-Aug-26	03-Mar-27	1.0
	CH300 - CH225	130.0	23-Dec-26	05-Jun-27	23-Sep-26	03-Mar-27	-75.0
	Carriageway	631.0	24-Jun-25	09-Aug-27	14-Jan-25	03-Mar-27	-128.0
	CH000 - CH060	90.0	24-Jun-25	09-Oct-25	14-Jan-25	08-May-25	-128.0
	CH060 - CH120	90.0	10-Oct-25	27-Jan-26	09-May-25	23-Aug-25	-128.0
	CH120 - CH180	90.0	28-Jan-26	21-May-26	25-Aug-25	10-Dec-25	-128.0
	CH180 - CH212	86.0	22-May-26	02-Sep-26	11-Dec-25	27-Mar-26	-128.0
	CH212 - CH280	92.0	03-Sep-26	22-Dec-26	28-Mar-26	22-Jul-26	-128.0
	CH280 - CH350	92.0	23-Dec-26	20-Apr-27	23-Jul-26	10-Nov-26	-128.0
	CH350 - CH432	91.0	21-Apr-27	09-Aug-27	11-Nov-26	03-Mar-27	-128.0
	Landscape Hardworks	178.0	13-Oct-26	22-May-27	29-Jul-26	03-Mar-27	-63.0
	Noise Barrier	325.0	01-Aug-25	03-Sep-26	01-Sep-25	06-Oct-26	26.0
	Section 4 - Comprises all works within Area G, H, H1, H2, H3, H4, H5 and H6 of the Site	465.0	21-Apr-25	23-Feb-26	21-Feb-25	23-Dec-25	-47.0
	Key Events	0.0	23-Feb-26	23-Feb-26	23-Dec-25	23-Dec-25	-62.0
	Site Possession	191.0					
	Portion 4 Area G	183.0	21-Apr-25	28-Nov-25	02-Aug-25	23-Dec-25	21.0
	Preliminaries	83.0	22-Apr-25	31-Jul-25	02-Aug-25	27-Oct-25	73.0
	Site Formation Works	100.0	01-Aug-25	28-Nov-25	16-Oct-25	23-Dec-25	21.0
	Drainage Works and Fencing	85.0	22-Apr-25	02-Aug-25	15-Aug-25	28-Aug-25	22.0
	Access to Housing Department GI Works	164.0	21-Apr-25	01-Oct-25	29-Aug-25	23-Dec-25	83.0
	Portion 4 Area H	94.0	22-Apr-25	13-Aug-25	21-Feb-25	18-Jun-25	-47.0
	Preliminaries	62.0	22-Apr-25	07-Jul-25	21-Feb-25	15-May-25	-43.0



Build King – Richwell Civil Joint Venture

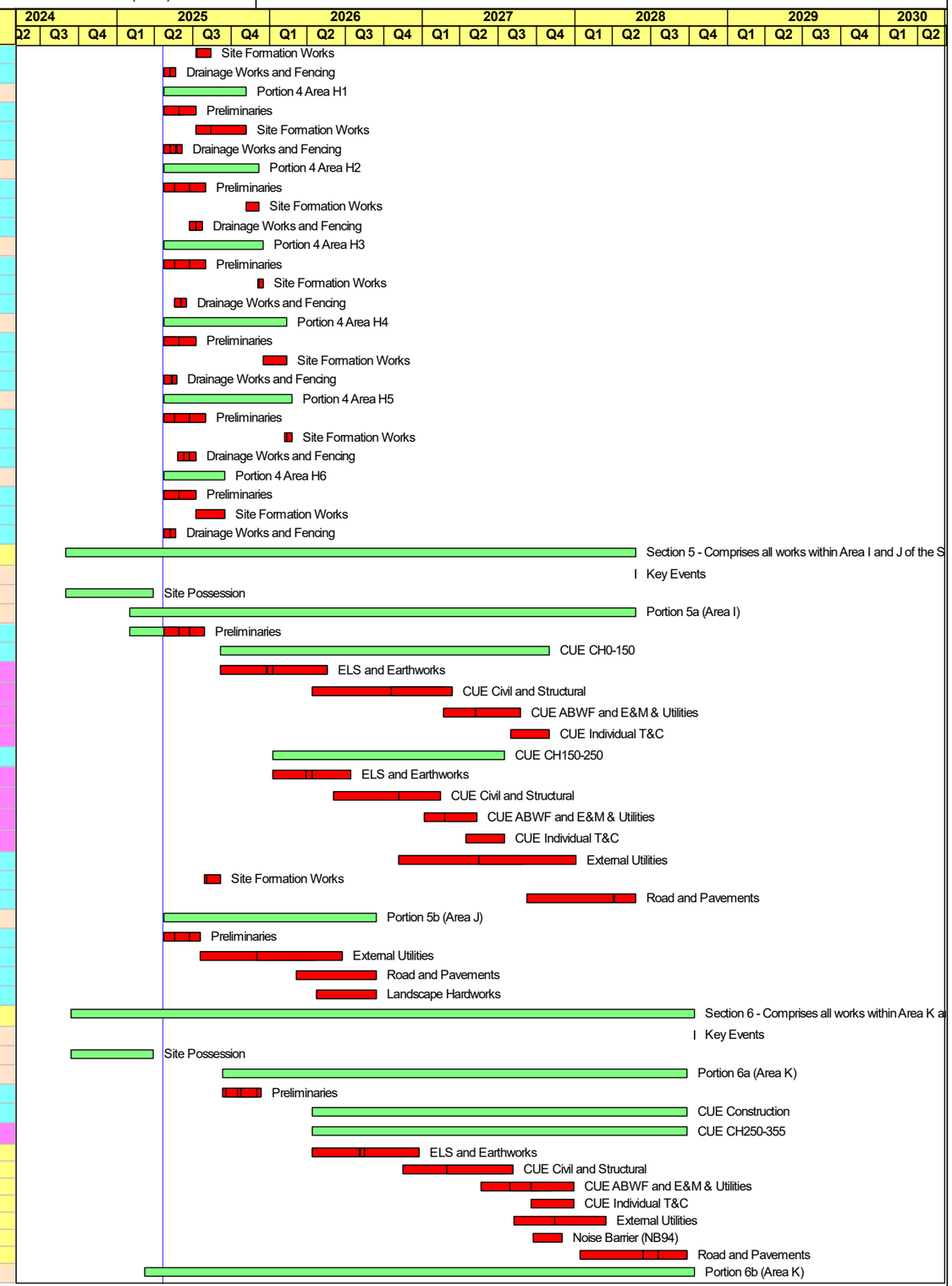
TTA
Actual Work
Planned Activity
Critical Activity
Milestone
Summary

Contract No.ND/2024/07
First Programme R1 - Programme Update as of 20 April 2025
Executive Summary

Date	Revision	Checked	Appr...
14-Aug-24	Revision R0	KY	SL
24-Sep-24	Revision R1	KY	SL

ND202407-FP-01a-20250420 | Fanling North NDA, Remaining Phase: Site Formation and Infrastructure Works (East)

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
	Site Formation Works	32.0	08-Jul-25	13-Aug-25	12-May-25	18-Jun-25	-47.0
	Drainage Works and Fencing	24.0	22-Apr-25	21-May-25	30-Apr-25	15-May-25	-5.0
	Portion 4 Area H1	163.0	22-Apr-25	05-Nov-25	21-Feb-25	08-Sep-25	-47.0
	Preliminaries	63.0	22-Apr-25	08-Jul-25	21-Feb-25	12-May-25	-47.0
	Site Formation Works	100.0	09-Jul-25	05-Nov-25	13-May-25	08-Sep-25	-47.0
	Drainage Works and Fencing	36.0	22-Apr-25	05-Jun-25	25-Mar-25	12-May-25	-20.0
	Portion 4 Area H2	189.0	22-Apr-25	05-Dec-25	27-Jun-25	10-Oct-25	-47.0
	Preliminaries	83.0	22-Apr-25	31-Jul-25	27-Jun-25	08-Sep-25	33.0
	Site Formation Works	26.0	06-Nov-25	05-Dec-25	09-Sep-25	10-Oct-25	-47.0
	Drainage Works and Fencing	24.0	24-Jun-25	22-Jul-25	12-Aug-25	08-Sep-25	41.0
	Portion 4 Area H3	198.0	22-Apr-25	16-Dec-25	29-Jul-25	21-Oct-25	-47.0
	Preliminaries	83.0	22-Apr-25	31-Jul-25	29-Jul-25	10-Oct-25	59.0
	Site Formation Works	11.0	04-Dec-25	16-Dec-25	09-Oct-25	21-Oct-25	-47.0
	Drainage Works and Fencing	24.0	19-May-25	16-Jun-25	09-Sep-25	08-Oct-25	95.0
	Portion 4 Area H4	243.0	22-Apr-25	10-Feb-26	08-Aug-25	13-Dec-25	-47.0
	Preliminaries	62.0	22-Apr-25	07-Jul-25	08-Aug-25	21-Oct-25	89.0
	Site Formation Works	45.0	17-Dec-25	10-Feb-26	22-Oct-25	13-Dec-25	-47.0
	Drainage Works and Fencing	27.0	22-Apr-25	24-May-25	18-Sep-25	21-Oct-25	124.0
	Portion 4 Area H5	251.0	22-Apr-25	23-Feb-26	25-Sep-25	23-Dec-25	-47.0
	Preliminaries	83.0	22-Apr-25	31-Jul-25	25-Sep-25	13-Dec-25	113.0
	Site Formation Works	12.0	06-Feb-26	23-Feb-26	10-Dec-25	23-Dec-25	-47.0
	Drainage Works and Fencing	36.0	26-May-25	08-Jul-25	28-Oct-25	09-Dec-25	129.0
	Portion 4 Area H6	123.0	22-Apr-25	16-Sep-25	21-Feb-25	23-Jul-25	-47.0
	Preliminaries	62.0	22-Apr-25	07-Jul-25	21-Feb-25	12-May-25	-46.0
	Site Formation Works	61.0	08-Jul-25	16-Sep-25	12-May-25	23-Jul-25	-47.0
	Drainage Works and Fencing	24.0	22-Apr-25	21-May-25	09-Apr-25	12-May-25	-8.0
	Section 5 - Comprises all works within Area I and J of the Site	1131.0	22-Apr-25	26-May-28	22-Feb-25	27-Mar-28	-46.0
	Key Events	0.0	26-May-28	26-May-28	27-Mar-28	27-Mar-28	-60.0
	Site Possession	191.0					
	Portion 5a (Area I)	981.0	22-Apr-25	26-May-28	22-Feb-25	27-Mar-28	-46.0
	Preliminaries	144.0	22-Apr-25	28-Jul-25	22-Feb-25	03-Jun-25	-46.0
	CUE CH0-150	638.0	05-Sep-25	01-Nov-27	14-Jul-25	04-Sep-27	-46.0
	ELS and Earthworks	205.0	05-Sep-25	18-May-26	14-Jul-25	19-Mar-26	-46.0
	CUE Civil and Structural	275.0	13-Apr-26	13-Mar-27	10-Feb-26	17-May-27	49.0
	CUE ABWF and E&M & Utilities	150.0	22-Feb-27	24-Aug-27	23-Dec-26	30-Jun-27	-46.0
	CUE Individual T&C	76.0	02-Aug-27	01-Nov-27	07-Jun-27	04-Sep-27	-46.0
	CUE CH150-250	448.0	09-Jan-26	17-Jul-27	25-Nov-25	15-Jul-27	-2.0
	ELS and Earthworks	148.0	09-Jan-26	13-Jul-26	25-Nov-25	01-Jun-26	-34.0
	CUE Civil and Structural	208.0	04-Jun-26	13-Feb-27	23-Apr-26	16-Apr-27	49.0
	CUE ABWF and E&M & Utilities	100.0	06-Jan-27	11-May-27	24-Nov-26	15-Jul-27	53.0
	CUE Individual T&C	75.0	17-Apr-27	17-Jul-27	04-Mar-27	05-Jun-27	-34.0
	External Utilities	342.0	07-Nov-26	03-Jan-28	07-Jan-27	03-Mar-28	49.0
	Site Formation Works	33.0	29-Jul-25	04-Sep-25	04-Jun-25	12-Jul-25	-46.0
	Road and Pavements	210.0	08-Sep-27	26-May-28	16-Jul-27	27-Mar-28	-46.0
	Portion 5b (Area J)	417.0	22-Apr-25	14-Sep-26	25-Apr-25	12-Sep-26	-1.0
	Preliminaries	72.0	22-Apr-25	18-Jul-25	25-Apr-25	26-Jun-25	-18.0
	External Utilities	274.0	19-Jul-25	22-Jun-26	27-Jun-25	04-Jun-26	-14.0
	Road and Pavements	157.0	06-Mar-26	14-Sep-26	10-Feb-26	24-Aug-26	-18.0
	Landscape Hardworks	121.0	22-Apr-26	14-Sep-26	21-Apr-26	12-Sep-26	-1.0
	Section 6 - Comprises all works within Area K and L of the Site	1248.0	21-Apr-25	14-Oct-28	03-Feb-25	16-Aug-28	-49.0
	Key Events	0.0	14-Oct-28	14-Oct-28	16-Aug-28	16-Aug-28	-59.0
	Site Possession	191.0					
	Portion 6a (Area K)	905.0	09-Sep-25	27-Sep-28	20-Nov-25	16-Aug-28	-36.0
	Preliminaries	78.0	09-Sep-25	11-Dec-25	20-Nov-25	25-Feb-26	59.0
	CUE Construction	732.0	14-Apr-26	27-Sep-28	26-Feb-26	16-Aug-28	-36.0
	CUE CH250-355	732.0	14-Apr-26	27-Sep-28	26-Feb-26	16-Aug-28	-36.0
	ELS and Earthworks	212.0	14-Apr-26	24-Dec-26	26-Feb-26	12-Nov-26	-36.0
	CUE Civil and Structural	213.0	17-Nov-26	07-Aug-27	05-Oct-26	25-Jun-27	-36.0
	CUE ABWF and E&M & Utilities	184.0	22-May-27	30-Dec-27	13-Sep-27	28-Apr-28	95.0
	CUE Individual T&C	84.0	20-Sep-27	30-Dec-27	14-Jan-28	28-Apr-28	95.0
	External Utilities	180.0	09-Aug-27	15-Mar-28	26-Jun-27	02-Feb-28	-36.0
	Noise Barrier (NB94)	60.0	23-Sep-27	03-Dec-27	07-Dec-27	21-Feb-28	62.0
	Road and Pavements	210.0	14-Jan-28	27-Sep-28	30-Nov-27	16-Aug-28	-36.0
	Portion 6b (Area K)	1069.0	21-Apr-25	14-Oct-28	03-Feb-25	16-Aug-28	-49.0



Build King – Richwell Civil Joint Venture

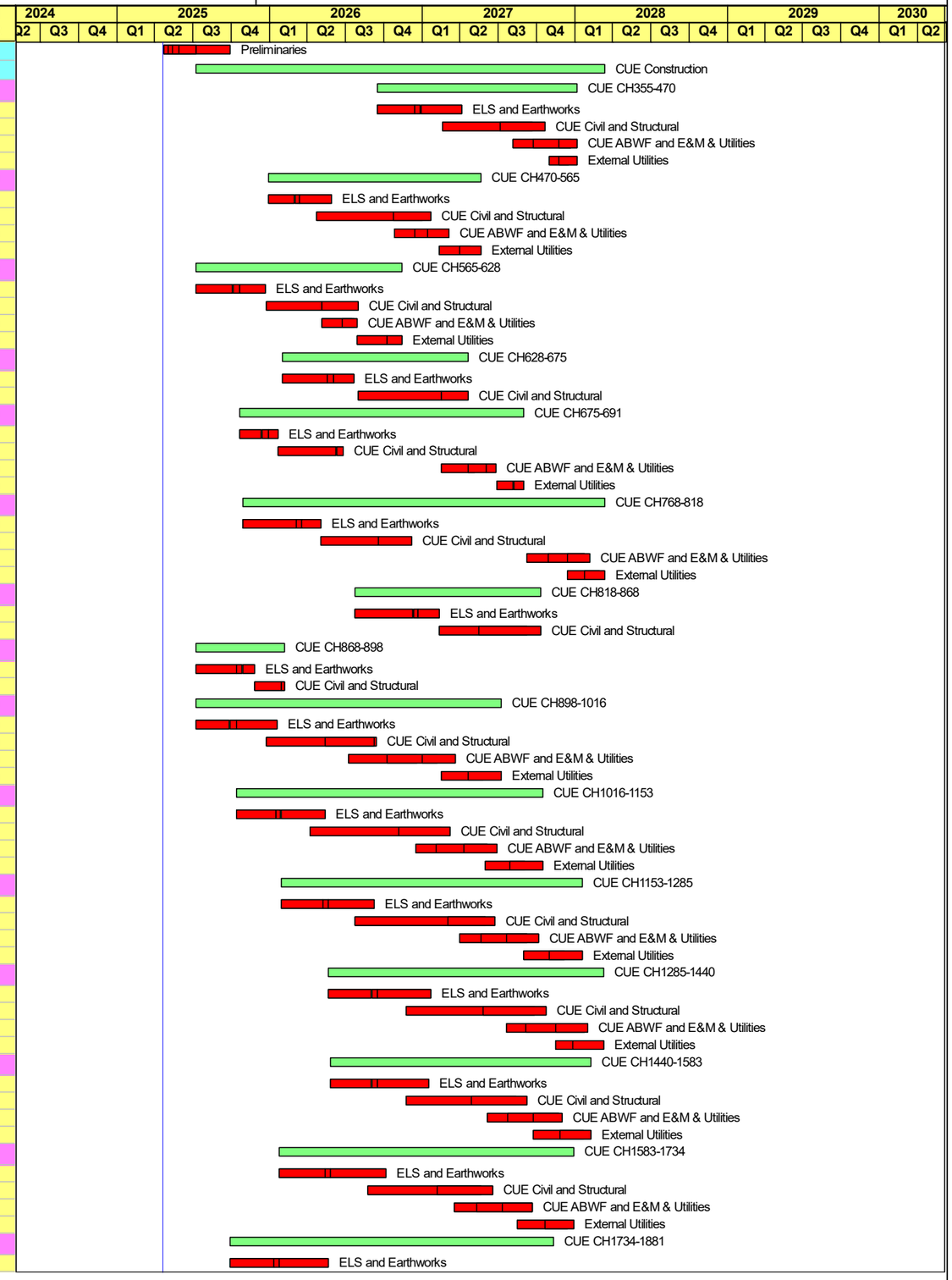
TTA
Actual Work
Planned Activity
Critical Activity
Milestone
Summary

Contract No.ND/2024/07
First Programme R1 - Programme Update as of 20 April 2025
Executive Summary

Date	Revision	Checked	Appr...
14-Aug-24	Revision R0	KY	SL
24-Sep-24	Revision R1	KY	SL

ND202407-FP-01a-20250420 | Fanling North NDA, Remaining Phase: Site Formation and Infrastructure Works (East)

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
	Preliminaries	133.0	22-Apr-25	27-Sep-25	03-Feb-25	13-Sep-25	-12.0
	CUE Construction	797.0	08-Jul-25	13-Mar-28	16-Apr-25	24-Jan-28	-39.0
	CUE CH355-470	387.0	15-Sep-26	06-Jan-28	19-Sep-26	24-Jan-28	15.0
	ELS and Earthworks	161.0	15-Sep-26	06-Apr-27	19-Sep-26	10-Apr-27	4.0
	CUE Civil and Structural	202.0	18-Feb-27	23-Oct-27	23-Feb-27	28-Oct-27	4.0
	CUE ABWF and E&M & Utilities	125.0	07-Aug-27	06-Jan-28	25-Aug-27	24-Jan-28	15.0
	External Utilities	55.0	01-Nov-27	06-Jan-28	18-Nov-27	24-Jan-28	15.0
	CUE CH470-565	409.0	30-Dec-25	21-May-27	13-Dec-25	24-Jan-28	204.0
	ELS and Earthworks	120.0	30-Dec-25	29-May-26	13-Dec-25	14-May-26	-12.0
	CUE Civil and Structural	226.0	23-Apr-26	22-Jan-27	09-Apr-26	08-Jan-27	-12.0
	CUE ABWF and E&M & Utilities	105.0	28-Oct-26	05-Mar-27	09-Jul-27	11-Nov-27	204.0
	External Utilities	80.0	11-Feb-27	21-May-27	20-Oct-27	24-Jan-28	204.0
	CUE CH565-628	405.0	08-Jul-25	14-Nov-26	16-Apr-25	24-Jan-28	353.0
	ELS and Earthworks	141.0	08-Jul-25	22-Dec-25	16-Apr-25	15-Oct-25	-57.0
	CUE Civil and Structural	176.0	23-Dec-25	31-Jul-26	16-Oct-25	22-May-26	-57.0
	CUE ABWF and E&M & Utilities	70.0	06-May-26	29-Jul-26	15-Jul-27	06-Oct-27	353.0
	External Utilities	90.0	30-Jul-26	14-Nov-26	07-Oct-27	24-Jan-28	353.0
	CUE CH628-675	359.0	31-Jan-26	22-Apr-27	10-Apr-26	14-Jun-27	42.0
	ELS and Earthworks	135.0	31-Jan-26	20-Jul-26	10-Apr-26	18-Sep-26	52.0
	CUE Civil and Structural	214.0	01-Aug-26	22-Apr-27	19-Sep-26	14-Jun-27	42.0
	CUE CH675-691	551.0	21-Oct-25	31-Aug-27	05-Aug-25	24-Jan-28	119.0
	ELS and Earthworks	76.0	21-Oct-25	21-Jan-26	05-Aug-25	04-Nov-25	-64.0
	CUE Civil and Structural	124.0	22-Jan-26	26-Jun-26	05-Nov-25	09-Apr-26	-64.0
	CUE ABWF and E&M & Utilities	105.0	17-Feb-27	26-Jun-27	15-Jul-27	17-Nov-27	119.0
	External Utilities	55.0	28-Jun-27	31-Aug-27	18-Nov-27	24-Jan-28	119.0
	CUE CH768-818	703.0	28-Oct-25	13-Mar-28	03-Jun-26	24-Jan-28	-39.0
	ELS and Earthworks	149.0	28-Oct-25	02-May-26	03-Jun-26	28-Nov-26	174.0
	CUE Civil and Structural	181.0	04-May-26	07-Dec-26	30-Nov-26	14-Jul-27	174.0
	CUE ABWF and E&M & Utilities	120.0	10-Sep-27	07-Feb-28	15-Jul-27	24-Jan-28	-9.0
	External Utilities	70.0	16-Dec-27	13-Mar-28	01-Nov-27	24-Jan-28	-39.0
	CUE CH818-868	360.0	24-Jul-26	11-Oct-27	26-May-26	11-Aug-27	-49.0
	ELS and Earthworks	163.0	24-Jul-26	10-Feb-27	26-May-26	08-Dec-26	-49.0
	CUE Civil and Structural	197.0	11-Feb-27	11-Oct-27	09-Dec-26	11-Aug-27	-49.0
	CUE CH868-898	177.0	08-Jul-25	05-Feb-26	09-May-25	06-Dec-25	-49.0
	ELS and Earthworks	118.0	08-Jul-25	25-Nov-25	09-May-25	25-Sep-25	-49.0
	CUE Civil and Structural	59.0	26-Nov-25	05-Feb-26	26-Sep-25	06-Dec-25	-49.0
	CUE CH898-1016	593.0	08-Jul-25	08-Jul-27	22-May-25	24-Jan-28	165.0
	ELS and Earthworks	162.0	08-Jul-25	19-Jan-26	22-May-25	12-Aug-26	165.0
	CUE Civil and Structural	213.0	24-Dec-25	14-Sep-26	21-Jul-26	19-May-27	197.0
	CUE ABWF and E&M & Utilities	211.0	09-Jul-26	22-Mar-27	25-Jan-27	13-Oct-27	165.0
	External Utilities	115.0	16-Feb-27	08-Jul-27	06-Sep-27	24-Jan-28	165.0
	CUE CH1016-1153	594.0	14-Oct-25	16-Oct-27	28-Aug-25	24-Jan-28	82.0
	ELS and Earthworks	170.0	14-Oct-25	13-May-26	28-Aug-25	20-Jul-26	55.0
	CUE Civil and Structural	275.0	08-Apr-26	09-Mar-27	13-Jun-26	19-May-27	55.0
	CUE ABWF and E&M & Utilities	155.0	16-Dec-26	29-Jun-27	01-Apr-27	06-Oct-27	82.0
	External Utilities	115.0	31-May-27	16-Oct-27	06-Sep-27	24-Jan-28	82.0
	CUE CH1153-1285	585.0	28-Jan-26	19-Jan-28	11-Dec-25	24-Jan-28	4.0
	ELS and Earthworks	182.0	28-Jan-26	09-Sep-26	11-Dec-25	05-Aug-26	-30.0
	CUE Civil and Structural	272.0	24-Jul-26	24-Jun-27	17-Jun-26	19-May-27	-30.0
	CUE ABWF and E&M & Utilities	155.0	02-Apr-27	07-Oct-27	08-Apr-27	13-Oct-27	4.0
	External Utilities	115.0	01-Sep-27	19-Jan-28	06-Sep-27	24-Jan-28	4.0
	CUE CH1285-1440	538.0	21-May-26	11-Mar-28	01-Apr-26	24-Jan-28	-38.0
	ELS and Earthworks	203.0	21-May-26	22-Jan-27	01-Apr-26	05-Dec-26	-38.0
	CUE Civil and Structural	272.0	23-Nov-26	25-Oct-27	08-Oct-26	17-Sep-27	-30.0
	CUE ABWF and E&M & Utilities	160.0	21-Jul-27	02-Feb-28	04-Jun-27	13-Dec-27	-38.0
	External Utilities	93.0	18-Nov-27	11-Mar-28	04-Oct-27	24-Jan-28	-38.0
	CUE CH1440-1583	508.0	27-May-26	10-Feb-28	12-May-26	24-Jan-28	-12.0
	ELS and Earthworks	193.0	27-May-26	15-Jan-27	12-May-26	31-Dec-26	-12.0
	CUE Civil and Structural	233.0	25-Nov-26	08-Sep-27	11-Nov-26	25-Aug-27	-12.0
	CUE ABWF and E&M & Utilities	150.0	07-Jun-27	03-Dec-27	24-May-27	19-Nov-27	-12.0
	External Utilities	113.0	23-Sep-27	10-Feb-28	08-Sep-27	24-Jan-28	-12.0
	CUE CH1583-1734	574.0	23-Jan-26	31-Dec-27	09-Jan-26	24-Jan-28	19.0
	ELS and Earthworks	208.0	23-Jan-26	07-Oct-26	09-Jan-26	16-Oct-26	8.0
	CUE Civil and Structural	241.0	25-Aug-26	19-Jun-27	03-Sep-26	29-Jun-27	8.0
	CUE ABWF and E&M & Utilities	150.0	20-Mar-27	21-Sep-27	16-Apr-27	15-Oct-27	19.0
	External Utilities	113.0	17-Aug-27	31-Dec-27	08-Sep-27	24-Jan-28	19.0
	CUE CH1734-1881	627.0	29-Sep-25	11-Nov-27	15-Sep-25	24-Jan-28	60.0
	ELS and Earthworks	188.0	29-Sep-25	21-May-26	15-Sep-25	03-Aug-26	60.0



Build King – Richwell Civil Joint Venture

TTA
Actual Work
Planned Activity
Critical Activity
Milestone
Summary

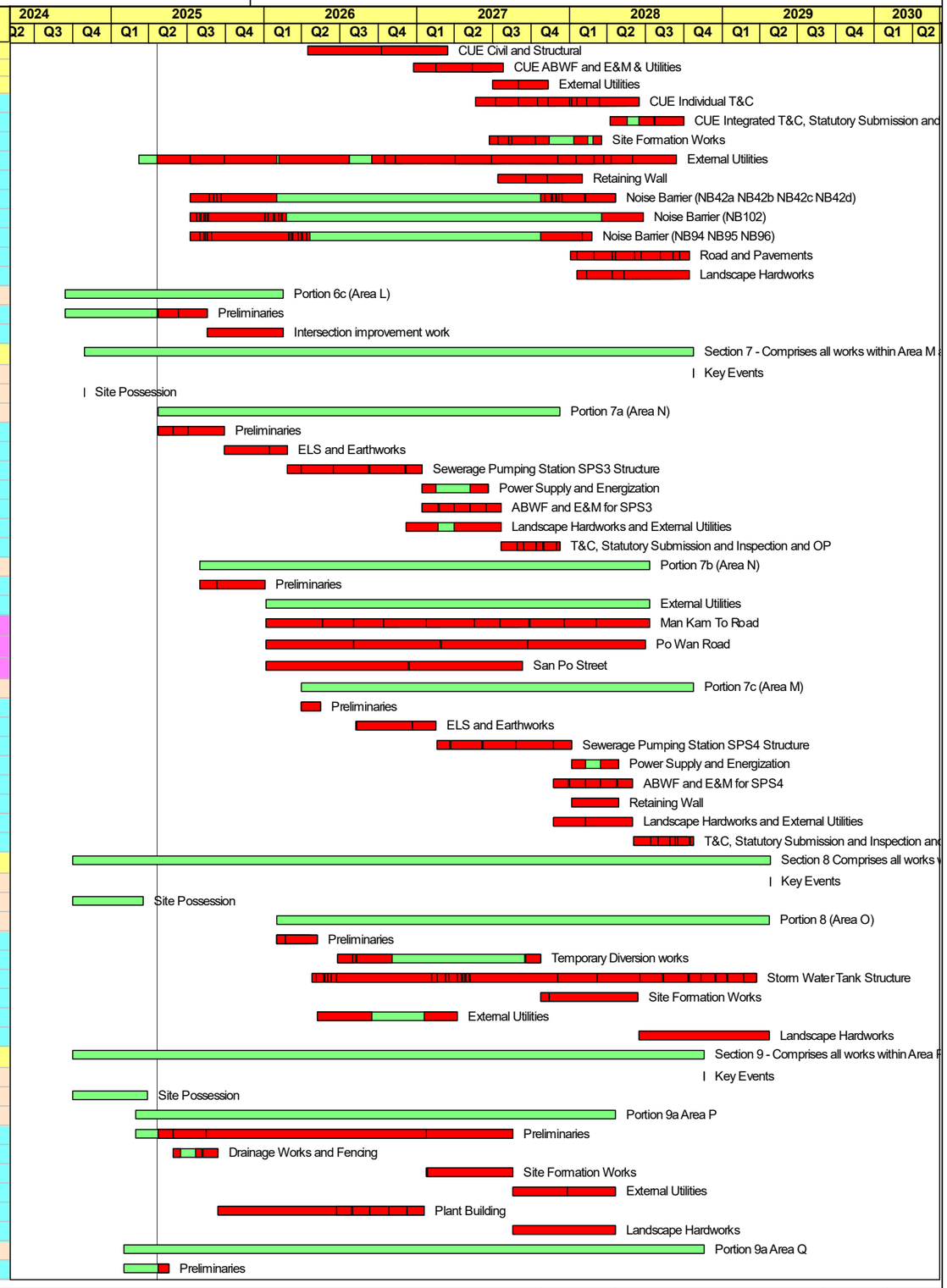
Contract No.ND/2024/07
First Programme R1 - Programme Update as of 20 April 2025
Executive Summary

Date	Revision	Checked	Appr...
14-Aug-24	Revision R0	KY	SL
24-Sep-24	Revision R1	KY	SL

ND202407-FP-01a-20250420

Fanling North NDA, Remaining Phase: Site Formation and Infrastructure Works (East)

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
	CUE Civil and Structural	275.0	16-Apr-26	17-Mar-27	29-Jun-26	14-Jun-27	69.0
	CUE ABWF and E&M & Utilities	170.0	24-Dec-26	26-Jul-27	11-Mar-27	06-Oct-27	60.0
	External Utilities	110.0	03-Jul-27	11-Nov-27	11-Sep-27	24-Jan-28	60.0
	CUE Individual T&C	318.0	22-May-27	16-Jun-28	25-Jan-28	28-Apr-28	-39.0
	CUE Integrated T&C, Statutory Submission and Inspection and OP	144.0	08-Apr-28	30-Sep-28	29-Apr-28	16-Aug-28	-39.0
	Site Formation Works	219.0	25-Jun-27	17-Mar-28	20-May-27	12-Feb-28	-29.0
	External Utilities	1045.0	21-Apr-25	14-Sep-28	21-Mar-25	16-Aug-28	-25.0
	Retaining Wall	164.0	15-Jul-27	01-Feb-28	14-Jul-27	20-Dec-27	-31.0
	Noise Barrier (NB42a NB42b NB42c NB42d)	827.0	08-Jul-25	21-Apr-28	23-May-25	13-Mar-28	-30.0
	Noise Barrier (NB102)	881.0	08-Jul-25	27-Jun-28	10-May-25	22-May-28	-30.0
	Noise Barrier (NB94 NB95 NB96)	782.0	08-Jul-25	24-Feb-28	05-Dec-25	29-Feb-28	4.0
	Road and Pavements	231.0	05-Jan-28	14-Oct-28	27-Nov-27	16-Aug-28	-49.0
	Landscape Hardworks	218.0	19-Jan-28	13-Oct-28	05-Jan-28	16-Aug-28	-48.0
	Portion 6c (Area L)	424.0	21-Apr-25	16-Feb-26	25-Apr-25	24-Feb-26	4.0
	Preliminaries	170.0	21-Apr-25	18-Aug-25	25-Apr-25	22-Aug-25	4.0
	Intersection improvement work	150.0	19-Aug-25	16-Feb-26	23-Aug-25	24-Feb-26	4.0
	Section 7 - Comprises all works within Area M and N of the Site	1161.0	22-Apr-25	23-Oct-28	17-May-25	07-Aug-28	-64.0
	Key Events	0.0	23-Oct-28	23-Oct-28	07-Aug-28	07-Aug-28	-77.0
	Site Possession	0.0					
	Portion 7a (Area N)	784.0	22-Apr-25	09-Dec-27	17-May-25	07-Aug-28	193.0
	Preliminaries	133.0	22-Apr-25	27-Sep-25	17-May-25	23-Oct-25	20.0
	ELS and Earthworks	121.0	29-Sep-25	26-Feb-26	24-Oct-25	21-Mar-26	20.0
	Sewerage Pumping Station SPS3 Structure	262.0	27-Feb-26	14-Jan-27	23-Mar-26	10-Feb-27	20.0
	Power Supply and Energization	126.0	15-Jan-27	22-Jun-27	23-Dec-27	13-Mar-28	217.0
	ABWF and E&M for SPS3	150.0	15-Jan-27	21-Jul-27	11-Feb-27	13-Mar-28	193.0
	Landscape Hardworks and External Utilities	181.0	07-Dec-26	21-Jul-27	11-Feb-27	13-Aug-27	20.0
	T&C, Statutory Submission and Inspection and OP	118.0	22-Jul-27	09-Dec-27	14-Mar-28	07-Aug-28	193.0
	Portion 7b (Area N)	871.0	31-Jul-25	10-Jul-28	28-Aug-25	07-Aug-28	24.0
	Preliminaries	129.0	31-Jul-25	03-Jan-26	28-Aug-25	31-Jan-26	24.0
	External Utilities	742.0	05-Jan-26	10-Jul-28	02-Feb-26	07-Aug-28	24.0
	Man Kam To Road	742.0	05-Jan-26	10-Jul-28	02-Feb-26	07-Aug-28	24.0
	Po Wan Road	735.0	05-Jan-26	30-Jun-28	10-Feb-26	07-Aug-28	31.0
	San Po Street	500.0	05-Jan-26	11-Sep-27	27-Nov-26	07-Aug-28	266.0
	Portion 7c (Area M)	760.0	31-Mar-26	23-Oct-28	11-Apr-26	07-Aug-28	-64.0
	Preliminaries	35.0	31-Mar-26	15-May-26	11-Apr-26	22-May-26	6.0
	ELS and Earthworks	156.0	08-Aug-26	17-Feb-27	22-May-26	27-Nov-26	-64.0
	Sewerage Pumping Station SPS4 Structure	263.0	18-Feb-27	06-Jan-28	28-Nov-26	20-Oct-27	-64.0
	Power Supply and Energization	91.0	07-Jan-28	29-Apr-28	23-Dec-27	10-Mar-28	-39.0
	ABWF and E&M for SPS4	150.0	25-Nov-27	01-Jun-28	08-Sep-27	10-Mar-28	-64.0
	Retaining Wall	90.0	07-Jan-28	28-Apr-28	20-Nov-27	10-Mar-28	-38.0
	Landscape Hardworks and External Utilities	150.0	25-Nov-27	01-Jun-28	08-Sep-27	10-Mar-28	-64.0
	T&C, Statutory Submission and Inspection and OP	120.0	02-Jun-28	23-Oct-28	11-Mar-28	07-Aug-28	-64.0
	Section 8 Comprises all works within Area O of the Site	1402.0	31-Jan-26	25-Apr-29	31-Jan-26	24-Mar-29	-23.0
	Key Events	0.0	25-Apr-29	25-Apr-29	24-Mar-29	24-Mar-29	-32.0
	Site Possession	191.0					
	Portion 8 (Area O)	953.0	31-Jan-26	24-Apr-29	31-Jan-26	24-Mar-29	-22.0
	Preliminaries	76.0	31-Jan-26	08-May-26	31-Jan-26	13-May-26	4.0
	Temporary Diversion works	395.0	26-Jun-26	25-Oct-27	09-Apr-26	21-Aug-27	-52.0
	Storm Water Tank Structure	866.0	25-Apr-26	24-Mar-29	25-Apr-26	24-Mar-29	0.0
	Site Formation Works	187.0	26-Oct-27	14-Jun-28	23-Aug-27	07-Apr-28	-52.0
	External Utilities	270.0	09-May-26	07-Apr-27	14-May-26	24-Mar-27	-8.0
	Landscape Hardworks	255.0	15-Jun-28	24-Apr-29	08-Apr-28	17-Feb-29	-52.0
	Section 9 - Comprises all works within Area P Q R S T of the Site	1277.0	22-Apr-25	18-Nov-28	12-Feb-25	31-Aug-30	527.0
	Key Events	0.0	18-Nov-28	18-Nov-28	03-Oct-28	03-Oct-28	-46.0
	Site Possession	191.0					
	Portion 9a Area P	936.0	22-Apr-25	21-Apr-28	24-Feb-25	21-Apr-28	0.0
	Preliminaries	738.0	22-Apr-25	19-Aug-27	24-Feb-25	09-Aug-27	-9.0
	Drainage Works and Fencing	90.0	29-May-25	12-Sep-25	14-Jul-25	05-Sep-25	-6.0
	Site Formation Works	167.0	25-Jan-27	19-Aug-27	14-Jan-27	09-Aug-27	-9.0
	External Utilities	197.0	20-Aug-27	20-Apr-28	21-Aug-27	21-Apr-28	1.0
	Plant Building	401.0	13-Sep-25	20-Jan-27	06-Sep-25	13-Jan-27	-6.0
	Landscape Hardworks	198.0	20-Aug-27	21-Apr-28	10-Aug-27	07-Apr-28	-9.0
	Portion 9a Area Q	1110.0	22-Apr-25	18-Nov-28	12-Feb-25	03-Oct-28	-38.0
	Preliminaries	45.0	22-Apr-25	17-May-25	12-Feb-25	18-Oct-25	128.0



Build King – Richwell Civil Joint Venture

TTA
Actual Work
Planned Activity
Critical Activity
Milestone
Summary

Contract No.ND/2024/07

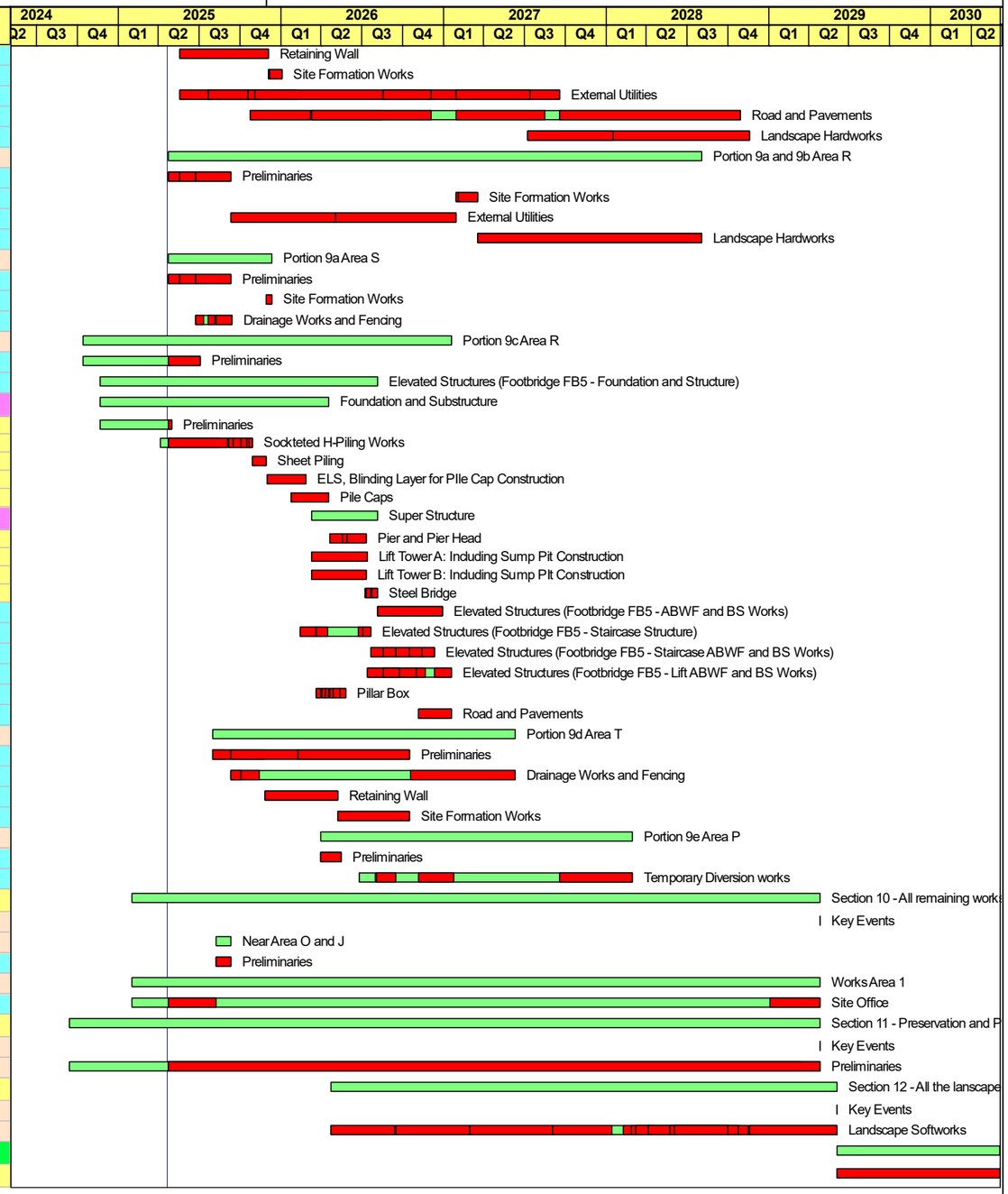
First Programme R1 - Programme Update as of 20 April 2025

Executive Summary

Date	Revision	Checked	Appr...
14-Aug-24	Revision R0	KY	SL
24-Sep-24	Revision R1	KY	SL

ND202407-FP-01a-20250420 | Fanling North NDA, Remaining Phase: Site Formation and Infrastructure Works (East)

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
	Retaining Wall	166.0	19-May-25	03-Dec-25	20-Oct-25	14-May-26	128.0
	Site Formation Works	24.0	04-Dec-25	03-Jan-26	15-May-26	12-Jun-26	128.0
	External Utilities	695.0	19-May-25	18-Sep-27	08-Mar-25	15-Jul-27	-55.0
	Road and Pavements	893.0	24-Oct-25	30-Oct-28	14-Oct-25	23-Aug-28	-55.0
	Landscape Hardworks	408.0	09-Jul-27	18-Nov-28	03-May-27	03-Oct-28	-38.0
	Portion 9a and 9b Area R	974.0	22-Apr-25	03-Aug-28	12-Mar-25	02-Jun-28	-52.0
	Preliminaries	118.0	22-Apr-25	10-Sep-25	12-Mar-25	11-Jul-25	-52.0
	Site Formation Works	38.0	30-Jan-27	18-Mar-27	27-Nov-26	13-Jan-27	-52.0
	External Utilities	411.0	11-Sep-25	29-Jan-27	12-Jul-25	26-Nov-26	-52.0
	Landscape Hardworks	407.0	19-Mar-27	03-Aug-28	14-Jan-27	02-Jun-28	-52.0
	Portion 9a Area S	194.0	22-Apr-25	11-Dec-25	27-May-28	03-Oct-28	831.0
	Preliminaries	118.0	22-Apr-25	10-Sep-25	27-May-28	19-Sep-28	896.0
	Site Formation Works	11.0	29-Nov-25	11-Dec-25	20-Sep-28	03-Oct-28	831.0
	Drainage Works and Fencing	69.0	24-Jun-25	12-Sep-25	27-Jul-28	19-Sep-28	894.0
	Portion 9c Area R	658.0	22-Apr-25	19-Jan-27	23-May-25	31-Aug-30	1070.0
	Preliminaries	142.0	22-Apr-25	04-Jul-25	22-Jun-30	31-Aug-30	1530.0
	Elevated Structures (Footbridge FB5 - Foundation and Structure)	493.0	22-Apr-25	06-Aug-26	23-May-25	31-Aug-30	1206.0
	Foundation and Substructure	403.0	22-Apr-25	18-Apr-26	23-May-25	31-Aug-30	1296.0
	Preliminaries	100.0	22-Apr-25	29-Apr-25	24-Aug-30	31-Aug-30	1583.0
	Sockteted H-Piling Works	157.0	22-Apr-25	28-Oct-25	23-May-25	27-Nov-25	25.0
	Sheet Piling	27.0	30-Oct-25	29-Nov-25	28-Nov-25	31-Dec-25	25.0
	ELS, Blinding Layer for PIle Cap Construction	70.0	01-Dec-25	26-Feb-26	02-Jan-26	27-Mar-26	25.0
	Pile Caps	67.0	23-Jan-26	18-Apr-26	25-Feb-26	19-May-26	25.0
	Super Structure	121.0	10-Mar-26	06-Aug-26	05-May-26	04-Sep-26	25.0
	Pier and Pier Head	67.0	20-Apr-26	10-Jul-26	20-May-26	08-Aug-26	25.0
	Lift Tower A: Including Sump Pit Construction	100.0	10-Mar-26	13-Jul-26	05-May-26	01-Sep-26	43.0
	Lift Tower B: Including Sump PIt Construction	97.0	11-Mar-26	10-Jul-26	08-May-26	01-Sep-26	45.0
	Steel Bridge	24.0	10-Jul-26	06-Aug-26	08-Aug-26	04-Sep-26	25.0
	Elevated Structures (Footbridge FB5 - ABWF and BS Works)	121.0	06-Aug-26	30-Dec-26	04-Sep-26	29-Jan-27	25.0
	Elevated Structures (Footbridge FB5 - Staircase Structure)	126.0	12-Feb-26	21-Jul-26	29-May-26	19-Aug-26	25.0
	Elevated Structures (Footbridge FB5 - Staircase ABWF and BS Works)	120.0	22-Jul-26	11-Dec-26	20-Aug-26	13-Jan-27	25.0
	Elevated Structures (Footbridge FB5 - Lift ABWF and BS Works)	157.0	14-Jul-26	19-Jan-27	02-Sep-26	20-Feb-27	25.0
	Pillar Box	52.0	21-Mar-26	27-May-26	02-Oct-26	03-Dec-26	158.0
	Road and Pavements	62.0	05-Nov-26	19-Jan-27	04-Dec-26	20-Feb-27	25.0
	Portion 9d Area T	551.0	31-Jul-25	11-Jun-27	10-Feb-26	20-Dec-27	160.0
	Preliminaries	362.0	31-Jul-25	17-Oct-26	10-Feb-26	06-May-27	160.0
	Drainage Works and Fencing	515.0	11-Sep-25	11-Jun-27	17-Sep-26	20-Dec-27	160.0
	Retaining Wall	129.0	27-Nov-25	08-May-26	16-Jun-26	18-Nov-26	160.0
	Site Formation Works	134.0	09-May-26	17-Oct-26	19-Nov-26	06-May-27	160.0
	Portion 9e Area P	567.0	31-Mar-26	29-Feb-28	22-Apr-26	22-Feb-28	-6.0
	Preliminaries	35.0	31-Mar-26	15-May-26	22-Apr-26	03-Jun-26	15.0
	Temporary Diversion works	498.0	26-Jun-26	29-Feb-28	03-Jun-26	22-Feb-28	-6.0
	Section 10 - All remaining works not included other sections of the works	1252.0	22-Apr-25	25-Apr-29	17-Aug-28	24-Mar-29	-23.0
	Key Events	0.0	25-Apr-29	25-Apr-29	24-Mar-29	24-Mar-29	-32.0
	Near Area O and J	28.0	09-Aug-25	10-Sep-25	21-Feb-29	24-Mar-29	1047.0
	Preliminaries	28.0	09-Aug-25	10-Sep-25	21-Feb-29	24-Mar-29	1047.0
	Works Area 1	1252.0	22-Apr-25	25-Apr-29	17-Aug-28	24-Mar-29	-23.0
	Site Office	1252.0	22-Apr-25	25-Apr-29	17-Aug-28	24-Mar-29	-23.0
	Section 11 - Preservation and Protection of Trees	1364.0	22-Apr-25	25-Apr-29	21-Mar-25	02-May-29	5.0
	Key Events	0.0	25-Apr-29	25-Apr-29	24-Mar-29	24-Mar-29	-32.0
	Preliminaries	1347.0	22-Apr-25	25-Apr-29	21-Mar-25	02-May-29	5.0
	Section 12 - All the lanscape soft works specified in the contract not covered by the other section	924.0	22-Apr-26	04-Jun-29	27-Mar-26	24-Mar-29	-55.0
	Key Events	0.0	04-Jun-29	04-Jun-29	24-Mar-29	24-Mar-29	-72.0
	Landscape Softworks	924.0	22-Apr-26	04-Jun-29	27-Mar-26	24-Mar-29	-55.0
	Establishment works	365.0	05-Jun-29	04-Jun-30	03-May-29	02-May-30	-33.0
	Establishment works	365.0	05-Jun-29	04-Jun-30	03-May-29	02-May-30	-33.0



Build King – Richwell Civil Joint Venture

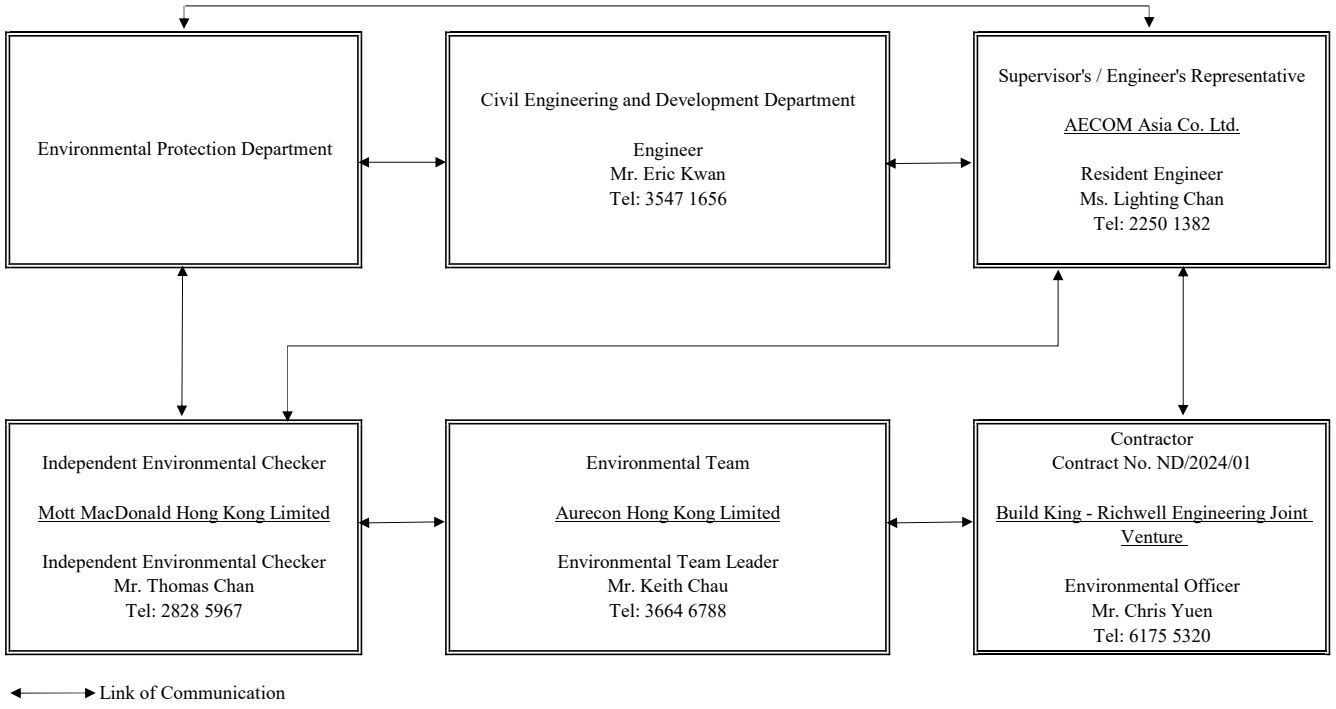
TTA
Actual Work
Planned Activity
Critical Activity
Milestone
Summary

Contract No.ND/2024/07
First Programme R1 - Programme Update as of 20 April 2025
Executive Summary

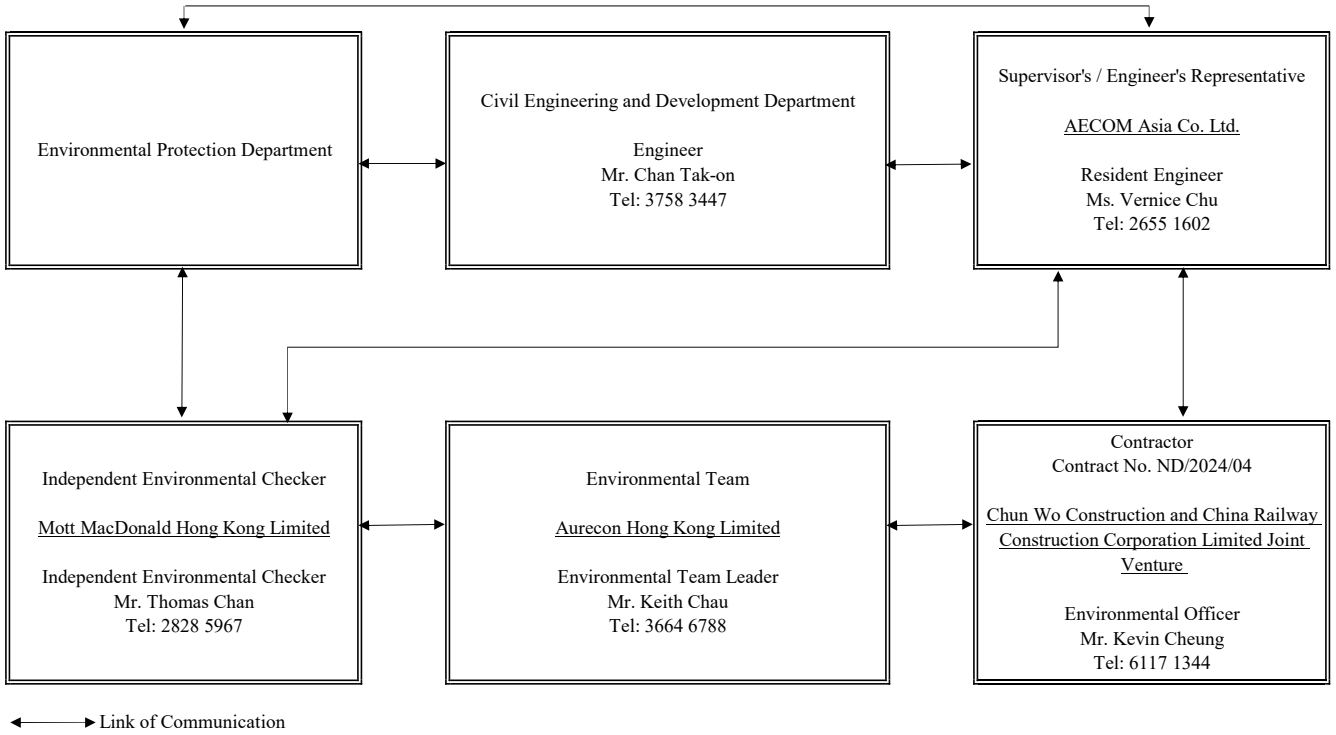
Date	Revision	Checked	Appr...
14-Aug-24	Revision R0	KY	SL
24-Sep-24	Revision R1	KY	SL

Appendix 1.2 Project Organization Chart

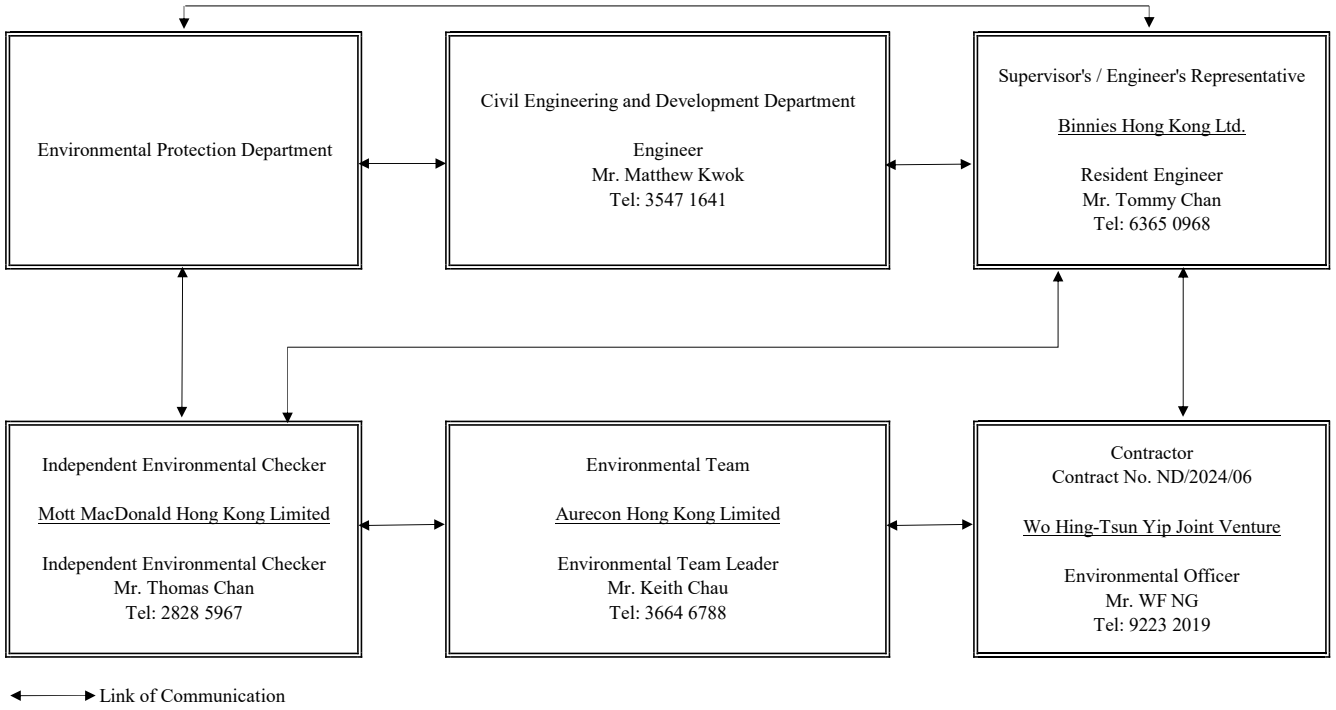
Project Organization Chart ND/2024/01



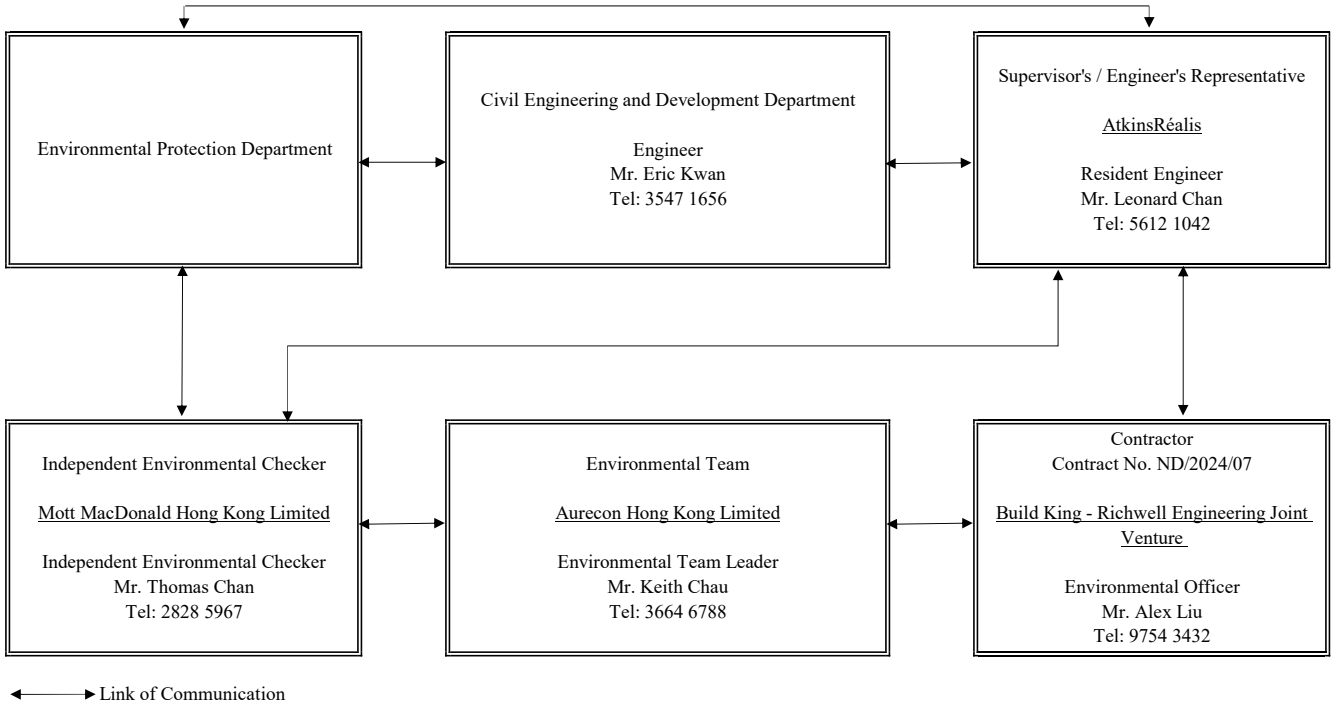
Project Organization Chart For ND/2024/04



Project Organization Chart For ND/2024/06



Project Organization Chart ND/2024/07



Appendix 1.3 Implementation Status of Environmental Mitigation Measure

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Construction Dust Impact								
S3.8	D1	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 92.1%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7 L/m^2 to achieve the respective dust removal efficiencies.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO	*
S3.8	D2	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO	^
S3.8	D3	Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction phase: • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; • The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Construction Dust Impact								
		• Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting;						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Construction Dust Impact								
		• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and • Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.						
S3.8	D4	Implement regular dust monitoring under EM&A programme during the Construction phase.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction phase	TM-EIAO	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Noise Impact (Construction Phase)								
S4.9	N1	Implement the following good site management practices: • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as possible and practicable; and • material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	Control construction airborne noise	Contractor	All construction sites where practicable	Construction phase	Annex 5, TM-EIAO	^
S4.9	N2	Install temporary site hoarding (approx 2.4m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites where practicable	Construction phase	Annex 5, TM-EIAO	^
S4.9	N3	Install movable noise barriers, full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction phase	Annex 5, TM-EIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S4.9	N4	Use of "Quiet" Plant and Working Methods	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	Construction phase	Annex 5, TM-EIAO	^
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction phase	Annex 5, TM-EIAO	^
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representative noise monitoring stations	Construction phase	TM-EIAO	^
Noise Impact (Operational Phase)								
S4.9	N7	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • KTN-NB02: Approx. 25m long, 5m high NB; • KTN-NB15: Approx. 65m long, 3m high NB; • KTN-NB16: Approx. 55m long, 3m high NB; • KTN-NB17: Approx. 55m long, 3m high NB; • KTN-NB18: Approx. 60m long, 5m high NB; • KTN-NB21: Approx. 60m long, 5m high NB; • KTN-NB22: Approx. 35m long, 5m high NB; • KTN-NB26: Approx. 45m long, 7m vertical barrier with 3m cantilevered arm; • KTN-NB32: Approx. 20m long CNB ; • KTN-NB33: Approx. 85m long CNB ; • KTN-NB34: Approx. 70m long CNB ; • KTN-NB36: Approx. 45m long, 5m high NB; • KTN-NB41: Approx. 50m long, 5m high NB; • KTN-NB72: Approx. 115m long, 3m high NB; • KTN-SE04: Approx. 100m long SE with opening to south-	Control operational airborne noise due to road traffic	Project Proponent/ Contractor	Refer to Figures 4.9a, 4.9b and 4.10b	Prior to operation of the Project	Annex 5, TM-EIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		• western direction; • FLN-NB41: Approx. 95m long, 5m high NB; • FLN-NB42: Approx. 75m long CNB; • FLN-NB44: Approx. 290m long CNB; • FLN-NB45: Approx. 180m long CNB; • FLN-NB48: Approx. 100m long CNB; • FLN-NB49: Approx. 55m long CNB; • FLN-NB50: Approx. 70m long CNB; • FLN-NB51: Approx. 55m long CNB; • FLN-NB52: Approx. 55m long, 5m high NB; • FLN-NB53: Approx. 50m long, 3m high NB; • FLN-NB54: Approx. 50m long, 3m high NB; • FLN-NB55: Approx. 70m long, 3m high NB; • FLN-NB56: Approx. 75m long, 3m high NB; • FLN-NB58: Approx. 40m long, 5m high NB; • FLN-NB59: Approx. 65m long, 5m high NB; • FLN-NB60: Approx. 70m long, 3m high NB; • FLN-NB61: Approx. 70m long CNB; • FLN-NB62: Approx. 50m long CNB; • FLN-NB63: Approx. 270m long CNB; • FLN-NB65: Approx. 65m long, 5m high NB; • FLN-NB66: Approx. 85m long CNB; • FLN-NB67: Approx. 15m long, 5m high NB; • FLN-NB68: Approx. 105m long, 5m high NB; • FLN-NB69: Approx. 390m long, 5m high NB; • FLN-NB70: Approx. 285m long, 5m high NB; • FLN-NB71: Approx. 120m long, 5m high NB;					

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		• FLN-NB72: Approx. 145m long CNB; • FLN-NB73: Approx. 55m long, 4m high NB; • FLN-NB74: Approx. 260m long, 7m high NB; • FLN-NB75: Approx. 35m long, 3m high NB; • FLN-NB76: Approx. 115m long CNB; • FLN-NB77: Approx. 130m long, 5m high NB; • FLN-NB78: Approx. 45m long CNB; • FLN-NB79: Approx. 45m long, 5m high NB; • FLN-NB91: Approx. 110m long, 3m high NB; • FLN-NB92: Approx. 50m long CNB; • FLN-NB93: Approx. 65m long CNB; • FLN-NB94: Approx. 35m long CNB; • FLN-NB95: Approx. 60m long CNB; • FLN-NB96: Approx. 70m long CNB; • FLN-NB97: Approx. 80m long, 5m high NB; • FLN-LNS91: Approx. 100m long LNS; • FLN-LNS92: Approx. 115m long LNS; • FLN-LNS93: Approx. 270m long LNS; • FLN-LNS94: Approx. 225m long LNS; • FLN-LNS95: Approx. 700m long LNS; • FLN-LNS96: Approx. 180m long LNS; • FLN-LNS97: Approx. 75m long LNS; • FLN-LNS98: Approx. 260m long LNS • Provision of acoustic insulation with air conditioning has been allowed to the east and south facades (4/F to 8/F) of educational institutions (FLN C2-9). • Building layout, setback distance, noise tolerant building according to Revised RODP.					

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S4.8	N8	<u>District Cooling System</u> • Provision of noise mitigation measures including silencers, acoustic louvers and acoustic enclosure if necessary; • The maximum allowable sound power level (DCS KTN B1-7) shall not exceed 75 dB(A); <u>KTN F1-3, KTN F1-4, KTN D1-12, KTN D1-13</u> • Provision of acoustic insulation with air conditioning has to be allowed to KTN F1-3, KTN F1-4, KTN D1-12, KTN D1-13; <u>Pumping Station</u> • Provision of noise mitigation measures including silencers, acoustic louvers and acoustic enclosure if necessary; The maximum allowable sound power level for FLN A1-2 shall not exceed 67 dB(A)	Control operational airborne noise due to the operation of fixed plant The noise design requirement/criteria should be incorporated in the design of the relevant facilities during the planning/design stage	Detailed Design Consultant/ Contractor/ Operator	All plant rooms where practicable	Detailed design, construction and operation phases	Noise Control Ordinance and its TM, TM-EIAO	N/A
S4.8	N9	Sports Ground / Sports Complex • Provision of cluster of small power loudspeaker if necessary; • Provision of directional loudspeaker and orientate to point towards the audience if necessary; • Provision of "Limiter" device in the system to set the upper bound of the output sound level if necessary	Control operational airborne noise due to the operation of fixed plant The noise design requirement/criteria should be incorporated in the design of the relevant facilities during the planning/design stage	Organiser	Sports Ground / Sports Complex	Prior to rehearsal and main event	Noise Control Ordinance and its TM, TM-EIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Water Quality Impact (Construction Phase)								
S5.7	W1	<u>Construction Runoff</u> • In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures should be provided and the Storm Water Pollution Control Plan is given below. <u>Storm Water Pollution Control Plan</u> • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction. • Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipments in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped. • 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 silt/sediment trap. The silt/sediment traps should be	Control construction runoff	Contractor	All construction sites	Construction phase	WPCO, EIAO, TM-EIAO	*

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		incorporated in the permanent drainage channels to enhance deposition rates. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the Contractor prior to the commencement of construction. • Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • Measures should be taken to minimize the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events. • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. • All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. • Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fishponds.					

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S5.7	W2	Stream Diversion In order to prevent sediment transport during riverbank works, deployment of silt curtain should be implemented, especially when construction works encroach or occur in close distance to water body. It is recommended to carry out all the riverbank works and diversion works within a cofferdam or diaphragm wall and the work areas on riverbed should be kept in dry condition.	Minimize water quality impact due to stream diversion	Contractor	All streams that required diversion	Construction phase	WPCO, EIAO, TM-EIAO	N/A
S5.7	W3	Groundwater from Contaminated Area • For other inaccessible sites, site investigation is required when they are resumed and handed over to the Project Proponent to identify if contaminated groundwater is found. • If the investigation results indicated that the groundwater to be generated from construction works would be contaminated, the contaminated groundwater should be either discharged into recharged wells, or properly treated in compliance with the requirements of Technical Memorandum on Standards for Effluents Discharged into Drainage on Sewerage Systems, Inland and Coastal Waters. • If recharged well method were used, the groundwater quality in the recharged well should not be affected by recharging operation, i.e. the pollution levels of the recharged groundwater should not be higher than that in the recharging wells. • If treatment and discharge method were used, the design of wastewater treatment facilities, such as active carbon and petrol interceptor, should be submitted to the EPD and a discharge license should be obtained under the WPCO through the Regional Offices of EPD.	Minimize water quality impact due to potential groundwater from contaminated areas	Contractor	All identified Groundwater contaminated areas	Construction phase	WPCO, EIAO, for Discharged Drainage Sewerage Inlan Waters	^
S5.7	W4	Sewage from Workforce Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Handling of site sewage	Contractor	All construction sites	Construction phase	WPCO, EIAO, TM-EIAO	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures.						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Waste Management (Construction Waste)								
S7.6	WM1	<u>Waste Reduction Measures</u> Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: • segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; • proper storage and site practices to minimize the potential for damage and contamination of construction materials; • plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; • sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); • provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.	Reduce waste generation	Contractor	All construction sites where practicable	Prior to the commencement of construction	Waste Disposal Ordinance	^
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance	^
S7.6	WM3	<u>Good Site Practice</u> The following good site practices are recommended throughout the construction activities: • nomination of an approved personnel, such as a site manager, to be responsible for the	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • provision of sufficient waste disposal points and regular collection for disposal; • appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;						
S7.6	WM4	Storage of Waste The following recommendation should be implemented to minimize the impacts: • waste such as soil should be handled and stored well to ensure secure containment; • stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; • different locations should be designated to stockpile each material to enhance reuse;	Minimize waste impacts from storage	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance	^
S7.6	WM5	Collection and Transportation of Waste The following recommendation should be implemented to minimize the impacts: • remove waste in timely manner; • employ the trucks with cover or enclosed containers for waste transportation;	Minimize waste impacts from storage	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance	*

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		• obtain relevant waste disposal permits from the appropriate authorities; and • disposal of waste should be done at licensed waste disposal facilities.						
S7.6	WM6	<u>Excavated and C&D Material</u> Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: • maintain temporary stockpiles and reuse excavated fill material for backfilling; • carry out on-site sorting; • deliver surplus artificial hard materials to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products; • make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • implement a recording system for the amount of waste generated, recycled and disposed of for checking; Standard formwork should be used as far as practicable in order to minimize the arising of C&D waste. The use of more durable formwork (e.g. metal hoarding) or plastic facing should be encouraged in order to enhance the possibility of recycling. The purchasing of construction materials should be carefully planned in order to avoid over ordering and wastage. Wheel wash facilities have to be provided at the site entrance before the trucks leaving the works area.	Minimize materials waste impacts from excavated and C&D	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance Land (Miscellaneous Provisions) Ordinance ETWB TCW No. 19/2005	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S7.6	WM7	Contaminated Soil As a precaution, it is recommended that standard good site practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of mitigation measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.	Remediate contaminated soil	Contractor	All construction sites where applicable	Construction phase	Practice Guide for Investigation and Remediation of Contaminated Land	*
S7.6	WM8	Chemical Waste If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	Construction phase	Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	^
S7.6	WM9	General Waste • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. • Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily basis.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S7.6	WM10	Sewage • The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. • Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts.	Minimize production of sewage impacts	Contractor	All construction sites	Construction phase	Waste Disposal Ordinance	^
S7.6	WM11	Topsoil reuse – Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. This is considered a general measure for good site practice.	Good site practice	Contractor/ Project Proponent	Onsite	Construction Phase	ETWB Technical Circular (Works) No. 29/2004	N/A
Waste Management (Operational Waste)								
S7.6	WM1-B	Sewage Sludge Sewage sludge generated from STW is suggested to be treated at the proposed Sludge Treatment Facilities (STF) at Nim Wan or landfill subject to detailed design. Unloading process would be operated in the designated room inside STW which should be enclosed and served by negative pressure by extracting odorous gas to deodorizing unit. The sewage sludge would be delivered by road transport in water tight containers or skips to avoid odour emission during transportation to STF or landfill.	Prevent the odour and health impacts from generated sewage sludge in the STW	Operator of STW	SWHSTW and trucks for sewage sludge transportation	Operation phase	Waste Disposal Ordinance	N/A
Land Contamination								
S 8.4	LC1	Preparation and submission of supplementary Contamination Assessment Plan (CAP) for all inaccessible potentially contaminated sites in 2 NDAs	Verify the land contamination potential before the commencement of construction	Project Proponent / Detailed Design Consultant	All inaccessible Potentially contaminated sites in 2 NDAs as listed in the CAP	After the land is resumed and handed over to the Project Proponent and prior to the	Annex 19 of the TM-EIAO, Guidelines for Assessment of Impact On Sites of Cultural	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
						commencement of SI works	Heritage and Other Impacts (Section 3 : Potential Contaminated Land Issues); Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management; Guidance Notes for Contaminated Land Assessment and Remediation; and Practice Guide for Investigation and Remediation of Contaminated Land Recommendations in Health Risk Assessment	
S 8.4	LC2	Detailed site investigation (SI) for all inaccessible potentially contaminated sites in 2 NDAs	Verify the land contamination potential before the commencement of construction	Project Proponent / Detailed Design Consultant Contractor	All inaccessible Potentially contaminated sites in 2 NDAs as listed in the CAP	After the land is resumed and handed over to the Project Proponent	Ditto	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S 8.5	LC3	Preparation and submission of supplementary Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) for all inaccessible potentially contaminated sites in 2 NDAs to EPD for agreement if land contamination is confirmed	Present the findings of SI and evaluate the potential environmental and human health impacts Recommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if remediation is required	Project Proponent / Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination is confirmed and remediation is required	Ditto	^
S 8.5	LC4	Preparation and submission of Remediation Report to EPD for agreement	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed supplementary CAR and RAP	Project Proponent / Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination is confirmed and remediation is required	Ditto	^
S 8.6	LC5	Re-appraisal of surveyed sites (if they become part of the land requirement for NDA development) that were not identified as potentially contaminated or could not be accessed for visual inspection during the site survey	Verify the land contamination potential due to potential change of land uses before the commencement of construction	Project Proponent / Detailed Design Consultant	All surveyed sites (if they become part of the land requirement for NDA development) that were not identified as Potentially contaminated or could not be accessed for visual inspection during the site survey as listed in the CAP	After the land is resumed and handed over to the Project Proponent	Ditto	^
S 8.7.2 and Appendix 8.4	LC6	Treatment of arsenic-containing soil "Solidification/Stabilization" (S/S) treatment method was proposed for the treatment of arsenic-containing soil. Toxicity Characteristic Leaching Procedure (TCLP) test	To treat the arsenic-containing soil	Government Developer/ Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	TM-EIAO Practice Guide (PG)	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		should be undertaken after S/S in order to ensure that the contaminant will not leach to the environment. Unconfined Compressive Strength (UCS) test should be conducted, and not less than 1MPa should be met prior to the backfilling or stockpiled for future reuse within the study area.					for Investigation and Remediation of Contaminated Land Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management Guidance Notes for Contaminated Land Assessment and Remediation Practice Guide for Investigation and Remediation of Contaminated Land Recommendations in Health Risk Assessment	
S 8.7.2 and Appendix 8.4	LC7	<u>Excavation and Transportation</u> • Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; • In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table;	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	TM-EIAO Practice Guide (PG) for Investigation and Remediation of Contaminated Land	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		• Excavation should be carried out during dry season as far as possible to minimize runoff from excavated soils; • Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of soil to minimize runoff; • Supply of suitable backfill material after excavation, if require; Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or run-off, and truck bodies and tailgates should be sealed to prevent any discharge during transport or during wet season; Speed control for the trucks carrying excavated materials should be enforced; and Vehicle wheel washing facilities at the site's exit points should be established and used.					Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land management Guidance Notes for Contaminated Land Assessment and Remediation Practice Guide for Investigation and Remediation of Contaminated Land Recommendations in Health Risk Assessment	
S 8.7.2 and Appendix 8.4	LC8	<u>Solidification/Stabilization</u> • The loading, unloading, handling, transfer or storage of cement should be carried out in an enclosed system; • Mixing process and other associated material handling activities should be properly scheduled to minimize potential noise impact and dust emission; • The mixing facilities should be sited as far apart as practicable from the nearby noise sensitive receivers; Mixing of soil and cement / water / other additive(s) should be undertaken at a solidification plant to minimize the potential for leaching;	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	The course of treatment	Ditto	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		• Runoff from the solidification / stabilization area should be prevented by constructing a concrete bund along the perimeter of the solidification / stabilization area; • If stockpile of treated soil is required, the stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or site run-off during rainy season; and If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials.						
S 8.7.2 and Appendix 8.4 1	LC9	Safety Measures • Set up a list of safety measures for site workers; • Provide written information and training on safety for site workers; • Keep a log-book and plan showing the zones requiring treatment and clean zones; • Maintain a hygienic working environment; • Avoid dust generation; • Provide face and respiratory protection gear to site workers if necessary; • Provide personal protective clothing (e.g. chemical resistant jackboot, liquid tight gloves) to site workers if necessary; • Provide first aid training and materials to site worker; • Bulk earth moving equipment should be utilized as much as possible to minimize workers' handling and contact of the excavated materials; and Eating, drinking and smoking should not be allowed in the excavation areas and treatment area to avoid inadvertent ingestion of arsenic containing soil.	To minimize the potential adverse effects on health and safety of construction workers	Contractor	KTN NDA	The course of treatment	Occupation Safety and Health Ordinance (OSHO) (Charter 509)	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Landfill Gas Hazard								
S10.6	LFG1	• Underground rooms or void should be avoided as far as practicable in the proposed developments within the Consultation Zone and should be avoided totally in the proposed developments within the MTLL. • Buildings or structures within the MTLL should be at ground level with raised floor slabs which are less prone to gas ingress. • For the high risk category, the use of active control of gas, including barriers and detection systems are recommended. These measures include the control of gas by mechanical means e.g. ventilation of spaces with air to dilute gas, or extraction of gas using fans or blowers. • For the low risk category, the provision of barriers to the movement of gas is recommended. Measures recommended include the use of membranes in floors or walls, or in trenches, coupled with high permeability vents such as nofines gravel in trenches or voids/permeable layers below structures. • The need and practicality of incorporating such measures should be reviewed in the detailed Qualitative LFG Hazards Assessment (QLFGHA) during the detailed design stage for developments within the 250m Consultation Zone and within MTLL. Recommendations on the detailed precautionary and protection measures to be adopted should be given in the QLFGHA.	To minimize the risk of LFG hazards to occupants within MTLL and its 250m Consultation Zone	Government / Developer/ Detailed Design Consultant within MTLL and its 250m Consultation Zone	Buildings within MTLL and its 250m Consultation Zone	Detailed design phase	Landfill Gas Hazard Assessment Guidance Note	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		• The design and construction method of the proposed development within MTLL (i.e. the proposed recreational area in site E1-1) should be provided to EPD for agreement in the design stage to ensure compatibility with the landfill restoration facilities and aftercare works within MTLL, such that these facilities and works will not be affected by the construction or operation of the proposed development.						
S10.6	LFG2	• During all works, safety procedures should be implemented to minimize the risks of fires and explosions, asphyxiation of workers (especially in confined space) and toxicity effects resulting from contact with contaminated soils and groundwater. • Safety officers, specifically trained with regard to LFG and leachate related hazards and the appropriate actions to take in adverse circumstances, should be present on all worksites throughout the works. • All personnel who work on site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it. • Those staff who work in, or have responsibility for "at risk" areas, including bore pilling and excavation works, should receive appropriate training on working in areas susceptible to LFG. • Enhanced personal hygiene practices including washing thoroughly after working and eating only in "clean" areas should be adopted where contact may have been made with any groundwater which is thought to be contaminated with leachate. • Any offices / quarters set up on site should take precautions against LFG ingress, such as being raised off the ground. Other storage premizes, e.g. shipping containers, where this is not possible should be well ventilated prior to entry. • Adequate precautions to prevent the accumulation of LFG under site buildings and within storage shed	To minimize the risk of LFG hazards to the staff and visitors within MTLL and its 250m Consultation Zone	Contractor	Construction sites within MTLL and its 250m Consultation Zone	Construction phase	Landfill Gas Hazard Assessment Guidance Note	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		should be taken by raising buildings off the ground where appropriate and "airing" storage containers prior to entry by personnel and ensuring adequate ventilation at all times. • Smoking and naked flames should be prohibited within confined spaces. "No Smoking" and "No Naked Flame" notices in Chinese and English should be posted prominently around the construction site. Safety notices should be posted warning of the potential hazards. • Welding, flame-cutting or other hot works may only be carried out in confined spaces when controlled by a "permit to work" procedure, properly authorized by the Safety Officer. The permit to work procedure should set down clearly the requirements for continuous monitoring of methane, carbon dioxide and oxygen throughout the period during which the hot works are in progress. The procedure should also require the presence of an appropriately qualified person who shall be responsible for reviewing the gas measurements as they are made, and who shall have executive responsibility for suspending the work in the event of unacceptable or hazardous conditions. Only those workers who are appropriately trained and fully aware of the potentially hazardous conditions which may arise should be permitted to carry out hot works in confined areas. • During the construction works, adequate fire extinguishers and breathing apparatus sets should be made available on site and appropriate training given in their use. • Ongoing gas monitoring should be considered for offices, stores etc set up on site.						
S10.6	LFG3	Utility Companies • The developers should make the utility companies aware of the location and features of the site within the Consultation	To minimize the risk of LFG hazards to the occupants, maintenance personnel, visitors and	Government / Developer within MTLL and its 250m Consultation	Buildings within MTLL and its 250m Consultation Zone	Operation phase	Landfill Gas Hazard Assessment Guidance Note	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		Zone during the respective detailed design stage as part of the QLFGHA. • The utilities companies should have a responsibility to train and ensure their staff to take appropriate precautions at all times when entering enclosed spaces or plant rooms. • Should utility installation be required in site E1-1, the developers should make the utility companies aware of the potential constraints imposed by the landfill restoration facilities and aftercare works to ensure these facilities and works will remain unaffected. Appropriate precautionary measures against landfill gas should also be taken should utility installation be required within the MTLL. Building Management The management committee of the building estate will hold a special responsibility to ensure that the occupants of the building, its staff and maintenance workers are protected from LFG and that visitors to the site are also made aware as to the dangers and the precautions required to be taken. • Of primary importance to satisfactorily upholding this responsibility will be to ensure that strict procedures for maintaining control over all temporary and /or permanent works proposed at the site are reviewed with regard to the LFG hazard. This needs to be accompanied by a comprehensive contingency plan in case of incidents, including liaison with EPD officers, Fire Services Department, Landfill Restoration Contractors and others, as necessary. • All construction and maintenance (including utilities) personnel working at the site should be made aware of the hazards of LFG and its possible presence on site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on LFG hazards and the designs and procedural means by which these hazards are being minimized on site. In addition, entry to	other users within MTLL and its 250m Consultation Zone	Zone				

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		confined spaces such as refuse/store rooms, drainage manholes etc. should be preceded by a period of "airing" the space by opening the door widely allowing fresh air to enter. Where appropriate, monitoring of gas should also precede entry. • Any proposed modifications or additions to the building structure should be subject to a further assessment of LFG hazard, particularly in areas where a gas membrane has been installed. Any penetrations of the membrane must be repaired as soon as possible after detection or works completion using similar products. • The building management company should also make arrangement with Landfill Restoration Contractor so that they are advised of all situations which may potentially threaten the safety of the building occupants resulting from any accidents or failures at the landfill site. The building management company should also have available suitable gas monitoring equipment for any ad hoc investigations necessary relating to LFG and be in a position to undertake any future routine monitoring of gas which may be considered necessary soloing completion of the defects correction period. • To ensure that all the above protection and precautionary measures and issues pertaining to LFG are properly and consistently addressed by future users and owners of the site, it is recommended that a comprehensive LFG hazard management system be developed by the owner of the building or its property management agency. The system should be developed by the developers of the sites as part of the QLFGHA before the occupation of the building and implemented during its operational phase.						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Cultural Heritage (Pre-construction Phase)								
S11.6.1	CH1	Undertaking Further Archaeological Survey to Cover the Outstanding Areas Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located in the areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified Archaeologist	In the not-yet-surveyed-areas with medium archaeological potential located in the areas within Areas D1-11, A3-5, A3-6, B1-1, and B1-7,	After land resumption but before construction	EIA recommendation and AMO CHIA Guideline	N/A
S11.6.1	CH2	Undertaking Survey-cum-Rescue Excavation A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	In KTN NDA, for Site 3 and In FLN NDA for Site 5.	After land resumption but before construction commencement of the zones	EIA recommendation and AMO Guidelines for Archaeological Reports; Guideline for Handling of Archaeological Finds and Archives	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S11.6.1	CH3	<u>Undertaking Preservation in-situ for Site 7</u> Preservation in-situ of the cultivation deposits in Site 7 is proposed. If disturbance to the site by the design of the Central Park is unavoidable, further archaeological survey should be conducted after land resumption prior to the pre-construction stage to assess the feasibility to incorporate Site 7 into the design of the development plan of the proposed zone. Appropriate followup actions, including preservation of the significant archaeological deposits in-situ in the Central Park, would then be considered with the consent of AMO. The recommended mitigation measure of preservation in-situ with further archaeological survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	To preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Site 7 in FLN NDA	After land resumption prior to preconstruction stage of the proposed Central Park (Area C2-8, Zoning O)	EIA recommendation and AMO Guidelines for Archaeological Reports; Guideline for Handling of Archaeological Finds and Archives	
S11.6.1	CH4	<u>Undertaking Induction Training</u> Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spots A, D, F to H. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Spots A, D, F to H	Before the commencement of the excavation works and before site staff are deployed on site		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S11.6.1	CH5	Undertaking Archaeological Impact Assessment before Construction at A1 It is recommended that an Archaeological Impact Assessment to be conducted in the impacted area in Area B1-8 and B1-9 at A1 (Sheung Shui Wa Shan Site of Archaeological Interest) after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Area B1-8 and B1-9 zoned as R4 and R3 in A1	After land resumption but before construction	EIA recommendation and AMO Guidelines for Archaeological Reports; Guideline for Handling of Archaeological Finds and Archives	N/A
S11.6.1	CH6	Undertaking Archaeological Impact Assessment before Construction within A1 but except Area B1-8 and B1-9 Should there be any development work within the Sheung Shui Wa Shan Site of Archaeological Interest, it is recommended that an Archaeological Impact Assessment is required after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Area within A1 except Area B1-8 and B1-9 in R4 &R3 zoning	After land resumption but before construction	EIA recommend and AMO Guidelin Archaeological Re Guideline for Handling of Archaeological Finds and Archives	N/A
S11.6.2	CH7	Undertaking baseline condition survey and baseline vibration impact assessment In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s could be adopted for graded historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.	To minimize the vibration impacts during pre-construction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	G303 and G308	Preconstruction stage before commencement of construction works during Schedule 3 study	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S11.6.2	CH8	Undertaking baseline condition survey and baseline vibration impact assessment In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historic buildings and historic buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.	To minimize the vibration impacts during pre-construction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	KT57, FL05, FL18, and FL22.	Preconstruction stage before commencement of construction works	EIAO-TM	N/A
S11.6.2	CH9	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	Ancillary structures of G303, HKT01, HKT02, Entrance Gate of HKT03, HKT04, KT01 to KT10, KT13, KT36, KT39, KT40, KT41, KT43, KT45, KT47, KT50, KT54, KT62 to KT63, KT69, FL01, FL16, and FL35	Prior to Removal / Relocation of features before commencement of construction works during Schedule 3 study	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S11.6.2	CH10	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	KT12 and KT61	Prior to Removal / Relocation of features before commencement of construction works	EIAO-TM	N/A
S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	HKT01, HKT02, Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	EIAO-TM	N/A
S11.6.2	CH12	Drainage System and Access Route Design For the retained built heritage items in developable area, drainage system and access route would be designed to prevent the persevered flooding and maintain the accessibility to the built heritage.	To prevent the persevered flooding and maintain the accessibility to the built heritage	Contractor /Detailed Design consultant	The retained built heritage items	Preconstruction phase	EIAO-TM	N/A
Cultural Heritage (Construction Phase)								
S11.6.1	CH13	Inform Upon Archaeological Discovery Pursuant to the Antiquities and Monuments Ordinance, the construction Contractor should inform the AMO immediately in case of discovery of antiquities or	Special attention should be given to areas evaluated to have archaeological	Contractor	All soil excavation works	Immediately upon discovery during excavation works	EIA recommend and AMO Guideline	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		supposed antiquities in the course of excavation works in construction phase.	potential or significance.					
S11.6.2	CH14	Watertable Monitoring Since the construction works and development activities may induce change in the watertable. It is recommended the Contractor should ensure that the change of watertable induced by the construction works and development activities will not result in settlement of built heritage.	To minimize the potential impacts to the built heritage items by the change of watertable induced by the works during the Construction phase	Contractor	Within NDAs	Construction phase	EIAO-TM	N/A
S11.6.2	CH15	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.9	LV1	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor/ Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment			^
S.12.9 MM1	LV2	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government Developer/ Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S.12.9 MM2	LV3	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau, Greening, Landscaping & Tree Management Section, Guidelines on Greening of Noise Barriers (Apr12) Greening, Landscape and Tree Management Section (GLTM) of the Development Bureau's Guidelines on Greening of Noise	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
							Barriers (April 2012)	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S12.9 MM14.4	LV4	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor/	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	Prior to Construction and Construction Phase	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural streams/rivers from adverse impacts arising from construction works	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S.12.9 MM3	LV5	Open Space Provision - the principles adopted in the RODP planning ensure that public open space systems are incorporated. All requirements for open space areas stipulated in the planning documents for the formulation of the Preliminary Layout Plan should be adhered to.	Reprovision of open space. Enhance visual amenity of the area and improve the overall landscape character	Government Developer/ Detailed Design Consultant/ Contractor/	Onsite as stipulated in the planning documents for the formulation of the Preliminary Layout Plan	Prior to Construction and Construction Phase	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S.12.9 MM4	LV6	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government Developer/ Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S.12.9 MM5	LV7	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where Suitable for transplantation	Government Developer/ Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S.12.9 MM6	LV8	tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government Developer/ Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	^
S.12.9 MM7	LV9	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC	Compensate for trees and shrubs lost due to the Project.	Government Developer/ Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested..		/		Phase		
S.12.9 MM8	LV10	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum,*	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii. The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.						
S.12.9 MM9	LV11	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and facilities	Government Developer/ Detailed Design Consultant/ Contractor /	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.9 MM10	LV12	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government Developer/ Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A
S.12.9 MM11	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding	Government / Developer/ Detailed Design	Along roads, around suitable built structures, or around VSRs to contain their view	Prior to Construction, Construction	ETWBTC 3/2006	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
			environment and create a pleasant pedestrian environment	Consultant/ Contractor	out to the NDA structures.			
S.12.9 MM12	LV14	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government Developer/ Detailed Design Consultant/ Contractor /	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Development Bureau TCW No. 2/2013, Greening on Footbridges and Flyovers; Development Bureau TCW No. 2/2012 – Allocation of Space for Quality Greening on Roads; HQ/GN/15 - Guidelines for Greening Works along Highways	N/A
S.12.9 MM13 & EIA Annex 13	LV15	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite possible. consider locations where Otherwise offsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works.	^
S.12.9 MM14.1	LV16	Reprovision of Natural Stream – Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No.	Achieve a natural stream, similar to existing, including wetland planting	Government / Developer/ Detailed Design	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San	Prior to Construction, Construction Phase &	ETWB TCW No. 5/2005 – Protection of natural streams/rivers from	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used. Two short stretches of the Ma Tso Lung Stream will be affected by Project in the KTN NDA; by the LMC Eastern Connection Road on the western border of Site F1-3 and further upstream by Site E-2. At both these locations, the stream will be reprovisioned and maintain the flow between unaffected sections of the stream. The reprovisioned stream will be provided with a natural bed and banks, as well as having an area of marsh/ pool next to it and trees and shrubs further from the banks. (See E2, E14 and E24 also)	provision for embankments	Consultant/ Contractor	Tsuen	Maintenance in Operation Phase	adverse impacts arising from construction works; DSD Practice Note No.1/2005, Guidelines on Environmental Considerations for	
S12.9 MM14.2	LV17	Stream Buffer Planting –Providing a minimum 10 m buffer with planting (where there is a general presumption against any development taking place) along streams where they flow close to developments, confers a degree of protection to the stream course and its associated vegetation. For the stream at Ma Tso Lung in KTN NDA, the middle and upper sections will be designated as Green Belt zone where there is a general presumption against development as buffer to the stream. For the stream at Siu Hang San Tsuen in FLN NDA, within the NDA boundary much of the stream would be located underneath the viaduct for the proposed Fanling Bypass. To the south of the viaduct the stream flows through an Open Space area D1-3. In this Open Space zone a 10m buffer is proposed in which natural vegetation will be retained and enhanced and human activities will be limited in order to avoid direct impacts to the stream bed and to minimize potential indirect impacts to the stream and riparian corridor. (See E3 also)	Protect natural streams	Government / Developer/ Detailed Design Consultant/ Contractor	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works; DSD Practice Note No.1/2005, Guidelines on Environmental Considerations for River Channel Design	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S12.9 MM14.3	LV18	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Developer/ Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design	N/A
S12.9 MM15	LV19	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority		E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase	N/A
S.12.9 MM16	LV20	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase		^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S.12.9 MM17	LV21	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Developer/ Contractor	Throughout NDAs	Construction and Operation Phases		^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)								
Ecology (Prior to Construction Phase or throughout the project)								
S. 13.9	E1	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase.	Establishment of bamboo clump of species, size and number suitable for nesting ardeids. Additional measures to attract ardeids to be detailed in EHCMP. Woodland planting and establishment requirements to be detailed in WPMP. EIAO-TM.	N/A
S.13.9	E2	Detailed design of development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones F1-2 and F1-3 and detailed design of LMC Loop Eastern Connection Road with restoration of diverted stream and riparian corridor, permanent barrier and underpass on the at-grade section Compensation for the loss of seasonally wet grassland at Ma Tso Lung by habitat restoration and enhancement along diverted section of Ma Tso Lung Stream	Minimize impacts on Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream and riparian corridor of importance to species of conservation significance.	Project Proponent/ Detailed Design Consultant. (design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas F1-2 and F1-3 and LMC Loop Eastern Connection Road.	Detailed design and construction phases.	TM-EIAO; ETWBTCW 5/2005.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S13.9	E3	Detailed design, implementation and management of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space zone D1-3, Fanling Bypass to cross stream on viaduct.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	PlanD, Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	FLN area D1-3.	Detailed design, construction and operation phases.	TM-EIAO Layout Plan	N/A
S.13.9	E4	Long Valley Nature Park (LVNP) designation, design and implementation. Enhancement of non-wetland habitats in LVNP. Planning for the advanced provision of alternative foraging habitat along main river channels for large waterbirds.	Compensate for wetland loss arising from the project and protection of Long Valley from adverse ecological impacts including provision of additional/alternative habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Project Proponent/ Detailed Design Consultant (Long Valley Nature Park Habitat Creation & Management Plan)	Long Valley KTN area C1-9 and any suitable areas to be identified during the planning stage.	Detailed design phase.	No net loss in wetland function: design requirements and mitigation targets for habitats and species to be detailed in LVNP HCMP. TM-EIAO	N/A
S13.9	E5	Stringent planning control requirements in Long Valley north and west of Sheung Yue River, including Ho Sheung Heung egretry.	Protect these wetland areas from indirect impacts to habitats and fauna especially breeding ardeids foraging in these areas and utilizing flight-lines from Ho Sheung Heung egretry. Avoid habitat loss and disturbance to fauna of conservation significance,	PlanD.	KTN areas C2-1 and C2-2, Ho Sheung Heung egretry and areas north of Long Valley along the Ng Tung River to the Shenzhen River.	Detailed design phase.	Layout Plan	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
			especially nesting ardeids Maintenance of ecological linkages with Deep Bay ecosystem and avoidance of severance of these linkages, especially for waterbirds.					
S13.9	E6	Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.	Minimize disturbance to large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels. Maintain ecological linkages within NDA Project Area and between Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Areas along Ng Tung, Sheung Yue and Shek Sheung Rivers.	Detailed design, construction and operational phases.	Layout Plan, TM-EIAO	^
S.13.9	E7	Building setback and mounding in locations near Long Valley. KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).	Minimization of disturbance impacts to fauna using Long Valley.	PlanD	KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries.	Detailed design phase.	Layout Plan	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S13.9	E8	Preparation and implementation of Guidelines for building design measures to minimize mortality and light and glare impacts to fauna. Guidelines to address the following measures: Use opaque, non-transparent, non-reflective noise barriers for all developments associated with the Project. Measures to include the following: • Fritting, or the placement of ceramic lines or dots on glass, which creates a visual barrier to birds and reduces air conditioning loads by lowering heat gain, while still allowing light transmission for interior spaces. It is most successful when the frits are applied on the outside surface. Frosted glass has similar effects; • Angled glass to be used only for smaller panes in buildings with a limited amount of glass; • The use of glass that reflects UV light (primarily visible to birds, but not to humans) to reduce collisions; • Film and art treatment allow glass surfaces to be used a medium of expression, often related to the nature and use of the building, as well indicating to birds their impenetrability; • Lightweight external screens can be added to windows or become a façade element of larger buildings, and are suitable where non-operable windows are	Minimize mortality and disturbance impacts on fauna, especially mammals and birds.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant	Near Long Valley	Detailed design phase.	Layout Plan	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		prevalent, which is often the case in modern buildings in HK.						
	E9	Not used						
S13.8	E10	Review development footprint and layout of proposed developments in KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and shrubland at Crest Hill.	Minimize loss of secondary woodland and shrubland of ecological value.	Project Proponent/ Detailed Design Consultant	KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and Crest Hill	Detailed design phase	Layout Plan; TM-EIAO.	N/A
S13.9	E11	No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north or east of KTN D1-5 and east of D1-9 and C2-3, construction hours restricted to 09.00 to 17.30 during 1 March to 31 July on new pedestrian bridge over the Sheung Yue River, new pedestrian bridge over the tidal section of the Ng Tung River and existing bridge between KTN areas C2-2 and C1-8. Review Design and construction methods for all bridges especially those on the Sheung Yue and tidal Ng Tung Rivers and adopt methods which minimize impacts on Long Valley and the rivers, and disturbance and fragmentation impacts on fauna.	Minimize disturbance impacts (including cumulative impacts with cycle track project) to flightlines of breeding ardeids.	Project Proponent/ Detailed Design Consultant/ Contractor	Along and within Sheung Yue and Ng Tung Rivers, Long Valley, Long Valley and watercourse upstream areas including KTN area B3-12	Detailed design/ construction phase.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		No overlap in construction of bridges over main river channels. Measures to ensure no hydrological disruption to Long Valley Watercourse and water supply to Long Valley to be designed at the detailed design stage for the rechannelisation of the Long Valley Watercourse and the development of areas through which it passes, including KTN area B3-12. Contingency plan to address any disruption to be included in LVNP HCMP. Avoid removal or interference with screen planting undertaken under the Construction of Cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.						
Ecology (Construction Phase)								
S. 13.9	E12	Compensatory egretry habitat provision and establishment. Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate. Phasing of works near and within Man Kam To Road Egretry outside breeding season	Compensate for loss of Man Kam To Road egretry habitat. Avoid mortality of breeding egrets	Project Proponent/ Detailed Design Consultant/ Contractor	FLN area A1-7 500m from Man Kam To Road Egretry.	Construction phase.	TM-EIAO; establishment of bamboo clump of species, size and numbers suitable for nesting ardeids; if no occupation initially, utilize decoys (models, vocalisations) to encourage occupation.	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S13.9	E13	Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and adopt measures which minimize impacts on rivers and disturbance and fragmentation impacts on fauna. No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north and east of KTN area D1-5 and east of D1-9 and C2-3 and restriction of working hours on new pedestrian bridges over the Sheung Yue River and tidal Ng Tung River to 09.00 to 17.30 during the ardeid breeding season (1 March to 31 July) Provision of alternative foraging habitat along main river channels for large waterbirds.	Minimize impacts on rivers and disturbance and fragmentation impacts on fauna.	Project Proponent/ Detailed Design Consultant/ Contractor	Along and within the Sheung Yue, Ng Tung and Shek Sheung Rivers	Detailed design and construction phases.	TM-EIAO.	^
S13.9	E14	Buffer zone of 15-30m as appropriate on both sides (not less than 45m total width) of Ma Tso Lung Stream north of the point where it is crossed by the LMC Loop Eastern Connection Road, and Ma Tso Lung Stream diversion during construction of the LMC Loop Eastern Connection Road; development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones in KTN areas F1-2 and F1-3 to be set back beyond buffer. Construction and maintenance of permanent 1.2m high solid faunal barrier at all at-grade sections of LMC Loop eastern connection Road north of junction with road D4 within 15-30m as appropriate of Ma Tso Lung Stream buffer and construction of faunal underpass beneath road. Compensation for the loss of seasonally wet grassland at Ma Tso Lung by habitat restoration and enhancement along diverted section of Ma Tso Lung Stream.	Minimize impacts direct and indirect impacts of habitat loss, disturbance, pollution and fragmentation on Ma Tso Lung Stream and marsh and riparian corridor of importance to species of conservation significance.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant/ Contractor. (Design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas H1-1, F12 and F1-3 and Lok Ma Chau Loop Eastern Connection Road.	Detailed design and construction phases.	Layout Plan	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S.13.9	E15	Creation and enhancement of proposed Long Valley Nature Park and creation and enhancement of wetland and buffer planting within LVNP.	Compensate for wetland loss arising from the project.	Project Proponent/ Contractor (LVNP Detailed Habitat Creation & Management Plan)	Long Valley, (KTN area C1-9).	Construction phase.	TM-EIAO; no net loss in wetland function: design requirements and mitigation targets for habitats and species to be detailed in LVNP Habitat Creation & Management Plan.	^
S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; provision of Open Space areas and development areas along river corridors; Design and erection of 2m high solid dull green site barrier fence between river channel and any active works area along or adjacent to Ng Tung, Sheung Yue and Shek Sheung Rivers. Ng Tung, Sheung Yue and Shek Sheung Rivers screen planting.	Minimize disturbance to waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Detailed Design Consultant/ Contractor	Ng Tung, Sheung Yue and Shek Sheung Rivers	Detailed design and Construction phases.	TM-EIAO.	^
S.13.9	E17	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas, including along any roads adjacent to or penetrating into areas/habitats of ecological importance. Erection of a 2m high dull green site barrier fence at the edge of the works area or 30m from Ma Tso Lung Stream and tributaries, whichever distance is the greater. Prevention of dust impact from active works areas from sites adjacent to Ho Sheung	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flightline impacts to birds, especially breeding ardeids.	Contractor	Interface between areas/habitats/fauna/ flora of ecological importance (e.g. KTN areas B1-3, C1-5, C16, C1-9, C2-2, C2-4, C2-5, D1-8, E1-8, G13, H1-1, Ma Tso Lung Stream and tributaries; FLN areas A1-3, A1-7 and A1-9) and works areas; and around any works areas north of the Fanling Bypass and north of the Ng Tung River west of the western	Construction phase.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		Heung and Crest Hill woodland and shrubland in KTN area D1-7, D1-11 and G1-3.			terminus of the Fanling Bypass. Riparian corridor of Ma Tso Lung Stream and tributaries.			
S13.9	E18	Compensatory woodland planting, management and maintenance.	Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent Contractor	KTN areas E1-8 and G1-3.	Construction phase.	TM-EIAO.	N/A
S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for all construction sites. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Contractor	All construction sites	Construction phase.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S13.9	E20	Pre-site clearance check for presence of flora or fauna of conservation significance and bat roosts. If any are found, measures should be proposed and implemented to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance check on all construction sites and pre –works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of protected plant species/specimens of conservation significance. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance of construction sites in Crest Hill area, KTN areas D1-7, D1-11 and G1-5 (where Eurasian Hobby was recorded) and on Cheung Po Tau, FLN area A3-1 (where Grey Nightjar was recorded) for presence of any breeding birds/breeding sites. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement.	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Formulate and implement mitigation measures to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation.	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	TM-EIAO.	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		Pre-site clearance check on all construction sites for presence of Chinese Bullfrog, translocation to suitable areas including LVNP.						
S13.9	E21	Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of flora or fauna of conservation significance and bat roosts. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance check on all construction sites for presence of reptile species of conservation significance, capture and translocate to receptor site; review translocation options in respect to species in Ma Tso Lung area and determine whether release locally or elsewhere is appropriate. Seek agreement of relevant authorities including AFCD in respect of proposed measures then implement. Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Consider and implement adjustments to avoid, minimize or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation.	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		activities for presence of Small Snakehead and Sommaniathelphusa zanklon. Capture any Sommaniathelphusa zanklon found and translocate to Ma Tso Lung Stream/ other suitable areas including LVNP.						
S13.9	E22	Prevention of dust, run-off and pollutants impacting Deep Bay catchment area and areas of ecological importance.	Avoid increase to pollution entering ecologically sensitive Deep Bay ecosystem.	Contractor	All construction sites	Construction	TM-EIAO	^
Ecology (Operational Phase)								
S.13.9	E23	Compensatory egretry habitat establishment and maintenance.	Compensate for loss of Man Kam To Road egretry habitat.	Project Proponent / Contractor Maintenance Authority	FLN area A1-7.	Operation phase.	Maintenance of bamboo clump suitable for nesting ardeids; if no occupation initially, utilize decoys (models, vocalisations) to encourage occupation.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S.13.9	E24	Buffer zone of 15 - 30m on both sides of Ma Tso Lung Stream, Ma Tso Lung San Tsuen and tributaries. Maintenance of permanent 1.2m high solid fauna barrier at all at- grade sections of LMC Loop Eastern Connection Road north of junction with road DP4 and maintenance of faunal underpass.	Minimize impacts on Ma Tso Lung Stream and riparian corridor of importance to species of conservation significance.	Government Developer	KTN areas H1-1, F12 and F1-3 and Lok Ma Chau Loop link road.	Operation phase.	TM-EIAO.	N/A
S.13.9	E25	Long Valley Nature Park habitat establishment and maintenance.	Compensate for wetland loss arising from the Project.	Project Proponent / Contractor / AFCD	Long Valley (KTN area C1-9)	Operation phase.	TM-EIAO; no net loss in wetland function: design requirements and mitigation targets for habitats and species detailed in LVNP Habitat Creation & Management Plan.	N/A
S.13.9	E26	Management and maintenance of Ng Tung, Sheung Yue and Shek Sheung Rivers screen planting and Open Space areas and development areas along river corridors.	Minimize disturbance to waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Maintenance Authority	Ng Tung, Sheung Yue and Shek Sheung Rivers.	Operation phase.	TM-EIAO.	N/A
S13.9	E27	Compensatory woodland planting, management and maintenance.	Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Maintenance Authority	KTN areas E1-8 and G1-3.	Operational phase.	TM-EIAO.	N/A
S13.9	E28	Use opaque, non-transparent, non-reflective noise barriers for all roads. Unnecessary lighting should be avoided. Potential impacts of nocturnal avian collision with buildings should be minimized by not creating sky glow from the use of night-time lighting at or near the top of buildings or other structures. In addition to avoiding uplighting, light spillage should be minimized, while green and blue lights should be used where possible.	Minimize mortality impacts on birds.	Government Developer	Permanent.	Operation phase.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		As far as possible, lights should be controlled by motion sensors, and operations should be managed in such a way as reduce or eliminate night lighting near windows.						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
Noise Impacts (Operational Phase)								
S4.9	N1-DP1	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • KTN-NB42: Approx. 545m long, 3m high NB; • KTN-NB43: Approx. 525m long, 3m high NB; • KTN-NB44: Approx. 255m long, 5m high NB; • KTN-NB45: Approx. 340m long, 5m high NB; • KTN-NB46: Approx. 380m long, 5m high NB; • KTN-NB47: Approx. 445m long , 3m high NB; • KTN-NB49: Approx. 375m long, 5m high NB; • KTN-NB50: Approx. 360m long CNB; • KTN-NB51: Approx. 325m long CNB; • KTN-NB53: Approx. 60m long CNB; • KTN-NB54: Approx. 125m long, 5m high NB; • KTN-NB56: Approx. 160m long CNB; • KTN-NB57: Approx. 535m long, 5m high NB; • KTN-NB58: Approx. 675m long CNB; • KTN-NB59: Approx. 115m long CNB; • KTN-NB60: Approx. 840m long CNB; • KTN-NB61: Approx. 1105m long CNB; • KTN-NB62: Approx. 575m long CNB; • KTN-NB64: Approx. 670m long CNB; • KTN-NB66: Approx. 340m long CNB; • KTN-NB67: Approx. 330m long CNB; • KTN-NB68: Approx. 210m long CNB; • KTN-NB77: Approx. 320m Long, 3m high NB; • KTN-SE10: Approx. 125m long SE with opening to south direction; • KTN-FE04: Approx. 195m long FE; • KTN-FE05: Approx. 165m long FE	Control operational airborne noise due to road traffic	Project Proponent/ Contractor	Refer to Appendix 5-1 of the EIA	Prior to operation of the Project	Annex 5, TM-EIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
Water Quality Impacts (Operational Phase)								
S5.8	W1-DP1	Road runoff In order to ensure the sand/silt traps removal efficiencies, the following measures should be implemented: • The sand/silt traps should be regularly cleaned to prevent the build-up of sediments that could adversely affect the performance of the traps; and • Storm drains and culverts should be cleaned at the end of the dry season, prior to the commencement of the wet season to remove any deposited sediments that could be eroded during the highly turbulent conditions present during first flush. In addition, the following measures should be implemented: • The sewer system should be designed to adequately cater for the projected sewage flows and loads to avoid the necessity for expedient connections to storm drains; and • Oil/grease traps should be installed in areas where such substances could be present in surface run-off, such as along roads, around petrol stations, workshops, food markets and restaurants.	Control water quality impact	Project Proponent / Detailed Design Consultant, Operator	All road works	Detailed design phase, Operation phase	WPCO, EIAO, TMEIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
Cultural Heritage (Pre-construction Phase)								
S11.6.2	CH1DP1	Undertaking baseline condition survey and baseline vibration impact assessment In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historic buildings and historic buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.	To minimize the vibration impacts during pre-construction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	G202 and HKT03 (Main Building)	Preconstruction stage before commencement of construction works	EIAO-TM	N/A
S11.6.2	CH2DP1	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendents of these features will be carried out the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	HKT08 and Entrance Gate of HKT03	Prior to Removal / Relocation of features before commencement of construction works	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S11.6.2	CH3-DP1	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	EIAO-TM	N/A
Cultural Heritage (Construction Phase)								
S11.6.2	CH4-DP1	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment,	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.A9	LV1-DP1	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short-term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor/	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		N/A
S.12.A9 MM1	LV2-DP1	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

S.12.A9 MM2	LV3-DP1	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau, Greening, Landscaping & Tree Management Section, Guidelines on Greening of Noise Barriers (Apr12) Greening, Landscape and Tree Management Section (GLTM) of the Development	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
							Bureau's Guidelines on Greening of Noise Barriers (April 2012)	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.12.A9 MM14.4	LV4-DP1	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	Prior to Construction and Construction Phase	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural streams/rivers from adverse impacts arising from construction works	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.12.A9 MM4	LV5-DP1	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.12.A9 MM5	LV6-DP1	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.12.A9 MM6	LV7-DP1	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011- Technical Guidelines on Landscape Treatment for Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.12.A9 MM7	LV8-DP1	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested..	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

S.12.A9 MM8	LV9-DP1	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.* The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A
S.12.A9 MM9	LV10DP1	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.12.A9 MM11	LV11DP1	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
S.12.A9 MM12	LV12DP1	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government / Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Development Bureau TCW No. 2/2013, Greening on Footbridges and Flyovers; Development Bureau TCW No. 2/2012 – Allocation of Space for Quality Greening on Roads; HQ/GN/15 - Guidelines for Greening Works along Highways	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.12.A9 MM13 & EIA Annex 13	LV13DP1	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works.	N/A
S.12.A9 MM14.3	LV14DP1	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
Landscape and Visual (Construction)								
S.12.A9 MM16	LV15DP1	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase		N/A
S.12.A9 MM17	LV16DP1	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases		N/A
Ecology (Construction Phase)								

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP1 - San Tin Highway and Fanling Highway Kwu Tung Section Widening (between San Tin Interchange and Po Shek Wu Interchange) (Major Improvement)								
S.13.9	E1-DP1	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flightline impacts to birds, especially breeding ardeids.	Contractor	South side of any works areas south of the current Fanling Highway to the west of the point where the Highway is immediately to the north of Europa Garden.	Construction phase.	TM-EIAO.	N/A
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E2-DP1	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor/ Maintenance Authority	Throughout.	Detailed design phase, Construction phase and Operation phase.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
Noise Impacts (Operational Phase)								
S4.9	N1-DP2	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • KTN-NB52: Approx. 75m long CNB; • KTN-NB55: Approx. 145m long CNB; • KTN-NB-63 Approx. 380m long CNB; • KTN-SE-09: Approx. 85m long SE with opening to south direction	Control operational airborne noise due to road traffic	Contractor Project Proponent	Refer to Appendix 5-1	Prior to operation of the Project	Annex 5, TM-EIAO	N/A
Water Quality Impacts (Operational Phase)								
S5.8	W1-DP2	<u>Road runoff</u> In order to ensure the sand/silt traps removal efficiencies, the following measures should be implemented: • The sand/silt traps should be regularly cleaned to prevent the build-up of sediments that could adversely affect the performance of the traps; and • Storm drains and culverts should be cleaned at the end of the dry season, prior to the commencement of the wet season to remove any deposited sediments that could be eroded during	Control water quality impact	Project Proponent / Detailed Design Consultant, Operator	All road works	Detailed design phase, Operation phase	WPCO, EIAO, TMEIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		the highly turbulent conditions present during first flush. In addition, the following measures should be implemented: • The sewer system should be designed to adequately cater for the projected sewage flows and loads to avoid the necessity for expedient connections to storm drains; and • Oil/grease traps should be installed in areas where such substances could be present in surface run-off, such as along roads, around petrol stations, workshops, food markets and restaurants.						
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phase)								
S.12.A9	LV1-DP2	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs.	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		N/A
S.12.A9 MM1	LV2-DP2	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.		Contractor				
S.12.A9 MM2	LV3-DP2	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau,	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.					Greening, Landscaping & Tree Management Section, Guidelines on Greening of Noise Barriers (Apr12) Greening, Landscape and Tree Management Section (GLTM) of the Development Bureau's Guidelines on Greening of Noise Barriers (April 2012)	
S.12.A9 MM14.4	LV4-DP2	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	Prior to Construction and Construction Phase	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		footings or other structures are placed in the stream. • Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.					natural streams/rivers from adverse impacts arising from construction works	
S.12.A9 MM4	LV5-DP2	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
S.12.A9 MM5	LV6-DP2	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					Works under Highways Department's Vegetation Maintenance Ambit	
S.12.A9 MM6	LV7-DP2	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes						
S.12.A9 MM7	LV8-DP2	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested..	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A
S.12.A9 MM8	LV9-DP2	Woodland Compensatory Planting – Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.* The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and		Authority				

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.						
S.12.A9 MM9	LV10-DP2	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.A9 MM11	LV11-DP2	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
S.12.A9 MM12	LV12-DP2	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics.	To soften the hard, straight edges and provide greening along roads.	Government / Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Development Bureau TCW No. 2/2013, Greening on Footbridges and Flyovers; Development Bureau TCW No. 2/2012 – Allocation of Space for Quality Greening on Roads; HQ/GN/15 - Guidelines for Greening Works along Highways	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)						
S.12.A9 MM13 & EIA Annex 13	LV13-DP2	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works.	N/A
S.12.A9 MM14.3	LV14-DP2	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.						
S.12.A9 MM15	LV15-DP2	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase		N/A
Landscape and Visual (Construction)								
S.12.A9 MM16	LV16-DP2	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
S.12.A9 MM17	LV17-DP2	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government /Contractor	Throughout NDAs	Construction and Operation Phases		N/A
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E2-DP2	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor/ Maintenance Authority	Within NDA.	Detailed design phase, Construction phase and Operation phase.	TM-EIAO.	N/A
Ecology (Construction Phase)								
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.	Contractor.	Interface between areas/habitats of ecological importance (KTN area B1-3) and works areas.	Construction phase.	TM-EIAO.	N/A
S13.9	E4-DP2	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent /Contractor	KTN NDA areas E18 and G1-3.	Construction phase.	TM-EIAO.	N/A
Ecology (Operational Phase)								
S13.9	E5-DP2	Maintenance of compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Maintenance Authority	KTN areas E1-8 and G1-3.	Operational phase	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
Cultural Heritage (Pre-construction Phase)								
S11.6.1	CH1-DP2	Undertaking Induction Training Induction training should be provided to the construction contractor before the commencement of the excavation works in Site 4. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Site 4	Before the commencement of the excavation works and before site staff are deployed on site		N/A
S11.6.2	CH2-DP2	Undertaking baseline condition survey and baseline vibration impact assessment In case any potential vibration impact on any nearby built heritage features are identified during the preconstruction stage of the Project, prior to commencement of construction works, a baseline condition	To minimize the vibration impacts during construction stage on any identified potential vibration impacted built features	Project Proponent/ Contractor	G202, G203, HKT03 (Main Building)	Preconstruction stage before commencement Of construction works	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
		survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historic buildings and historic buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.						
S11.6.2	CH3-DP2	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendents of these features will be carried out the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	HKT08 and Entrance Gate of HKT03	Prior to Removal / Relocation of features before commencement of construction works	EIAO-TM	N/A
S11.6.2	CH4-DP2	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	EIAO-TM	N/A
Cultural Heritage (Construction Phase)								

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP2- Castle Peak Road Diversion (Major Improvement)								
S11.6.2	CH5-DP2	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment,	EIAO-TM	N/A

...

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
Noise Impacts (Operational Phase)								
S4.9	N1-DP3	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • KTN-NB11: Approx. 60m long CNB; • KTN-NB12: Approx. 240m long CNB; • KTN-NB13: Approx. 60m long CNB; • KTN-NB14: Approx. 45m long, 3m high NB; • KTN-NB27: Approx. 100m long CNB; • KTN-NB28: Approx. 115m long CNB; • KTN-NB29: Approx. 40m long, 3m high NB; • KTN-NB30: Approx. 60m long, 5m high NB; • KTN-NB31: Approx. 45m long, 3m high NB; • KTN-NB39: Approx. 65m long, 7m vertical barrier with 3m cantilevered arm; • KTN-NB40: Approx. 55m long CNB; • KTN-NB48: Approx. 160m long, 5m high ANB; • KTN-NB71: Approx. 50m long, 7m vertical barrier with 3m cantilevered arm; • KTN-NB80: Approx. 25m long CNB; • KTN-NB81: Approx. 20m long CNB; • KTN-SE06: Approx. 20m long SE with opening to northeastern direction; • KTN-SE08: Approx. 105m long SE with opening to northeastern direction; • KTN-FE01: Approx. 105m long FE;	Control operational airborne noise due to road traffic	Project Proponent/ Contractor	Refer to Appendix 5-1 of the EIA	Prior to operation of the Project	Annex 5, TM-EIAO,	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		• KTN-FE03: Approx. 115m long FE						
Water Quality Impacts (Operational Phase)								
S5.7	W1-DP3	<u>Road runoff</u> In order to ensure the sand/silt traps removal efficiencies, the following measures should be implemented: • Vehicle dust, tyre scraps and oils might be washed away from the road surface / open areas to the nearby water courses by surface runoff or road surface cleaning. Subject to detailed design and requirement of relevant government departments, the capacities of road drainage system shall cater the runoff from 50 year-return-period rainstorm. Proper drainage systems with silt traps and oil interceptors should be installed	Control water quality impact	Project Proponent / Detailed Design Consultant, Operator / Maintenance Authority	All road works	Detailed design phase, Operation phase	WPCO, EIAO, TMEIAO	N/A
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.A9	LV1-DP3	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor		Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
S.12.A9 MM1	LV2-DP3	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A
S.12.A9 MM2	LV3-DP3	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines.	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.					ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau, Greening, Landscaping & Tree Management Section, Guidelines on Greening of Noise Barriers (Apr12) Greening, Landscape and Tree Management Section (GLTM) of the Development Bureau's Guidelines on Greening of Noise Barriers (April 2012)	
S.12.A9 MM14.4	LV4-DP3	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed.	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling	Prior to Construction and Construction Phase	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.			Bypass Eastern Section		Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural streams/rivers from adverse impacts arising from construction works	
S.12.A9 MM4	LV5-DP3	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.						
S.12.A9 MM5	LV6-DP3	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S.12.A9 MM6	LV7-DP3	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope;	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	slopes are as visually amenable as possible.				GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	
S.12.A9 MM7	LV8-DP3	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested..	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A
S.12.A9 MM8	LV9-DP3	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, XanthoxIyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.* The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting. *Cinnamomum camphora, XanthoxIyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia,*						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii. The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.						
S.12.A9 MM9	LV10-DP3	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.A9 MM11	LV11-DP3	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
S.12.A9 MM12	LV12-DP3	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government / Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Development Bureau TCW No. 2/2013, Greening on Footbridges and Flyovers; Development Bureau TCW No. 2/2012 – Allocation of Space for Quality Greening on Roads; HQ/GN/15 - Guidelines for Greening Works along Highways	N/A
S.12.A9 MM13 EIA Annex 13	LV13-DP3	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works.	^
S.12.A9 MM14.3	LV14-DP3	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 –Guidelines on	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance	Government / Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase &	Drainage Services Department Practice Note No.1/2005 – Guidelines on	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		Environmental Considerations for River Channel Design should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	channelized watercourses			Maintenance in Operation Phase	Environmental Considerations for River Channel Design	
S.12.A9 MM15	LV15-DP3	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase		N/A
Landscape and Visual (Construction)								
S.12.A9 MM16	LV16-DP3	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used.	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase		^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).						
S.12.A9 MM17	LV17-DP3	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases		^
Ecology (Prior to Construction Phase)								
S. 13.9	E1-DP3	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase/ Advance works.	Establishment of bamboo clump of species, size and numbers suitable for nesting ardeids. Additional measures to attract ardeids to be detailed in EHCMP. Woodland planting and establishment requirements to be detailed in WPMP.	N/A
S.13.9	E2-DP3	Habitat Creation & Management Plan (HCMP) for Long Valley Nature Park (LVNP).	Compensate for wetland loss arising from the project and protection of Long	Project Proponent/ Detailed Design	Long Valley	Detailed design phase.	No net loss in wetland function: design requirements and	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
			Valley from adverse ecological impacts including provision of additional habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Consultant (LVNP HCMP).			mitigation targets for habitats and species to be detailed in LVNP HCMP.	
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E3-DP3	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Detailed design, Construction and Operation phases.	TM-EIAO.	N/A
Ecology (Construction Phase)								
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and enhancement of wetland and woodland areas and buffer planting within LVNP.	Compensate for wetland loss arising from the project.	Project Proponent/ Contractor (LVNP Detailed Habitat Creation & Management Plan).	Long Valley	Construction phase.	TM-EIAO; no net loss in wetland function: design requirements and mitigation targets for habitats and species to be detailed in LVNP Detailed Habitat Creation & Management Plan.	^
S.13.9	E5-DP3	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas,	Minimize dust, disturbance, mortality and other adverse ecological impacts on	Contractor.	Interface between areas/habitats of ecological importance (KTN	Construction phase.	TM-EIAO.	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		including along any roads adjacent to or penetrating into areas/habitats of ecological importance.	habitats, flora and fauna. Measures to minimize flightline impacts to birds,		areas B1-3, H1-1) and works areas.			
S13.9	E6-DP3	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	TM-EIAO.	N/A
Ecology (Operational Phase)								
S.13.9	E7-DP3	Operation, management and maintenance of proposed Long Valley Nature Park.	Compensate for wetland loss arising from the project and protection of Long Valley from adverse impact including provision of additional habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Project Proponent / Contractor/ AFCD	Long Valley, KTN area C1-9.	Operation phase.	No net loss in wetland function: design requirements and mitigation targets for habitats and species to be detailed in LVNP Detailed Management Plan.	N/A
S13.9	E8-DP3	Maintenance of compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Maintenance Authority	KTN areas E1-8 and G1-3.	Operation phase	TM-EIAO.	N/A
Cultural Heritage (Pre-construction Phase)								
S11.6.1	CH1-DP3	<u>Undertaking Survey-cum-Rescue Excavation</u> A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of	To define the precise archaeological deposits extent and to preserve the	Project Proponent/ Contractor/ Qualified	In KTN NDA, for Site 2 and Spots C and I.	After land resumption but before construction	EIA recommendation and AMO Guidelines for	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	archaeological resources as far as possible.	Archaeologist		commencement of the zones	Archaeological Reports; Guideline for Handling of Archaeological Finds and Archives	
S11.6.1	CH2-DP3	Undertaking Further Archaeological Survey to Cover the Outstanding Areas Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located with areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified Archaeologist	In the not-yet-surveyed-areas with medium archaeological potential located within the work extent of DP3.	After land resumption but before construction	EIA recommendation and AMO CHIA Guideline	N/A
S11.6.2	CH2-DP3	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	KT38, KT44, and KT52	Prior to Removal / Relocation of features before commencement of construction works	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)								
		be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
Noise Impacts (Operational Phase)								
S4.9	N1-DP4	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • KTN-NB04: Approx. 35m long, 3m high NB; • KTN-NB05: Approx. 40m long, 3m high NB; • KTN-NB06: Approx. 65m long CNB; • KTN-NB07: Approx. 65m long CNB; • KTN-NB08: Approx. 105m long CNB; • KTN-NB09: Approx. 60m long, 3m high NB; • KTN-NB10: Approx. 90m long, 3m high NB; • KTN-NB19: Approx. 30m long, 3m high NB; • KTN-NB20: Approx. 70m long, 5m high NB; • KTN-NB23: Approx. 80m long, 5m high NB; • KTN-NB24: Approx. 95m long, 7m vertical barrier with 3m cantilevered arm; • KTN-NB25: Approx. 30m long CNB; • KTN-NB35: Approx. 40m long CNB; • KTN-NB37: Approx. 80m long CNB;	Control operational airborne noise due to road traffic	Project Proponent /Contractor	Refer to Appendix 5.1 of the EIA.	Prior to operation of the Project	Annex 5, TM-EIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		• KTN-NB38: Approx. 100m long, 3m high NB; • KTN-NB69: Approx. 120m long, 5m high NB; • KTN-NB70: Approx. 30m long, 7m vertical barrier with 3m cantilevered arm; • KTN-NB73: Approx. 75m long CNB; • KTN-NB75: Approx. 45m long, 3m high NB; • KTN-NB76: Approx. 40m long, 3m high NB; • KTN-NB82: Approx. 45m long, 3m high NB; • KTN-SE03: Approx. 75m long SE with opening to northwestern direction; • KTN-SE05: Approx. 80m long SE with opening to south direction; • KTN-SE07: Approx. 95m long SE with opening to southeastern direction; • KTN-FE02: Approx. 130m long FE						
Water Quality Impacts (Operational Phase)								
S5.7	W1-DP4	<u>Road runoff</u> In order to ensure the sand/silt traps removal efficiencies, the following measures should be implemented:	Control water quality impact	Project Proponent / Detailed Design Consultant,/ Maintenance Authority	All road works	Detailed design stage, Operation phase	WPCO, EIAO, TMEIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		• Vehicle dust, tyre scraps and oils might be washed away from the road surface / open areas to the nearby water courses by surface runoff or road surface cleaning. Subject to detailed design and requirement of relevant government departments, the capacities of road drainage system shall cater the runoff from 50 year-return-period rainstorm. Proper drainage systems with silt traps and oil interceptors should be installed						
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.A9	LV1-DP4	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		^
S.12.A9 MM1	LV2-DP4	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform,	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.						
S.12.A9 MM2	LV3-DP4	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork,	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding	Detailed Design Consultant/	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau, Greening, Landscaping & Tree Management Section, Guidelines on Greening of Noise Barriers (Apr12)	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.					Greening, Landscape and Tree Management Section (GLTM) of the Development Bureau's Guidelines on Greening of Noise Barriers (April 2012)	
S.12.A9 MM4	LV4-DP4	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees,	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.						
S.12.A9 MM5	LV5-DP4	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
S.12.A9 MM6	LV6-DP4	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	^
S.12.A9 MM7	LV7-DP4	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis,*	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and *Rhododendron simsii* are suggested.						
S.12.A9 MM8	LV8-DP4	Woodland Compensatory Planting – Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia,*	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii. The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting						
S.12.A9 MM9	LV9-DP4	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.A9 MM11	LV10-DP4	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
S.12.A9 MM12	LV11-DP4	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening)	To soften the hard, straight edges and	Government / Detailed Design Consultant/	On viaducts or along roads.	Prior to Construction, Construction Phase &	Development Bureau TCW No. 2/2013, Greening on Footbridges and	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	provide greening along roads.	Contractor		Maintenance in Operation Phase	Flyovers; Development Bureau TCW No. 2/2012 – Allocation of Space for Quality Greening on Roads; HQ/GN/15 - Guidelines for Greening Works along Highways	
S.12.A9 MM13 & EIA Annex 13	LV12-DP4	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ re- provisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works.	^
S.12.A9 MM15	LV13-DP4	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase		^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
Landscape and Visual (Construction)								
S.12.A9 MM16	LV14-DP4	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor				^
S.12.A9 MM17	LV15-DP4	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases		^
Ecology (Detailed Design, Construction and Operational Phases)								
S.13.9	E1-DP4	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase.	Establishment of bamboo clump suitable for nesting ardeids. Additional measures to attract ardeids to be detailed in EHCMP. Woodland planting and establishment	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
							requirements to be detailed in WPMP. EIAO-TM.	
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E2-DP4	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Throughout.	TM-EIAO.	N/A
Ecology (Construction Phase)								
S.13.9	E3-DP4	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.	Contractor.	Interface between areas/habitats of ecological importance (KTN areas B1-3, E1-8, G1-3 and H1-1) and works areas	Construction phase.	TM-EIAO.	^
S13.9	E4-DP4	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	TM-EIAO.	N/A
S13.8	E5-DP4	Maintenance of compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Maintenance Authority.	KTN areas E1-8 and G1-3.	Operation phase	TM-EIAO.	N/A
Cultural Heritage (Pre-construction Phase)								

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
S11.6.1	CH1-DP4	Undertaking Survey-cum-Rescue Excavation A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent / Contractor/ Qualified Archaeologist	In KTN NDA, for Site 1	After land resumption But before construction commencement of the zones	EIA recommendation and AMO Guidelines for Archaeological Reports; Guideline for Handling of Archaeological Finds and Archives	N/A
S11.6.1	CH2-DP4	Undertaking Further Archaeological Survey to Cover the Outstanding Areas Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located with areas with proposed development as presented in **Figure 11.9** should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified Archaeologist	In the not-yet-surveyed-areas with medium archaeological potential located within the work extent of DP4	After land resumption but before construction	EIA recommendation and AMO Guideline CHIA	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.						
S11.6.1	CH3-DP4	Undertaking Induction Training Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spot E. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Spot E	Before the commencement of the excavation works and before site staff are deployed on site		N/A
S11.6.2	CH4-DP4	Conducting Photographic and Cartographic Records Prior to	To preserve the directly impacted sites by record prior to their removal /	Project Proponent/ Contractor	Entrance Gate of HKT03, KT16, KT17 and KT18	Prior to Removal / Relocation of features before commencement of construction works	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
		Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendents of these features will be carried out by the Project Proponent.	relocation					
S11.6.2	CH5-DP4	Undertaking baseline condition survey and baseline vibration impact assessment In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 15mm/s could be adopted for historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the vibration impacts during pre-construction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	HKT03 (Main Building) and G308	Preconstruction stage before commencement of construction works	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP4- KTN NDA Road D1 to D5 (New Road)								
S11.6.2	CH6-DP4	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	EIAO-TM	N/A
Cultural Heritage (Construction Phase)								
S11.6.2	CH7-DP4	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Details Specified in baseline condition survey and baseline vibration impact assessment.	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
Noise Impacts (Operational Phase)								
S4.8	N1-DP5	Provision of noise mitigation measures including silencers, acoustic louvers and acoustic enclosure if necessary; The maximum allowable sound power level for KTN D1-3 and KTN F1-2 shall not exceed 89 and 76 dB(A) respectively.	Control operational airborne noise due to the operation of fixed plant	Contractor	All plant rooms where practicable	Prior to operation of the Project	Noise Control Ordinance and its TM, TM-EIAO	N/A
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.B9	LV1-DP5	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor/	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		N/A
S.12.B9 MM1	LV2-DP5	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
		introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.						
S.12.B9 MM2	LV3-DP5	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. • All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant/	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau, Greening, Landscaping & Tree Management Section, Guidelines on	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
							Greening of Noise Barriers (Apr12) Greening, Landscape and Tree Management Section (GLTM) of the Development Bureau's Guidelines on Greening of Noise	
S.12.B9 MM4	LV4-DP5	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. • A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
S.12.B9 MM5	LV5-DP5	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. • A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S.12.B9 MM6	LV6-DP5	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. • In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
S.12.B9 MM7	LV7-DP5	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. • Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A
S.12.B9 MM8	LV8-DP5	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
		Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, XanthoxIyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.* • The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.						
S.12.B9 MM9	LV9-DP5	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
S.12.B9 MM10	LV10-DP5	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A
S.12.B9 MM11	LV11-DP5	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
S.12.B9 MM14.3	LV12-DP5	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
		necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. • For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.						
Landscape and Visual (Construction)								
S.12.B9 MM16	LV13-DP	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor				N/A
S.12.B9 MM17	LV14-DP5	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases		N/A
Ecology (Construction Phase)								
S.13.9	E1-DP5	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse	Contractor	Interface between areas/habitats of ecological importance and works areas (all	Construction Phase	TMEIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP5- New sewage pumping stations (SPSs) in KTN NDA								
			ecological impacts on habitats, flora and fauna.		sides of KTN area F1-2).			
DP6- Proposed railway station and associated facilities in KTN NDA (To be conducted under separate study).								

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP7- Utilization of Treated Sewage Effluent from SWHSTW								
Water (Operational Phase)								
S5.7	W1-DP7	Emergency discharge Emergency discharge may be required due to the failure of on-site STW. In order to prevent and minimize the impact due to the emergency discharge, the following precautionary measures shall be included in the STW design: • To facilitate maintenance and repairing of equipment, standby unit should be provided; • Dual power supply, or back-up power, should be provided, perfectly in the format of ring main or automatic-operated emergency generator with sufficient capacity to cope with the demand loading of the essential plant equipment; Telemetry system should be provided to the closet manned plant for unmanned facilities, such that swift actions could be	Control water quality impact	Operator	SWHSTW	Operation phase	WPCO, EIAO, TMEIAO	N/A
Landscape and Visual (Construction Phase and Operational Phases)								
S.12.9 MM4	LV1-DP7	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP7- Utilization of Treated Sewage Effluent from SWHSTW								
		• A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.						
S.12.9 MM9	LV2-DP7	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.9 MM10	LV3-DP7	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
Noise Impacts (Operational Phase)								
S4.9	N1-DP8	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • FLN-NB01: Approx. 95m long, 5m high NB; • FLN-NB02: Approx. 70m long, 3m high NB; • FLN-NB03: Approx. 115m long CNB; • FLN-FE01: Approx. 150m long FE; • FLN-SE01: Approx. 325m long SE with opening to west direction; • FLN-SE02: Approx. 450m long SE with opening to west direction	Control operational airborne noise due to road traffic	Project Proponent Contractor /	Refer to Figure 4.9b of the EIA	Prior to operation of the Project	Annex 5, TM-EIAO	N/A
Water Quality Impacts (Operational Phase)								
S5.7	W1-DP8	<u>Road runoff</u> In order to ensure the sand/silt traps removal efficiencies, the following measures should be implemented: • Vehicle dust, tyre scraps and oils might be washed away from the road surface / open areas to the nearby water courses by surface runoff or road surface cleaning. Subject to detailed design and requirement of relevant government departments, the capacities of road drainage system shall cater the runoff from 50 year-return-period rainstorm. Proper drainage systems with silt traps and oil interceptors should be installed	Control water quality impact	Project Proponent / Detailed Design Consultant,/ Maintenance Authority	All road works	Detailed design stage, Operation phase	WPCO, EIAO, TMEIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.A9	LV1-DP8	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		N/A
S.12.C9 MM1	LV2-DP8	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A
S.12.C9 MM2	LV3-DP8	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The	Improve visual amenity of the new buildings, NDAs in general and integrate as best	Detailed Design Consultant/	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
		form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.	possible into the surrounding				Planning Department (As at Aug 2011); Sustainable Building Design Guidelines CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau, Greening, Landscaping & Tree Management Section, Guidelines on Greening of Noise Barriers (Apr12) Greening, Landscape and Tree Management Section (GLTM) of the Development Bureau's Guidelines on Greening of Noise	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
							Barriers (April 2012)	
S.12.C9 MM4	LV4-DP8	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
S.12.C9 MM5	LV5-DP8	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work.	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
		For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.						
S.12.C9 MM6	LV6-DP8	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
S.12.C9 MM7	LV7-DP8	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
S.12.C9 MM8	LV8-DP8	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.* The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
		it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting						
S.12.C9 MM9	LV9-DP8	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.C9 MM10	LV10-DP8	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A
S.12.C9 MM11	LV11-DP8	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
Landscape and Visual (Construction)								

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP8- Po Shek Wu Interchange Improvement (Major Improvement)								
S.12.C9 MM16	LV13-DP8	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phases		N/A
S.12.C9 MM17	LV14-DP8	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases		N/A
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E1-DP8	Use opaque, non-transparent, non-reflective noise barriers for all developments associated with the Project	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Throughout.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
Noise Impacts (Operational Phase)								
S4.9	N1-DP9	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • FLN-NB11: Approx. 45m long, 3m high NB; • FLN-NB12: Approx. 160m long, 5m high NB; FLN-SE02: Approx. 450m long SE with opening to west direction	Control operational airborne noise due to road traffic	Contractor / Project Proponent	Refer to Figure 4.9b of the EIA.	Prior to operation of the Project	Annex 5, TM-EIAO	N/A
Water Quality Impacts (Operational Phase)								
S5.7	W1-DP9	<u>Road runoff</u> In order to ensure the sand/silt traps removal efficiencies, the following measures should be implemented: • Vehicle dust, tyre scraps and oils might be washed away from the road surface / open areas to the nearby water courses by surface runoff or road surface cleaning. • Subject to detailed design and requirement of relevant government departments, the capacities of road drainage system shall cater the runoff from 50 year-return-period rainstorm. Proper drainage systems with silt traps and oil interceptors should be installed	Control water quality impact	Project Proponent / Detailed Design Consultant,/ Maintenance Authority	All road works	Detailed design stage, Operation phase	WPCO, EIAO, TMEIAO	N/A
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.D9	LV1-DP9	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
		With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.				installed as soon as the areas become available, to achieve early establishment		
S.12.D9 MM1	LV2-DP9	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A
S.12.D9 MM2	LV3-DP9	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding	Detailed Design Consultant/	Throughout NDAs	Prior to Construction	Hong Kong Planning Standards and Guidelines (HKPSG) issued by the Planning Department (As at Aug 2011); Sustainable Building Design Guidelines	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
		earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.					CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011) and ArchSD/Urbis Study on Green Roof Application in HK (2007). Dev. Bureau, Greening, Landscaping & Tree Management Section, Guidelines on Greening of Noise Barriers (Apr12) Greening, Landscape and Tree Management Section (GLTM) of the Development Bureau's Guidelines on Greening of Noise Barriers (April 2012)	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
S.12.D9 MM4	LV4-DP9	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
S.12.D9 MM5	LV5-DP9	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
		Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.						
S.12.D9 MM6	LV6-DP9	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
S.12.D9 MM7	LV7-DP9	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
S.12.D9 MM8	LV8-DP9	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii*. The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
		it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting						
S.12.D9 MM9	LV9-DP9	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.D9 MM11	LV11-DP9	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
S.12.D9 MM12	LV11-DP9	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government / Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Development Bureau TCW No. 2/2013, Greening on Footbridges and Flyovers; Development Bureau TCW No. 2/2012 – Allocation of Space for Quality Greening on Roads; HQ/GN/15 - Guidelines for	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
							Greening Works along Highways	
Landscape and Visual (Construction)								
S.12.D9 MM16	LV13-DP9	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phases		N/A
S.12.D9 MM17	LV13-DP9	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases		N/A
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E1-DP9	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Throughout.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
Ecology (Prior to Construction Phase)								
S.13.9	E2-DP9	Site clearance at the current egretry location at Man Kam To Road to be undertaken outside the ardeid breeding season (1st March to 31st July). Current egretry location should be checked by a qualified ecologist prior to commencement of any works activity within 50m of the egretry.	Minimize disturbance and mortality on breeding ardeids	Project Proponent/ Detailed Design Consultant/ Contractor.	Man Kam To Road egretry site.	Prior to site clearance.	TM-EIAO.	N/A
S.13.9	E3-DP9	Compensatory egretry habitat provision.	Compensate for loss of Man Kam To Road egretry.	Project Proponent/ Detailed Design Consultant	FLN, RODP-13 zone A1-7.	Detailed design phase	Establishment of bamboo clump of species, size and numbers suitable for nesting ardeids	N/A
S.13.9	E4-DP9	Habitat Creation & Management Plan (HCMP) for Long Valley Nature Park (LVNP).	Compensate for wetland loss arising from the project and protection of Long Valley from adverse ecological impacts including provision of additional habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Project Proponent/ Detailed Design Consultant (LVNP HCMP).	Long Valley, KTN area C1-9.	Detailed design phase.	No net loss in wetland function: design requirements and mitigation targets for habitats and species to be detailed in LVNP HCMP.	N/A
Ecology (Construction Phase)								
S. 13.9	E5-DP9	Compensatory egretry habitat provision.	Compensate for loss of Man Kam To Road egretry.	Project Proponent / Contractor	FLN area A1-7.	Construction phase	Establishment of bamboo clump of species, size and numbers suitable for nesting ardeids; if no occupation initially,	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
							utilize decoys (models, vocalisations) to encourage occupation.	
S. 13.9	E6-DP9	Creation of Long Valley Nature Park and creation and enhancement of wetland and woodland areas and buffer planting within Long Valley Nature Park.	Compensate for wetland loss arising from the project.	Project Proponent / Contractor (LVNP Detailed Habitat Creation & Management Plan).	Long Valley, KTN area C1-9.	Construction phase.	TM-EIAO; no net loss in wetland function: design requirements and mitigation targets for habitats and species to be detailed in LVNP Detailed Habitat Creation & Management Plan.	N/A
S. 13.9	E7-DP9	Erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flight line impacts to birds, especially breeding ardeids.	Contractor.	Interface between areas/habitats of ecological importance and works areas (all of north side of Bypass works area).	Construction phase.	TM-EIAO.	N/A
Ecology (Operational Phase)								
S. 13.9	E8-DP9	Compensatory egretry habitat provision.	Compensate for loss of Man Kam To Road egretry.	Project Proponent / Contractor/ Maintenance Authority	FLN area A1-7.	Operation phase.	Maintenance of bamboo clump of species, size and number suitable for nesting ardeids; if no occupation initially,	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
							utilize decoys (models, vocalisations) to encourage occupation.	
S.13.9	E9-DP9	Operation, management and maintenance of Long Valley Nature Park.	Compensate for wetland loss arising from the project and protection of Long Valley from adverse impact including provision of additional habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Project Proponent / Contractor AFCD	Long Valley KTN area.	Operation phase	No net loss in wetland function: design requirements and mitigation targets for habitats and species to be detailed in LVNP Detailed Management Plan.	N/A
Cultural Heritage (Pre-construction Phase)								
S11.6.1	CH1-DP9	Undertaking Induction Training Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spot E. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Site 10	Before the commencement of the excavation works and before site staff are deployed on site		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP9- Fanling Bypass Western Section (New Road)								
S11.6.2	CH2-DP9	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendents of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	FL11 and FL33	Prior to Removal / Relocation of features before commencement of construction works	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
Noise Impacts (Operational Phase)								
S4.9	N1-DP10	Provide noise barrier before operation of the proposed project and locations of barriers are stated as following: • FLN-NB21: Approx. 345m long, 3m high NB; • FLN-NB22: Approx. 150m long, 5m high NB; • FLN-NB23: Approx. 165m long CNB; • FLN-NB24: Approx. 310m long CNB; • FLN-NB25: Approx. 130m long CNB; • FLN-NB26: Approx. 50m long , 5m high NB; • FLN-NB27: Approx. 45m long, 5m high NB; • FLN-NB28: Approx. 160m long, 5m high NB; • FLN-NB29: Approx. 130m long CNB; • FLN-NB30: Approx. 280m long CNB	Control operational airborne noise due to road traffic	Contractor	Refer to Figure 4.9b of the EIA	Prior to operation of the Project	Annex 5, TM-EIAO	N/A
Water Quality Impacts (Operational Phase)								
S5.7	W1-DP9	<u>Road runoff</u> In order to ensure the sand/silt traps removal efficiencies, the following measures should be implemented: • Vehicle dust, tyre scraps and oils might be washed away from the road surface / open areas to the nearby water courses by surface runoff or road surface cleaning. • Subject to detailed design and requirement of relevant government departments, the capacities of road drainage system shall cater the runoff from 50	Control water quality impact	Project Proponent / Detailed Design Consultant,/ Maintenance Authority	All road works	Detailed design stage, Operation phase	WPCO, EIAO, TMEIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
		year-return-period rainstorm. Proper drainage systems with silt traps and oil interceptors should be installed						
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.D9	LV1-DP10	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		N/A
S.12.D9 MM1	LV2-DP10	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
S.12.D9 MM4	LV3-DP9	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
S.12.D9 MM5	LV4-DP10	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
		Highways Department's Vegetation Maintenance Ambit' should be referred to.						
S.12.D9 MM6	LV5-DP10	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
S.12.D9 MM7	LV6-DP10	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
S.12.D9 MM8	LV7-DP10	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.* The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
		grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting						
S.12.D9 MM9	LV8-DP10	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.D9 MM11	LV9-DP10	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
S.12.D9 MM12	LV10-DP9	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government / Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Development Bureau TCW No. 2/2013, Greening on Footbridges and Flyovers; Development Bureau TCW No. 2/2012 – Allocation of Space for Quality Greening on Roads;	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
							HQ/GN/15 - Guidelines for Greening Works along Highways	
S.12.D9MM14.3	LV11-DP10	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design	N/A
Landscape and Visual (Construction)								
S.12.D9 MM16	LV12-DP10	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence.	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phases		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
		Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).						
S.12.D9 MM17	LV13-DP10	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases		N/A
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E1-DP10	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Throughout.	TM-EIAO.	N/A
Ecology (Prior to Construction Phase)								
S.13.9	E2-DP10	Detailed design of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space zone D1-3, Fanling Bypass to cross stream on viaduct, all stream (including upstream sections not impacted by the Project) to have permanent buffer of 10m on either side stream.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	PlanD/ Project Proponent/ Detailed Design Consultant.	FLN area D1-3	Detailed design phase	Layout Plan.	N/A
Ecology (Construction Phase)								
S. 13.9	E3-DP10	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space Zone D1-3 and Fanling Bypass to cross stream on viaduct.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	Contractor.	FLN area D1-3.	Construction phase.	TM-EIAO; ETWBTCW 5/2005.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
S.13.9	E4-DP10	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flightline impacts to birds, especially breeding ardeids.	Contractor.	Interface between areas/habitats of ecological importance and works areas (all of the north side of the Bypass works areas west of interchange with Sha Tau Kok Road).	Construction phase.	TM-EIAO.	N/A
Ecology (Operational Phase)								
S13.9	E5-DP10	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space zone D1-3. Any channelization works to upstream section not recommended.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	PlanD / Government / Maintenance Authority.	FLN area D1-3.	Operation phase.	TM-EIAO.	N/A
Cultural Heritage (Pre-construction Phase)								
S11.6.2	**CH1-DP10**	Undertaking baseline condition survey and baseline vibration impact assessment In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 15mm/s could be adopted for historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction	To minimize the vibration impacts during pre-construction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	HFL05, FL02, FL04, FL24, FL27, FL31, and FL36.	Preconstruction stage before commencement of construction works	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP10- Fanling Bypass Eastern Section (New Road)								
		performance meets with the vibration standard stated in the EIA report.						
S11.6.2	CH2-DP10	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendents of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	**FL19**	Prior to Removal / Relocation of features before commencement of construction works	EIAO-TM	N/A
S11.6.2	CH3-DP10	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	**F**L19	After the photographic and cartographic records and before commencement of construction works	EIAO-TM	N/A
Cultural Heritage (Construction Phase)								
S11.6.2	CH4-DP10	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment	EIAO-TM	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
Odour Impacts (Operational Phase)								
S 3.8	O1-DP11	The detailed design should incorporate the following odour impact mitigation measures in order to minimize the nuisance on the nearby ASRs. • All odour emission sources should be covered and the emission should be delivered to deodorization facility prior to discharge. • The odour removal efficiency of the deodorization facility is 90%. • Discharge point should be 10m above ground with 10m/s exit velocity.	Control operational odour impact due to the operation of SHWSTW	Detailed Design Consultant	SWHSTW	Detailed design and operation phase of the Phase 2 Expansion of SWHSTW (ultimate scenario)	EIAO, TM-EIAO	N/A
Noise Impacts (Operational Phase)								
S4.8	N1-DP11	• Provision of noise mitigation measures including silencers, acoustic louvers and acoustic enclosures if necessary; • The maximum allowable sound power level shall not exceed 83 dB(A).	Control operational airborne noise due to the operation of fixed plant	Contractor	All plant rooms where practicable	Prior to operation of the Project	Noise Control Ordinance and its TM, TM-EIAO	N/A
Water Quality Impacts (Operational Phase)								
S5.7	W1-DP11	<u>Emergency discharge</u> Emergency discharge may be required due to the failure of on-site STW. In order to prevent and minimize the impact due to the emergency discharge, the following precautionary measures shall be included in the STW design: • To facilitate maintenance and repairing of equipment, standby unit should be provided;	Control water quality impact	Operator	SWHSTW	Operation phase	WPCO, EIAO, TM-EIAO	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
		• Dual power supply, or back-up power, should be provided, perfectly in the format of ring main or automatic-operated emergency generator with sufficient capacity to cope with the demand loading of the essential plant equipment; • Telemetry system should be provided to the closet manned plant for unmanned facilities, such that swift actions could be taken in case of malfunction of unmanned facilities; and To prevent the discharge of floating solids, manually cleaned screens should be provided at the overflow bypass.						
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)								
S.12.C9	LV1-DP11	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		N/A
S.12.C9 MM1	LV2-DP11	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
		resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.						
S.12.C9 MM4	LV3-DP11	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
S.12.C9 MM5	LV4-DP10	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
		A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					Works under Highways Department's Vegetation Maintenance Ambit	
S.12.C9 MM6	LV5-DP11	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
S.12.C9 MM7	LV6-DP11	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
		Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.						
S.12.C9 MM8	LV7-DP11	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, XanthoxIyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.*	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
		The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting						
S.12.C9 MM9	LV8-DP11	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	N/A
S.12.C9 MM10	LV9-DP11	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A
S.12.C9 MM11	LV10-DP11	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
			pedestrian environment					
S.12.C9MM14.3	LV11-DP11	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design	N/A
Landscape and Visual (Construction)								
S.12.C9 MM16	LV12-DP11	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence.	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phases		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP11- Shek Wu Hui Sewage Treatment Works - Further Expansion in FLN NDA								
		Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).						
S.12.C9 MM17	LV13-DP11	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	TM-EIAO.	N/A
Ecology (Detailed Design, Construction and Operational Phases)								
S13.9	E1-DP11	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Detailed design, Construction and Operation phases.	TM-EIAO.	N/A
Ecology (Construction Phase)								
S.13.9	E4-DP11	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flightline impacts to birds, especially breeding ardeids.	Contractor.	Interface between areas/habitats of ecological importance and works areas (all of the north side of the Bypass works areas west of interchange with Sha Tau Kok Road).	Construction phase.	TM-EIAO.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP13- New Sewage Pumping Stations (SPS) in FLN NDA								
Noise Impacts (Operational Phase)								
S4.8	N1-DP13	• Provision of noise mitigation measures including silencers, acoustic louvers and acoustic enclosures if necessary; • The maximum allowable sound power level for FLN A1-6, FLN B1-4, FLN B2-3 and FLN C2-3 shall not exceed 86, 88, 93 and 98 dB(A) respectively.	Control operational airborne noise due to the operation of fixed plant	Contractor	All plant rooms where practicable	Prior to operation of the Project	Noise Control Ordinance and its TM, TM-EIAO	N/A
Landscape and Visual (Prior to Construction, Detailed Design, Construction and Operational Phases)								
S.12.C9	LV1-DP13	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment		^
S.12.C9 MM1	LV2-DP13	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP13- New Sewage Pumping Stations (SPS) in FLN NDA								
		introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.						
S.12.C9 MM4	LV3-DP13	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
S.12.C9 MM5	LV4-DP13	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP13- New Sewage Pumping Stations (SPS) in FLN NDA								
		locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					Maintenance Ambit	
S.12.C9 MM6	LV5-DP13	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
S.12.C9 MM7	LV6-DP13	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea*	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP13- New Sewage Pumping Stations (SPS) in FLN NDA								
		rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and *Rhododendron simsii* are suggested.						
S.12.C9 MM8	LV7-DP13	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, XanthoxIyum avicennaeHibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii.* The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP13- New Sewage Pumping Stations (SPS) in FLN NDA								
		ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting						
S.12.C9 MM9	LV8-DP13	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW No. 11/2004 – Cyber Manual for Greening	^
S.12.C9 MM10	LV9-DP13	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A
S.12.C9 MM11	LV10-DP13	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWBTC 3/2006	N/A
Landscape and Visual (Construction)								

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Specific Mitigation Measures for Designated Projects								
DP13- New Sewage Pumping Stations (SPS) in FLN NDA								
S.12.C9 MM16	LV11-DP13	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phases		^
S.12.C9 MM17	LV12-DP13	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	TM-EIAO.	^

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 2.1 Impact Monitoring Schedule during the reporting period

Contract No. NDO 05/2024 Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas (Version1.0)
Impact Air Quality and Noise Monitoring Schedule (May 2025)

May 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
				1	2 Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)*, FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS1*, FLN-DMS5(A)* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	3 Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*
4	5	6	7	8 Impact Noise Monitoring: CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)*, FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS1*, FLN-DMS5(A)* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	9 Impact Noise Monitoring: CP-FLN-NMS1* Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*	10 Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#
11	12	13	14 Impact Noise Monitoring: CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)*, FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS1*, FLN-DMS5(A)* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	15 Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-FLN-NMS1*, CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*, FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#	16	17
18	19	20 Impact Noise Monitoring: CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)*, FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS1*, FLN-DMS5(A)* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	21 Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-FLN-NMS1*, CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*, FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#	22	23	24
25	26 Impact Noise Monitoring: CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)*, FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS1*, FLN-DMS5(A)* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	27 Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-FLN-NMS1*, CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*, FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#	28	29	30 Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)*, FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS1*, FLN-DMS5(A)* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	31

Note(s):
* Environemntal monitoring works to be carried by the First Phase Environemntal Team (Wellab) under Service Contract No. NDO 04/2019
Environemntal monitoring works to be carried by the Remaining Phase Environemntal Team (Aurecon) under Service Contract No. NDO 05/2024

Contract No. NDO 05/2024 Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas (Version0.0)
Impact Ecological Monitoring Schedule (May 2025)

May 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
				1	2	3
4	5	6 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** High tide: Start time: 14:00	7	8 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 Low tide: Start time: 12:00 High tide: Start time: 09:00	9 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** Low tide: Start time: 14:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 Low tide: Start time: 13:00 High tide: Start time: 09:00	10
11	12 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 Low tide: Start time: 14:00 High tide: Start time: 10:00	13 Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution *T1	14 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** Low tide: Start time: 15:00	15 Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang Sang Tsuen Stream *MS_01 - MS_15	16 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 Low tide: Start time: 16:00 High tide: Start time: 13:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** High tide: Start time: 14:00	17
18	19 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** High tide: Start time: 10:30	20 Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution *T3	21 Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution ^**T2**	22 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 Low tide: Start time: 11:00 High tide: Start time: 08:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** Low tide: Start time: 10:30	23 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 Low tide: Start time: 13:00 High tide: Start time: 8:00	24
25	26 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 Low tide: Start time: 14:00 High tide: Start time: 10:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** Low tide: Start time: 14:00	27 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 Low tide: Start time: 14:00 High tide: Start time: 10:00	28	29	30 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River ^**T4** High tide: Start time: 14:00	31

Note(s):
* Environemntal monitoring works to be carried by the First Phase Environemntal Team (Wellab) under Service Contract No. NDO 04/2019
^ Environemntal monitoring works to be carried by the Remaining Phase Environemntal Team (Aurecon) under Service Contract No. NDO 05/2024

Contract No. NDO 05/2024 Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas (Version0.0)
Impact Water Quality Monitoring Schedule (May 2025)

May 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Remark(s):
1. No channelisation works is anticipated to be undertaken in May 2025 as confirmed by Supervisor Team, no impact water quality monitoring at KTN-CS1, KTN- IS1, FLN-CS1 and FLN-IS1 is scheduled for May 2025

Appendix 2.2 Impact Air Quality Monitoring Data & Graphical Presentations & Calibration Certificates

Impact Air Quality Monitoring Data & Graphical Presentations & Calibration Certificates (sourced from the First Phase ET)

For Contract No. ND/2024/01

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location KTN-DMS4(B)										
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Particulate Concentration (μg/m³)			Average	Action Level	Limit Level
								μg/m³	μg/m³	μg/m³
02/05/2025	Sunny	13:00	14:00	15:00	66	65	74	68	297	500
08/05/2025	Cloudy	13:00	14:00	15:00	81	85	87	85	297	500
14/05/2025	Cloudy	13:00	14:00	15:00	70	75	64	69	297	500
20/05/2025	Sunny	13:00	14:00	15:00	31	47	37	38	297	500
26/05/2025	Cloudy	13:00	14:00	15:00	60	77	70	69	297	500
30/05/2025	Cloudy	13:00	14:00	15:00	25	30	35	30	297	500

TSP-1hr (μg/m³)		
Average (μg/m³)	Max. (μg/m³)	Min. (μg/m³)
60	87	25

For Contract No. ND/2024/07

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location FLN-DMS1										
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Particulate Concentration (μg/m³)			Average	Action Level	Limit Level
								μg/m³	μg/m³	μg/m³
03/05/2025	Cloudy	9:00	10:00	11:00	45	57	66	56	303	500
09/05/2025	Cloudy	9:00	10:00	11:00	72	85	81	79	303	500
15/05/2025	Sunny	13:00	14:00	15:00	76	82	74	77	303	500
21/05/2025	Sunny	13:00	14:00	15:00	47	44	64	52	303	500
27/05/2025	Cloudy	9:00	10:00	11:00	115	94	120	110	303	500

TSP-1hr (μg/m³)		
Average (μg/m³)	Max. (μg/m³)	Min. (μg/m³)
75	120	44

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location FLN-DMS5										
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Particulate Concentration (μg/m³)			Average	Action Level	Limit Level
								μg/m³	μg/m³	μg/m³
02/05/2025	Sunny	9:00	10:00	11:00	69	56	49	58	279	500
08/05/2025	Cloudy	9:00	10:00	11:00	47	48	62	52	279	500
14/05/2025	Cloudy	13:00	14:00	15:00	44	43	50	46	279	500
20/05/2025	Sunny	13:00	14:00	15:00	34	40	38	37	279	500
26/05/2025	Cloudy	9:00	10:00	11:00	41	47	43	44	279	500
30/05/2025	Cloudy	13:00	14:00	15:00	41	46	49	46	279	500

TSP-1hr (μg/m³)		
Average (μg/m³)	Max. (μg/m³)	Min. (μg/m³)
47	69	34

For Contract No. ND/2024/01

Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (μg/m³) at Location KTN-DMS4(B)					
Date	Weather	Sampling Time	Particulate Concentration (μg/m³)	Action Level	Limit Level
				μg/m³	μg/m³
02/05/2025	Sunny	9:00	72	192	260
08/05/2025	Cloudy	9:00	75	192	260
14/05/2025	Sunny	9:00	71	192	260
20/05/2025	Sunny	9:00	42	192	260
26/05/2025	Cloudy	9:00	74	192	260
30/05/2025	Cloudy	9:00	38	192	260

TSP-24hr (μg/m³)		
Average (μg/m³)	Max. (μg/m³)	Min. (μg/m³)
62	75	38

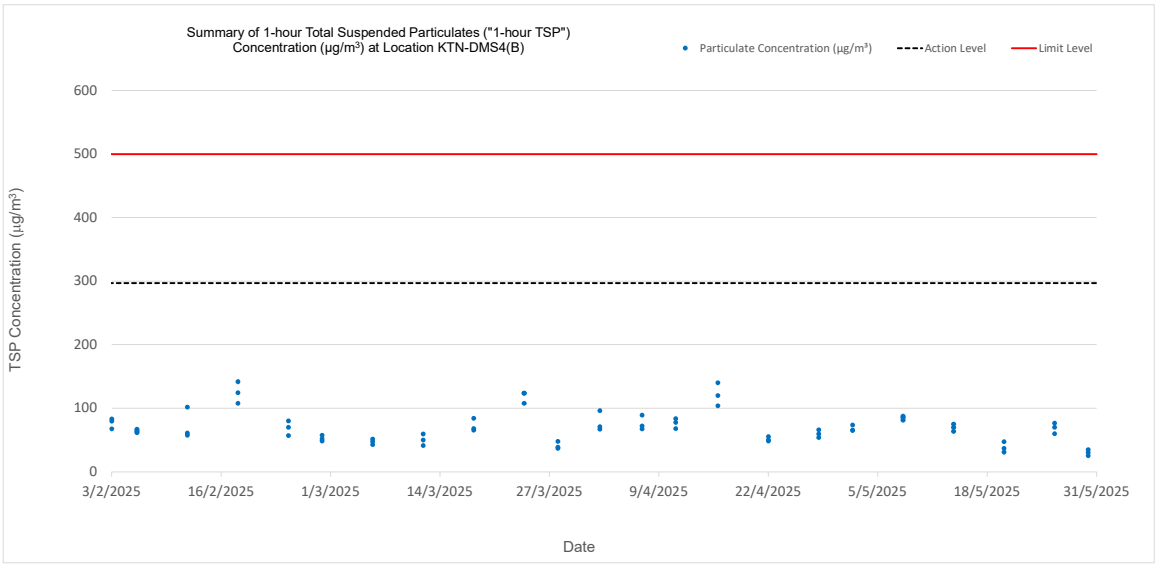
For Contract No. ND/2024/07

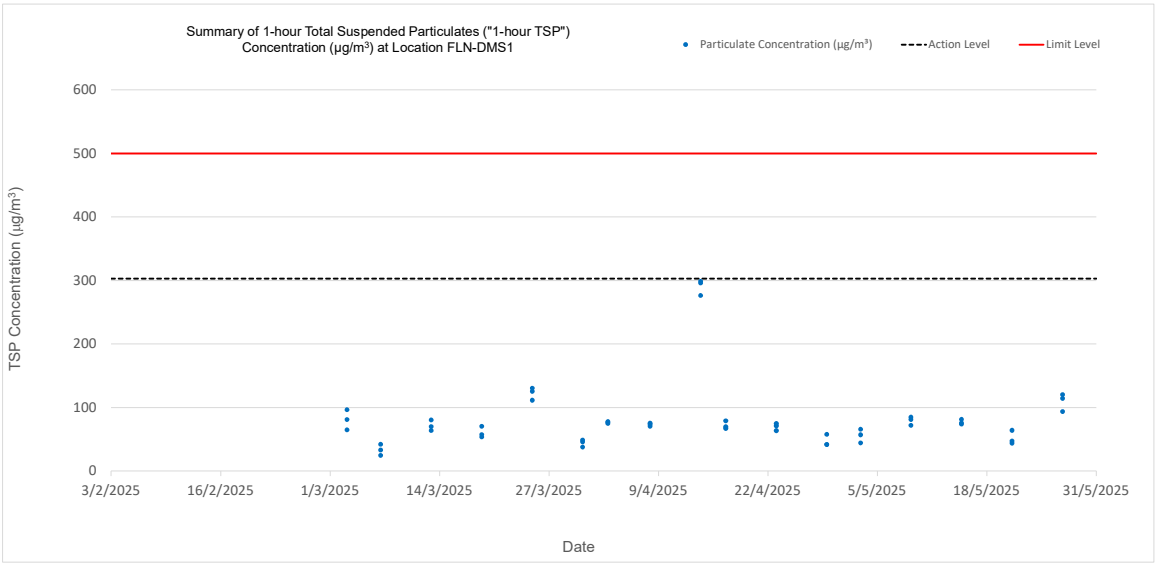
Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (μg/m³) at Location FLN-DMS5(A)					
Date	Weather	Sampling Time	Particulate Concentration (μg/m³)	Action Level	Limit Level
				μg/m³	μg/m³
02/05/2025	Sunny	9:00	49	153	260
08/05/2025	Cloudy	9:00	52	153	260
14/05/2025	Sunny	9:00	49	153	260
20/05/2025	Sunny	9:00	38	153	260
26/05/2025	Cloudy	9:00	45	153	260
30/05/2025	Cloudy	9:00	57	153	260

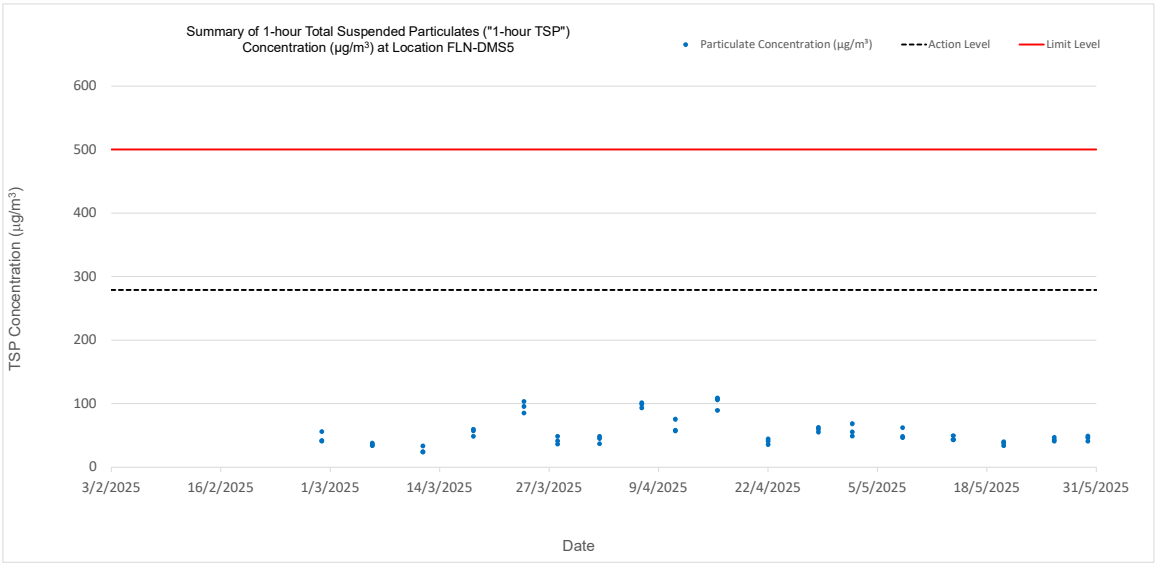
TSP-24hr (μg/m³)		
Average (μg/m³)	Max. (μg/m³)	Min. (μg/m³)
48	57	38

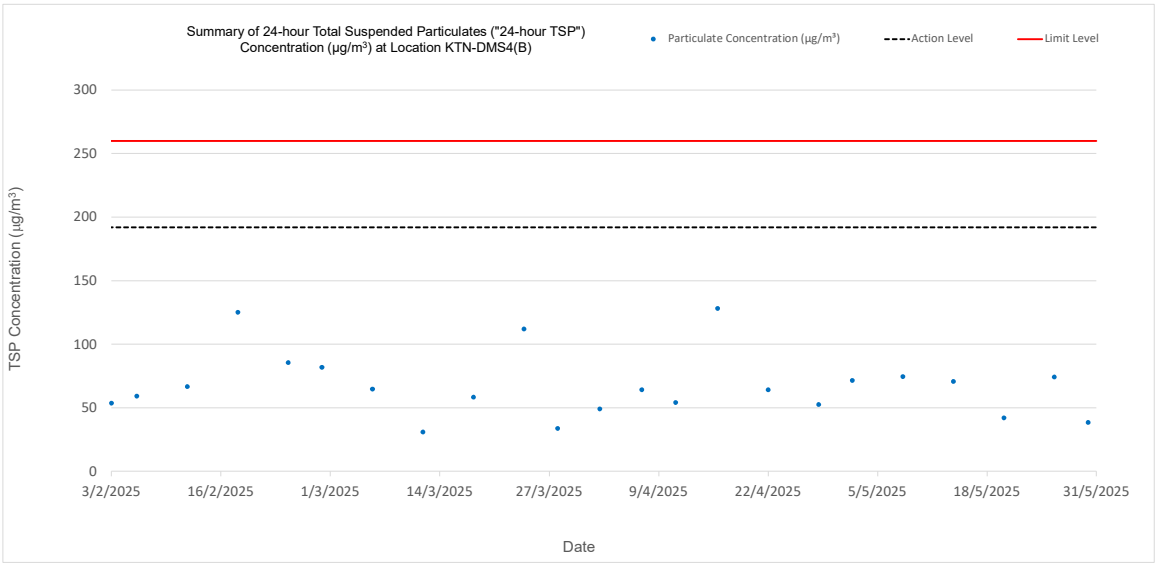
For Contract No. ND/2024/07

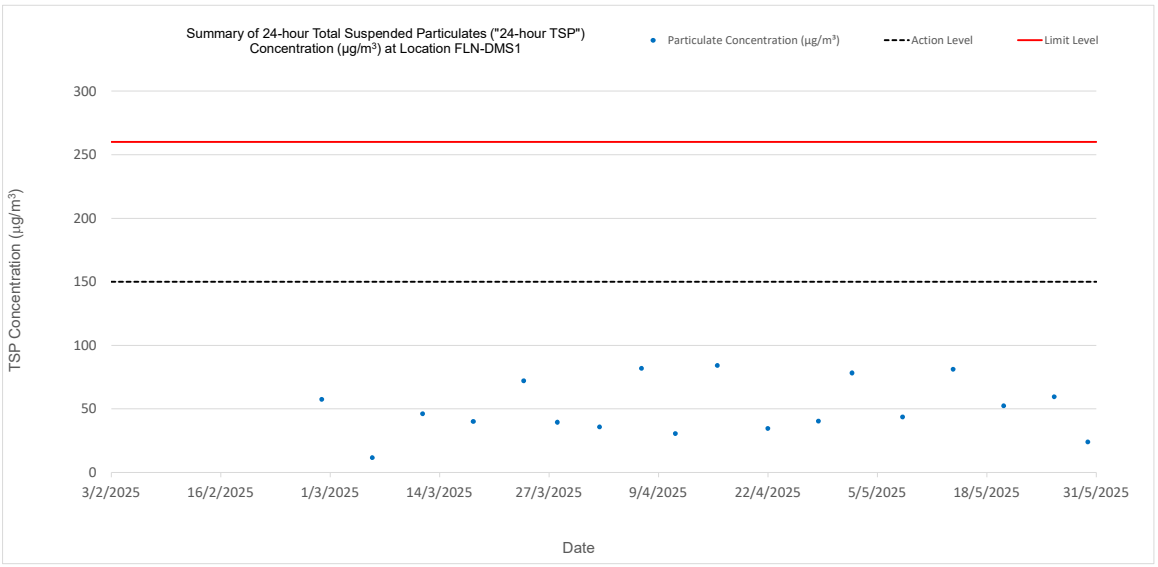
Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (μg/m^3) at Location FLN-DMS1													
Date	Weather	Air Temp. (K)	Filter Weight (g)		Particulate Weight (g)	Elapse time		Sampling time (hrs.)	Flow rate		Av. Flow (m^3/min)	Total Vol (m^3)	Conc (μg/m^3)
			Initial	Final		Initial	Final		Initial	Final			
02/05/2025	Sunny	297.9	3.3186	3.4568	0.1382	10997.9	11021.9	24.0	1.23	1.22	1.23	1765.4	78
08/05/2025	Cloudy	298.5	4.3548	4.4317	0.0769	11021.91	11045.91	24.0	1.22	1.22	1.22	1760.2	44
14/05/2025	Sunny	299.0	4.3276	4.4708	0.1432	11045.9	11069.9	24.0	1.23	1.22	1.22	1762.3	81
20/05/2025	Sunny	299.9	4.3281	4.4209	0.0920	11069.9	11093.9	24.0	1.22	1.22	1.22	1756.4	52
26/05/2025	Cloudy	297.1	4.3038	4.4093	0.1055	11093.9	11117.9	24.0	1.23	1.23	1.23	1771.2	60
30/05/2025	Sunny	297.6	4.3236	4.366	0.0424	11117.9	11141.9	24.0	1.22	1.23	1.22	1763.9	24
												Min	24
												Max	81
												Average	57

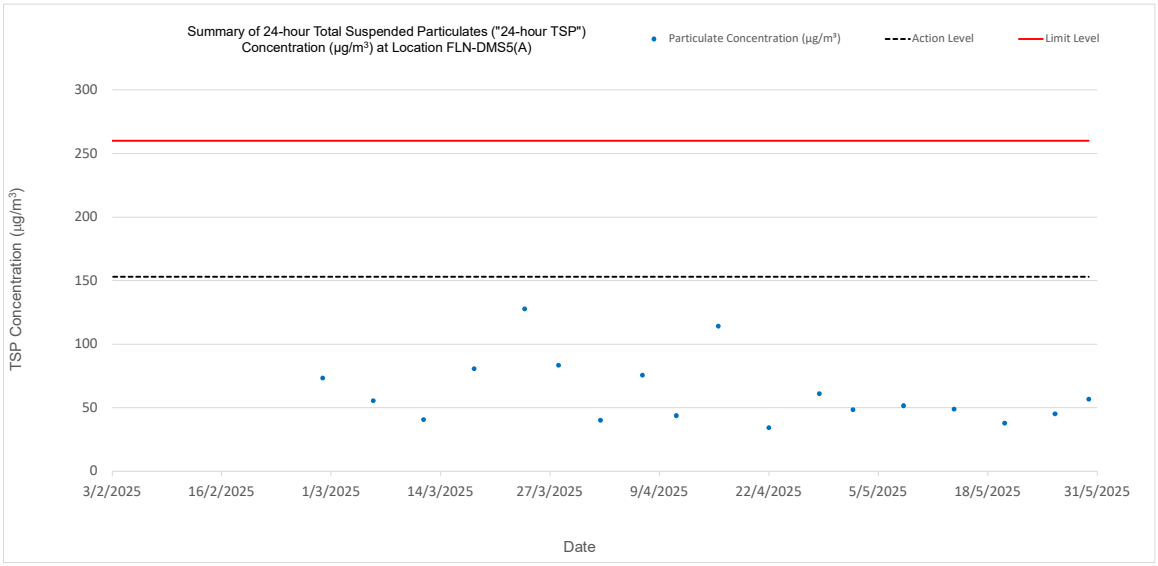

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location KTN-DMS4(B)
Particulate Concentration (μg/m³)
Action Level
Limit Level
TSP Concentration (μg/m³)
600
500
400
300
200
100
0
3/2/2025
16/2/2025
1/3/2025
14/3/2025
27/3/2025
9/4/2025
22/4/2025
5/5/2025
18/5/2025
31/5/2025
Date


Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location FLN-DMS1
Particulate Concentration (μg/m³)
Action Level
Limit Level
TSP Concentration (μg/m³)
600
500
400
300
200
100
0
3/2/2025
16/2/2025
1/3/2025
14/3/2025
27/3/2025
9/4/2025
22/4/2025
5/5/2025
18/5/2025
31/5/2025
Date


Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location FLN-DMS5
Particulate Concentration (μg/m³)
Action Level
Limit Level
TSP Concentration (μg/m³)
600
500
400
300
200
100
0
3/2/2025
16/2/2025
1/3/2025
14/3/2025
27/3/2025
9/4/2025
22/4/2025
5/5/2025
18/5/2025
31/5/2025
Date


Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (μg/m³) at Location KTN-DMS4(B)
Particulate Concentration (μg/m³)
Action Level
Limit Level
TSP Concentration (μg/m³)
300
250
200
150
100
50
0
3/2/2025
16/2/2025
1/3/2025
14/3/2025
27/3/2025
9/4/2025
22/4/2025
5/5/2025
18/5/2025
31/5/2025
Date


Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (μg/m³) at Location FLN-DMS1
Particulate Concentration (μg/m³)
Action Level
Limit Level
TSP Concentration (μg/m³)
300
250
200
150
100
50
0
3/2/2025
16/2/2025
1/3/2025
14/3/2025
27/3/2025
9/4/2025
22/4/2025
5/5/2025
18/5/2025
31/5/2025
Date


Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (μg/m³) at Location FLN-DMS5(A)
Particulate Concentration (μg/m³)
Action Level
Limit Level
TSP Concentration (μg/m³)
300
250
200
150
100
50
0
3/2/2025
16/2/2025
1/3/2025
14/3/2025
27/3/2025
9/4/2025
22/4/2025
5/5/2025
18/5/2025
31/5/2025
Date

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41979
Date of Issue:	2025-03-17
Date Received:	2025-03-14
Date Tested:	2025-03-14
Date Completed:	2025-03-17
Next Due Date:	2025-05-16
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23807
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-01

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.159

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-01	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23807	2203
Calibration Date:	14-Mar-25	14-Mar-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration ($\mu g/m^3$) **X-axis**	Mass concentration ($\mu g/m^3$) **Y-axis**
1	17	24
2	36	44
3	50	61
4	67	76
5	94	99
Average	**52.5**	**60.9**

By Linear Regression of Y on X

Slope , mw = 0.9839 **Intercept, bw =** 9.2248

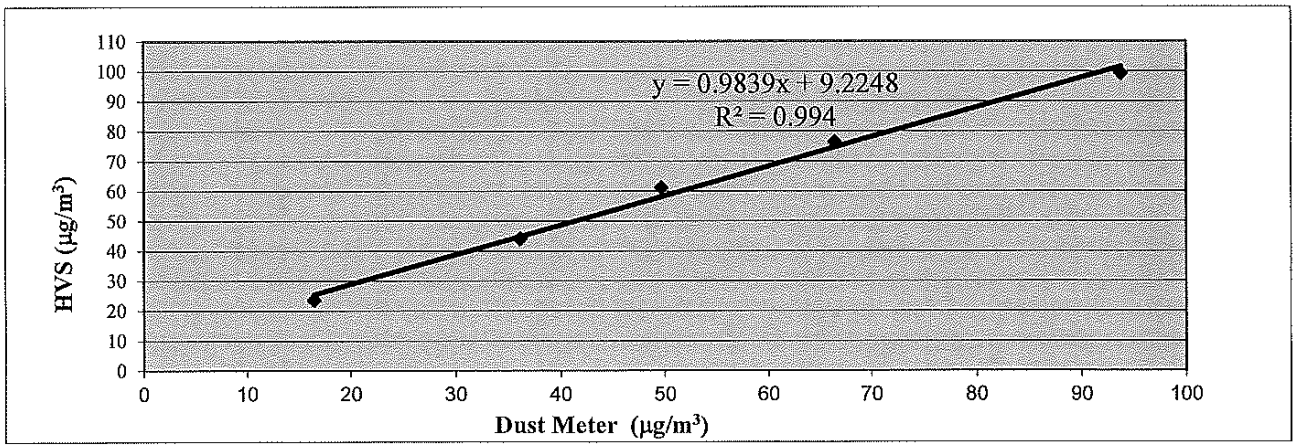
Correlation coefficient* = 0.9970

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler ($\mu g/m^3$)	60.9
Particaulate Concentration by Dust Meter ($\mu g/m^3$)	52.5
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, ($\mu g/m^3$)] **1.159**



QC Reviewer: CHAN HEV Signature: hei Date: 15/3/25

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42298
Date of Issue:	2025-05-12
Date Received:	2025-05-09
Date Tested:	2025-05-09
Date Completed:	2025-05-12
Next Due Date:	2025-07-11
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23807
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-01

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.226

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-01	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23807	2203
Calibration Date:	9-May-25	9-May-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu g/m^3$) **X-axis**	Mass concentration ($\mu g/m^3$) **Y-axis**
1	16	25
2	32	42
3	49	63
4	65	77
5	92	104
Average	**50.7**	**62.2**

By Linear Regression of Y on X

Slope , mw = **1.0448** **Intercept, bw =** **9.2063**

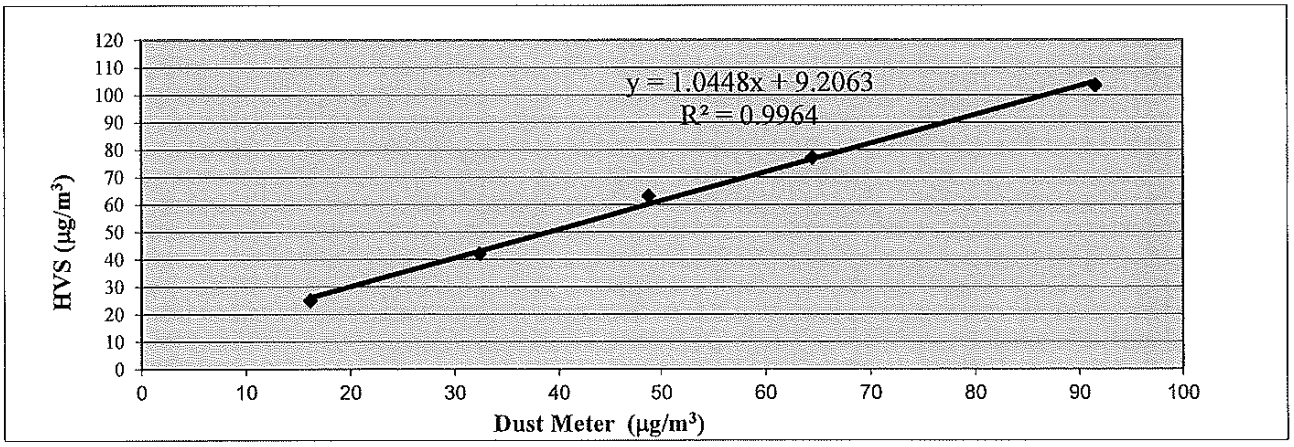
Correlation coefficient* = **0.9982**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler ($\mu g/m^3$)	62.2
Particaulate Concentration by Dust Meter ($\mu g/m^3$)	50.7
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, ($\mu g/m^3$)] **1.226**



QC Reviewer: LEE MAN HER Signature: hes Date: 9/5/2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41979A
Date of Issue:	2025-03-17
Date Received:	2025-03-14
Date Tested:	2025-03-14
Date Completed:	2025-03-17
Next Due Date:	2025-05-16
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23808
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-02

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.148

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-02	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23808	2203
Calibration Date:	14-Mar-25	14-Mar-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration ($\mu g/m^3$) **X-axis**	Mass concentration ($\mu g/m^3$) **Y-axis**
1	19	24
2	38	44
3	53	61
4	65	76
5	91	99
Average	**53.1**	**60.9**

By Linear Regression of Y on X

Slope , mw = 1.0739 **Intercept, bw =** 3.9405

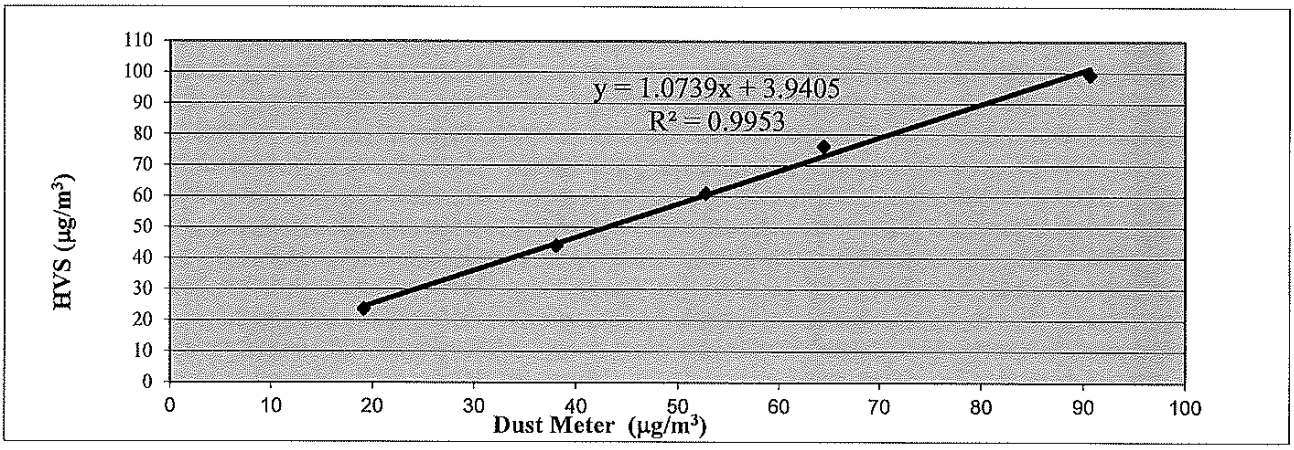
Correlation coefficient* = 0.9976

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler ($\mu g/m^3$)	60.9
Particaulate Concentration by Dust Meter ($\mu g/m^3$)	53.1
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, ($\mu g/m^3$)] **1.148**



QC Reviewer: LEE MAN HOE Signature: hei Date: 15/3/25

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42298A
Date of Issue:	2025-05-12
Date Received:	2025-05-09
Date Tested:	2025-05-09
Date Completed:	2025-05-12
Next Due Date:	2025-07-11
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23808
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-02

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.151

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-02	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23808	2203
Calibration Date:	9-May-25	9-May-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	19	25
2	34	42
3	55	63
4	68	77
5	94	104
Average	**54.0**	**62.2**

By Linear Regression of Y on X

Slope , mw = 1.0356 **Intercept, bw =** 6.2601

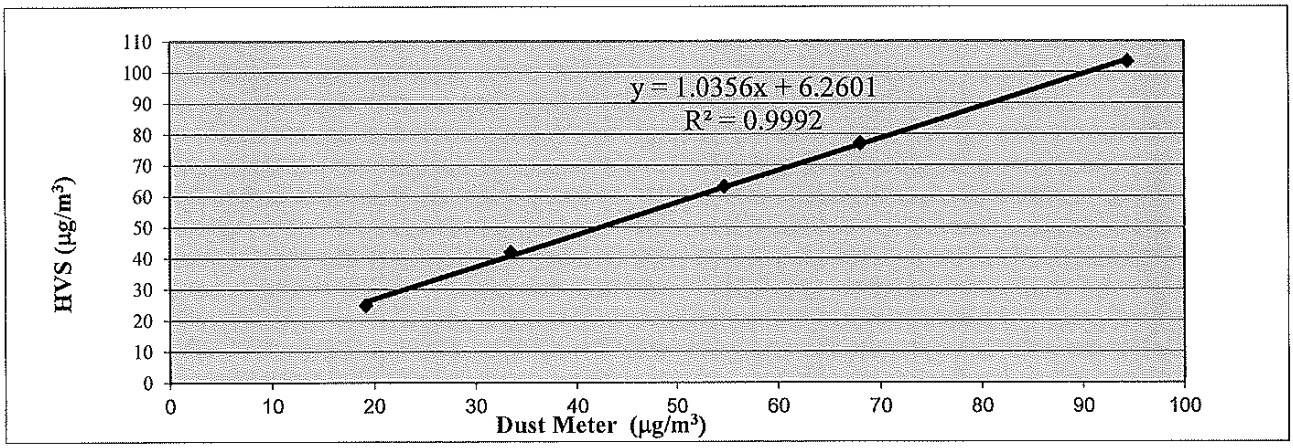
Correlation coefficient* = 0.9996

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	62.2
Particaulate Concentration by Dust Meter (µg/m^3)	54.0
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.151**



QC Reviewer: Lee Man Hin Signature: lei Date: 9/5/2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42298B
Date of Issue:	2025-05-12
Date Received:	2025-05-09
Date Tested:	2025-05-09
Date Completed:	2025-05-12
Next Due Date:	2025-07-11
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23809
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-03

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

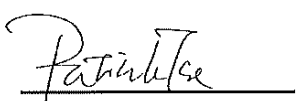
1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.152

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-03	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23809	2203
Calibration Date:	9-May-25	9-May-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	18	25
2	37	42
3	52	63
4	70	77
5	93	104
Average	**54.0**	**62.2**

By Linear Regression of Y on X

Slope , mw = **1.0436** **Intercept, bw =** **5.8692**

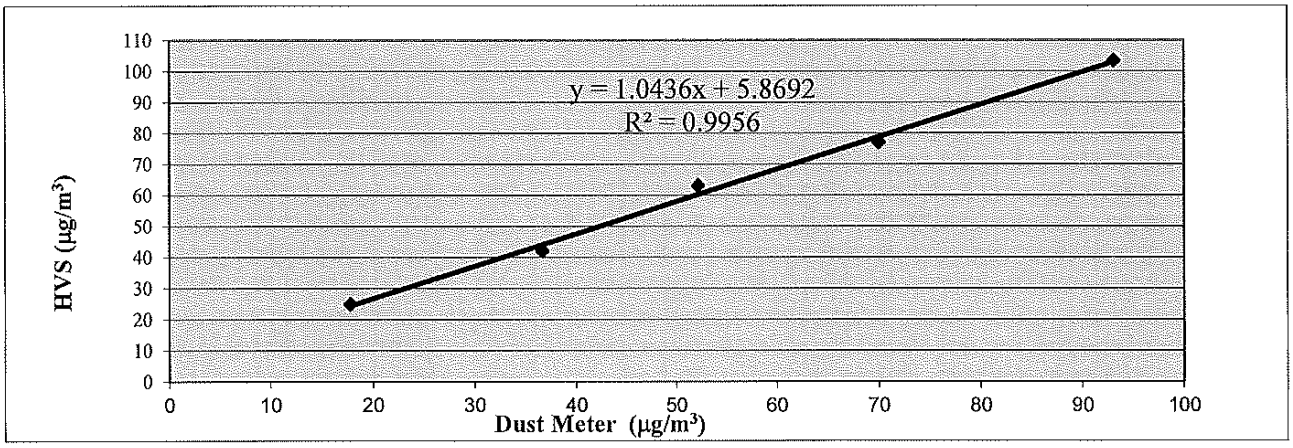
Correlation coefficient* = **0.9978**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	62.2
Particaulate Concentration by Dust Meter (µg/m^3)	54.0
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.152**



QC Reviewer: LEE MAN HEE Signature: Lee Date: 9/5/2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42207A
Date of Issue:	2025-04-21
Date Received:	2025-04-18
Date Tested:	2025-04-18
Date Completed:	2025-04-21
Next Due Date:	2025-06-20
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24477
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-06

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.166

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-06	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24477	2203
Calibration Date:	18-Apr-25	18-Apr-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	8	11
2	21	27
3	37	48
4	67	74
5	90	100
Average	**44.6**	**52.0**

By Linear Regression of Y on X

Slope , mw = **1.0525** **Intercept, bw =** **5.0564**

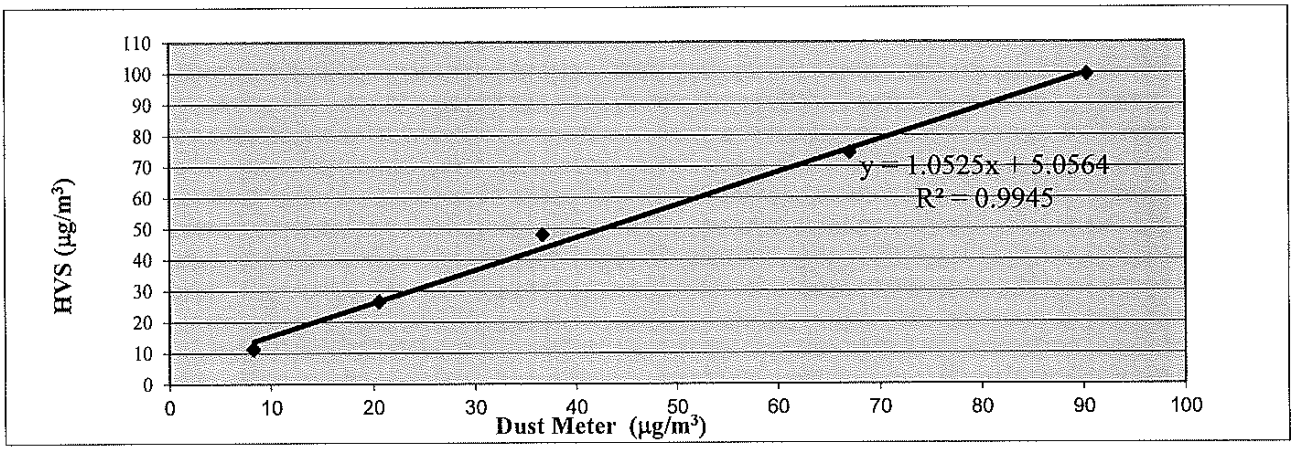
Correlation coefficient* = **0.9973**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	52.0
Particaulate Concentration by Dust Meter (µg/m^3)	44.6
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.166**



QC Reviewer: LBE MAN HRZ Signature: [signature] Date: 18/4/25

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41979D
Date of Issue:	2025-03-17
Date Received:	2025-03-14
Date Tested:	2025-03-14
Date Completed:	2025-03-17
Next Due Date:	2025-05-16
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24475
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-07

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

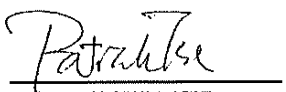
1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.173

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	14-Mar-25	14-Mar-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	16	24
2	36	44
3	51	61
4	65	76
5	93	99
Average	**51.9**	**60.9**

By Linear Regression of Y on X

Slope , mw = 0.9945 **Intercept, bw =** 9.2656

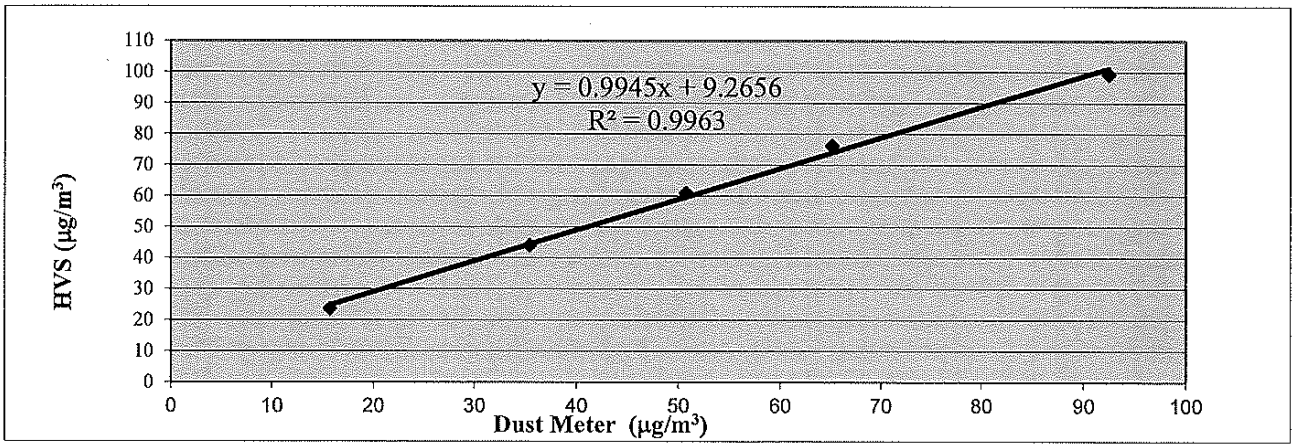
Correlation coefficient* = 0.9982

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	60.9
Particaulate Concentration by Dust Meter (µg/m^3)	51.9
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] 1.173



QC Reviewer: LEE MAN HEE Signature: Lee Date: 15/31 2025

WELLAB 隆力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42298D
Date of Issue:	2025-05-12
Date Received:	2025-05-09
Date Tested:	2025-05-09
Date Completed:	2025-05-12
Next Due Date:	2025-07-11
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24475
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-07

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.161

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	9-May-25	9-May-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	18	25
2	37	42
3	57	63
4	65	77
5	90	104
Average	**53.5**	**62.2**

By Linear Regression of Y on X

Slope , mw = **1.1043** **Intercept, bw =** **3.0566**

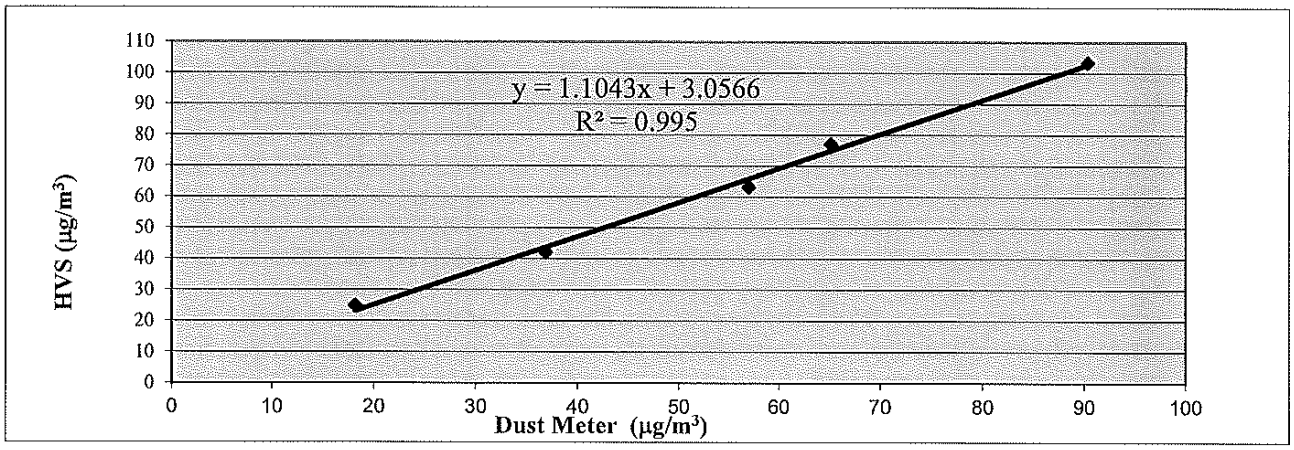
Correlation coefficient* = **0.9975**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	62.2
Particaulate Concentration by Dust Meter (µg/m^3)	53.5
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.161**



QC Reviewer: LEE MAN HER Signature: Lee Date: 9/5/2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42207B
Date of Issue:	2025-04-21
Date Received:	2025-04-18
Date Tested:	2025-04-18
Date Completed:	2025-04-21
Next Due Date:	2025-06-20
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24479
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-08

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.113

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-08	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24479	2203
Calibration Date:	18-Apr-25	18-Apr-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
	Dust Meter	**HVS**
Calibration Point	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	8	11
2	20	27
3	42	48
4	70	74
5	93	100
Average	**46.7**	**52.0**

By Linear Regression of Y on X

Slope , mw = **1.0136** **Intercept, bw =** **4.6633**

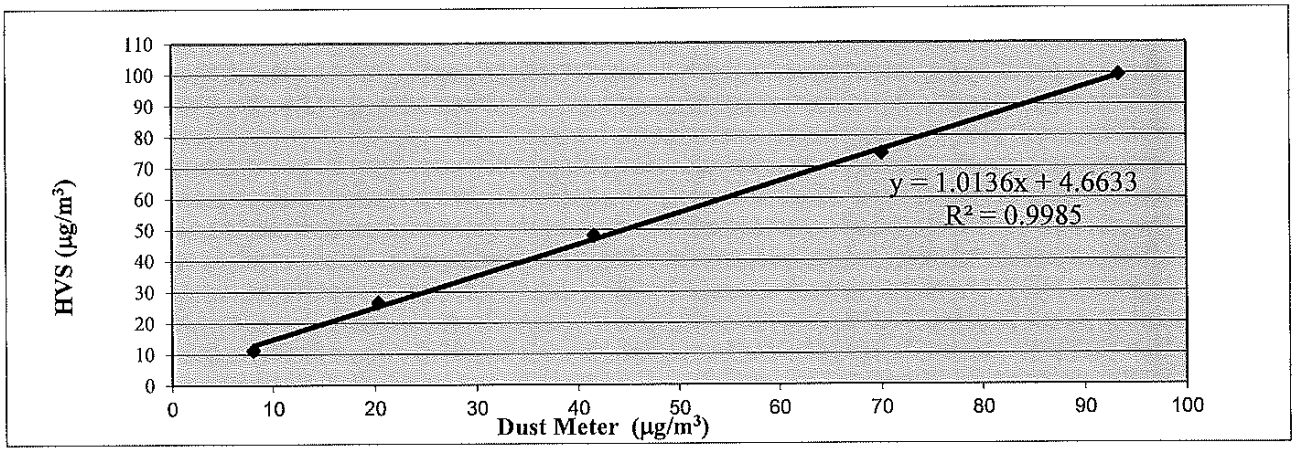
Correlation coefficient* = **0.9992**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	52.0
Particaulate Concentration by Dust Meter (µg/m^3)	46.7
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.113**



QC Reviewer: LBZ MAN HBZ Signature: [signature] Date: 18/4/25

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42207C
Date of Issue:	2025-04-21
Date Received:	2025-04-18
Date Tested:	2025-04-18
Date Completed:	2025-04-21
Next Due Date:	2025-06-20
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23811
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-09

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.154

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-09	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23811	2203
Calibration Date:	18-Apr-25	18-Apr-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
	Dust Meter	**HVS**
Calibration Point	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	6	11
2	21	27
3	37	48
4	69	74
5	92	100
Average	**45.1**	**52.0**

By Linear Regression of Y on X

Slope , mw = **1.0066** **Intercept, bw =** **6.6439**

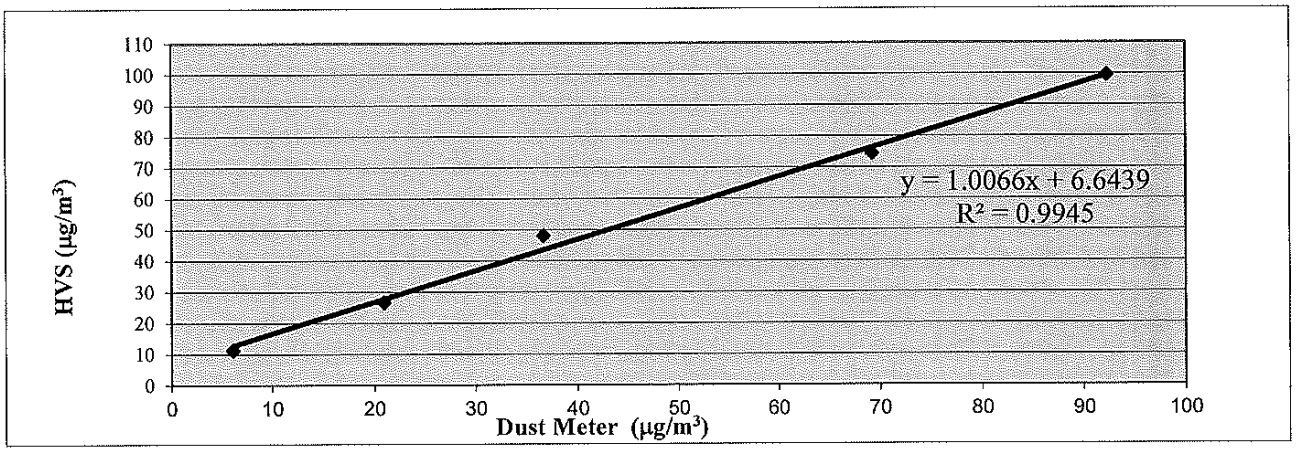
Correlation coefficient* = **0.9973**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	52.0
Particaulate Concentration by Dust Meter (µg/m^3)	45.1
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.154**



QC Reviewer: LEE MUN HEE Signature: Lee Date: 18/4/25

WELLAB 威力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	42207D
Date of Issue:	2025-04-21
Date Received:	2025-04-18
Date Tested:	2025-04-18
Date Completed:	2025-04-21
Next Due Date:	2025-06-20
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24478
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-10

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.127

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TSP - Total Suspended Particulates (1 hr Dust Meter)
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-10	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24478	2203
Calibration Date:	18-Apr-25	18-Apr-25
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	5	11
2	23	27
3	41	48
4	68	74
5	94	100
Average	**46.2**	**52.0**

By Linear Regression of Y on X

Slope , mw = **1.0049** **Intercept, bw =** **5.6348**

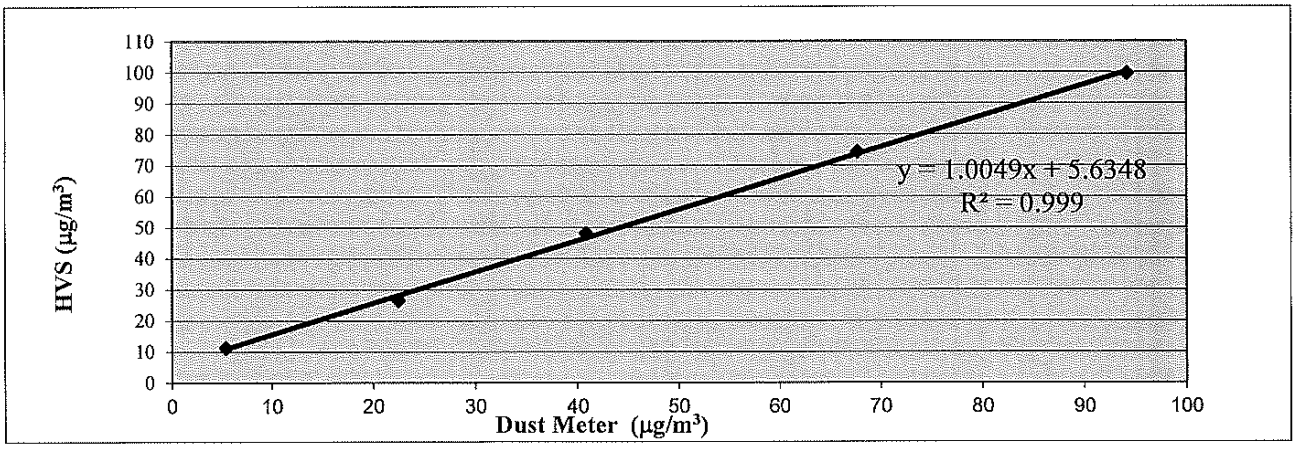
Correlation coefficient* = **0.9995**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	52.0
Particaulate Concentration by Dust Meter (µg/m^3)	46.2
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.127**



QC Reviewer: LEE MAN HEI Signature: lei Date: 18/4/25

WELLAB 匯力
consulting . testing . research

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./250314

Equipment No.: WA-12-09 Serial No. 2203

Model No. TE-5170 Cal. Date: 14-Mar-25

Operator: HL

Ambient Condition			
Temperature, Ta (K)	293.6	Pressure, Pa (mmHg)	764.1

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	7-Jan-26	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	11.5	3.43	60.40	7.9	2.84
2	10.0	3.19	56.38	6.8	2.63
3	7.8	2.82	49.88	5.3	2.33
4	5.1	2.28	40.48	3.6	1.92
5	3.4	1.86	33.19	2.4	1.56

By Linear Regression of Y on X

Slope , mw = 0.0463 **Intercept, bw :** 0.0292

Correlation coefficient* = 0.9997

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **4.00**

Remarks:

Conducted by: LEE MAN HEI Signature: Date: 14/3/25

Checked by: PO Ka-chun Signature: Date: 14/3/25

WELLAB 匯力
consulting . testing . research

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./250418

Equipment No.: WA-12-09 Serial No. 2203

Model No. TE-5170 Cal. Date: 18-Apr-25

Operator: HL

Ambient Condition			
Temperature, Ta (K)	294.1	Pressure, Pa (mmHg)	761.4

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	7-Jan-26	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	12.1	3.50	61.78	8.3	2.90
2	10.2	3.22	56.78	6.9	2.65
3	7.4	2.74	48.48	5.0	2.25
4	5.6	2.38	42.27	3.6	1.91
5	3.1	1.77	31.65	2.3	1.53

By Linear Regression of Y on X

Slope , mw = 0.0462 **Intercept, bw =** 0.0203

Correlation coefficient* = 0.9972

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **3.97**

Remarks:

Conducted by: LEE MAN HEI Signature: Date: 18/4/25

Checked by: HO KAR CHUN Signature: Date: 18/4/25

WELLAB 匯力
consulting . testing . research

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./250509

Equipment No.: WA-12-09 Serial No. 2203

Model No. TE-5170 Cal. Date: 9-May-25

Operator: HL

Ambient Condition			
Temperature, Ta (K)	294.6	Pressure, Pa (mmHg)	758.2

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	**mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$**			
Next Calibration Date:	7-Jan-26	**Qstd = $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler					
Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	11.6	3.42	60.33	8.0	2.84
2	10.0	3.18	56.07	6.8	2.62
3	7.8	2.81	49.61	5.2	2.29
4	5.4	2.33	41.41	3.6	1.91
5	3.2	1.80	32.05	2.4	1.56

By Linear Regression of Y on X

Slope , mw = 0.0457 **Intercept, bw :** 0.0524

Correlation coefficient* = 0.9978

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **4.04**

Remarks:

Conducted by: Ho Man Hei Signature: Date: 9/5/2025

Checked by: Ao Ca Signature: Date: 9/5/2025

TISCH Environmental

RECALIBRATION DUE DATE:
January 7, 2026

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	January 7, 2025	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 759.0	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **0993**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3940	3.2	2.00
2	3	4	1	0.9920	6.4	4.00
3	5	6	1	0.8890	7.9	5.00
4	7	8	1	0.8470	8.8	5.50
5	9	10	1	0.6990	12.7	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0114	0.7255	1.4252	0.9958	0.7143	0.8787
1.0071	1.0152	2.0156	0.9916	0.9996	1.2427
1.0051	1.1306	2.2535	0.9896	1.1132	1.3893
1.0039	1.1852	2.3635	0.9884	1.1669	1.4572
0.9987	1.4287	2.8505	0.9833	1.4067	1.7574
QSTD	**m=**	**2.02896**	**QA**	**m=**	**1.27050**
	b=	**-0.04420**		**b=**	**-0.02725**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

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

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

WELLAB 匯力
consulting . testing . research

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

Station	FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	File No.	WMA20002/20/0030
Date:	3-Mar-25	Next Due Date:	2-May-25
Model No.	TE-5170	Operator:	HL
Equipment No.:	WA-12-20	Serial No.	3223

Ambient Condition			
Temperature, Ta (K)	299	Pressure, Pa (mmHg)	761.4

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	7-Jan-26	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.2	3.63	63.97	8.2	2.86
2	10.5	3.24	57.14	6.8	2.61
3	7.8	2.79	49.35	5.1	2.26
4	6.7	2.59	45.79	4.4	2.10
5	3.3	1.82	32.37	2.5	1.58

By Linear Regression of Y on X

Slope , mw = 0.0410 **Intercept, bw =** 0.2397

Correlation coefficient* = 0.9994

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.02

Remarks:

Conducted by: LEE MAN HEI Signature: Date: 3/3/2025

Checked by: Ho Lee Chan Signature: Date: 3/3/2025

WELLAB 匯力
consulting . testing . research

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

Station	FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	File No.	WMA20002/20/0031
Date:	29-Apr-25	Next Due Date:	28-Jun-25
Model No.	TE-5170	Operator:	HL
Equipment No.:	WA-12-20	Serial No.	3223

Ambient Condition			
Temperature, Ta (K)	302.4	Pressure, Pa (mmHg)	763.2

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	7-Jan-26	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.2	3.61	63.69	8.4	2.88
2	10.1	3.16	55.75	6.5	2.54
3	7.5	2.72	48.19	5.0	2.22
4	6.4	2.52	44.58	4.1	2.01
5	3.3	1.81	32.23	2.4	1.54

By Linear Regression of Y on X

Slope , mw = 0.0430 **Intercept, bw :** 0.1393

Correlation coefficient* = 0.9989

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.99**

Remarks:

Conducted by: LEE MAN HEI Signature: Date: 29/4/2025

Checked by: Ho Ka Ho Signature: Date: 29/4/25

WELLAB 匯力
consulting . testing . research

RSP - Respirable Suspended Particulates Sampler (PM 10)
Field Calibration Report

Station	KTN-DMS4A - Temporary Structure at Pak Shek Au	File No.	WMA20002/03/0030
Date:	31-Mar-25	Next Due Date:	30-May-25
Model No.	TE-6070X	Operator:	HL
Equipment No.:	WA-11-03	Serial No.	3225

Ambient Condition			
Temperature, Ta (K)	284.6	Pressure, Pa (mmHg)	769

Orifice Transfer Standard Information					
Serial No.:	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	Next Calibration Date:		7-Jan-26	

Calibration of RSP Sampler

Calibration Point	ORIFICE					HVS	
	ΔH(orifice), in. of water	Del Hc (1)	Qstd (2) (CFM)	Qa (3) (CFM) **X -axis**	Qa (3) (m^3/min) **X -axis**	ΔW (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ **Y-axis**
1	12	12.71	62.84	59.31	1.68	8.4	1.85
2	10.1	10.70	57.71	54.47	1.54	7.1	1.70
3	8.0	8.48	51.45	48.56	1.37	6.1	1.58
4	5.3	5.62	42.02	39.66	1.12	4.5	1.36
5	3.6	3.81	34.77	32.81	0.93	3.2	1.14

By Linear Regression of Y on X

Slope , mw = 0.0260 **Intercept, bw =** 0.3045

Correlation coefficient* = 0.9983

(1) DEL Hc = ΔH x (Pa/760*298/Ta)

(2) Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ - bc}/mc (m3/min)

(3) Qa = Qstd x (Ta / Pa) x (760 / 298) (m3/min)

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

Set Point Flow Rate., SFR

SFR = 1.13 x (760/Pa) x (Ta/298) = 37.69

Sampler Well - Type Manometer Set Point, SSP

SSP = [(mw x SFR + bw)^2 x Pa] / (Ta + 30) = 4.04

Remarks:

Conducted by: LEE MAN HEI Signature: Date: 31/3/25

Checked by: Ho Ka Lun Signature: Date: 31/3/25

WELLAB 匯力
consulting . testing . research

RSP - Respirable Suspended Particulates Sampler (PM 10)
Field Calibration Report

Station	KTN-DMS4A - Temporary Structure at Pak Shek Au	File No.	WMA20002/03/0031
Date:	28-May-25	Next Due Date:	27-Jul-25
Model No.	TE-6070X	Operator:	HL
Equipment No.:	WA-11-03	Serial No.	3225

Ambient Condition			
Temperature, Ta (K)	298.5	Pressure, Pa (mmHg)	760.6

Orifice Transfer Standard Information					
Serial No.:	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	Next Calibration Date:		7-Jan-26	

Calibration of RSP Sampler

Calibration Point	ORIFICE					HVS	
	ΔH(orifice), in. of water	Del Hc (1)	Qstd (2) (CFM)	Qa (3) (CFM) **X -axis**	Qa (3) (m^3/min) **X -axis**	ΔW (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ **Y-axis**
1	12.6	12.59	62.53	62.59	1.77	8.9	1.96
2	10.5	10.49	57.15	57.20	1.62	7.5	1.80
3	8.4	8.39	51.20	51.25	1.45	6.4	1.66
4	5.6	5.60	41.95	41.98	1.19	4.3	1.36
5	3.8	3.80	34.69	34.72	0.98	3.1	1.16

By Linear Regression of Y on X

Slope , mw = 0.0289 **Intercept, bw =** 0.1567

Correlation coefficient* = 0.9991

(1) DEL Hc = ΔH x (Pa/760*298/Ta)

(2) Qstd = $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\}/mc$ (m3/min)

(3) Qa = Qstd x (Ta / Pa) x (760 / 298) (m3/min)

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

Set Point Flow Rate., SFR

SFR = 1.13 x (760/Pa) x (Ta/298) = 39.96

Sampler Well - Type Manometer Set Point, SSP

SSP = [(mw x SFR + bw)^2 x Pa] / (Ta + 30) = 3.98

Remarks:

Conducted by: Lee Man Hin Signature: Date: 28/5/2025

Checked by: Ho Ka Lun Signature: Date: 28/5/25

Impact Air Quality Monitoring Data & Graphical Presentations & Calibration Certificates (conducted by Remaining Phase ET)

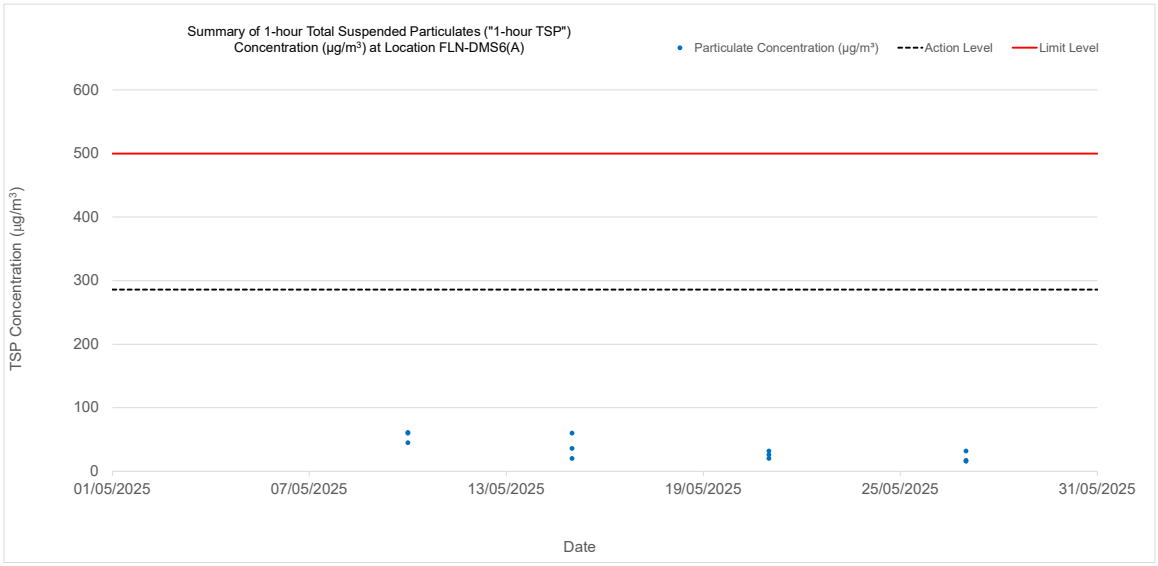
For Contract No. ND/2024/04

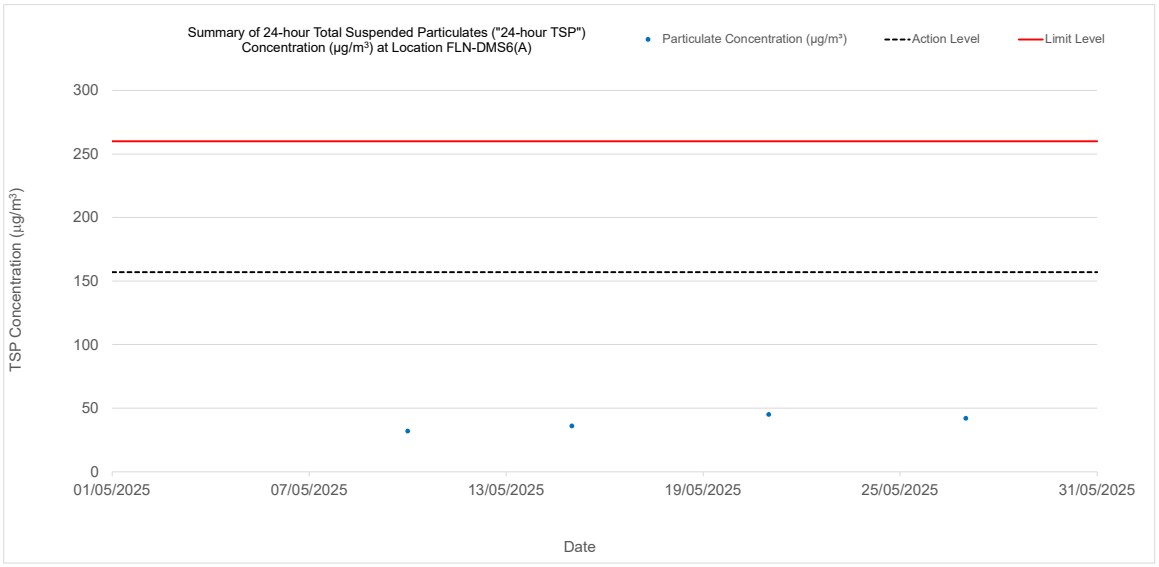
Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (µg/m³) at Location FLN-DMS6(A)										
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Particulate Concentration (µg/m³)			Average	Action Level	Limit Level
								µg/m³	µg/m³	µg/m³
10/05/2025	Fine	9:27	10:27	11:27	45	60	61	55	286	500
15/05/2025	Fine	8:56	9:56	10:56	60	36	20	39	286	500
21/05/2025	Fine	8:52	9:52	10:52	32	20	26	26	286	500
27/05/2025	Fine	8:45	9:45	10:45	32	17	16	22	286	500

TSP-1hr (µg/m³)		
Average (µg/m³)	Max. (µg/m³)	Min. (µg/m³)
35	61	16

Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (µg/m3) at Location FLN-DMS6(A)					
Date	Weather	Sampling Time	Particulate Concentration (µg/m³)	Action Level	Limit Level
				µg/m³	µg/m³
10/05/2025	Fine	9:27	32	157	260
15/05/2025	Fine	8:56	36	157	260
21/05/2025	Fine	8:52	45	157	260
27/05/2025	Fine	9:00	42	157	260

TSP-24hr (µg/m³)		
Average (µg/m³)	Max. (µg/m³)	Min. (µg/m³)
39	45	32


Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (µg/m³) at Location FLN-DMS6(A)
Particulate Concentration (µg/m³)
Action Level
Limit Level
TSP Concentration (µg/m³)
600
500
400
300
200
100
0
01/05/2025
07/05/2025
13/05/2025
19/05/2025
25/05/2025
31/05/2025
Date


Summary of 24-hour Total Suspended Particulates ("24-hour TSP") Concentration (µg/m³) at Location FLN-DMS6(A)
Particulate Concentration (µg/m³)
Action Level
Limit Level
TSP Concentration (µg/m³)
300
250
200
150
100
50
0
01/05/2025
07/05/2025
13/05/2025
19/05/2025
25/05/2025
31/05/2025
Date

TISCH Environmental

RECALIBRATION DUE DATE:
December 2, 2025

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 2, 2024	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 757.4	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3465**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4300	3.2	2.00
2	3	4	1	1.0190	6.4	4.00
3	5	6	1	0.9090	7.9	5.00
4	7	8	1	0.8680	8.8	5.50
5	9	10	1	0.7170	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0093	0.7058	1.4238	0.9958	0.6963	0.8796
1.0051	0.9863	2.0136	0.9916	0.9731	1.2439
1.0031	1.1035	2.2512	0.9896	1.0886	1.3907
1.0018	1.1542	2.3611	0.9884	1.1387	1.4586
0.9965	1.3898	2.8476	0.9831	1.3711	1.7592
QSTD	**m=**	**2.08107**	**QA**	**m=**	**1.30313**
	b=	**-0.04295**		**b=**	**-0.02653**
	r=	**0.99999**		**r=**	**0.99999**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key

- ΔH: calibrator manometer reading (in H2O)
- ΔP: rootsmeter manometer reading (mm Hg)
- Ta: actual absolute temperature (°K)
- Pa: actual barometric pressure (mm Hg)
- b: intercept
- m: slope

RECALIBRATION

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

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

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	**Tung Chung East**	**Site ID:**	**DM-1b**	**Date:**	**29-Apr-2025**
Serial No:	**1086**	**Model:**	**TE-5170X**	**Operator:**	**Andy Li**

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	760.2	**Actual Temperature during Calibration (T_a) (deg K):**	298.6

Calibration Orifice

Model:	TE-5025A	**Slope (m_c):**	2.08107
Serial No.:	3465	**Intercept (b_c):**	-0.04295
Calibration Due Date:	2-Dec-25	**Corr. Coeff:**	0.99999

Calibration Data

Plate or Test #	ΔH_2O (in)	Qa, X-Axis (m^3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
5	1.82	0.668	34.5	34.47
7	2.95	0.845	40.2	40.17
10	3.65	0.938	46.5	46.46
13	4.52	1.041	51.2	51.16
18	5.63	1.160	58.2	58.15

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

m= 48.8278 b= 0.6446 Corr. Coeff= 0.9921

Calculations

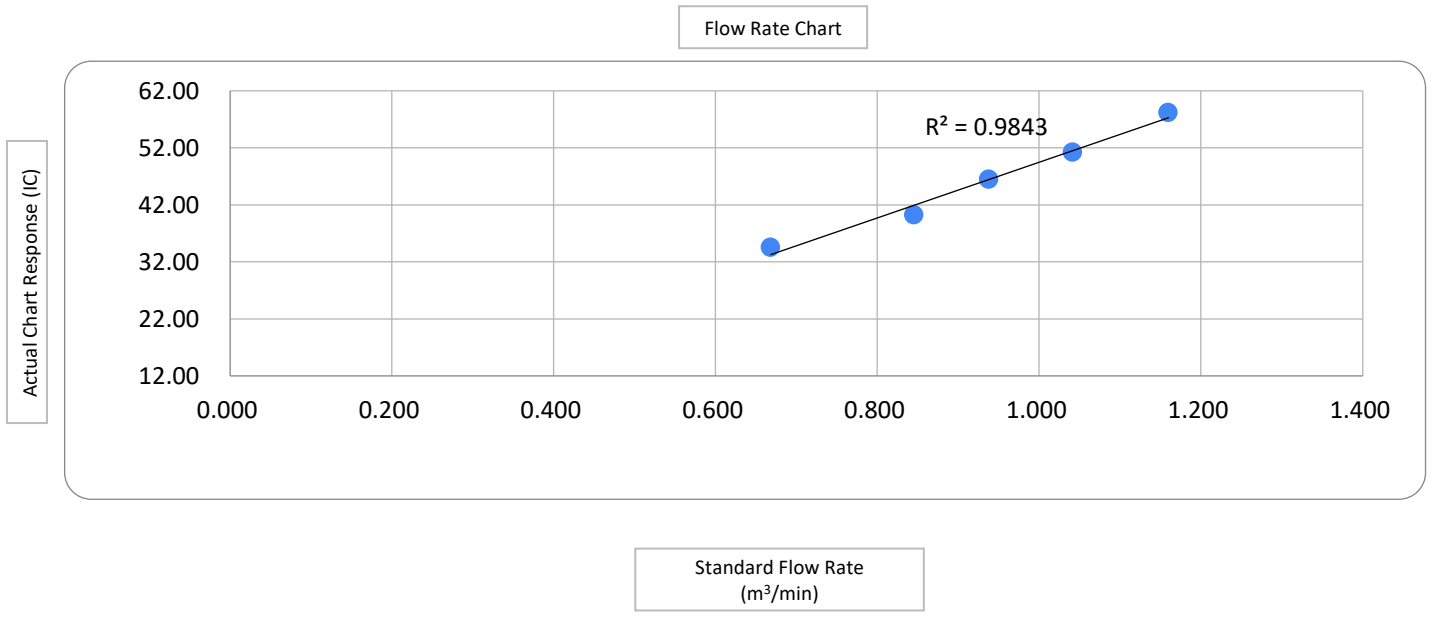
$Qa = 1/m_c * [Sqrt (\Delta H_2O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$

$IC = I * (Sqrt (P_a/P_{Std}) * (T_{Std}/T_a))$

Qa = actual flow rate
IC = corrected chart response
I = actual chart response
m_c = calibrator slope
b_c = calibrator intercept

m = sampler slope
b = sampler intercept
T_{Std} = 298 deg K
P_{Std} = 760 mm Hg
T_a = actual temperature during calibration (deg K)
P_a = actual pressure during calibration (mm Hg)

Flow Rate Chart



Checked by: Joe Ho Date: 29-Apr-2025

Lead Consultant, Environmental

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**29-Apr-25**	to	**3-May-25**	Next Verification Test Date:	**29-Jun-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467360				
Our Report Refrence No.:	RPT-25-HVS-0012				
Calibration Location:	Tung Chung East				

Standard Equipment Information

Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1086	3465
Last Calibration Date:	29-Apr-25	2-Dec-24
Next Calibration Date:	29-Jun-25	2-Dec-25

Equipement Vertification Result

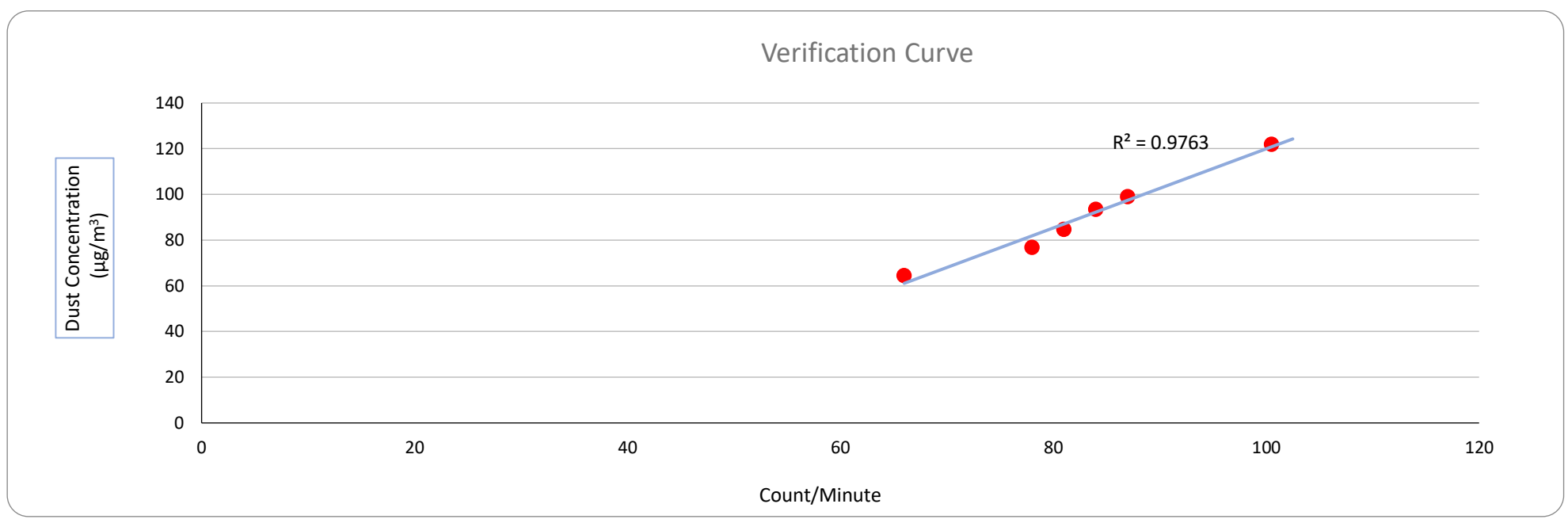
Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	29/04/2025	5444.94	5445.94	60.00	4860	81	85
2	29/04/2025	5445.94	5446.94	60.00	5220	87	99
3	29/04/2025	5446.94	5447.94	60.00	6030	101	122
4	3/05/2025	5447.94	5448.94	60.00	5040	84	94
5	3/05/2025	5448.94	5449.94	60.00	4680	78	77
6	3/05/2025	5449.94	5450.94	60.00	3960	66	64

Linear Regression of y on x

Slope, K factor: **1.7313** Intercept: **-53.1854** *Correlation Coefficient,R: **0.9881**

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Operated By: Andy Li Date: 07-05-2025

Project Technician, Environmental

Checked By: Joe Ho Date: 07-05-2025

Lead Consultant, Environmental

Appendix 2.3 Weather Information during the Reporting Period

	Mean Air Temperature (°C)	Mean Relative Humidity (%	Precipitation (mm)
1 May 2025	26.3	81.0	1.4
2 May 2025	27.4	71.0	0
3 May 2025	26.7	79.0	0
4 May 2025	27.2	78.0	Trace
5 May 2025	28.2	75.0	Trace
6 May 2025	27.5	81.0	0.4
7 May 2025	25.5	89.5	9.8
8 May 2025	26.2	84.5	0.6
9 May 2025	26.8	80.0	0.4
10 May 2025	26.9	75.0	Trace
11 May 2025	23.7	62.0	3.9
12 May 2025	23.0	55.5	0
13 May 2025	25.1	71.0	0
14 May 2025	27.4	74.5	Trace
15 May 2025	28.7	74.5	0
16 May 2025	28.3	82.0	Trace
17 May 2025	27.7	74.0	0
18 May 2025	29.3	74.0	0
19 May 2025	29.6	77.5	Trace
20 May 2025	29.6	77.0	0
21 May 2025	29.9	74.5	0
22 May 2025	30.3	72.5	0
23 May 2025	29.9	75.5	2
24 May 2025	27.9	75.5	3.5
25 May 2025	24.6	64.0	0
26 May 2025	25.2	62.5	0
27 May 2025	26.0	64.5	0
28 May 2025	31.0	79.5	Trace
29 May 2025	26.2	90.0	53.2
30 May 2025	24.8	87.0	6.4
31 May 2025	26.2	83.5	Trace

Appendix 2.4 Event and Action Plan for Construction Dust

Appendix 2.4 Event and Action Plan for Construction Dust

Event	Action			
	ET	IEC	ER	Contractor
Action Level				
Exceedance for one sample	1. Identify sources, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by the ET; 2. Check the Contractor's working methods.	1. Notify the Contractor.	1. Rectify any unacceptable practices; 2. Amend working methods agreed with the ER if appropriate.
Exceedance for two or more consecutive samples	1.Identify sources. 2.Inform the IEC and ER; 3.Advise the ER on the effectiveness of the proposed remedial measures; 4.Repeat measurements to confirm findings; 5.Increase monitoring frequency to daily; 6.Discuss with the IEC, ER and Contractor on remedial action required; 7.If exceedance continues, arrange meeting with the IEC, Contractor and ER; 8.If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Check the Contractor's working methods; 3. Discuss with the ET, ER and Contractor on possible remedial measures if required; 4. Advise the ER on the effectiveness of proposed remedial measures if required; 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial action to the ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

Event	Action			
	ET	IEC	ER	Contractor
Limit Level				
Exceedance for one sample.	1. Identify sources, investigate causes of exceedance and proposed remedial measures; 2. Inform the IEC, ER, and Contractor; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of the Contractor's remedial action and keep the IEC and ER informed of the results.	1. Check monitoring data submitted by the ET. 2. Check the Contractor's working methods. 3. Discuss with the ET, ER and Contractor on possible remedial measures. 4. Advise the ER and ET on the effectiveness of the proposed remedial measures. 5. Supervise the implementation off remedial measures.	1. Confirm receipt of the notification of exceedance in writing; 2. Notify the Contractor; Ensure remedial measures are properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial action to the ER and copy to the ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Exceedance for two or more consecutive samples	1. Notify the IEC, ER and Contractor; 2. Identify sources; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of the Contractor's working procedures with the ER to determine the possible mitigation to be implemented; 6. Arrange meeting with the IEC and ER to discuss the remedial action to be taken; 7. Assess the effectiveness of the Contractor's remedial action and keep the IEC, EPD	1. Discuss amongst the ER, ET and Contractor on the potential remedial action; 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER and ET accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of the notification of exceedance in writing; 2. Notify the Contractor; 3. In consultation with the IEC and ET, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of works is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial action to the ER and copy to the IEC and ET within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problems still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event	Action			
	ET	IEC	ER	Contractor
	and ER informed of the results; 8. If exceedance stops, cease additional monitoring.			

Notes:

ET – Environmental Team

IEC – Independent Environmental Checker

ER – Engineer's Representation

EPD - Environmental Protection Department

Appendix 3.1 Impact Noise Monitoring Data & Graphical Presentations & Calibration Certificates

Impact Noise Monitoring Data & Graphical Presentations & Calibration Certificates (sourced from the First Phase ET)

Noise Monitoring Results (May2025)

For Contract No. ND/2024/01

Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)[1]			Average dB(A)[1]	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
8-May-25	Cloudy	9:10	59.5	62.3	56.1	58.7	58.6
		9:15	57.1	59.4	55.0		
		9:20	62.5	64.8	56.0		
		9:25	57.2	59.9	53.2		
		9:30	56.5	59.6	53.3		
		9:35	53.9	54.7	52.8		
14-May-25	Sunny	13:30	52.8	56.7	42.2	52.5	
		13:35	53.9	57.9	42.3		
		13:40	49.7	51.4	42.3		
		13:45	55.8	57.0	54.2		
		13:50	46.9	48.8	42.3		
		13:55	49.9	52.4	42.3		
20-May-25	Sunny	15:20	55.5	56.4	54.6	55.4	
		15:25	55.7	57.0	54.4		
		15:30	55.2	57.3	52.1		
		15:35	55.0	56.5	52.9		
		15:40	55.4	57.0	53.1		
		15:45	55.7	57.3	53.4		
26-May-25	Cloudy	9:10	58.8	59.9	57.6	61.5	
		9:15	67.7	73.4	54.7		
		9:20	55.5	56.5	54.1		
		9:25	56.6	57.9	55.1		
		9:30	56.8	57.9	55.7		
		9:35	56.7	57.7	55.8		

Remark(s):
(1) Correction of +3dB (A) for free-field measurement.

Location CP-KTN-NMS3 - Fung Kong Garden (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)[1]			Average dB(A)[1]	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
8-May-25	Cloudy	9:50	53.1	53.8	51.7	51.9	51.6
		9:55	51.9	53.5	49.9		
		10:00	51.5	52.8	50.4		
		10:05	51.7	53.0	50.5		
		10:10	51.9	53.4	50.5		
		10:15	51.0	52.2	50.1		
14-May-25	Sunny	14:15	55.8	56.3	53.2	54.9	
		14:20	54.2	56.6	52.1		
		14:25	54.6	55.6	53.7		
		14:30	55.3	55.9	53.8		
		14:35	54.6	56.1	54.2		
		14:40	54.9	55.9	54.8		
20-May-25	Sunny	16:05	54.0	54.1	52.7	54.5	
		16:10	54.8	56.0	53.6		
		16:15	53.6	54.4	52.5		
		16:20	55.3	55.4	52.5		
		16:25	55.1	55.3	52.6		
		16:30	53.7	54.9	52.7		
26-May-25	Cloudy	9:50	61.4	66.7	51.2	55.7	
		9:55	51.2	52.4	49.9		
		10:00	51.4	52.8	49.4		
		10:05	51.8	53.5	50.0		
		10:10	53.5	55.8	50.7		
		10:15	53.2	55.6	50.5		

Remark(s):
(1) Correction of +3dB (A) for free-field measurement.

Noise Monitoring Results (May2025)

Location CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung							
Date	Weather	Time	Unit: dB (A) (5-min)			Average dB(A)	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
8-May-25	Sunny	10:35	57.0	58.6	54.4	58.1	55.1
		10:40	58.2	59.1	53.9		
		10:45	55.0	56.1	53.8		
		10:50	62.3	66.1	53.3		
		10:55	55.8	56.8	53.0		
		11:00	54.8	55.2	53.3		
14-May-25	Sunny	15:00	62.0	63.4	59.2	64.7	
		15:05	64.2	66.8	58.9		
		15:10	65.6	68.8	59.3		
		15:15	64.1	67.4	59.4		
		15:20	65.6	68.7	59.3		
		15:25	65.5	68.5	59.2		
20-May-25	Sunny	16:55	65.1	66.6	56.9	60.9	
		17:00	57.1	59.0	55.4		
		17:05	62.6	66.2	55.5		
		17:10	57.7	59.5	54.9		
		17:15	58.9	59.7	54.5		
		17:20	56.1	57.1	54.7		
26-May-25	Sunny	10:35	63.8	66.5	55.3	61.4	
		10:40	57.5	60.0	54.9		
		10:45	56.5	57.4	55.2		
		10:50	56.3	57.1	55.0		
		10:55	60.3	62.0	55.5		
		11:00	65.4	69.7	55.5		

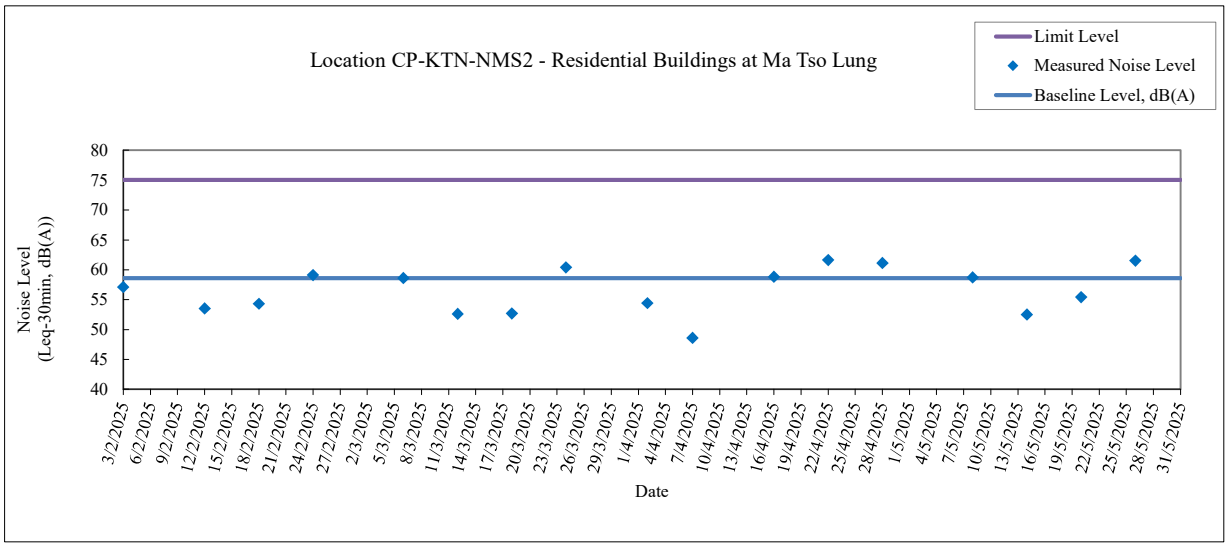
For Contract No. ND/2024/06

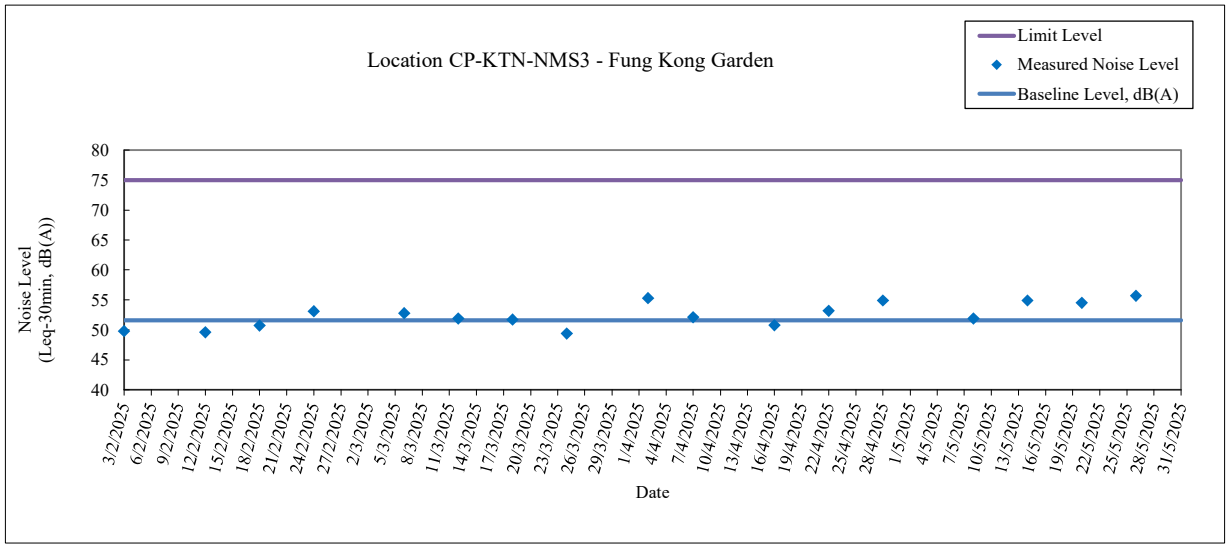
Location CP-KTN-NMS5 - N/A							
Date	Weather	Time	Unit: dB (A) (5-min)[1]			Average dB(A)[1]	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
8-May-25	Cloudy	11:30	56.7	58.3	51.4	57.0	57.2
		11:35	56.4	57.6	50.9		
		11:40	56.3	57.4	50.8		
		11:45	57.1	57.8	51.2		
		11:50	58.2	60.1	52.1		
		11:55	57.3	58.7	51.8		
14-May-25	Sunny	16:00	57.0	58.7	55.4	57.4	
		16:05	56.9	58.3	54.8		
		16:10	58.6	60.0	54.9		
		16:15	58.8	63.1	55.9		
		16:20	55.4	58.3	53.3		
		16:25	56.8	59.3	55.3		
20-May-25	Sunny	14:30	56.6	58.1	54.9	58.0	
		14:35	58.2	59.4	56.2		
		14:40	58.5	59.6	56.0		
		14:45	57.2	57.8	56.1		
		14:50	57.4	58.4	56.5		
		14:55	59.5	60.3	57.6		
26-May-25	Cloudy	11:25	56.0	57.5	54.2	54.0	
		11:30	53.8	55.5	51.8		
		11:35	52.3	53.1	51.2		
		11:40	52.8	54.3	50.9		
		11:45	54.6	55.9	51.7		
		11:50	53.7	54.4	52.8		

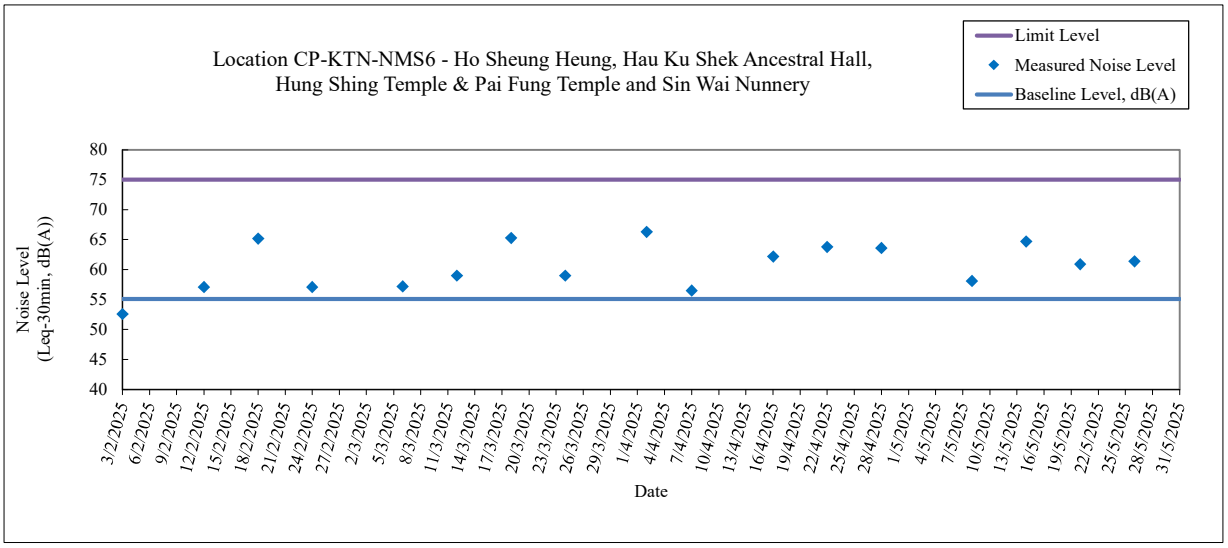
Remark(s):
(1) Correction of +3dB (A) for free-field measurement.

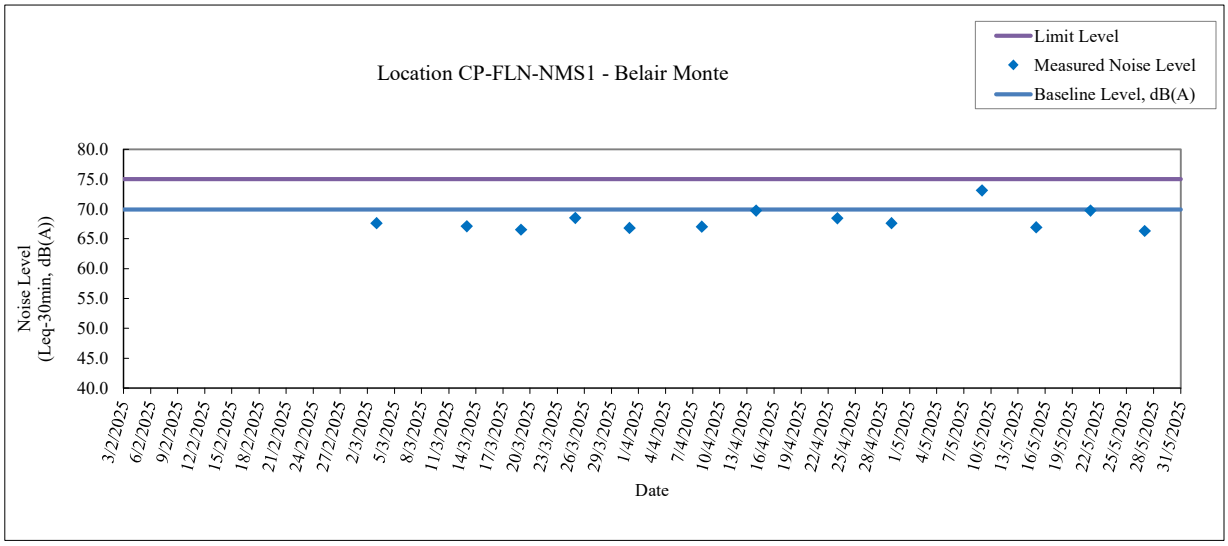
Noise Monitoring Results (May2025)
For Contract No. ND/2024/06 and ND/2024/07

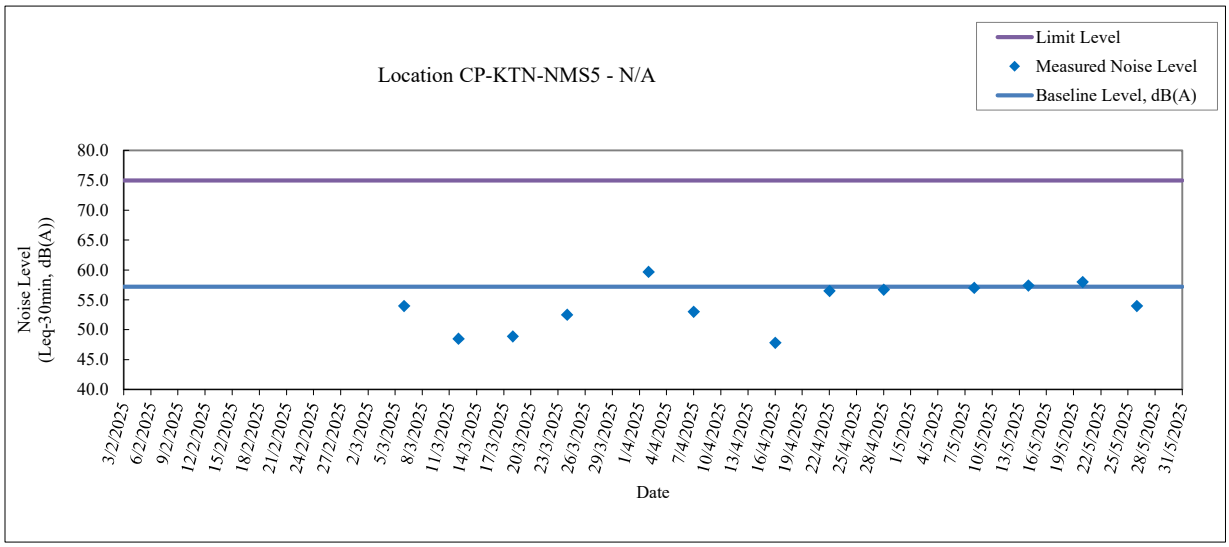
Location CP-FLN-NMS1 - Belair Monte (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average dB(A)	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
9-May-25	Cloudy	10:00	74.0	77.3	65.0	73.1	69.9
		10:05	72.4	75.4	64.6		
		10:10	73.8	77.4	63.8		
		10:15	74.1	78.0	63.7		
		10:20	72.4	75.7	62.9		
		10:25	70.9	73.6	63.8		
15-May-25	Sunny	10:00	66.2	69.5	57.8	66.9	
		10:05	66.9	70.0	59.5		
		10:10	65.6	68.6	60.0		
		10:15	66.6	70.1	60.0		
		10:20	69.2	71.5	62.8		
		10:25	65.9	68.0	61.6		
21-May-25	Sunny	16:20	70.5	73.6	64.3	69.7	
		16:25	70.2	73.1	64.1		
		16:30	69.3	71.9	63.8		
		16:35	69.8	72.6	64.0		
		16:40	67.9	70.3	63.1		
		16:45	70.1	72.7	63.6		
27-May-25	Cloudy	16:20	66.9	70.3	61.2	66.3	
		16:25	65.3	68.2	60.5		
		16:30	65.3	68.0	60.8		
		16:35	65.5	68.4	60.8		
		16:40	64.6	66.8	61.0		
		16:45	68.7	71.1	58.7		


Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
3/2/2025
6/2/2025
9/2/2025
12/2/2025
15/2/2025
18/2/2025
21/2/2025
24/2/2025
27/2/2025
2/3/2025
5/3/2025
8/3/2025
11/3/2025
14/3/2025
17/3/2025
20/3/2025
23/3/2025
26/3/2025
29/3/2025
1/4/2025
4/4/2025
7/4/2025
10/4/2025
13/4/2025
16/4/2025
19/4/2025
22/4/2025
25/4/2025
28/4/2025
1/5/2025
4/5/2025
7/5/2025
10/5/2025
13/5/2025
16/5/2025
19/5/2025
22/5/2025
25/5/2025
28/5/2025
31/5/2025
Date


Location CP-KTN-NMS3 - Fung Kong Garden
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
3/2/2025
6/2/2025
9/2/2025
12/2/2025
15/2/2025
18/2/2025
21/2/2025
24/2/2025
27/2/2025
2/3/2025
5/3/2025
8/3/2025
11/3/2025
14/3/2025
17/3/2025
20/3/2025
23/3/2025
26/3/2025
29/3/2025
1/4/2025
4/4/2025
7/4/2025
10/4/2025
13/4/2025
16/4/2025
19/4/2025
22/4/2025
25/4/2025
28/4/2025
1/5/2025
4/5/2025
7/5/2025
10/5/2025
13/5/2025
16/5/2025
19/5/2025
22/5/2025
25/5/2025
28/5/2025
31/5/2025
Date


Location CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
3/2/2025
6/2/2025
9/2/2025
12/2/2025
15/2/2025
18/2/2025
21/2/2025
24/2/2025
27/2/2025
2/3/2025
5/3/2025
8/3/2025
11/3/2025
14/3/2025
17/3/2025
20/3/2025
23/3/2025
26/3/2025
29/3/2025
1/4/2025
4/4/2025
7/4/2025
10/4/2025
13/4/2025
16/4/2025
19/4/2025
22/4/2025
25/4/2025
28/4/2025
1/5/2025
4/5/2025
7/5/2025
10/5/2025
13/5/2025
16/5/2025
19/5/2025
22/5/2025
25/5/2025
28/5/2025
31/5/2025
Date


Location CP-FLN-NMS1 - Belair Monte
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
3/2/2025
6/2/2025
9/2/2025
12/2/2025
15/2/2025
18/2/2025
21/2/2025
24/2/2025
27/2/2025
2/3/2025
5/3/2025
8/3/2025
11/3/2025
14/3/2025
17/3/2025
20/3/2025
23/3/2025
26/3/2025
29/3/2025
1/4/2025
4/4/2025
7/4/2025
10/4/2025
13/4/2025
16/4/2025
19/4/2025
22/4/2025
25/4/2025
28/4/2025
1/5/2025
4/5/2025
7/5/2025
10/5/2025
13/5/2025
16/5/2025
19/5/2025
22/5/2025
25/5/2025
28/5/2025
31/5/2025
Date


Location CP-KTN-NMS5 - N/A
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
3/2/2025
6/2/2025
9/2/2025
12/2/2025
15/2/2025
18/2/2025
21/2/2025
24/2/2025
27/2/2025
2/3/2025
5/3/2025
8/3/2025
11/3/2025
14/3/2025
17/3/2025
20/3/2025
23/3/2025
26/3/2025
29/3/2025
1/4/2025
4/4/2025
7/4/2025
10/4/2025
13/4/2025
16/4/2025
19/4/2025
22/4/2025
25/4/2025
28/4/2025
1/5/2025
4/5/2025
7/5/2025
10/5/2025
13/5/2025
16/5/2025
19/5/2025
22/5/2025
25/5/2025
28/5/2025
31/5/2025
Date

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41977B
Date of Issue:	2025-03-03
Date Received:	2025-02-26
Date Tested:	2025-02-26
Date Completed:	2025-03-03
Next Due Date:	2026-03-02
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580005
Equipment No.	: WN-01-03

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41977C
Date of Issue:	2025-03-03
Date Received:	2025-02-26
Date Tested:	2025-02-26
Date Completed:	2025-03-03
Next Due Date:	2026-03-02
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580006
Equipment No.	: WN-01-04

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41977E
Date of Issue:	2025-03-03
Date Received:	2025-02-26
Date Tested:	2025-02-26
Date Completed:	2025-03-03
Next Due Date:	2026-03-02
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580008
Equipment No.	: WN-01-06

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

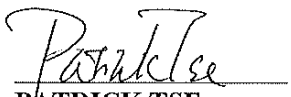
Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41978A
Date of Issue:	2025-03-10
Date Received:	2025-03-07
Date Tested:	2025-03-07
Date Completed:	2025-03-10
Next Due Date:	2026-03-09
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580013
Equipment No.	: WN-01-09

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

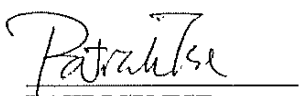
Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41118
Date of Issue:	2024-10-02
Date Received:	2024-09-30
Date Tested:	2024-09-30
Date Completed:	2024-10-02
Next Due Date:	2025-10-01
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24803
Equipment No.	: N-09-03

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	40837A
Date of Issue:	2024-08-19
Date Received:	2024-08-15
Date Tested:	2024-08-15
Date Completed:	2024-08-19
Next Due Date:	2025-08-18
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24791
Equipment No.	: N-09-04

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse
PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1801, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	41118A
Date of Issue:	2024-10-02
Date Received:	2024-09-30
Date Tested:	2024-09-30
Date Completed:	2024-10-02
Next Due Date:	2025-10-01
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24780
Equipment No.	: N-09-05

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

Impact Noise Monitoring Data & Graphical Presentations & Calibration Certificates (conducted by Remaining Phase ET)

Noise Monitoring Result (May 2025)

For Contract No. ND/2024/01

Location CP-KTN-NMS1 - Residential Buildings at Ma Tso Lung (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average dB(A)[1]	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-May-25	Fine	10:15	55.2	74.8	41.6	52.5	65.7
		10:20	46.7	74.3	37.7		
		10:25	43.5	71.0	36.9		
		10:30	50.4	71.2	37.1		
		10:35	41.1	70.3	37.3		
		10:40	41.6	67.1	37.1		
10-May-25	Fine	9:55	60.7	66.5	39.9	57.1	
		10:00	51.1	52.7	39.8		
		10:05	47.5	51.7	40.0		
		10:10	48.5	52.0	38.8		
		10:15	44.7	48.0	39.4		
		10:20	49.9	53.2	38.1		
15-May-25	Fine	10:10	45.9	49.3	43.3	48.2	
		10:15	43.4	48.3	40.2		
		10:20	45.6	51.0	41.4		
		10:25	46.2	49.8	43.5		
		10:30	45.5	46.9	44.5		
		10:35	44.2	48.9	43.0		
21-May-25	Fine	9:55	47.9	51.3	42.4	53.5	
		10:00	51.6	58.1	43.0		
		10:05	48.0	51.7	43.0		
		10:10	50.6	53.4	43.8		
		10:15	44.3	45.9	41.6		
		10:20	54.1	55.4	41.9		
27-May-25	Fine	10:00	60.8	70.3	54.0	66.9	
		10:05	59.5	67.2	53.9		
		10:10	64.3	72.6	59.0		
		10:15	62.8	68.1	59.4		
		10:20	64.9	73.0	59.5		
		10:25	66.8	72.8	62.2		

Remark(s):
(1) Correction of +3dB (A) for free-field measurement.

Location CP-KTN-NMS7 - Oi Lok Home (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average dB(A)[1]	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-May-25	Fine	9:35	67.4	70.1	53.8	68.1	65.3
		9:40	67.6	69.9	54.9		
		9:45	65.7	68.3	51.4		
		9:50	58.6	62.0	46.8		
		9:55	63.8	67.1	47.1		
		10:00	60.6	62.8	45.8		
10-May-25	Fine	9:20	67.9	71.3	57.4	70.0	
		9:25	68.1	69.2	57.1		
		9:30	66.1	67.8	58.4		
		9:35	66.6	68.9	57.3		
		9:40	66.2	68.3	58.2		
		9:45	66.4	69.9	57.9		
15-May-25	Fine	9:30	60.8	68.2	56.4	65.6	
		9:35	63.8	69.6	58.8		
		9:40	61.6	67.2	58.6		
		9:45	63.9	71.2	58.9		
		9:50	64.2	77.1	59.3		
		9:55	59.5	61.8	58.8		
21-May-25	Fine	9:20	68.4	71.3	61.8	72.2	
		9:25	66.7	69.6	61.3		
		9:30	69.8	73.5	63.2		
		9:35	69.4	72.5	61.1		
		9:40	70.5	72.1	62.9		
		9:45	69.6	70.8	62.9		
27-May-25	Fine	9:30	43.5	49.4	38.7	51.7	
		9:35	46.3	67.0	39.0		
		9:40	41.0	44.4	38.8		
		9:45	47.8	50.8	46.0		
		9:50	51.5	55.4	49.2		
		9:55	52.1	61.1	48.2		

Remark(s):
(1) Correction of +3dB (A) for free-field measurement.

For Contract No. ND/2024/04

Location CP-FLN-NMS4(A) - Choi Ying House, Choi Po Court (Choi Yuen Estate) (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average dB(A)[(1)]	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
10-May-25	Fine	14:30	70.8	73.9	62.4	74.5	72.0
		14:35	70.5	73.8	62.0		
		14:40	69.4	72.2	64.3		
		14:45	69.1	72.3	61.2		
		14:50	75.2	75.8	64.3		
		14:55	70.6	74.1	62.3		
15-May-25	Fine	14:02	70.0	72.9	62.6	73.0	
		14:07	70.1	72.7	62.4		
		14:12	70.0	73.3	61.9		
		14:17	69.6	73.0	61.2		
		14:22	69.9	72.7	64.1		
		14:27	70.1	73.2	62.5		
21-May-25	Fine	13:48	69.9	72.3	64.8	72.8	
		13:53	68.5	72.0	62.1		
		13:58	70.7	73.6	64.3		
		14:03	70.2	73.5	64.4		
		14:08	69.6	72.4	64.0		
		14:13	69.3	72.7	62.4		
27-May-25	Fine	13:41	71.3	74.2	67.1	73.8	
		13:46	71.1	73.7	67.2		
		13:51	70.7	73.1	66.6		
		13:56	70.0	72.5	65.3		
		14:01	71.6	74.5	66.5		
		14:06	69.5	72.3	65.0		

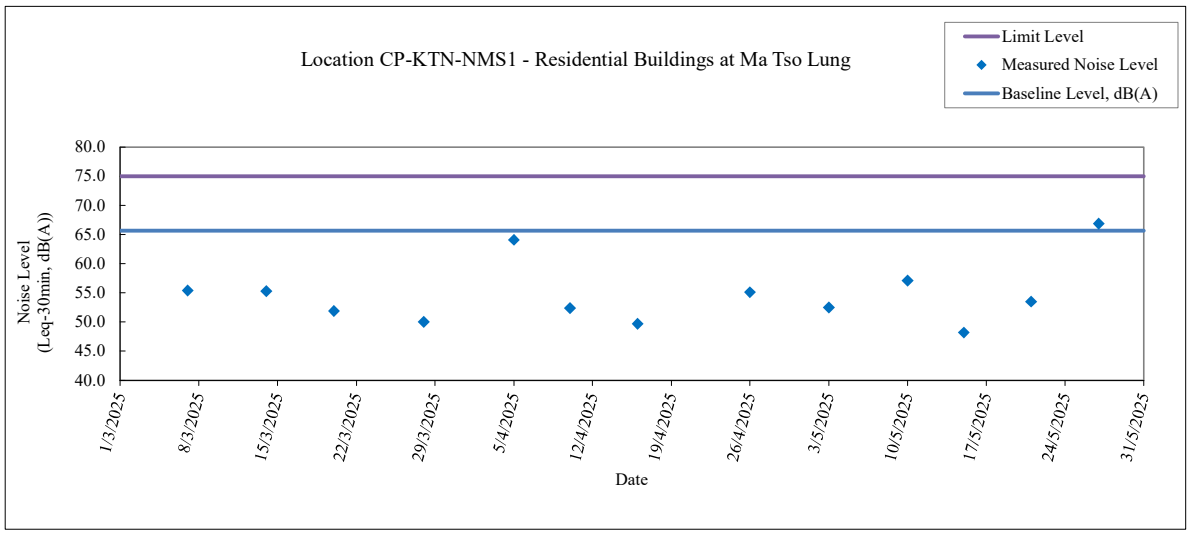
Remark(s):
(1) Correction of +3dB (A) for free-field measurement.

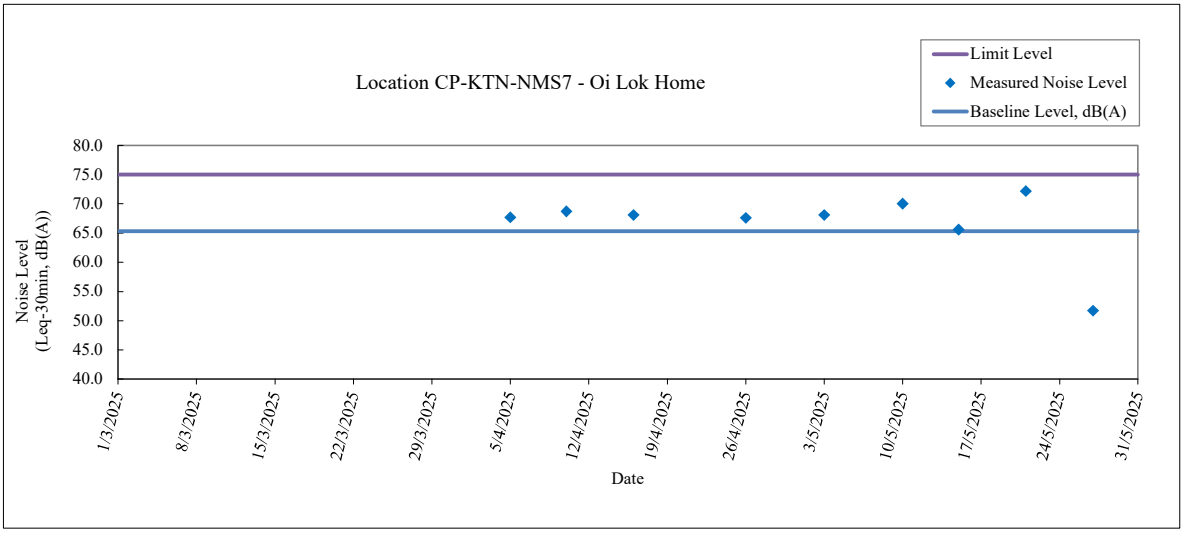
For Contract No. ND/2024/07

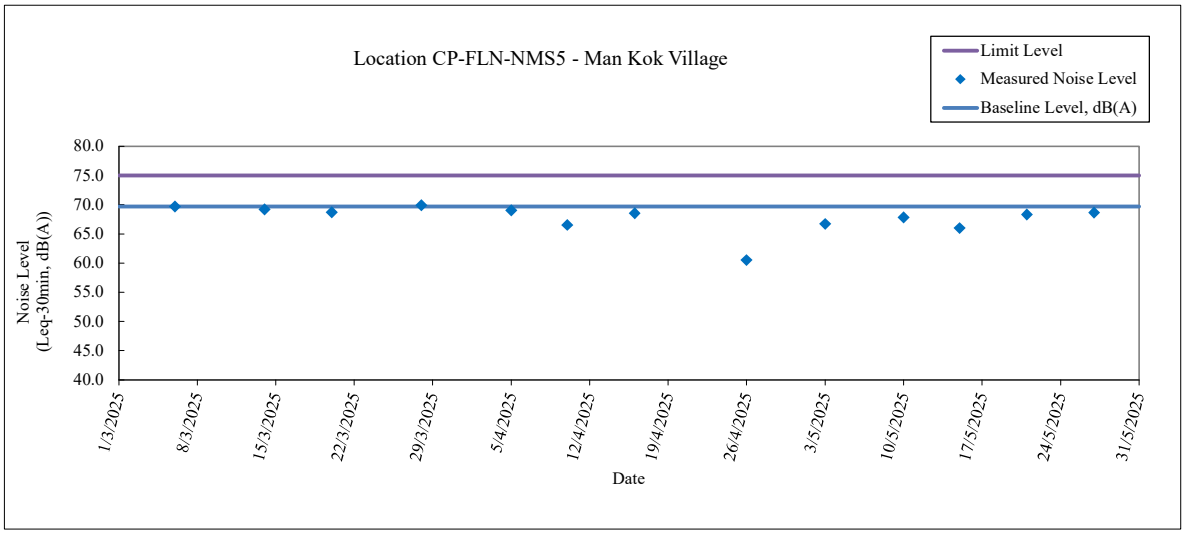
Location CP-FLN-NMS5 - Man Kok Village (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average dB(A)[(1)]	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-May-25	Fine	11:30	63.2	68.5	59.5	66.7	69.7
		11:35	64.6	68.1	58.8		
		11:40	62.8	68.0	58.8		
		11:45	63.8	68.0	58.9		
		11:50	64.5	68.1	58.7		
		11:55	63.2	68.2	58.4		
10-May-25	Fine	11:20	64.8	68.1	57.5	67.8	
		11:25	65.3	68.5	57.5		
		11:30	64.8	68.4	56.3		
		11:35	65.3	68.3	58.3		
		11:40	64.8	68.8	56.9		
		11:45	63.9	67.4	56.4		
15-May-25	Fine	11:30	64.4	69.7	59.5	66.0	
		11:35	63.8	67.6	59.4		
		11:40	63.4	67.3	58.6		
		11:45	62.8	68.7	56.1		
		11:50	58.3	64.2	59.2		
		11:55	62.9	65.1	60.7		
21-May-25	Fine	11:25	64.5	67.9	59.3	68.3	
		11:30	65.3	69.5	56.7		
		11:35	67.3	70.6	57.4		
		11:40	64.3	67.2	56.2		
		11:45	64.3	68.1	55.3		
		11:50	65.4	68.1	58.2		
27-May-25	Fine	11:30	66.5	69.5	63.6	68.6	
		11:35	65.2	71.7	60.4		
		11:40	64.9	69.2	59.7		
		11:45	63.2	67.9	58.6		
		11:50	65.9	69.1	63.3		
		11:55	66.8	69.4	64.7		

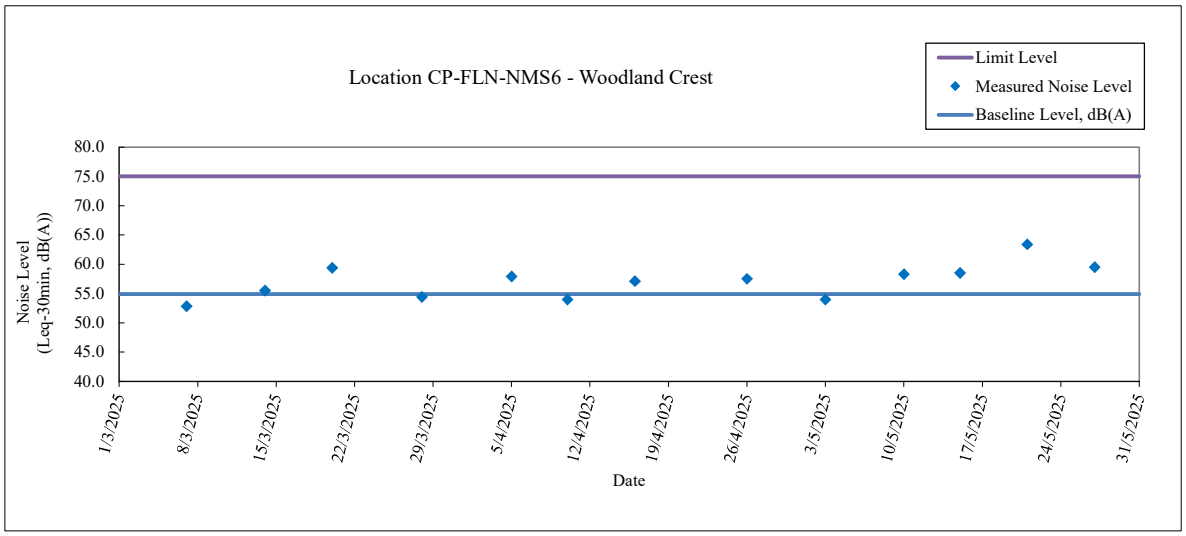
Remark(s):
(1) Correction of +3dB (A) for free-field measurement.

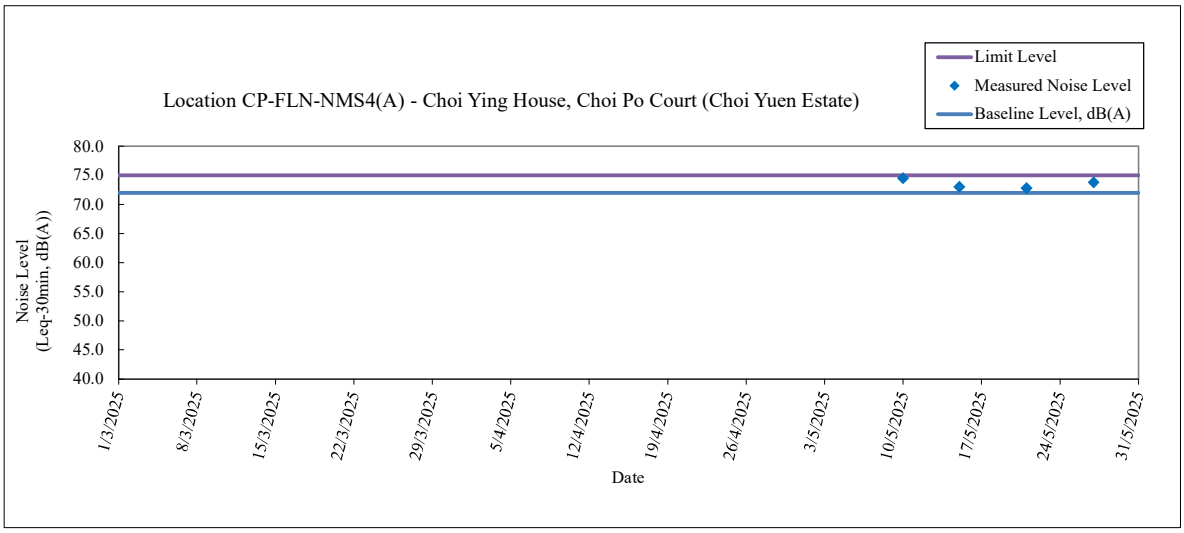
Location CP-FLN-NMS6 - Woodland Crest (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average dB(A)	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
3-May-25	Fine	10:55	53.9	56.2	53.0	54.0	54.9
		11:00	53.7	55.9	52.2		
		11:05	55.1	56.9	52.1		
		11:10	53.0	57.7	52.0		
		11:15	54.0	57.0	52.0		
		11:20	54.0	57.2	52.1		
10-May-25	Fine	10:45	56.1	57.0	54.8	58.3	
		10:50	59.5	59.9	54.5		
		10:55	56.4	57.5	54.9		
		11:00	57.3	58.5	54.7		
		11:05	57.4	57.9	55.1		
		11:10	60.9	63.0	55.7		
15-May-25	Fine	10:55	60.2	67.4	55.9	58.5	
		11:00	57.7	63.2	54.1		
		11:05	59.1	65.0	54.0		
		11:10	60.2	66.7	57.1		
		11:15	54.6	56.8	52.7		
		11:20	56.4	59.4	53.3		
21-May-25	Fine	10:50	68.4	69.8	66.5	63.4	
		10:55	64.8	68.8	54.3		
		11:00	58.6	62.2	53.8		
		11:05	59.0	63.6	53.8		
		11:10	54.6	55.7	53.1		
		11:15	61.0	64.5	53.4		
27-May-25	Fine	10:55	58.3	64.9	54.5	59.5	
		11:00	56.4	58.7	54.4		
		11:05	57.6	62.1	55.3		
		11:10	62.6	70.5	56.5		
		11:15	60.4	61.7	58.7		
		11:20	58.7	60.5	56.9		


Location CP-KTN-NMS1 - Residential Buildings at Ma Tso Lung
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
1/3/2025
8/3/2025
15/3/2025
22/3/2025
29/3/2025
5/4/2025
12/4/2025
19/4/2025
26/4/2025
3/5/2025
10/5/2025
17/5/2025
24/5/2025
31/5/2025
Date


Location CP-KTN-NMS7 - Oi Lok Home
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
1/3/2025
8/3/2025
15/3/2025
22/3/2025
29/3/2025
5/4/2025
12/4/2025
19/4/2025
26/4/2025
3/5/2025
10/5/2025
17/5/2025
24/5/2025
31/5/2025
Date


Location CP-FLN-NMS5 - Man Kok Village
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
1/3/2025
8/3/2025
15/3/2025
22/3/2025
29/3/2025
5/4/2025
12/4/2025
19/4/2025
26/4/2025
3/5/2025
10/5/2025
17/5/2025
24/5/2025
31/5/2025
Date


Location CP-FLN-NMS6 - Woodland Crest
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
1/3/2025
8/3/2025
15/3/2025
22/3/2025
29/3/2025
5/4/2025
12/4/2025
19/4/2025
26/4/2025
3/5/2025
10/5/2025
17/5/2025
24/5/2025
31/5/2025
Date


Location CP-FLN-NMS4(A) - Choi Ying House, Choi Po Court (Choi Yuen Estate)
Limit Level
Measured Noise Level
Baseline Level, dB(A)
Noise Level (Leq-30min, dB(A))
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
1/3/2025
8/3/2025
15/3/2025
22/3/2025
29/3/2025
5/4/2025
12/4/2025
19/4/2025
26/4/2025
3/5/2025
10/5/2025
17/5/2025
24/5/2025
31/5/2025
Date

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***35124529***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 23 October 2024

Date of calibration: 24 October 2024

Date of NEXT calibration: 23 October 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 24 October 2024

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.9 **°C**
Air Pressure:	1008 **hPa**
Relative Humidity:	59.6 **%**

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV240109	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	94.1

6. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 60942 Class 1.

Note:
The values given in this certification only related to the values measured at the time of the calibration.

ACOUSTICS AND AIR TESTING LABORATORY CO LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***34724244***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **24 July 2024**

Certificate No.: APJ23-154-CC002

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	93.9

Note:
The values given in this certification only related to the values measured at the time of the calibration.

ACOUSTICS AND AIR TESTING LABORATORY (A+A)*L CO LTD.

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***34724245***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **24 July 2024**

Certificate No.: APJ23-154-CC003

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	94.0

Note:
The values given in this certification only related to the values measured at the time of the calibration.

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Certificate of Calibration

for

Description:	***Sound Level Meter***
Manufacturer:	***SVANTEK***
Type No.:	***SVAN 971 (Serial No.: 96062)***
Microphone:	***ACO 7052E (Serial No.: 85231)***
Preamplifier:	***SV-18 (Serial No.: 121481)***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B,Manulife Financial Centre,*
	223-231 Wai Yip Street,
	Kwun Tong,Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within (31.5Hz – 4kHz)**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Date of issue: **24 July 2024**

Certificate No.: APJ23-155-CC002

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
35-137	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
35-137	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
35-137	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
35-137	dB SPL	Fast	94	31.5	94.6	±2.0
				63	94.4	±1.5
				125	94.4	±1.5
				250	94.3	±1.4
				500	94.2	±1.4
				1000	94.0	Ref
				2000	93.6	±1.6
				4000	93.5	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
35-137	dBA SPL	Fast	94	31.5	55.2	-39.4 ±2.0
				63	68.3	-26.2 ±1.5
				125	78.2	-16.1 ±1.5
				250	85.6	-8.6 ±1.4
				500	90.9	-3.2 ±1.4
				1000	94.0	Ref
				2000	94.8	+1.2 ±1.6
				4000	94.5	+1.0 ±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
35-137	dBC SPL	Fast	94	31.5	91.6	-3.0 ±2.0
				63	93.6	-0.8 ±1.5
				125	94.2	-0.2 ±1.5
				250	94.3	-0.0 ±1.4
				500	94.2	-0.0 ±1.4
				1000	94.0	Ref
				2000	93.4	-0.2 ±1.6
				4000	92.7	-0.8 ±1.6

ACOUSTICS AND AIR TESTING LABORATORY CO LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

5. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.05
	63 Hz	± 0.05
	125 Hz	± 0.10
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:
The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

ACOUSTICS AND AIR TESTING LABORATORY CO LTD. (A+A) *L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Manufacturer Calibration Certificate

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3. All tests are traceable in accordance with ISO/IEC 17025.

No pattern approval is available for this sound level meter configuration.

Sound Level Meter

Manufacturer	NTi Audio		
Type	XL3	S/N	A3A-01229-F0
Firmware	V1.36		
Microphone Model	M2340		
Preamplifier	MA230	S/N	1794
Microphone Capsule	MC230A	S/N	A28290
Performance class			
Customer Inventory Nr.			

Customer

Date 25 July 2024

Certificate FL-24-115

Results **PASSED**
(for detailed report see next pages)

Operator

Markus Frick

NTi Audio AG • Im alten Riet 102, 9494 Schaan • Liechtenstein
info@nti-audio.com • www.nti-audio.com

Measurement equipment

Test System

Model	NTi Audio FX100, S/No. 11094
Last Calibration	02 July 2024
Cal Certificate	NTI Cal #3393
Next Calibration	02 July 2025

Reference Microphone

Model	MTG MV203 S/N #2435, Mic Capsule MK202 S/No. #7313
Last Calibration	18 November 2022
Cal Certificate	DAkkS-000875
Next Calibration	17 November 2024

Sound Calibrator

Model	Norsonic 1251 S/No. #30930
Reference Level	114 dB
Calibration Frequency	1000 Hz
Last Calibration	08 December 2022
Cal Certificate	METAS #259-19602
Next Calibration	07 December 2024

Environmental conditions

Temperature	25.2 °C
Humidity	48 %
Pressure	965 hPa

Notes

- This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the international Systems of Units (SI).
- The user is obliged to have the object recalibrated at appropriate intervals.
- This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature are not valid.
- All limits listed in this report are acceptance limits in accordance with IEC61672.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with the regulations of the GUM.

NTi AUDIO

1. Indication at the calibration check frequency

The indication of the sound level meter at the calibration check frequency is checked by application of the sound calibrator and adjusted, if necessary, to indicate the required sound level for the environmental conditions under which the tests are performed. All levels in [dB].

Sensitivity before calibration	Sensitivity after calibration	Meas level	Limit -	Limit +	Uncert.	Status
42.9 mV/Pa	44.4 mV/Pa	114	113	115	0.2	Passed

2. Self-generated noise

2.1 Microphone cartridge installed

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level with frequency-weighting A and an averaging time of 30 seconds. All levels in [dB].

Weight-ing	Meas level	Limit +	Uncert.	Status
A	16.0	19.0	0.1	Passed

2.2 Microphone cartridge replaced by the capsule replacement NTI-K65-15

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level for all frequency-weightings and an averaging time of 30 seconds. All levels in [dB] referenced to S = 42 mV/Pa.

Weight-ing	Meas level	Limit +	Uncert.	Status
A	10.7	13.0	0.1	Passed
C	12.8	16.0	0.1	Passed
Z	18.6	24.0	0.1	Passed

3. Acoustic signal tests of a frequency weighting

The frequency weighting is tested for frequency-weighting A, using an acoustic test facility. The sound level meter is set to a fast time-weighted sound level in the reference level range. All levels in [dB].

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
125	70.0	69.6	-0.4	-1.0	1.0	0.4	Passed
250	77.1	77.0	-0.1	-1.0	1.0	0.4	Passed
500	82.7	82.7	0.0	-1.0	1.0	0.4	Passed
1000	86.0	86.1	0.1	-0.7	0.7	0.4	Passed
2000	87.2	87.4	0.2	-1.0	1.0	0.4	Passed
4000	87.0	87.1	0.1	-1.0	1.0	0.4	Passed
8000	84.8	84.9	0.1	-2.5	1.5	0.4	Passed

4. Electric signal tests of frequency weightings

Frequency weightings are determined relative to the response at 1 kHz using steady sinusoidal electrical input signals. The sound level meter is set to display F-time-weighted sound level in the reference level range. All available frequency weightings provided in the sound level meter are verified. All levels in [dB].

4.1 A-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	106.2	80.0	0.0	-1.0	1.0	0.1	Passed
125	96.1	79.9	-0.1	-1.0	1.0	0.1	Passed
250	88.6	79.9	-0.1	-1.0	1.0	0.1	Passed
500	83.2	79.9	-0.1	-1.0	1.0	0.1	Passed
2000	78.8	80.0	0.0	-1.0	1.0	0.1	Passed
4000	79.0	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	81.1	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	84.3	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	86.6	78.6	-1.4	-2.5	1.5	0.1	Passed

4.2 C-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.8	80.0	0.0	-1.0	1.0	0.1	Passed
125	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.8	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	83.0	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	86.2	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	88.5	78.6	-1.4	-2.5	1.5	0.1	Passed

4.3 Z-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.0	79.9	-0.1	-1.0	1.0	0.1	Passed
125	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.0	79.9	-0.1	-1.0	1.0	0.1	Passed
4000	80.0	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	80.0	79.8	-0.2	-2.5	1.5	0.1	Passed
12500	80.0	79.8	-0.2	-2.5	1.5	0.1	Passed
16000	80.0	79.8	-0.2	-2.5	1.5	0.1	Passed

NTi AUDIO

5. Frequency and time weightings at 1kHz

While injecting a constant steady signal at the reference frequency of 1 kHz the F-time-weighted sound level, S-time-weighted sound level and time-averaged sound level are verified with frequency weighting A. Additionally the F-time-weighted sound level for frequency weightings C and Z is measured. The first measurement serves as reference and differences in the reading with respect to this first one are determined. All levels in [dB].

Level	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LAS	114.0	113.8	-0.2	-0.7	0.7	0.1	Passed
LAeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed

6. Level linearity on the reference level range

The level linearity on the reference level range is determined by applying steady sinusoidal electrical signals at a frequency of 8 kHz with the sound level meter set for frequency-weighting A and fast time-weighting. All levels in [dB].

Exp abs level	Meas. level	Abs dev	Abs Limit -	Abs Limit +	Exp rel level	Rel dev	Rel Limit -	Rel Limit +	Uncert.	Status
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
119.0	119.0	0.0	-0.8	0.8	119.0	0.0	-0.3	0.3	0.1	Passed
124.0	124.0	0.0	-0.8	0.8	124.0	0.0	-0.3	0.3	0.1	Passed
129.0	129.0	0.0	-0.8	0.8	129.0	0.0	-0.3	0.3	0.1	Passed
134.0	134.1	0.1	-0.8	0.8	134.0	0.1	-0.3	0.3	0.1	Passed
135.0	135.1	0.1	-0.8	0.8	135.1	0.0	-0.3	0.3	0.1	Passed
136.0	136.1	0.1	-0.8	0.8	136.1	0.0	-0.3	0.3	0.1	Passed
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
109.0	109.0	0.0	-0.8	0.8	109.0	0.0	-0.3	0.3	0.1	Passed
104.0	104.0	0.0	-0.8	0.8	104.0	0.0	-0.3	0.3	0.1	Passed
99.0	99.0	0.0	-0.8	0.8	99.0	0.0	-0.3	0.3	0.1	Passed
94.0	94.0	0.0	-0.8	0.8	94.0	0.0	-0.3	0.3	0.1	Passed
89.0	89.0	0.0	-0.8	0.8	89.0	0.0	-0.3	0.3	0.1	Passed
84.0	84.0	0.0	-0.8	0.8	84.0	0.0	-0.3	0.3	0.1	Passed
79.0	79.0	0.0	-0.8	0.8	79.0	0.0	-0.3	0.3	0.1	Passed
74.0	74.0	0.0	-0.8	0.8	74.0	0.0	-0.3	0.3	0.1	Passed
69.0	69.0	0.0	-0.8	0.8	69.0	0.0	-0.3	0.3	0.1	Passed
64.0	64.0	0.0	-0.8	0.8	64.0	0.0	-0.3	0.3	0.1	Passed
59.0	59.0	0.0	-0.8	0.8	59.0	0.0	-0.3	0.3	0.1	Passed
54.0	54.0	0.0	-0.8	0.8	54.0	0.0	-0.3	0.3	0.1	Passed
49.0	49.0	0.0	-0.8	0.8	49.0	0.0	-0.3	0.3	0.1	Passed
44.0	44.0	0.0	-0.8	0.8	44.0	0.0	-0.3	0.3	0.1	Passed
39.0	39.0	0.0	-0.8	0.8	39.0	0.0	-0.3	0.3	0.1	Passed
34.0	34.0	0.0	-0.8	0.8	34.0	0.0	-0.3	0.3	0.1	Passed
29.0	29.0	0.0	-0.8	0.8	29.0	0.0	-0.3	0.3	0.1	Passed
28.0	28.0	0.0	-0.8	0.8	28.0	0.0	-0.3	0.3	0.1	Passed
27.0	27.1	0.1	-0.8	0.8	27.0	0.1	-0.3	0.3	0.1	Passed
26.0	26.1	0.1	-0.8	0.8	26.1	0.0	-0.3	0.3	0.1	Passed
25.0	25.1	0.1	-0.8	0.8	25.1	0.0	-0.3	0.3	0.1	Passed

7. Level linearity including the level range control

This test is not applicable for a single-range sound level meter.

8. Toneburst response

The response of the sound level meter to short-duration signals is tested on the reference level range with 4 kHz tonebursts that start and stop at zero crossings and are extracted from steady 4 kHz sinusoidal electrical input signals. The sound level meter is set for frequency weighting A. All levels in [dB].

The continuous signal level is 123 dB.

Burst signal	Burst duration [ms]	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	200	122.0	121.9	-0.1	-0.5	0.5	0.2	Passed
LAF	2	105.0	104.7	-0.3	-1.5	1.0	0.2	Passed
LAF	0.25	96.0	95.6	-0.4	-3.0	1.0	0.2	Passed
LAS	200	115.6	115.5	-0.1	-0.5	0.5	0.2	Passed
LAS	2	96.0	95.9	-0.1	-3.0	1.0	0.2	Passed
LAeq10s	200	106.0	105.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	2	86.0	85.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	0.25	77.0	76.6	-0.4	-0.5	0.5	0.2	Passed

9. C-weighted peak sound level

The sound level meter is tested on the least-sensitive level range with fast time weighting and C frequency weighting. The test signals are a single complete cycle of an 8 kHz sinusoid starting and stopping at zero crossings and positive and negative half cycles of a 500 Hz sinusoid that also start and stop at zero crossings. All levels in [dB].

Burst signal	Source level	Exp LCp-LCF	Meas LCp-LCF	Dev	Limit -	Limit +	Uncert.	Status
8kHz	114.0	3.4	3.3	-0.1	-2.0	2.0	0.2	Passed
500Hz +	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed
500Hz -	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed

10. Overload Indication

Overload indication is tested on the least-sensitive level range with the sound level meter set to A-weighted, time-averaged sound level. Positive and negative one-half-cycle sinusoidal electrical signals at a frequency of 4 kHz are used. All levels in [dB].

Start level	OV +	OV -	Dev	Limit -	Limit +	Uncert.	Status
136.5	139.1	139.1	0.0	-1.5	1.5	0.3	Passed

Manufacturer Calibration Certificate

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3. All tests are traceable in accordance with ISO/IEC 17025.

No pattern approval is available for this sound level meter configuration.

Sound Level Meter

Manufacturer	NTi Audio		
Type	XL3	S/N	A3A-01231-F0
Firmware	V1.38		
Microphone Model	M2340		
Preamplifier	MA230	S/N	1813
Microphone Capsule	MC230A	S/N	A28695
Performance class			
Customer Inventory Nr.			

Customer

Date 03 September 2024

Certificate FL-24-123

Results **PASSED**
(for detailed report see next pages)

Operator

Markus Frick

NTi Audio AG • Im alten Riet 102, 9494 Schaan • Liechtenstein
info@nti-audio.com • www.nti-audio.com

Measurement equipment

Test System

Model	NTi Audio FX100, S/No. 11094
Last Calibration	02 July 2024
Cal Certificate	NTI Cal #3393
Next Calibration	02 July 2025

Reference Microphone

Model	MTG MV203 S/N #2435, Mic Capsule MK202 S/No. #7313
Last Calibration	18 November 2022
Cal Certificate	DAkkS-000875
Next Calibration	17 November 2024

Sound Calibrator

Model	Norsonic 1251 S/No. #30930
Reference Level	114 dB
Calibration Frequency	1000 Hz
Last Calibration	08 December 2022
Cal Certificate	METAS #259-19602
Next Calibration	07 December 2024

Environmental conditions

Temperature	24.1 °C
Humidity	50 %
Pressure	966 hPa

Notes

- This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the international Systems of Units (SI).

- The user is obliged to have the object recalibrated at appropriate intervals.
- This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature are not valid.
- All limits listed in this report are acceptance limits in accordance with IEC61672.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with the regulations of the GUM.

1. Indication at the calibration check frequency

The indication of the sound level meter at the calibration check frequency is checked by application of the sound calibrator and adjusted, if necessary, to indicate the required sound level for the environmental conditions under which the tests are performed. All levels in [dB].

Sensitivity before calibration	Sensitivity after calibration	Meas level	Limit -	Limit +	Uncert.	Status
41.3 mV/Pa	42.9 mV/Pa	114	113	115	0.2	Passed

2. Self-generated noise

2.1 Microphone cartridge installed

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level with frequency-weighting A and an averaging time of 30 seconds. All levels in [dB].

Weight-ing	Meas level	Limit +	Uncert.	Status
A	16.9	19.0	0.1	Passed

2.2 Microphone cartridge replaced by the capsule replacement NTI-K65-15

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level for all frequency-weightings and an averaging time of 30 seconds. All levels in [dB] referenced to S = 42 mV/Pa.

Weight-ing	Meas level	Limit +	Uncert.	Status
A	10.6	13.0	0.1	Passed
C	12.9	16.0	0.1	Passed
Z	19.4	24.0	0.1	Passed

3. Acoustic signal tests of a frequency weighting

The frequency weighting is tested for frequency-weighting A, using an acoustic test facility. The sound level meter is set to a fast time-weighted sound level in the reference level range. All levels in [dB].

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
125	70.0	69.4	-0.6	-1.0	1.0	0.4	Passed
250	77.1	76.9	-0.2	-1.0	1.0	0.4	Passed
500	82.7	82.7	0.0	-1.0	1.0	0.4	Passed
1000	86.0	86.0	0.0	-0.7	0.7	0.4	Passed
2000	87.2	87.3	0.1	-1.0	1.0	0.4	Passed
4000	87.0	87.0	0.0	-1.0	1.0	0.4	Passed
8000	84.9	84.7	-0.2	-2.5	1.5	0.4	Passed

4. Electric signal tests of frequency weightings

Frequency weightings are determined relative to the response at 1 kHz using steady sinusoidal electrical input signals. The sound level meter is set to display F-time-weighted sound level in the reference level range. All available frequency weightings provided in the sound level meter are verified. All levels in [dB].

4.1 A-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	106.2	80.0	0.0	-1.0	1.0	0.1	Passed
125	96.1	79.9	-0.1	-1.0	1.0	0.1	Passed
250	88.6	79.9	-0.1	-1.0	1.0	0.1	Passed
500	83.2	79.9	-0.1	-1.0	1.0	0.1	Passed
2000	78.8	79.9	-0.1	-1.0	1.0	0.1	Passed
4000	79.0	79.8	-0.2	-1.0	1.0	0.1	Passed
8000	81.1	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	84.3	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	86.6	78.6	-1.4	-2.5	1.5	0.1	Passed

4.2 C-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.8	79.9	-0.1	-1.0	1.0	0.1	Passed
125	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.8	79.8	-0.2	-1.0	1.0	0.1	Passed
8000	83.0	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	86.2	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	88.5	78.5	-1.5	-2.5	1.5	0.1	Passed

4.3 Z-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
125	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
8000	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed
12500	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed
16000	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed

5. Frequency and time weightings at 1kHz

While injecting a constant steady signal at the reference frequency of 1 kHz the F-time-weighted sound level, S-time-weighted sound level and time-averaged sound level are verified with frequency weighting A. Additionally the F-time-weighted sound level for frequency weightings C and Z is measured. The first measurement serves as reference and differences in the reading with respect to this first one are determined. All levels in [dB].

Level	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LAS	114.0	113.8	-0.2	-0.7	0.7	0.1	Passed
LAeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed

6. Level linearity on the reference level range

The level linearity on the reference level range is determined by applying steady sinusoidal electrical signals at a frequency of 8 kHz with the sound level meter set for frequency-weighting A and fast time-weighting. All levels in [dB].

Exp abs level	Meas. level	Abs dev	Abs Limit -	Abs Limit +	Exp rel level	Rel dev	Rel Limit -	Rel Limit +	Uncert.	Status
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
119.0	119.0	0.0	-0.8	0.8	119.0	0.0	-0.3	0.3	0.1	Passed
124.0	124.0	0.0	-0.8	0.8	124.0	0.0	-0.3	0.3	0.1	Passed
129.0	129.0	0.0	-0.8	0.8	129.0	0.0	-0.3	0.3	0.1	Passed
134.0	134.0	0.0	-0.8	0.8	134.0	0.0	-0.3	0.3	0.1	Passed
135.0	135.0	0.0	-0.8	0.8	135.0	0.0	-0.3	0.3	0.1	Passed
136.0	136.0	0.0	-0.8	0.8	136.0	0.0	-0.3	0.3	0.1	Passed
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
109.0	109.0	0.0	-0.8	0.8	109.0	0.0	-0.3	0.3	0.1	Passed
104.0	104.0	0.0	-0.8	0.8	104.0	0.0	-0.3	0.3	0.1	Passed
99.0	99.0	0.0	-0.8	0.8	99.0	0.0	-0.3	0.3	0.1	Passed
94.0	94.0	0.0	-0.8	0.8	94.0	0.0	-0.3	0.3	0.1	Passed
89.0	89.0	0.0	-0.8	0.8	89.0	0.0	-0.3	0.3	0.1	Passed
84.0	84.0	0.0	-0.8	0.8	84.0	0.0	-0.3	0.3	0.1	Passed
79.0	79.0	0.0	-0.8	0.8	79.0	0.0	-0.3	0.3	0.1	Passed
74.0	74.0	0.0	-0.8	0.8	74.0	0.0	-0.3	0.3	0.1	Passed
69.0	69.0	0.0	-0.8	0.8	69.0	0.0	-0.3	0.3	0.1	Passed
64.0	64.0	0.0	-0.8	0.8	64.0	0.0	-0.3	0.3	0.1	Passed
59.0	59.0	0.0	-0.8	0.8	59.0	0.0	-0.3	0.3	0.1	Passed
54.0	54.0	0.0	-0.8	0.8	54.0	0.0	-0.3	0.3	0.1	Passed
49.0	49.0	0.0	-0.8	0.8	49.0	0.0	-0.3	0.3	0.1	Passed
44.0	44.0	0.0	-0.8	0.8	44.0	0.0	-0.3	0.3	0.1	Passed
39.0	39.0	0.0	-0.8	0.8	39.0	0.0	-0.3	0.3	0.1	Passed
34.0	34.0	0.0	-0.8	0.8	34.0	0.0	-0.3	0.3	0.1	Passed
29.0	29.0	0.0	-0.8	0.8	29.0	0.0	-0.3	0.3	0.1	Passed
28.0	28.1	0.1	-0.8	0.8	28.0	0.1	-0.3	0.3	0.1	Passed
27.0	27.1	0.1	-0.8	0.8	27.1	0.0	-0.3	0.3	0.1	Passed
26.0	26.1	0.1	-0.8	0.8	26.1	0.0	-0.3	0.3	0.1	Passed
25.0	25.1	0.1	-0.8	0.8	25.1	0.0	-0.3	0.3	0.1	Passed

7. Level linearity including the level range control

This test is not applicable for a single-range sound level meter.

8. Toneburst response

The response of the sound level meter to short-duration signals is tested on the reference level range with 4 kHz tonebursts that start and stop at zero crossings and are extracted from steady 4 kHz sinusoidal electrical input signals. The sound level meter is set for frequency weighting A. All levels in [dB].

The continuous signal level is 123 dB.

Burst signal	Burst duration [ms]	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	200	122.0	121.9	-0.1	-0.5	0.5	0.2	Passed
LAF	2	105.0	104.8	-0.2	-1.5	1.0	0.2	Passed
LAF	0.25	96.0	95.6	-0.4	-3.0	1.0	0.2	Passed
LAS	200	115.6	115.5	-0.1	-0.5	0.5	0.2	Passed
LAS	2	96.0	95.9	-0.1	-3.0	1.0	0.2	Passed
LAeq10s	200	106.0	105.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	2	86.0	85.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	0.25	77.0	76.6	-0.4	-0.5	0.5	0.2	Passed

9. C-weighted peak sound level

The sound level meter is tested on the least-sensitive level range with fast time weighting and C frequency weighting. The test signals are a single complete cycle of an 8 kHz sinusoid starting and stopping at zero crossings and positive and negative half cycles of a 500 Hz sinusoid that also start and stop at zero crossings. All levels in [dB].

Burst signal	Source level	Exp LCp-LCF	Meas LCp-LCF	Dev	Limit -	Limit +	Uncert.	Status
8kHz	114.0	3.4	3.2	-0.2	-2.0	2.0	0.2	Passed
500Hz +	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed
500Hz -	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed

10. Overload Indication

Overload indication is tested on the least-sensitive level range with the sound level meter set to A-weighted, time-averaged sound level. Positive and negative one-half-cycle sinusoidal electrical signals at a frequency of 4 kHz are used. All levels in [dB].

Start level	OV +	OV -	Dev	Limit -	Limit +	Uncert.	Status
136.8	139.4	139.4	0.0	-1.5	1.5	0.3	Passed

Appendix 3.2 Event and Action Plan for Construction Noise

Appendix 3.2 Event and Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level Exceedance	1. Notify the IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss jointly with the Contractor and formulate remedial measures; 5. Increase the monitoring frequency to check the mitigation effectiveness.	1. Review the monitoring data submitted by the ET; 2. Review the construction methods and proposed remedial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient; 3. Supervise the implementation of remedial measures;	1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. Require the Contractor to propose remedial measures for the analyzed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to the ER and IEC and copy to the ET; 2. Implement noise mitigation proposals.
Limit Level Exceedance	1. Identify sources. 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase the monitoring frequency; 5. Carry out analysis of the Contractor's working procedures with the ER and Contractor to determine possible mitigations to be implemented; 6. Inform IEC, ER, EPD and Contractor the causes and actions taken for the exceedances; 7. Assess the effectiveness of the Contractor's remedial action with the ER and keep the IEC informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst the ER, ET and Contractor on the potential remedial actions; 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analyzed noise problems; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial action to the ER and IEC and copy to the ET within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problems still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix 5.1 Summary of Monthly Waste Flow Table

Summary of Monthly Waste Flow Table for ND/2024/01

Contract No. ND/2024/01
Kwu Tung North New Development Area, Remaining Phase:
Site Formation and Infrastructure Works (South)
Name of Department: Civil Engineering and Development Department

Build King – Richwell Engineering Joint Venture

Monthly Summary Waste Flow Table for 2025

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported Fill (e)	Metals	Paper / Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
January	0.000	0.000	0.000	0.000	0.000	164.970	0.001	0.366	0.002	0.000	11.233
February	0.000	0.000	0.000	0.000	0.000	437.356	0.001	0.375	0.001	0.000	170.667
March	6.871	0.000	0.000	0.000	6.871	2355.267	0.004	0.456	0.843	0.000	1231.500
April	179.167	0.000	0.000	0.000	179.167	4141.210	0.003	0.336	0.002	0.000	106.300
May	0.000	0.000	0.000	0.000	0.000	12431.730	0.000	0.040	0.000	0.000	146.456
June											
Sub-total	186.038	0.000	0.000	0.000	186.038	19530.532	0.009	1.573	0.848	0.000	1666.156
July											
August											
September											
October											
November											
December											
Total	186.038	0.000	0.000	0.000	186.038	19530.532	0.009	1.573	0.848	0.000	1666.156

Summary of Monthly Waste Flow Table for ND/2024/04

Monthly Summary Waste Flow Table for 2025 (year)

Name of Person completing the record: Joan Lo (ES)

Project : Kwu Tung New Development Area, Remaining Phase: Improvement Works of Tai tau Leng Roundabout and Po Shek Wu Road and Associated Works

Contract No.: ND/2024/04

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated (a) = (b)+ (c)+(d)+(e)	Hard Rock and Large Broken Concrete (b)	*Reused in the Contract (c)	Reused in other Projects (d)	Disposed as Public Fill (e)	Imported Fill (f)	Metals (g)	Paper/ cardboard packaging/ (h)	Plastics (i) (see Note 3)	Yard Waste (j)	Chemical Waste (k)	Others, e.g. general refuse (l)
	(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 '000kg)	(in ‘000kg)
May-25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Jun-25												
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Jul-25												
Aug-25												
Sep-25												
Oct-25												
Nov-25												
Dec-25												
Total in 2025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*Approx. estimation for each dump truck is 6m3/truck or 12 ton/truck

Total Quantity of Inert C&D Materials Generated: 0.000 (in '000m3) (a) = (b)+ (c)+(d)+(e)

Summary of Monthly Waste Flow Table for ND/2024/06

Name of Department: CEDD Contract No. : ND/2024/06

Monthly Summary Waste Flow Table for 2025 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	0.067	0.000	0.067	0.000	0.000	0.000	0.015	0.090	0.043	0.000	0.029
Feb	0.335	0.000	0.133	0.000	0.202	0.000	0.008	0.000	0.005	0.000	0.144
Mar	0.401	0.000	0.393	0.000	0.008	0.000	0.008	0.030	0.005	0.000	0.054
Apr	1.755	0.000	0.663	0.000	1.092	0.000	0.008	0.000	0.005	0.000	0.104
May	11.955	0.000	0.326	8.269	3.360	0.000	0.008	0.000	0.005	0.000	0.046
Jun	/	/	/	/	/	/	/	/	/	/	/
Sub-total	14.513	0.000	1.582	8.269	4.662	0.000	0.047	0.120	0.063	0.000	0.377
Jul	/	/	/	/	/	/	/	/	/	/	/
Aug	/	/	/	/	/	/	/	/	/	/	/
Sep	/	/	/	/	/	/	/	/	/	/	/
Oct	/	/	/	/	/	/	/	/	/	/	/
Nov	/	/	/	/	/	/	/	/	/	/	/
Dec	/	/	/	/	/	/	/	/	/	/	/
2025 Total	14.513	0.000	1.582	8.269	4.662	0.000	0.047	0.120	0.063	0.000	0.377
Contract Total	14.547	0.000	1.582	8.269	4.696	0.000	0.047	0.120	0.102	0.000	0.446

Notes:
(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
*(3) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m^3
[Delete Note (3) and the table above on the forecast, where inapplicable].

Summary of Monthly Waste Flow Table for ND/2024/07

Name of Department: CEDD

Contract No.: ND/2024/07

Monthly Summary Waste Flow Table for 2025 (year)

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly					
		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	Yard Waste reused / recycled	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 '000kg)	(in '000kg)
Jan	-	-	-	-	-	-	-	-	-	-	-	-
Feb	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.005
Mar	0.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.089
Apr	0.389	0.000	0.000	0.000	0.097	0.000	0.000	0.000	0.000	0.000	0.027	0.266
May	10.722	0.000	1.363	0.000	0.182	9.122	0.000	0.000	0.000	0.000	0.027	0.027
Jun	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total	11.218	0.000	1.363	0.000	0.278	9.122	0.000	0.000	0.000	0.000	0.067	0.387
Jul	-	-	-	-	-	-	-	-	-	-	-	-
Aug	-	-	-	-	-	-	-	-	-	-	-	-
Sep	-	-	-	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-	-	-	-
Total	11.218	0.000	1.363	0.000	0.278	9.122	0.000	0.000	0.000	0.000	0.067	0.387

Notes: (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(3) The density of inert C&D waste is assumed 2.0 tonnes per cubic meter

(4) All figures are rounded up to 3 decimal place

Appendix 6.1 Detailed Results of the Ecological Waterbird Monitoring during this Reporting Period

Appendix 6.1a. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 8 & 9 May 2025, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			8/5/2025 (T1 & T2), 9/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.94, 2.07					
					Start Time			09:00, 09:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Asian Koel	*Eudynamys scolopacea*	噪鵑	R									2	
Black Kite	*Milvus migrans*	黑鳶	R, WV	Cap.586, LC		1							1
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R						7			6	1
Black-crowned Night Heron	*Nycticorax nycticorax*	夜鷺	R, WV	LC			2						
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC			1			85			11
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						2				2
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	3	5	5	2		3			2
Cinereous Tit	*Parus cinereus*	蒼背山雀	R						5				
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC						1			
Common Kingfisher	*Alcedo atthis*	普通翠鳥	R				1						
Common Moorhen	*Gallinula chloropus*	黑水雞	R							6			
Common Myna	*Acridotheres tristis*	家八哥	UR						2				
Crested Myna	*Acridotheres cristatellus*	八哥	R			1			3				4
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV						3				
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						2				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	1		1						
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	R	LC						2			

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			8/5/2025 (T1 & T2), 9/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.94, 2.07					
					Start Time			09:00, 09:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC			1						
Grey Wagtail	*Motacilla cinerea*	灰鶺鴒	WV										2
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)		2	23			4			4
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R						11				
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R						1				
Plain Prinia	*Prinia inornata*	純色鷦鶯	R						7				
Plaintive Cuckoo	*Cacomantis merulinus*	八聲杜鵑	USV									1	
Grey-headed Swamphen	*Porphyrio poliocephalus*	紫水雞	V	VU						1			
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R				2		3				
Rock Dove	*Columba livia*	原鴿	R						17				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R				4		34				28
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		1				2				
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV			2							
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R					2	2				
White-rumped Munia	*Lonchura striata*	白腰文鳥	R						7				
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R						1			2	
Total No. of Species					3	5	9	2	17	7	0	4	9
Total No. of Conservation Interest Species					2	3	6	1	0	6	0	0	4

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status
(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1b. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 8 & 9 May 2025, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			8/5/2025 (T1 & T2), 9/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Rainy					
					Tidal Condition			Low					
					Tide Level (m)			1.40, 1.21					
					Start Time			12:00, 13:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Asian Koel	*Eudynamys scolopacea*	噪鵑	R									2	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv										14
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R						2	42			4
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC			4						
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						2				
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	3	5	5			2			
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU			1						
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC			3						
Common Moorhen	*Gallinula chloropus*	黑水雞	R							7			
Common Myna	*Acridotheres tristis*	家八哥	UR						3				
Crested Myna	*Acridotheres cristatellus*	八哥	R						2				2
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R			1			14				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)		1							
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC			1						
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	1	1	30			1			1
Little Grebe	*Tachybaptus ruficollis*	小鷿鷉	R	LC							1		
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R						7				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			8/5/2025 (T1 & T2), 9/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Rainy					
					Tidal Condition			Low					
					Tide Level (m)			1.40, 1.21					
					Start Time			12:00, 13:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Plain Prinia	*Prinia inornata*	純色鷦鶯	R				2		8				1
Grey-headed Swamphen	*Porphyrio poliocephalus*	紫水雞	V	VU						1			
Rock Dove	*Columba livia*	原鴿	R						19				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R						32				19
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		1	3	2	1	3				
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R						3				
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R			1	2			2			
White-rumped Munia	*Lonchura striata*	白腰文鳥	R										7
Yellow-breasted Bunting	*Emberiza aureola*	黃胸鵐	PM	CR, RC					3				
Total No. of Species					3	6	9	1	12	6	1	1	7
Total No. of Conservation Interest Species					2	3	6	0	1	2	1	0	1

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			8/5/2025 (T1 & T2), 9/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Rainy					
					Tidal Condition			Low					
					Tide Level (m)			1.40, 1.21					
					Start Time			12:00, 13:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight

(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1c. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 12 & 16 May 2025, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/5/2025 (T1 & T2), 12/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Cloudy					
					Tidal Condition			High					
					Tide Level (m)			2.47, 2.51					
					Start Time			13:00, 10:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
Asian Koel	*Eudynamys scolopacea*	噪鵑	R						1			2	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv			2	2						8
Black Kite	*Milvus migrans*	黑鳶	R, WV	Cap.586, LC									1
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R						3				
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC			4			68			
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						2				2
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	1	3	2	1	1	4			1
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU			1						
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC			8			1			
Common Moorhen	*Gallinula chloropus*	黑水雞	R							4			
Common Myna	*Acridotheres tristis*	家八哥	UR						1				
Crested Myna	*Acridotheres cristatellus*	八哥	R						2				
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV										1
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						7				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)		1							
Greater Coucal	*Centropus sinensis*	褐翅鴉鵑	R	(VU)					1				
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	R	LC						2			
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC		1							

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/5/2025 (T1 & T2), 12/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Cloudy					
					Tidal Condition			High					
					Tide Level (m)			2.47, 2.51					
					Start Time			13:00, 10:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
Large Hawk-Cuckoo	*Hierococcyx sparverioides*	大鷹鵑	Sv									1	
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	1	7	17	1	1	2			1
Little Grebe	*Tachybaptus ruficollis*	小鸊鷉	R	LC							1		
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R		4				8			2	
Pied Avocet	*Recurvirostra avosetta*	反嘴鷸	WV	RC						1			
Plain Prinia	*Prinia inornata*	純色鵙鶯	R						6			1	1
Plaintive Cuckoo	*Cacomantis merulinus*	八聲杜鵑	USV									1	
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R						1				
Rock Dove	*Columba livia*	原鴿	R						18				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R			4			52				
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R				2		1				
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV				2		1				
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R							1		2	
Total No. of Species					3	6	8	2	16	8	1	6	7
Total No. of Conservation Interest Species					2	4	5	2	3	6	1	0	3

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/5/2025 (T1 & T2), 12/5/2025 (T3 & T5)
					Weather Condition			Sunny, Cloudy
					Tidal Condition			High
					Tide Level (m)			2.47, 2.51
					Start Time			13:00, 10:00
					Abundance			
					Transect Walk			
					T1	T2	T3	T5

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status
(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1d. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 12 & 16 May 2025, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/5/2025 (T1 & T2), 12/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Cloudy					
					Tidal Condition			Low					
					Tide Level (m)			1.42, 1.33					
					Start Time			16:00, 14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Asian Koel	*Eudynamys scolopacea*	噪鵑	R									2	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv						8				21
Black Kite	*Milvus migrans*	黑鳶	R, WV	Cap.586, LC									1
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R						10			3	3
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC						89			7
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						2				2
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)		3		1		5			2
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU		1							
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC		1	4			1			
Common Moorhen	*Gallinula chloropus*	黑水雞	R							9			
Crested Myna	*Acridotheres cristatellus*	八哥	R			6							4
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						29				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)			1						
Greater Coucal	*Centropus sinensis*	褐翅鴉鵑	R	(VU)					1				
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC	2		1						
Intermediate Egret	*Ardea intermedia*	中白鷺	CPM	RC						1			
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)		2	24		1	2			

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/5/2025 (T1 & T2), 12/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Cloudy					
					Tidal Condition			Low					
					Tide Level (m)			1.42, 1.33					
					Start Time			16:00, 14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Little Grebe	*Tachybaptus ruficollis*	小鸊鹈	R	LC							1		
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R						1				
Pied Avocet	*Recurvirostra avosetta*	反嘴鷸	WV	RC						1			
Plain Prinia	*Prinia inornata*	純色鷦鶯	R						3	1		1	
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R				2		5				
Rock Dove	*Columba livia*	原鴿	R			8			21				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R				5		69				14
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		1		3						
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R				1		1	3		2	
White-rumped Munia	*Lonchura striata*	白腰文鳥	R						9				
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)	1								
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R						2			1	
Total No. of Species					3	6	8	1	14	9	1	5	8
Total No. of Conservation Interest Species					2	4	4	1	2	6	1	0	3

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			16/5/2025 (T1 & T2), 12/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Cloudy					
					Tidal Condition			Low					
					Tide Level (m)			1.42, 1.33					
					Start Time			16:00, 14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status
(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1e. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 22 & 23 May 2025, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			22/5/2025 (T1 & T2), 23/5//2025 (T3 & T5)					
					Weather Condition			Cloudy, Cloudy					
					Tidal Condition			High					
					Tide Level (m)			1.81, 1.99					
					Start Time			08:00, 08:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	*Psittacula eupatria*	亞歷山大鸚鵡	RR	NT, Cap. 586									3
Asian Koel	*Eudynamys scolopacea*	噪鵑	R									2	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv										4
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC						62			
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	1			2	1	3			4
Cinereous Tit	*Parus cinereus*	蒼背山雀	R						3				
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU					4				
Common Moorhen	*Gallinula chloropus*	黑水雞	R							5			
Common Myna	*Acridotheres tristis*	家八哥	UR						5				
Common Tailorbird	*Orthotomus sutorius*	長尾縫葉鶯	R						2				
Crested Myna	*Acridotheres cristatellus*	八哥	R						2				9
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)					4	1			
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	1	1	6						
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC		4	2						
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	2	5	32	1	3	5			4
Little Grebe	*Tachybaptus ruficollis*	小䴙䴘	R	LC							1		
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R				2		12			2	4

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			22/5/2025 (T1 & T2), 23/5//2025 (T3 & T5)					
					Weather Condition			Cloudy, Cloudy					
					Tidal Condition			High					
					Tide Level (m)			1.81, 1.99					
					Start Time			08:00, 08:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R						1				1
Plain Prinia	*Prinia inornata*	純色鷦鶯	R						4			4	
Red-billed Blue Magpie	*Urocissa erythrorhyncha*	紅咀藍鵲	R										2
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R						4				
Rock Dove	*Columba livia*	原鴿	R			12			16				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R										8
Sooty-headed Bulbul	*Pycnonotus aurigaster*	白喉紅臀鵯	UR						1				
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R				4		2				
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R						8				
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV						4				
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R							2			
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)					1				
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R						2			1	
Total No. of Species					3	4	5	2	19	6	1	4	9
Total No. of Conservation Interest Species					3	3	3	2	5	4	1	0	3

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			22/5/2025 (T1 & T2), 23/5//2025 (T3 & T5)					
					Weather Condition			Cloudy, Cloudy					
					Tidal Condition			High					
					Tide Level (m)			1.81, 1.99					
					Start Time			08:00, 08:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight

Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status
(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1f. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 22 & 23 May, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			22/5/2025 (T1 & T2), 23/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.36, 0.97					
					Start Time			11:00, 13:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Asian Koel	*Eudynamys scolopacea*	噪鵑	R									2	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv			3							
Black Kite	*Milvus migrans*	黑鳶	R, WV	Cap.586, LC									1
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R						10			2	4
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC						70			
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						4				
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)		2		1		3			2
Common Moorhen	*Gallinula chloropus*	黑水雞	R							5			
Common Myna	*Acridotheres tristis*	家八哥	UR						6	1			
Crested Myna	*Acridotheres cristatellus*	八哥	R						1				3
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)						1			
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						26				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	1	1	1	1					
Greater Coucal	*Centropus sinensis*	褐翅鴉鵑	R	(VU)					2				
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	R	LC						2			
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC			2						
Intermediate Egret	*Ardea intermedia*	中白鷺	CPM	RC				1					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			22/5/2025 (T1 & T2), 23/5/2025 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.36, 0.97					
					Start Time			11:00, 13:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Large Hawk-Cuckoo	*Hierococcyx sparverioides*	大鷹鵑	Sv									1	
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	1	3	13	1					1
Little Grebe	*Tachybaptus ruficollis*	小䴙䴘	R	LC							1		
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC						2			
Plain Prinia	*Prinia inornata*	純色鷦鶯	R						11			1	
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R										4
Rock Dove	*Columba livia*	原鴿	R						18				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R						33				
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R						2				2
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV				1	2	3	1			
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R									2	
White-rumped Munia	*Lonchura striata*	白腰文鳥	R						1				
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R						3			1	
Total No. of Species					2	4	4	5	13	8	1	6	7
Total No. of Conservation Interest Species					2	3	3	4	1	5	1	0	3

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer

Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status
(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1g. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 26 & 27 May 2025, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/5/2025 (T1 & T2), 27/5/2025 (T3 & T5)					
					Weather Condition			Cloudy, Cloudy					
					Tidal Condition			High					
					Tide Level (m)			2.60, 2.89					
					Start Time			10:00, 10:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	*Psittacula eupatria*	亞歷山大鸚鵡	RR	NT, Cap. 586									3
Asian Koel	*Eudynamys scolopacea*	噪鵑	R									3	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv										4
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R						14			3	1
Black-crowned Night Heron	*Nycticorax nycticorax*	夜鷺	R, WV	LC	1								
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC						58			4
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						6				2
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	1	1	1		1	2			1
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU			2						
Common Moorhen	*Gallinula chloropus*	黑水雞	R							2			
Common Myna	*Acridotheres tristis*	家八哥	UR						4				
Common Tailorbird	*Orthotomus sutorius*	長尾縫葉鶯	R						2			1	
Crested Myna	*Acridotheres cristatellus*	八哥	R										2
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						16				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)			2						
Greater Coucal	*Centropus sinensis*	褐翅鴉鵑	R	(VU)					1				
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	R	LC						2			

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/5/2025 (T1 & T2), 27/5/2025 (T3 & T5)					
					Weather Condition			Cloudy, Cloudy					
					Tidal Condition			High					
					Tide Level (m)			2.60, 2.89					
					Start Time			10:00, 10:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC	1	2	2						
Intermediate Egret	*Ardea intermedia*	中白鷺	CPM	RC				1					
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	3	5	28		1	2			3
Little Grebe	*Tachybaptus ruficollis*	小䴙䴘	R	LC							1		
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R						7				
Plain Prinia	*Prinia inornata*	純色鷦鶯	R						6			2	
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R						2				4
Rock Dove	*Columba livia*	原鴿	R						38				3
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R				7		36				25
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		2				1				
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R		3								
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV										2
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R						1	1			
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R									1	
Total No. of Species					6	3	6	1	15	6	1	5	12
Total No. of Conservation Interest Species					4	3	5	1	3	4	1	0	4

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status
(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1h. Avifauna Species Recorded for Water Birds Monitoring Conducted by First Phase ET, 26 & 27 May 2025, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/5/2025 (T1 & T2), 27/5/2025 (T3 & T5)					
					Weather Condition			Cloudy, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.09, 1.47					
					Start Time			14:00, 14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	*Psittacula eupatria*	亞歷山大鸚鵡	RR	NT, Cap. 586									2
Asian Koel	*Eudynamys scolopacea*	噪鵑	R									3	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv										2
Black Kite	*Milvus migrans*	黑鳶	R, WV	Cap.586, LC									1
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R				3		19			6	4
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC						58			3
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)			3	1	1	3			
Common Moorhen	*Gallinula chloropus*	黑水雞	R							2			
Common Myna	*Acridotheres tristis*	家八哥	UR						4			2	
Crested Myna	*Acridotheres cristatellus*	八哥	R		4		5		4				2
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)					6				
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						11				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	2		3						
Greater Coucal	*Centropus sinensis*	褐翅鴉鵑	R	(VU)			1		1				
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	R	LC						1			
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC			3						
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	1	4	24		2	1			1

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/5/2025 (T1 & T2), 27/5/2025 (T3 & T5)					
					Weather Condition			Cloudy, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.09, 1.47					
					Start Time			14:00, 14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Little Grebe	*Tachybaptus ruficollis*	小鸊鷉	R	LC							1		
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R						1				
Plain Prinia	*Prinia inornata*	純色鷦鶯	R						8			1	
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R						1	3		1	
Rock Dove	*Columba livia*	原鴿	R			25			8				2
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R						44				2
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		2	1							
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV				1						
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R				2		1	3		1	
White-rumped Munia	*Lonchura striata*	白腰文鳥	R						9				
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)			1						
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R						1			3	
Total No. of Species					4	3	10	1	16	7	1	7	9
Total No. of Conservation Interest Species					2	1	6	1	4	4	1	0	4

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; OV - Occasional visitor; V - Vagrant

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/5/2025 (T1 & T2), 27/5/2025 (T3 & T5)					
					Weather Condition			Cloudy, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.09, 1.47					
					Start Time			14:00, 14:00					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap.170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)
CR: Rare in China Red Data Book Status VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status
EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status NT: Near Threatened in IUCN Red List Status
(NT): Near Threatened in Red List of China Vertebrates CR: Critically Endangered in IUCN Red List Status LC(R): Least Concern in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002))
WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond

Appendix 6.1i Avifauna Species Recorded for Waterbird Monitoring Conducted by Remaining Phase ET – May Week 1

Common Name	Scientific Name	Conservation and Protection Status[1]	Distribution in Hong Kong[2]	Species Abundance	
				Transect Route T4	
				High Tide (6 May 2025; 14:00)	Low Tide (9 May 2025; 14:00)
Asian Koel	*Eudynamys scolopaceus*	-	Widespread		2
Spotted Dove	*Spilopelia chinensis*	-	Widespread	3	1
White-breasted Waterhen	*Amaurornis phoenicurus*	-	Widespread	1	
Chinese Pond Heron	***Ardeola bacchus***	**PRC (RC)**	**Widespread**	**2**	**6**
Great Egret	***Ardea alba***	**PRC (RC)**	**Widespread**		**3**
Little Egret	***Egretta garzetta***	**PRC (RC)**	**Widespread**	**3**	**1**
Black Kite	***Milvus migrans***	**(RC); CSMPS (II); CITES (II); Cap. 586**	**Widespread**	**1**	
White-throated Kingfisher	***Halcyon smyrnensis***	**(LC); CSMPS (II)**	**Widespread**		**1**
Alexandrine Parakeet	***Psittacula eupatria***	**CSMPS (II); CITES (II); Cap. 586**	**Localised**	**7**	**1**
Collared Crow	***Corvus torquatus***	**LC; IUCN (VU)**	**Localised**		**2**
Red-whiskered Bulbul	*Pycnonotus jocosus*	-	Widespread		1
Yellow-bellied Prinia	*Prinia flaviventris*	-	Widespread		2
Plain Prinia	*Prinia inornata*	-	Localised	2	
Swinhoe's White-eye	*Zosterops simplex*	-	Widespread		5
Masked Laughingthrush	*Pterorhinus perspicillatus*	-	Localised	6	
Crested Myna	*Acridotheres cristatellus*	-	Widespread		8
Black-collared Starling	*Gracupica nigricollis*	-	Widespread		3
Scaly-breasted Munia	*Lonchura punctulata*	-	Localised		14
White Wagtail	*Motacilla alba*	-	Widespread	2	
Total No. of Species Recorded				**9**	**14**
Total No. of Species of Conservation Importance Recorded				**4**	**6**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Conservation status by Fellowes *et al.* (2002): LC = Local Concern; PRC = Potential Regional Concern; RC = Regional Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than general occurrence.
   b. Conservation status by IUCN (2025): VU = Vulnerable.
   c. Protection status by CITES (2025): II = Listed in Appendix II of CITES.

d. Protection status by CSMPS (CSIS, 2019): II = Class II Protected Species in China.
e. Cap. 586 = Protection of Endangered Species of Animals and Plants Ordinance.

2. Distribution and rarity follow the data of The Avifauna of Hong Kong (HKBWS, 2025).
3. Species considered as of conservation importance is indicated in bold type.

Appendix 6.1j Avifauna Species Recorded for Waterbird Monitoring Conducted by Remaining Phase ET – May Week 2

Common Name	Scientific Name	Conservation and Protection Status[1]	Distribution in Hong Kong[2]	Species Abundance	
				Transect Route T4	
				High Tide (16 May 2025; 14:00)	Low Tide (14 May 2025; 15:00)
Asian Koel	*Eudynamys scolopaceus*	-	Widespread	2	1
Spotted Dove	*Spilopelia chinensis*	-	Widespread	3	
Chinese Pond Heron	***Ardeola bacchus***	**PRC (RC)**	**Widespread**	**6**	**2**
Grey Heron	***Ardea cinerea***	**PRC**	**Widespread**		**3**
Great Egret	***Ardea alba***	**PRC (RC)**	**Widespread**	**1**	
Little Egret	***Egretta garzetta***	**PRC (RC)**	**Widespread**	**3**	**2**
White-throated Kingfisher	***Halcyon smyrnensis***	**(LC); CSMPS (II)**	**Widespread**		**1**
Red-whiskered Bulbul	*Pycnonotus jocosus*	-	Widespread		3
Barn Swallow	*Hirundo rustica*	-	Widespread	3	
Yellow-bellied Prinia	*Prinia flaviventris*	-	Widespread	1	
Plain Prinia	*Prinia inornata*	-	Localised	2	
Common Tailorbird	*Orthotomus sutorius*	-	Widespread	3	1
Masked Laughingthrush	*Pterorhinus perspicillatus*	-	Localised	2	
Crested Myna	*Acridotheres cristatellus*	-	Widespread	9	12
Black-collared Starling	*Gracupica nigricollis*	-	Widespread	4	5
Scaly-breasted Munia	*Lonchura punctulata*	-	Localised	7	
White Wagtail	*Motacilla alba*	-	Widespread	1	
Total No. of Species Recorded				**9**	**14**
Total No. of Species of Conservation Importance Recorded				**3**	**4**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Conservation status by Fellowes *et al.* (2002): LC = Local Concern; PRC = Potential Regional Concern; RC = Regional Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than general occurrence.
   b. Protection status by CSMPS (CSIS, 2019): II = Class II Protected Species in China.
2. Distribution and rarity follow the data of The Avifauna of Hong Kong (HKBWS, 2025).
3. Species considered as of conservation importance is indicated in bold type.

Appendix 6.1k Avifauna Species Recorded for Waterbird Monitoring Conducted by Remaining Phase ET – May Week 3

Common Name	Scientific Name	Conservation and Protection Status[1]	Distribution in Hong Kong[2]	Species Abundance	
				Transect Route T4	
				High Tide (19 May 2025; 10:30)	Low Tide (22 May 2025; 10:30)
Asian Koel	*Eudynamys scolopaceus*	-	Widespread	1	
Spotted Dove	*Spilopelia chinensis*	-	Widespread		1
White-breasted Waterhen	*Amaurornis phoenicurus*	-	Widespread	2	
Chinese Pond Heron	***Ardeola bacchus***	**PRC (RC)**	**Widespread**		**3**
Grey Heron	***Ardea cinerea***	**PRC**	**Widespread**	**1**	
Little Egret	***Egretta garzetta***	**PRC (RC)**	**Widespread**	**1**	**1**
White-throated Kingfisher	***Halcyon smyrnensis***	**(LC); CSMPS (II)**	**Widespread**	**1**	
Collared Crow	***Corvus torquatus***	**LC; IUCN (VU)**	**Localised**	**2**	
Red-whiskered Bulbul	*Pycnonotus jocosus*	-	Widespread		4
Common Tailorbird	*Orthotomus sutorius*	-	Widespread	2	2
Swinhoe's White-eye	*Zosterops simplex*	-	Widespread		7
Masked Laughingthrush	*Pterorhinus perspicillatus*	-	Localised	4	
Crested Myna	*Acridotheres cristatellus*	-	Widespread	5	10
Black-collared Starling	*Gracupica nigricollis*	-	Widespread		2
Oriental Magpie Robin	*Copsychus saularis*	-	Widespread		1
Eurasian Tree Sparrow	*Passer montanus*	-	Widespread	5	4
Scaly-breasted Munia	*Lonchura punctulata*	-	Localised		7
Total No. of Species Recorded				**10**	**11**
Total No. of Species of Conservation Importance Recorded				**4**	**2**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Conservation status by Fellowes *et al.* (2002): LC = Local Concern; PRC = Potential Regional Concern; RC = Regional Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than general occurrence.
   b. Conservation status by IUCN (2025): VU = Vulnerable.
   c. Protection status by CSMPS (CSIS, 2019): II = Class II Protected Species in China.
2. Distribution and rarity follow the data of The Avifauna of Hong Kong (HKBWS, 2025).
3. Species considered as of conservation importance is indicated in bold type.

Appendix 6.1l Avifauna Species Recorded for Waterbird Monitoring Conducted by Remaining Phase ET – May Week 4

Common Name	Scientific Name	Conservation and Protection Status[1]	Distribution in Hong Kong[2]	Species Abundance	
				Transect Route T4	
				High Tide (30 May 2025; 14:00)	Low Tide (26 May 2025; 14:00)
Asian Koel	*Eudynamys scolopaceus*	-	Widespread	1	
Spotted Dove	*Spilopelia chinensis*	-	Widespread		3
Chinese Pond Heron	***Ardeola bacchus***	**PRC (RC)**	**Widespread**	**10**	**3**
Grey Heron	***Ardea cinerea***	**PRC**	**Widespread**	**1**	
Great Egret	***Ardea alba***	**PRC (RC)**	**Widespread**	**1**	
Little Egret	***Egretta garzetta***	**PRC (RC)**	**Widespread**	**7**	**3**
Alexandrine Parakeet	***Psittacula eupatria***	**CSMPS (II); CITES (II); Cap. 586**	**Localised**	**3**	
Japanese Tit	*Parus minor*	-	Widespread	1	
Red-whiskered Bulbul	*Pycnonotus jocosus*	-	Widespread	2	
Barn Swallow	*Hirundo rustica*	-	Widespread	1	5
Plain Prinia	*Prinia inornata*	-	Localised	2	
Common Tailorbird	*Orthotomus sutorius*	-	Widespread	2	1
Masked Laughingthrush	*Pterorhinus perspicillatus*	-	Localised	2	
Crested Myna	*Acridotheres cristatellus*	-	Widespread	25	4
Black-collared Starling	*Gracupica nigricollis*	-	Widespread	4	3
Oriental Magpie Robin	*Copsychus saularis*	-	Widespread	1	4
Eurasian Tree Sparrow	*Passer montanus*	-	Widespread		12
Scaly-breasted Munia	*Lonchura punctulata*	-	Localised	24	
White Wagtail	*Motacilla alba*	-	Widespread		2
Total No. of Species Recorded				**16**	**10**
Total No. of Species of Conservation Importance Recorded				**5**	**2**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Conservation status by Fellowes *et al.* (2002): PRC = Potential Regional Concern; RC = Regional Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than general occurrence.
   b. Protection status by CITES (2025): II = Listed in Appendix II of CITES.
   c. Protection status by CSMPS (CSIS, 2019): II = Class II Protected Species in China.
   d. Cap. 586 = Protection of Endangered Species of Animals and Plants Ordinance.

2. Distribution and rarity follow the data of The Avifauna of Hong Kong (HKBWS, 2025).
3. Species considered as of conservation importance is indicated in bold type.

Appendix 6.2 Detailed Results of the Ecological Aquatic Monitoring during this Reporting Period

Appendix 6.2a. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring, 15 May, 2025

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 May 2025									
				Weather: Sunny									
				Methods: Kick-netting, sweep netting and direct observation									
				Abundance									
				MS_01*	MS_02	MS_03	MS_04	MS_05*	MS_06	MS_07	MS_08	MS_09	MS_10
Apple Snail	*Pomacea canaliculata*	-	Introduced							+	+++		+
Bladder Snail	*Physella acuta*	-	-				+				+		
Blood Worm	*Chironomidae*	-	-		++	++							+
Caddisfly	*Cheumatopsyche sp.*	-	-									+	
Chinese River Snail	*Sinotaia guangdungensis*	-	Native			+				++		+	
	Sinotaia quadrata		Native			+				+	+		+
Crimson Dropwing	*Trithemis aurora*	-	Native						+				
Freshwater Snail	*Radix plicatulus*	-	-		++	++	++		++	++	+	+	
Golden Freshwater Clam	*Corbicula fluminea*	-	Native								+		
Isopod	*Isopod*	-	-						+				
Indigo Dropwing	*Trithemis festiva*	-	Native				+			++			+
Mayfly	*Baetis sp.*	-	-										++
	Isonychia sp.	-	-								+		+
Ram's Horn Snail	*Biophalaria glabrata*	-	Introduced		++	++	+		+	+			
	Gyraulus convexiusculus	-	Introduced			+							
Red-rimmed Melania	*Melanoides tuberculata*	-	Introduced							+	+	++	+
Water Strider	*Metrocoris sp.*	-	-						+		++	++	++

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 May 2025									
				Weather: Sunny									
				Methods: Kick-netting, sweep netting and direct observation									
				Abundance									
				MS_01*	MS_02	MS_03	MS_04	MS_05*	MS_06	MS_07	MS_08	MS_09	MS_10
	Microvelia sp.	-	-										++
	Ptilomera tigrina	-	Native						++	++		++	
	Rhagovelia sp.	-	-								+++	+++	
Yellow Featherleg	*Copera marginipes*	-	Native						+				++
Total No. of species				0	3	6	4	0	7	8	9	7	10
Total No. of Conservation Interest Species				0	0	0	0	0	0	0	0	0	0
Total No. of Native Species				0	0	2	1	0	3	4	2	2	3

Note: *: dried-up station
+: species recorded within the study area (no. of individuals from 1-10)
++: species commonly recorded within the study area (no. of individuals from 11-20)
+++: most abundant species recorded within the study area (no. of individuals from 21 and above)
LC = Local Concern (Fellowes et al. (2002))

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 May 2025				
				Weather: Sunny				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12*	MS_13	MS_14	MS_15
Apple Snail	*Pomacea canaliculata*	-	Introduced					++
Bladder Snail	*Physella acuta*	-	-				+	++
Blood Worm	*Chironomidae*	-	-	++		++		
Chinese River Snail	*Sinotaia guangdungensis*	-	Native			++		++
	Sinotaia quadrata		Native			+	+	
Common Red Skimmer	*Orthetrum pruinosum*	-	Native				+	
Freshwater Oligochaete	*Oligochaeta*	-	-				+	+
Freshwater Snail	*Radix plicatulus*	-	-				++	++
Golden Freshwater Clam	*Corbicula fluminea*	-	Native			+		+
Isopod	*Isopod*	-	-					+
Leech	*Hirudinea*	-	-					++
Mayfly	*Baetis sp.*	-	-			+		
Ram's Horn Snail	*Biophalaria glabrata*	-	Introduced					++
	Gyraulus convexiusculus						+	
Red-rimmed Melania	*Melanoides tuberculata*	-	Introduced				++	++
Yellow Featherleg	*Copera marginipes*	-	Native			+		
Total No. of species				1	0	6	7	10

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 May 2025				
				Weather: Sunny				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12*	MS_13	MS_14	MS_15
Total No. of Conservation Interest Species				0	0	0	0	0
Total No. of Native Species				0	0	4	2	2

Note: *: dried-up station
+: species recorded within the study area (no. of individuals from 1-10)
++: species commonly recorded within the study area (no. of individuals from 11-20)
+++: most abundant species recorded within the study area (no. of individuals from 21 and above)

Appendix 6.2b. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring, 15 May, 2025

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 May 2025									
				Weather: Sunny									
				Methods: Kick-netting, sweep netting and direct observation									
				Abundance									
				MS_01*	MS_02	MS_03	MS_04	MS_05*	MS_06	MS_07	MS_08	MS_09	MS_10
Dwarf Snakehead	*Channa gachua*	-	Native							+			
Predaceous chub	*Parazacco spilurus*	(VU)	Native								+		+
Jabua Terapon	*Terapon jarbua*	-	Native				+						
Mosquito Fish	*Gambusia affinis*	-	Introduced			+	++		++			+	+
Mozambique Tilapia	*Oreochromis mossambicus*	VU	Introduced						+				
Nile Tilapia	*Oreochromis niloticus*	-	Introduced						+	+	+	+	
Redbelly Tilapia	*Tilapia zillii*	-	Introduced								+		
Total No. of species				0	0	1	2	0	3	2	3	2	2
Total No. of Conservation Interest Species				0	0	0	0	0	1	0	1	0	1
Total No. of Native Species				0	0	0	1	0	0	1	1	0	1

Note:
VU: Vulnerable on IUCN Red List of Threatened Species.
(VU): Vulnerable on China Red Data Book of Endangered Species.

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)
+: species recorded within the study area (no. of individuals from 1-10)
++: species commonly recorded within the study area (no. of individuals from 11-20)
+++: most abundant species recorded within the study area (no. of individuals from 21 and above)

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 May 2025				
				Weather: Sunny				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12	MS_13	MS_14	MS_15
Mosquito Fish	*Gambusia affinis*	-	Introduced			++	+	+++
Nile Tilapia	*Oreochromis niloticus*	-	Introduced					++
Redbelly Tilapia	*Tilapia zillii*	-	Introduced			+		++
Total No. of species				0	0	2	1	3
Total No. of Conservation Interest Species				0	0	0	0	0
Total No. of Native Species				0	0	0	0	0

Note:
VU: Vulnerable on IUCN Red List of Threatened Species.
(VU): Vulnerable on China Red Data Book of Endangered Species.

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)
+: species recorded within the study area (no. of individuals from 1-10)
++: species commonly recorded within the study area (no. of individuals from 11-20)
+++: most abundant species recorded within the study area (no. of individuals from 21 and above)

Appendix 6.3 Detailed Results of the Ecological Non-aquatic Monitoring during this Reporting Period

Appendix 6.3a Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by First Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Relative Abundance[3]	
				Transect Route (Survey Date)	
				T1 (13 May 2025)	T3 (20 May 2025)
Japanese Pipistrelle	***Pipistrellus abramus***	**Cap.170**	**Widespread**	**+++**	**+++**
Domestic Dog	*Canis lupus familiaris*	-	Widespread	+++	+++
Domestic Cat	*Felis catus*	-	Widespread	+	
Total No. of Species Recorded				**3**	**2**
Total No. of Species of Conservation Importance Recorded				**1**	**1**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Cap. 170 = Wild Animals Protection Ordinance.
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. + = Species recorded within transect routes; +++ = Dominant species within transect routes.
4. Species considered as of conservation importance is indicated in bold type.

Appendix 6.3b Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by First Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Relative Abundance[3]	
				Transect Route (Survey Date)	
				T1 (13 May 2025)	T3 (20 May 2025)
Amphibians					
Asian Common Toad	*Duttaphrynus melanostictus*	-	Widespread	+	+
Ornate Pigmy Frog	*Microhyla fissipes*	-	Widespread	+	
Paddy Frog	*Fejervarya multistriata*	-	Widespread	+++	+
Günther's Frog	*Sylvirana guentheri*	-	Widespread	+++	
Brown Tree Frog	*Polypedates megacephalus*	-	Widespread	++	
Reptiles					
Changeable Lizard	*Calotes wangii*	-	Widespread	+	
Chinese Gecko	*Gekko chinensis*	-	Widespread	+	+
Bowring's Gecko	*Hemidactylus bowringii*	-	Widespread	++	
Red-necked Keelback	*Rhabdophis helleri*	-	Widespread	+	
Total No. of Species Recorded				**9**	**3**
Total No. of Species of Conservation Importance Recorded				**0**	**0**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586. .
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. + = Species recorded within transect routes; ++ = Species commonly recorded within transect routes; +++ = Dominant species within transect routes.
4. Species considered as of conservation importance is indicated in bold type.

Appendix 6.3c Butterfly Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by First Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Relative Abundance[3]	
				Transect Route (Survey Date)	
				T1 (13 May 2025)	T3 (20 May 2025)
Formosan Swift	*Borbo cinnara*	-	Very Common	+	
Green Flash	*Artipe eryx*	-	Uncommon	+	
Transparent 6-line Blue	*Nacaduba kurava*	-	Very Common		+
Pale Grass Blue	*Zizeeria maha*	-	Very Common	+++	++
Dark-brand Bush Brown	*Mycalesis mineus*	-	Very Common	+	
Glassy Tiger	*Parantica aglea*	-	Common	+	
Great Egg-fly	*Hypolimnas bolina*	-	Very Common	++	+
Blue Admiral	*Kaniska canace*	-	Common	+	
Common Mapwing	*Cyrestis thyodamas*	-	Common	++	
Common Sailer	*Neptis hylas*	-	Very Common	++	+
Short-banded Sailer	*Phaedyma columella*	-	Common	+	
Common Mormon	*Papilio polytes*	-	Very Common	+++	+
Red Helen	*Papilio helenus*	-	Very Common		+
Spangle	*Papilio protenor*	-	Very Common	+	
Great Mormon	*Papilio memnon*	-	Very Common	+++	+
Paris Peacock	*Papilio paris*	-	Very Common	+++	+
Common Bluebottle	*Graphium sarpedon*	-	Very Common	+	
Tailed Jay	*Graphium agamemnon*	-	Common	+	
Lemon Emigrant	*Catopsilia pomona*	-	Very Common	+	+
Common Grass Yellow	*Eurema hecabe*	-	Very Common	+++	+
Three-spot Grass Yellow	*Eurema blanda*	-	Common	+	+
Red-breast Jezebel	***Delias acalis***	**LC**	**Rare**	**+**	
Small Cabbage White	***Pieris rapae***	**-**	**Rare**	**+++**	
Indian Cabbage White	*Pieris canidia*	-	Very Common	++	+
Great Orange Tip	*Hebomoia glaucippe*	-	Common	+	
Total No. of Species Recorded				**23**	**12**

Total No. of Species of Conservation Importance Recorded	2	0

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Conservation status by Fellowes *et al.* (2002): LC = Local Concern.
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. + = Species recorded within transect routes; ++ = Species commonly recorded within transect routes; +++ = Dominant species within transect routes.
4. Species considered as of conservation importance is indicated in bold type.

Appendix 6.3d Odonate Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by First Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Relative Abundance[3]	
				Transect Route (Survey Date)	
				T1 (13 May 2025)	T3 (20 May 2025)
Marsh Dancer	*Onychargia atrocyana*	-	Localised	+	
Elusive Adjutant	*Aethriamanta brevipennis*	-	Localised	++	
Asian Amberwing	*Brachythemis contaminata*	-	Localised		+
Russet Percher	*Neurothemis fulvia*	-	Widespread		+
Common Red Skimmer	*Orthetrum pruinosum*	-	Widespread	+	
Wandering Glider	*Pantala flavescens*	-	Widespread	+++	++
Pied Skimmer	*Pseudothemis zonata*	-	Widespread	++	+
Variegated Flutterer	*Rhyothemis variegata*	-	Localised	+++	
Saddlebag Glider	*Tramea virginia*	-	Widespread		+
Indigo Dropwing	*Trithemis festiva*	-	Widespread	+	+
Scarlet Basker	***Urothemis signata***	**LC**	**Localised**	**+**	
Total No. of Species Recorded				**8**	**6**
Total No. of Species of Conservation Importance Recorded				**1**	**0**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Conservation status by Fellowes *et al.* (2002): LC = Local Concern.
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. + = Species recorded within transect routes; ++ = Species commonly recorded within transect routes; +++ = Dominant species within transect routes.
4. Species considered as of conservation importance is indicated in bold type.

Appendix 6.3e Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by Remaining Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Species Abundance[3] Transect Route (Survey Date) T2 (21 May 2025)
Chinese Noctule	***Nyctalus plancyi***	**PRC (RC); Cap. 170**	**Widespread**	✓
Japanese Pipistrelle	***Pipistrellus abramus***	**Cap. 170**	**Widespread**	✓
Least Pipistrelle	***Pipistrellus tenuis***	**Cap. 170**	**Localised**	✓
Lesser Bamboo Bat	***Tylonycteris fulvida***	**(LC); Cap. 170**	**Widespread**	✓
Lesser Yellow Bat	***Scotophilus kuhlii***	**(LC); Cap. 170**	**Widespread**	✓
Total No. of Species Recorded				**5**
Total No. of Species of Conservation Importance Recorded				**5**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
   a. Conservation status by Fellowes *et al.* (2002): LC = Local Concern; PRC = Potential Regional Concern; RC = Regional Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than general occurrence.
   b. Cap. 170 = Wild Animals Protection Ordinance.
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. ✓ = occurrence recorded via handheld bat detector and the actual species abundance could not be deduced based on bat call recordings.
4. Species considered as of conservation importance is indicated in bold type.

Appendix 6.3f Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by Remaining Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Species Abundance Transect Route (Survey Date) T2 (21 May 2025)
Amphibians				
Asian Common Toad	*Duttaphrynus melanostictus*	-	Widespread	3
Ornate Pigmy Frog	*Microhyla fissipes*	-	Widespread	2
Paddy Frog	*Fejervarya multistriata*	-	Widespread	1
Günther's Frog	*Sylvirana guentheri*	-	Widespread	16 *
Brown Tree Frog	*Polypedates megacephalus*	-	Widespread	13
Reptiles				
Long-tailed Skink	*Eutropis longicaudata*	**-**	Widespread	1
Chinese Gecko	*Gekko chinensis*	**-**	Widespread	5
Bowring's Gecko	*Hemidactylus bowringii*	**-**	Widespread	14
Bamboo Snake	*Trimeresurus albolabris*	**-**	Widespread	6
Total No. of Species Recorded				**9**
Total No. of Species of Conservation Importance Recorded				**0**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. Species considered as of conservation importance is indicated in bold type.
4. * = Recorded as tadpoles.

Appendix 6.3g Butterfly Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by Remaining Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Species Abundance
				Transect Route (Survey Date)
				T2 (21 May 2025)
Slate Flash	*Rapala manea*	-	Common	1
Common Hedge Blue	*Acytolepis puspa*	-	Common	2
Plains Cupid	*Chilades pandava*	-	Common	3
Punchinello	*Zemeros flegyas*	-	Very Common	1
Straight Five-ring	*Ypthima lisandra*	-	Uncommon	2
Great Egg-fly	*Hypolimnas bolina*	-	Very Common	2
Chocolate Pansy	*Junonia iphita*	-	Common	1
Common Sailer	*Neptis hylas*	-	Very Common	1
Common Mime	*Papilio clytia*	-	Uncommon	2
Common Mormon	*Papilio polytes*	-	Very Common	2
Spangle	*Papilio protenor*	-	Very Common	1
Paris Peacock	*Papilio paris*	-	Very Common	1
Common Bluebottle	*Graphium sarpedon*	-	Very Common	3
Lemon Emigrant	*Catopsilia pomona*	-	Very Common	3
Common Grass Yellow	*Eurema hecabe*	-	Very Common	1
Great Orange Tip	*Hebomoia glaucippe*	-	Common	1
Total No. of Species Recorded				**16**
Total No. of Species of Conservation Importance Recorded				**0**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. Species considered as of conservation importance is indicated in bold type.

Appendix 6.3h Odonate Species Recorded for Ecologically Sensitive Habitat Monitoring Conducted by Remaining Phase ET

Common Name	Scientific Name	Conservation and Protection Status[1]	Status in Hong Kong[2]	Species Abundance
				Transect Route (Survey Date)
				T2 (21 May 2025)
Common Blue Skimmer	*Orthetrum glaucum*	-	Widespread	1
Wandering Glider	*Pantala flavescens*	-	Widespread	2
Variegated Flutterer	*Rhyothemis variegata*	-	Localised	1
Total No. of Species Recorded				**3**
Total No. of Species of Conservation Importance Recorded				**0**

Notes:

1. Conservation and Protection Status refers to Fellowes *et al.* (2002), IUCN (2025), RLCV (Jiang *et al.*, 2016), List of National Key Protected Wild Animal (2021), CITES (2025), Cap. 170 and Cap. 586.
2. Distribution and rarity follow the data of HKBIH (AFCD, 2025).
3. Species considered as of conservation importance is indicated in bold type.

Appendix 6.4 Event and Action Plan for Ecological Monitoring

Table 1: Action and Limit Levels and responses for avifauna monitoring and general site inspection in the LVNP during construction phase

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent (PP)
Avifauna Monitoring					
Action Level					
Reduction in monthly mean abundance of birds compared to the corresponding month of the baseline survey by 30%. Reduction in monthly mean abundance of *Ardeola bacchus*(1) compared to the corresponding month of the baseline survey by 30%.	Action Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor and PP; • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Action Level in writing; and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and • Supervise the instigated further mitigation measure(s).

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Avifauna Monitoring					
Limit Level					
Reduction in monthly mean abundance of birds compared to the corresponding month of the baseline survey by 50%. Reduction in monthly mean abundance of *Ardeola bacchus*(1) compared to the corresponding month of the baseline survey by 50%.	Limit Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor, and PP; • Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; • Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Limit Level in writing; • Propose and implement the remedial measures(s) to mitigate the impact(s) identified; and • Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s)..	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; • Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and • Supervise the instigated further mitigation measure(s).

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
General Site Inspections					
Action Level					
Activity likely to cause unacceptable environmental disturbance or damage noted in LVNP.	Action Level exceeded	• Investigate if the activity identified is related to the construction works; • Immediately inform IEC, Contractor, and PP; • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) of the activity identified; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check the investigation and findings of the ET; • Review the remedial measure(s) proposed by the Contractor, and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP..	• Confirm receipt of notification of the exceedance of Action Level in writing; and • Propose and implement the remedial measure(s) to mitigate the impact(s) of the activity identified.	• Check the investigation and findings of the ET and IEC; • • Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; and • Supervise the instigated further mitigation measure(s).

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
General Site Inspections					
Limit Level					
Activity causing unacceptable environmental disturbance or damage noted in LVNP.	Limit Level exceeded	• Investigate if the activity identified is related to the construction works; • Immediately inform IEC, Contractor and Project Proponent; • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) of the activity identified; • Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check the investigation and findings of the ET; • Discuss with the PP, ET, and Contractor on the on the need for further mitigation measure(s); • Review the remedial measure(s) proposed by the Contractor, and advise the PP accordingly; • Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Limit Level in writing; • Propose and implement the remedial measure(s) to mitigate the impact(s) of the activity identified; and • Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s).	• Check the investigation and findings of the ET and IEC; • Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; • Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and • Supervise the instigated further mitigation measure(s).

Remark:
(1) *Ardeola bacchus* was the most abundant waterbird species recorded in Long Valley during baseline survey and was strictly associated with wetland habitats.

Table 2: Action and Limit Levels and responses to evidence of disturbance to large waterbirds using Ng Tung River, Sheung Yue River, and Shek Sheung Rivers

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Action Level					
Reduction in monthly mean abundance of birds compared to the corresponding month of the baseline survey by 30% Reduction in monthly mean abundance of *Ardeola bacchus*(1) compared to the corresponding month of the baseline survey by 30%	Action Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor and PP. • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Action Level in writing; and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and • Supervise the instigated further mitigation measure(s).

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Limit Level					
Reduction in monthly mean abundance of birds compared to the corresponding month of the baseline survey by 50% Reduction in monthly mean abundance of *Ardeola bacchus*(1) compared to the corresponding month of the baseline survey by 50%	Limit Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor and Project Proponent; • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; • Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; • Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Limit Level in writing; • Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; • Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and • Supervise the instigated further mitigation measure(s).

Remark:
(1) *Ardeola bacchus* was the most abundant waterbird species recorded in Long Valley during baseline survey and was strictly associated with wetland habitats.

Table 3: Action and Limit Levels and responses to evidence of declines in aquatic fauna

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Action Level					
Reduction in the species richness[(1)] of native species compared to the corresponding month of the baseline survey by 30%	Action Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor and PP. • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Action Level in writing; and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and • Supervise the instigated further mitigation measure(s).

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Limit Level					
Reduction in the species richness[1] of native species compared to the corresponding month of the baseline survey by 50%	Limit Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor, and PP; • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; • Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; • Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); • Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Limit Level in writing; • Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; • Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and • Supervise the instigated further mitigation measure(s)

Remarks:

(1) Species richness is the number or count of native species in the monitoring areas.

(2) The number of native species should be site specific. the number of native species in Ma Tso Lung Stream should make reference to the corresponding monthly number of native species of Ma Tso Lung Stream instead of all the surveyed watercourses, etc.

Table 4: Action and Limit Levels and responses to evidence of declines in the seasonal non-aquatic fauna (herpetofauna, butterfly, and odonates) in ecologically sensitive habitats

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Action Level					
Reduction in the species richness[(1)] of native species compared to the corresponding month of the baseline survey by 30% For butterflies, reduction in the total species richness compared to the corresponding month of the baseline survey by 30%	Action Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor and PP. • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Action Level in writing; and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and • Supervise the instigated further mitigation measure(s).

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Limit Level					
Reduction in the species richness of native species compared to the corresponding month of the baseline survey by 50% For butterflies, reduction in the total species richness compared to the corresponding month of the baseline survey by 50%	Limit Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential source(s) of impact; • Immediately inform IEC, Contractor and Project Proponent; • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; • Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • •Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; • Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Limit Level in writing; • Propose and implement the remedial measures(s) to mitigate the impact(s) identified; and • Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s).	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; • Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and • Supervise the instigated further mitigation measure(s)

Remarks:
(1) Species richness is the number or count of native species in the monitoring areas.
(2) Total species richness is the number or count of all species in the monitoring areas.

Table 5: Action and Limit Levels and Responses to Evidence of Declines in the Non-seasonal Non-aquatic Fauna (Mammals) on Ecologically Sensitive Habitats

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Action Level					
Reduction in the species richness[(1)] of native species compared to the corresponding month of the baseline survey by 30%	Action Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential sources of impacts; • Immediately inform IEC, Contractor and PP. • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Action Level in writing; and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and • Supervise the instigated further mitigation measure(s).

Level	Event	Action			
		ET	IEC	Contractor	Project Proponent
Construction Phase					
Limit Level					
Reduction in the species richness of native species compared to the corresponding month of the baseline survey by 50%	Limit Level exceeded	• Check monitoring data and repeat data analysis to confirm findings; • Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; • Identify potential sources of impacts;; • Immediately inform IEC, Contractor and Project Proponent; • Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; • Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	• Check monitoring data, analysis and investigation by ET; • Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); • Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; • Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; and • Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	• Confirm receipt of notification of the exceedance of Limit Level in writing; • Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and • Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	• Check the monitoring results and findings from ET and IEC; • Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; • Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and • Supervise the instigated further mitigation measure(s).

Remark:
(1) Species richness is the number or count of native species in the monitoring areas.

Appendix 7.1 Event and Action Plan for Landscape and Visual

Appendix 7.1 Event / Action Plan for Landscape and Visual

Event	Action			
	ET	IEC	ER	Contractor
Non-conformity on one occasion	1. Inform the Contractor, IEC and ER; 2. Discuss remedial actions with IEC, ER and Contractor 3. Monitor remedial actions until rectification has been completed	1. Check inspection report 2. Check Contractor's working method 3. Discuss with ET, ER and Contractor on possible remedial measures 4. Advise ER on effectiveness of proposed remedial measures	1. Confirm receipt of notification of non-conformity in writing 2. Review and agree on the remedial measures proposed by the Contractor 3. Supervise implementation of remedial measures	1. Identify source and investigate the non- conformity 2. Implement remedial measures 3. Amend working methods agreed with ER as appropriate 4. Rectify damage and undertake any necessary replacement
Repeated Non-conformity	1. Identify source(s) 2. Inform the Contractor, IEC and ER; 3. Discuss inspection frequency 4. Discuss remedial actions with IEC, ER and Contractor 5. Monitor remedial actions until rectification has been completed 6. If non-conformity stops, cease additional monitoring	1. Check inspection report Check Contractor's working method 2. Discuss with ET, ER and Contractor on possible remedial measures 3. Advise ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented 3. Supervise implementation of remedial measures	1. Identify source and investigate the non-conformity 2. Implement remedial measures 3. Amend working methods agreed with ER as appropriate 4. Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by ER until the non- conformity is abated.

Notes:

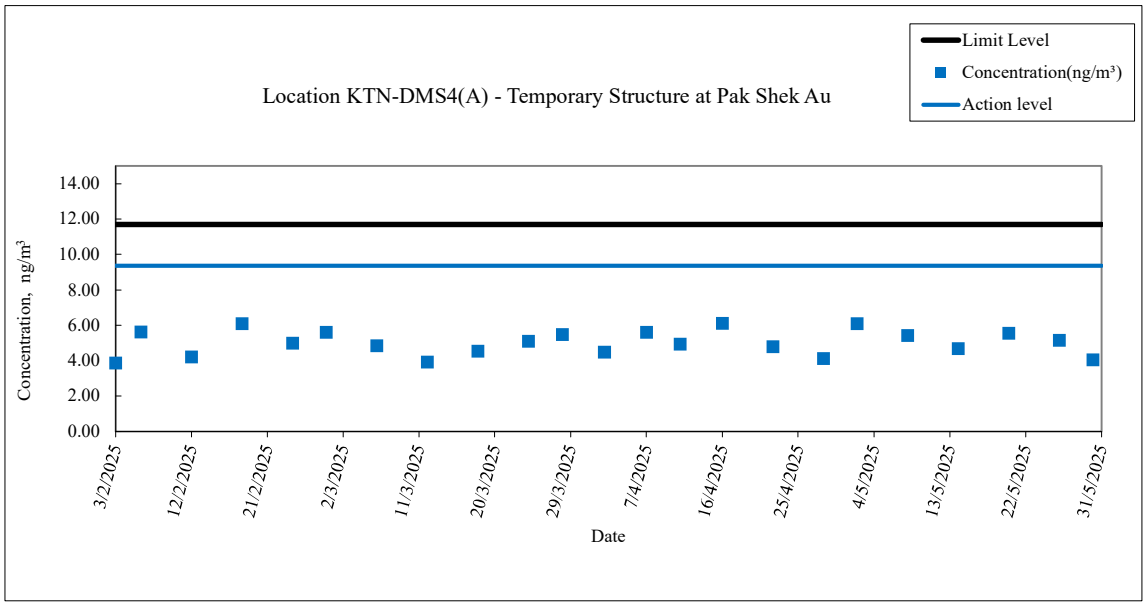
ET – Environmental Team

IEC – Independent Environmental Checker

ER – Engineer's Representative

Appendix 8.1 Impact Ambient Arsenic Monitoring Data & Graphical Presentations & Calibration Certificates (sourced from the First Phase ET)

Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au					
Date	Arsenic(μg)	Standard Volume, Vstd (m^3)	Concentration(ng/m^3)	Action level	Limit Level
2/5/2025	9.60	1580.0	6.08	9.36	11.70
8/5/2025	8.60	1585.4	5.42	9.36	11.70
14/5/2025	7.40	1583.0	4.67	9.36	11.70
20/5/2025	8.80	1589.0	5.54	9.36	11.70
26/5/2025	8.10	1574.0	5.15	9.36	11.70
30/5/2025	6.60	1631.0	4.05	9.36	11.70


Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au
Limit Level
Concentration(ng/m³)
Action level
Concentration, ng/m³
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
3/2/2025
12/2/2025
21/2/2025
2/3/2025
11/3/2025
20/3/2025
29/3/2025
7/4/2025
16/4/2025
25/4/2025
4/5/2025
13/5/2025
22/5/2025
31/5/2025
Date

Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

WELLAB 匯力
consulting . testing . research

Table I - Ambient Arsenic Concentration on 2nd May 2025

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 42204)	Standard Volume, Vstd = $Qstd_{avg}$ x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m^3	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	9.6 μg	1580.0 m^3	6.08 ng/m^3	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m^3 80% of 11.7ng/m^3 –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m^3 - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang		16th June 2025
Checked by:	Marco Ma		16th June 2025

WELLAB 進力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	42204
Date of Issue:	2025-05-12
Date Received:	2025-05-06
Date Tested:	2025-05-06
Date Completed:	2025-05-12

ATTN: **Ms Ivy Tam**

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 42204
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	C 200801/039
Sample No.	42204-1
Arsenic (µg)	9.6

Remarks: 1) < = less than
2) Results for the test material reported as received

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC42204
Date of Issue:	2025-05-12
Date Received:	2025-05-06
Date Tested:	2025-05-06
Date Completed:	2025-05-12

ATTN: **Ms Ivy Tam**

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	104	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	99	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	95	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42204

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

Report No.:	QC42204
Date of Issue:	2025-05-12
Date Received:	2025-05-06
Date Tested:	2025-05-06
Date Completed:	2025-05-12

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	88	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	6	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	92	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42204

**********END OF REP ORT**********

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

WELLAB 匯力
consulting . testing . research

Table I - Ambient Arsenic Concentration on 8th May 2025

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 42245)	Standard Volume, Vstd = $Qstd_{avg}$ x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m^3	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	8.6μg	1585.4 m^3	5.42 ng/m^3	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m^3 80% of 11.7ng/m^3 –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m^3 - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Meiling	16th June 2025
Checked by:	Marco Ma		16th June 2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

ATTN: **Ms Ivy Tam**

Report No.:	42245
Date of Issue:	2025-05-15
Date Received:	2025-05-09
Date Tested:	2025-05-09
Date Completed:	2025-05-15
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 42245
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	250401/042
Sample No.	42245-1
Arsenic (µg)	8.6

Remarks: 1) < = less than
2) Results for the test material reported as received

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 進力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC42245
Date of Issue:	2025-05-15
Date Received:	2025-05-09
Date Tested:	2025-05-09
Date Completed:	2025-05-15

ATTN: **Ms Ivy Tam**

Page: 1 of 2

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	99	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	105	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	90	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42245

****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

Report No.:	QC42245
Date of Issue:	2025-05-15
Date Received:	2025-05-09
Date Tested:	2025-05-09
Date Completed:	2025-05-15
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	94	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	5	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	96	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42245

**********END OF REP ORT**********

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

Table I - Ambient Arsenic Concentration on 14th May 2025

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 42246)	Standard Volume, Vstd = $Qstd_{avg}$ x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m³	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	7.4 µg	1583.0 m³	4.67 ng/m³	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m³ 80% of 11.7ng/m³ –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang		16th June 2025
Checked by:	Marco Ma		16th June 2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

ATTN: **Ms Ivy Tam**

Report No.:	42246
Date of Issue:	2025-05-21
Date Received:	2025-05-15
Date Tested:	2025-05-15
Date Completed:	2025-05-21
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 42246
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	241001/099
Sample No.	42246-1
Arsenic (µg)	7.4

Remarks: 1) < = less than
2) Results for the test material reported as received

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC42246
Date of Issue:	2025-05-21
Date Received:	2025-05-15
Date Tested:	2025-05-15
Date Completed:	2025-05-21

ATTN: **Ms Ivy Tam**

Page: 1 of 2

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	105	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	101	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	96	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42246

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

Report No.:	QC42246
Date of Issue:	2025-05-21
Date Received:	2025-05-15
Date Tested:	2025-05-15
Date Completed:	2025-05-21
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	91	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	9	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	91	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42246

**********END OF REP ORT**********

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

WELLAB 匯力
consulting . testing . research

Table I - Ambient Arsenic Concentration on 20th May 2025

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 42307)	Standard Volume, Vstd = $Qstd_{avg}$ x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m^3	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	8.8 μg	1589.2 m^3	5.54 ng/m^3	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m^3 80% of 11.7ng/m^3 –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m^3 - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Meiling	16th June 2025
Checked by:	Marco Ma		16th June 2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

ATTN: **Ms Ivy Tam**

Report No.:	42307
Date of Issue:	2025-05-27
Date Received:	2025-05-21
Date Tested:	2025-05-21
Date Completed:	2025-05-27
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 42307
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	250401/081
Sample No.	42307-1
Arsenic (µg)	8.8

Remarks: 1) < = less than
2) Results for the test material reported as received

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC42307
Date of Issue:	2025-05-27
Date Received:	2025-05-21
Date Tested:	2025-05-21
Date Completed:	2025-05-27

ATTN: **Ms Ivy Tam**

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	96	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	98	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	95	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42307

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 維力
consulting . testing . research

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

TEST REPORT

Report No.:	QC42307
Date of Issue:	2025-05-21
Date Received:	2025-05-15
Date Tested:	2025-05-15
Date Completed:	2025-05-21
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	88	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	4	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	98	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42307

**********END OF REP ORT**********

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

Table I - Ambient Arsenic Concentration on 26th May 2025

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 42308)	Standard Volume, Vstd = $Qstd_{avg}$ x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m^3	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	8.1 µg	1574.0 m^3	5.15 ng/m^3	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m^3 80% of 11.7ng/m^3 –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m^3 - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Meiling	16th June 2025
Checked by:	Marco Ma		16th June 2025

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

ATTN: **Ms Ivy Tam**

Report No.:	42308
Date of Issue:	2025-06-03
Date Received:	2025-05-27
Date Tested:	2025-05-27
Date Completed:	2025-06-03
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 42308
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 μg

Results:

Sample ID	250401/084
Sample No.	42308-1
Arsenic (μg)	8.1

Remarks: 1) < = less than
2) Results for the test material reported as received

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 滙力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC42308
Date of Issue:	2025-06-03
Date Received:	2025-05-27
Date Tested:	2025-05-27
Date Completed:	2025-06-03
Page:	1 of 2

ATTN: **Ms Ivy Tam**

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	102	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	97	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	96	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42308

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

Report No.:	QC42308
Date of Issue:	2025-05-27
Date Received:	2025-05-15
Date Tested:	2025-05-15
Date Completed:	2025-05-27
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	92	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	8	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	98	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42308

**********END OF REP ORT**********

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

WELLAB 滙力
consulting . testing . research

Table I - Ambient Arsenic Concentration on 30th May 2025

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 42338)	Standard Volume, Vstd = $Qstd_{avg}$ x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m^3	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	6.6 µg	1631.4 m^3	4.05 ng/m^3	No

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m^3 80% of 11.7ng/m^3 –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m^3 - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Meiling	16th June 2025
Checked by:	Marco Ma		16th June 2025

WELLAB 滙力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	42338
Date of Issue:	2025-06-06
Date Received:	2025-06-02
Date Tested:	2025-06-02
Date Completed:	2025-06-06

ATTN: **Ms Ivy Tam**

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 42338
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	250501/009
Sample No.	42338-1
Arsenic (µg)	6.6

Remarks: 1) < = less than
2) Results for the test material reported as received

**********END OF REPORT**********

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC42338
Date of Issue:	2025-06-06
Date Received:	2025-06-02
Date Tested:	2025-06-02
Date Completed:	2025-06-06

ATTN: **Ms Ivy Tam**

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	<0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	96	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	99	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	95	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42338

****

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
General Manager

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

WELLAB 匯力
consulting . testing . research

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

TEST REPORT

Report No.:	QC42338
Date of Issue:	2025-06-02
Date Received:	2025-06-02
Date Tested:	2025-06-02
Date Completed:	2025-06-02

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	97	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	11	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	96	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 42338

**********END OF REP ORT**********

This report may not be reproduced, except in full, without prior written approval from WELLAB LIMITED and the results relate only to the items calibrated or tested. ONLY the laboratory's certified true copy is valid.

TISCH Environmental

RECALIBRATION DUE DATE:
January 7, 2026

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	January 7, 2025	**Rootsmeter S/N:** 438320	**Ta:** 293	°K
Operator:	Jim Tisch		**Pa:** 759.0	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **0993**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3940	3.2	2.00
2	3	4	1	0.9920	6.4	4.00
3	5	6	1	0.8890	7.9	5.00
4	7	8	1	0.8470	8.8	5.50
5	9	10	1	0.6990	12.7	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0114	0.7255	1.4252	0.9958	0.7143	0.8787
1.0071	1.0152	2.0156	0.9916	0.9996	1.2427
1.0051	1.1306	2.2535	0.9896	1.1132	1.3893
1.0039	1.1852	2.3635	0.9884	1.1669	1.4572
0.9987	1.4287	2.8505	0.9833	1.4067	1.7574
QSTD	**m=**	**2.02896**	**QA**	**m=**	**1.27050**
	b=	**-0.04420**		**b=**	**-0.02725**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

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

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

WELLAB 匯力
consulting . testing . research

RSP - Respirable Suspended Particulates Sampler (PM 10)
Field Calibration Report

Station	KTN-DMS4A - Temporary Structure at Pak Shek Au	File No.	WMA20002/03/0030
Date:	31-Mar-25	Next Due Date:	30-May-25
Model No.	TE-6070X	Operator:	HL
Equipment No.:	WA-11-03	Serial No.	3225

Ambient Condition			
Temperature, Ta (K)	284.6	Pressure, Pa (mmHg)	769

Orifice Transfer Standard Information					
Serial No.:	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	Next Calibration Date:		7-Jan-26	

Calibration of RSP Sampler

Calibration Point	ORIFICE					HVS	
	ΔH(orifice), in. of water	Del Hc (1)	Qstd (2) (CFM)	Qa (3) (CFM) **X -axis**	Qa (3) (m^3/min) **X -axis**	ΔW (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ **Y-axis**
1	12	12.71	62.84	59.31	1.68	8.4	1.85
2	10.1	10.70	57.71	54.47	1.54	7.1	1.70
3	8.0	8.48	51.45	48.56	1.37	6.1	1.58
4	5.3	5.62	42.02	39.66	1.12	4.5	1.36
5	3.6	3.81	34.77	32.81	0.93	3.2	1.14

By Linear Regression of Y on X

Slope , mw = 0.0260 **Intercept, bw =** 0.3045

Correlation coefficient* = 0.9983

(1) DEL Hc = ΔH x (Pa/760*298/Ta)

(2) Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ - bc}/mc (m3/min)

(3) Qa = Qstd x (Ta / Pa) x (760 / 298) (m3/min)

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

Set Point Flow Rate., SFR

SFR = 1.13 x (760/Pa) x (Ta/298) = 37.69

Sampler Well - Type Manometer Set Point, SSP

SSP = [(mw x SFR + bw)^2 x Pa] / (Ta + 30) = 4.04

Remarks:

Conducted by: LEE MAN HEI Signature: Date: 31/3/25

Checked by: Ho Ka Lun Signature: Date: 31/3/25

WELLAB 匯力
consulting . testing . research

RSP - Respirable Suspended Particulates Sampler (PM 10)
Field Calibration Report

Station	KTN-DMS4A - Temporary Structure at Pak Shek Au	File No.	WMA20002/03/0031
Date:	28-May-25	Next Due Date:	27-Jul-25
Model No.	TE-6070X	Operator:	HL
Equipment No.:	WA-11-03	Serial No.	3225

Ambient Condition			
Temperature, Ta (K)	298.5	Pressure, Pa (mmHg)	760.6

Orifice Transfer Standard Information					
Serial No.:	0993	Slope, mc	0.0574	Intercept, bc	-0.04420
Last Calibration Date:	7-Jan-25	Next Calibration Date:		7-Jan-26	

Calibration of RSP Sampler

Calibration Point	ORIFICE					HVS	
	ΔH(orifice), in. of water	Del Hc (1)	Qstd (2) (CFM)	Qa (3) (CFM) **X -axis**	Qa (3) (m^3/min) **X -axis**	ΔW (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ **Y-axis**
1	12.6	12.59	62.53	62.59	1.77	8.9	1.96
2	10.5	10.49	57.15	57.20	1.62	7.5	1.80
3	8.4	8.39	51.20	51.25	1.45	6.4	1.66
4	5.6	5.60	41.95	41.98	1.19	4.3	1.36
5	3.8	3.80	34.69	34.72	0.98	3.1	1.16

By Linear Regression of Y on X

Slope , mw = 0.0289 **Intercept, bw =** 0.1567

Correlation coefficient* = 0.9991

(1) DEL Hc = ΔH x (Pa/760*298/Ta)

(2) Qstd = $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\}/mc$ (m3/min)

(3) Qa = Qstd x (Ta / Pa) x (760 / 298) (m3/min)

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

Set Point Flow Rate., SFR

SFR = 1.13 x (760/Pa) x (Ta/298) = 39.96

Sampler Well - Type Manometer Set Point, SSP

SSP = [(mw x SFR + bw)^2 x Pa] / (Ta + 30) = 3.98

Remarks:

Conducted by: Lee Man Hin Signature: Date: 28/5/2025

Checked by: Ho Ka Lun Signature: Date: 28/5/25

Appendix 8.2 Event and Action Plan for Ambient Arsenic Monitoring

Appendix 8.2 Event / Action Plan for Ambient Arsenic Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level				
Exceedance for one sample	1. Identify sources, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by the ET; 2. Check the Contractor's working methods.	1. Notify the Contractor;	1. Rectify any unacceptable practices; 2. Amend working methods agreed with the ER if appropriate.
Exceedance for two or more consecutive samples	1. Identify sources. 2. Inform the IEC and ER**;** 3. Advise the ER on the effectiveness of the proposed remedial measures**;** 4. Repeat measurements to confirm findings**;** 5. Increase monitoring frequency to daily**;** 6. Discuss with the IEC, ER and Contractor on remedial action required**;** 7. If exceedance continues, arrange meeting with the IEC, Contractor and ER**;** 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Check the Contractor's working methods; 3. Discuss with the ET, ER and Contractor on possible remedial measures if required; 4. Advise the ER on the effectiveness of proposed remedial measures if required; 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial action to the ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
Limit Level				
Exceedance for one sample.	1. Identify sources, investigate causes of exceedance and proposed remedial measures; 2. Inform the IEC, ER, and Contractor; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily 5. Assess effectiveness of the Contractor's remedial action and keep the IEC and ER informed of the results.	1. Check monitoring data submitted by the ET. 2. Check the Contractor's working methods. 3. Discuss with the ET, ER and Contractor on possible remedial measures. 4. Advise the ER and ET on the effectiveness of the proposed remedial measures. 5. Supervise the implementation of remedial measures.	1. Confirm receipt of the notification of exceedance in writing; 2. Notify the Contractor; 3. Ensure remedial measures are properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial action to the ER and copy to the ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Exceedance for two or more consecutive samples	1. Notify the IEC, ER and Contractor; 2. Identify sources; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of the Contractor's working procedures with the ER to determine the possible mitigation to be implemented; 6. Arrange meeting with the IEC and ER to discuss the remedial action to be taken; 7. Assess the effectiveness of the Contractor's remedial action and keep the IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst the ER, ET and Contractor on the potential remedial action; 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER and ET accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of the notification of exceedance in writing; 2. Notify the Contractor; 3. In consultation with the IEC and ET, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of works is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial action to the ER and copy to the IEC and ET within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problems still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix 11.1 Statistical Summary of Environmental Complaints, Summons and Prosecution

Statistical Summary of Environmental Complaints for ND/2024/01

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Summons for ND/2024/01

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Prosecution for ND/2024/01

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Complaints for ND/2024/04

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
10 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Summons for ND/2024/04

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
10 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Prosecution for ND/2024/04

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
10 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Complaints for ND/2024/06

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Summons for ND/2024/06

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Prosecution for ND/2024/06

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Complaints for ND/2024/07

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Summons for ND/2024/07

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 31 May 2025	0	0	N/A

Statistical Summary of Environmental Prosecution for ND/2024/07

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 31 May 2025	0	0	N/A

Appendix 12.1 Impact Monitoring Schedule of Next Reporting Month

Contract No. NDO 05/2024 Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas (Version0.0)
Tentative Impact Air Quality and Noise Monitoring Schedule (June 2025)

June 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	**2** Impact Noise Monitoring: CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6#, CP-FLN-NMS1* Impact Air Quality Monitoring (1-hour TSP): FLN-DMS6(A)#, FLN-DMS1* Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#	**3**	**4**	**5** Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)* , FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS5A*, FLN-DMS1* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	**6** Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*	**7** Impact Air Quality Monitoring (1-hour TSP): FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#
8	**9**	**10** Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#	**11** Impact Noise Monitoring: CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)* , FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS5A*, FLN-DMS1* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	**12** Impact Noise Monitoring: CP-FLN-NMS1* Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*	**13** Impact Noise Monitoring: CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#	**14**
15	**16**	**17** Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)* , FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS5A*, FLN-DMS1* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	**18** Impact Noise Monitoring: CP-FLN-NMS1* Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*	**19** Impact Noise Monitoring: CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#	**20**	**21**
22	**23** Impact Noise Monitoring: CP-KTN-NMS2*, CP-KTN-NMS3*, CP-KTN-NMS5*, CP-KTN-NMS6* Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)* , FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS5A*, FLN-DMS1* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	**24** Impact Noise Monitoring: CP-KTN-NMS1#, CP-KTN-NMS7#, CP-FLN-NMS1* Impact Air Quality Monitoring (1-hour TSP): FLN-DMS1*	**25** Impact Noise Monitoring: CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6# Impact Air Quality Monitoring (1-hour TSP): FLN-DMS6(A)# Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#	**26**	**27** Impact Air Quality Monitoring (1-hour TSP): KTN-DMS4(B)* , FLN-DMS5* Impact Air Quality Monitoring (24-hour TSP): KTN-DMS4(B)*, FLN-DMS5A*, FLN-DMS1* Impact Air Quality Monitoring (24-hour RSP Ambient Arsenic): KTN-DMS4(A)*	**28**
29	**30** Impact Noise Monitoring: CP-FLN-NMS4(A)#, CP-FLN-NMS5#, CP-FLN-NMS6#, CP-FLN-NMS1* Impact Air Quality Monitoring (1-hour TSP): FLN-DMS6(A)#, FLN-DMS1* Impact Air Quality Monitoring (24-hour TSP): FLN-DMS6(A)#					

Remark(s):
1. The schedule may be changed due to unforeseen circumstances (e.g. adverse weather, etc.).

Note(s):
* Environemntal monitoring works to be carried by the First Phase Environemntal Team (Wellab) under Service Contract No. NDO 04/2019
Environemntal monitoring works to be carried by the Remaining Phase Environemntal Team (Aurecon) under Service Contract No. NDO 05/2024

Contract No. NDO 05/2024 Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas (Version0.0)
Tentative Impact Ecological Monitoring Schedule (June 2025)

June 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** High tide: Start time: 15:00	3	4 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 High tide: Start time: 14:00 Low tide: Start time: 10:00	5	6 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** Low tide: Start time: 14:30 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 High tide: Start time: 9:00 Low tide: Start time: 12:00	7
8	9	10 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** High tide: Start time: 09:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 High tide: Start time: 10:00 Low tide: Start time: 14:00	11	12 Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution *T1	13 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** Low tide: Start time: 16:30 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 High tide: Start time: 13:00 Low tide: Start time: 16:00	14
15	16 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** High tide: Start time: 09:00	17 Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream *MS01 - MS15	18	19 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** Low tide: Start time: 10:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 High tide: Start time: 13:00 Low tide: Start time: 9:00	20 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 High tide: Start time: 15:00 Low tide: Start time: 12:00 Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution *T3 T4	21
22	23 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** High tide: Start time: 09:00 Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution **^T2** Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley *T3 T5 High tide: Start time: 9:00 Low tide: Start time: 13:00	24	25	26 Monitoring of Measures to Minimise Disturbance to Water Birds in Shek Sheung River **^T4** Low tide: Start time: 16:00	27 Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River *T1 T2 High tide: Start time: 13:00 Low tide: Start time: 16:00	28
29	30					

Remark(s):
1. The schedule may be changed due to unforeseen circumstances (e.g. adverse weather, etc.).

Note(s):
Night-time avifauna monitoring in Long Valley
* Environemntal monitoring works to be carried by the First Phase Environemntal Team (Wellab) under Service Contract No. NDO 04/2019
^ Environemntal monitoring works to be carried by the Remaining Phase Environemntal Team (Aurecon) under Service Contract No. NDO 05/2024

Contract No. NDO 05/2024 Environmental Team for Environmental Monitoring and Audit Works for Remaining Phase Development of Kwu Tung North and Fanling North New Development Areas (Version0.0)
Tentative Impact Water Quality Monitoring Schedule (June 2025)

June 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Remark(s):
1. The schedule may be changed due to unforeseen circumstances (e.g. adverse weather, etc.).
2. No channelisation works is anticipated to be undertaken in June 2025 as confirmed by Supervisor Team, no impact water quality monitoring at KTN-CS1, KTN- IS1, FLN-CS1 and FLN-IS1 is scheduled for June 2025

Document prepared by

Aurecon Hong Kong Limited

Unit 1608, 16/F, Tower B, Manulife Financial Centre,
223 – 231 Wai Yip Street, Kwun Tong, Kowloon
Hong Kong S. A. R.

T +852 3664 6888
F +852 3664 6999
E hongkong@aurecongroup.com
W aurecongroup.com

