Civil Engineering and Development Department

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

Monthly Environmental Monitoring and Audit Report for March 2023

(Version 1.0)

Certified By

Dr. Priscilla Choy

(Environmental Team Leader)

REMARKS:

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

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

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Independent Environmental Checker for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas – Investigation

Monthly Environmental Monitoring and Audit Report No. 41 (March 2023)

18 April 2023

BY EMAIL

Dear Sir,

We refer to email of 18 April 2023 attaching the Monthly Environmental Monitoring and Audit Report No. 41 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-466/2013/A, EP-467/2013/A, EP-468/2013/A, EP-469/2013, EP-470/2013A, EP-473/2013/A, EP-475/2013/A and EP-546/2017.

Should you have any queries, please contact the undersigned or our Ms. Liz Lo at 2828 5751.

Yours faithfully,

For and on behalf of the

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EXECUTIVE SUMMARY

Introduction

- 1. This is the 41st monthly Environmental Monitoring and Audit (EM&A) Report for the First Phase Development of Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs), comprising the Advance Works and First Stage Works (hereinafter called the "the Project"). This report is prepared by Wellab Limited under "Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of KTN and FLN NDAs" (hereinafter called the "Service Contract"). This report documents the findings of EM&A works conducted in March 2023.
- 2. During the reporting month, the following Works Contracts under relevant Environmental Permit(s) were undertaken for the Project:

Table I Works Contracts under relevant Environmental Permit(s) in the Reporting Month

Works Contracts	Environmental Permit No.	Designated Project (DP)	Commencement date of construction
	EP-466/2013/A	Castle Peak Road Diversion	12 August 2020
Contract No. ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	12 August 2020
	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	1 June 2020
	EP-470/2013/A	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	23 March 2020
Contract No. ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development Area and Shek Wu Hui	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area	28 October 2020
Contract No. ND/2019/03 – Kwu Tung North and Fanling North	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	3 July 2020
New Development Areas, Phase 1: Development of Long Valley Nature Park	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	6 October 2020
Contract No. ND/2019/04 – Fanling North New Development Area,	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	23 February 2021

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

Works Contracts	Environmental Permit No. Designated Project (DP)		Commencement date of construction
Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)	EP-546/2017	Fanling North Temporary Sewage Pumping Station	16 February 2021
Contract No. ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	1 August 2020
Contract No. ND/2019/06 – Fanling North New Development Area, Phase 1: Re-provisioning of North District Temporary Wholesale Market for Agricultural Products	Reprovision of temporary Wholesale EP-475/2013/A Market in Fanling North New Development Area		29 October 2019
Contract No. ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works	Works area Environmental Pe Project.	1 March 2021	

Environmental Monitoring and Audit Progress

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

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

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

EM&A Activities	Monitoring Station (s)	Works Contracts						
11001 (1010)		ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/04	ND/2019/05	ND/2019/06	ND/2019/07
	FLN-DMS1			1, 7, 13, 17, 23 and 29 Mar 23	1, 7, 13, 17, 23 and 29 Mar 23	N/A		
1-hr Total Suspended	FLN-DMS3	N/A	NT/A	N/A	N/A	1, 7, 13, 17, 23 and 29 Mar 23	NT/A	NT/A
Particulates (TSP) Monitoring	FLN-DMS5		N/A	6, 10, 16, 22 and 28 Mar 23	6, 10, 16, 22 and 28 Mar 23	NY/A	N/A	N/A
Triomorning	KTN-DMS4(B)	6, 10, 16, 22 and 28 Mar 23		6, 10, 16, 22 and 28 Mar 23	N/A	N/A		
	FLN-DMS1#		N/A	6, 10, 16, 22 and 28 Mar 23#	6, 10, 16, 22 and 28 Mar 23#	N/A	N/A	N/A
24-hr TSP Monitoring	FLN-DMS3	N/A		N/A	N/A	6, 10, 16, 22 and 28 Mar 23		
	FLN-DMS5A			6, 10, 16, 22 and 28 Mar 23	6, 10, 16, 22 and 28 Mar 23	NY/A		
	KTN-DMS4(B)	6, 10, 16, 22 and 28 Mar 23		6, 10, 16, 22 and 28 Mar 23	N/A	N/A		
	CP-FLN-NMS1	N/A			1, 7, 1	1, 7, 17 and 23 and 29 Mar 23		
	CP-FLN-NMS2				1, 7, 17 and 23 and 29 Mar 23 N/A			
Nation Manifestina	CP-KTN-NMS2							N T/A
Noise Monitoring	CP-KTN-NMS3	10, 16, 22 and 28 Mar 23	N/A			X//		N/A
	CP-KTN-NMS5				N/A			
	CP-KTN-NMS6	N/A	10, 16, 22 and 28 Mar 23					
Ecological Survey	Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung River, Sheung Yue River, and Long Valley	N/A*	N/A*	2 , 9, 10, 14, 16, 23, 24, 28, 29 Mar 23	2, 9, 16, 23 and 29 Mar 23	N/A*	N/A*	N/A*

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

EM&A Activities	Monitoring Station (s)	Works Contracts						
recrytices		ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/04	ND/2019/05	ND/2019/06	ND/2019/07
	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	3 and 27 Mar 23	3 and 27 Mar 23	27 Mar 23	27 Mar 23	27 Mar 23	N/A*	N/A*
Egretry Monitoring	5	N/A	N/A	27 Mar 23	N/A	N/A	N/A	N/A
24-hr RSP (Ambier Land Contamination	nt Arsenic) Monitoring for on	2, 8, 14, 20, 24 and 30 Mar 23	N/A	2, 8, 14, 20, 24 and 30 Mar 23	N/A	N/A	N/A	N/A
Water Quality Monitoring		N/A	1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27, 29 and 31 Mar 23	N/A	1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27, 29 and 31 Mar 23	N/A	N/A	N/A
Landfill Gas Monitoring		1 Mar 23	N/A	N/A	N/A	N/A	N/A	N/A
Built Heritage Monitoring		N/A	N/A	N/A	Daily assessment subject to construction works conducted within assessment area	Daily assessment subject to construction works conducted within assessment area	N/A	N/A
Environmental Site I	nspection	7, 14, 23 and 28 Mar 23	1, 8, 15, 24 and 29 Mar 23	3, 10, 17, 21 and 31 Mar 23	2, 9, 15, 23 and 30 Mar 23	6, 16, 20 and 27 Mar 23	2, 9, 15, 23 and 30 Mar 23	3, 10, 17, 24 and 31 Mar 23

Remarks:

N/A - No relevant monitoring is required according to the updated EM&A Manual

N/A* - No relevant monitoring is required according to the Baseline Ecological Monitoring Plan (Table 3.1)

- [1] Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03
- [2] Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03
- [3] Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m, the monitoring station is not applicable to ND/2019/02
- [4] Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds500m, the monitoring station is not applicable to ND/2019/05
- [5] Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04
- [6] Since the distance between monitoring station FLN-DMS5 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/05
- [7] Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04
- [8] Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03
- # 24 hr TSP monitoring at FLN-DMS1 on 10 & 16 March 2023 were cancelled due to power failure.

Breaches of Action and Limit Levels

4. Summary of the environmental exceedances of the reporting month is tabulated in **Table III**.

Table III Summary Table for Events Recorded in the Reporting Month

Environmental Monitoring	Parameter	No. of non- project related Exceedances		Total No. of non-project related Exceedances	No. of Exceedance related to the Construction Works of the Contract		Total No. of Exceedance related to the Construction Works of the	
		Action Level	Limit Level		Action Level	Limit Level	Contract	
	1-hr TSP	0	0	0	0	0	0	
Air Quality	24-hr TSP	0	0	0	0	0	0	
, in the second	24-hr RSP (Ambient Arsenic)	0	0	0	0	0	0	
Noise	$L_{eq(30 min)} \\$	0	0	0	0	0	0	
	DO	0	0	0	0	0	0	
Water Onelity [1]	Turbidity	0	0	0	0	0	0	
Water Quality [1]	SS	0	0	0	0	0	0	
	Arsenic	0	0	0	0	0	0	
	O_2							
Landfill Gas	CH ₄	0	0	0	0	0	0	
	CO_2							
Cultural heritage	Built Heritage Monitoring	0	0	0	0	0	0	

Air Quality

5. All construction air quality monitoring was conducted as scheduled in the reporting month except the 24-hr TSP monitoring at FLN-DMS1 on 10 & 16 March 2023 were cancelled due to power failure. No Action/Limit Level exceedance was recorded.

Construction Noise

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

Water Quality

7. All additional water quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level Exceedance was recorded. No construction of channel for alternation of natural

streams was carried out in the reporting month. Therefore, no water quality monitoring was conducted according to the Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA). Relevant details are given in Section 5.

Land Contamination

8. All ambient arsenic monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Landfill Gas Monitoring

9. Monitoring of landfill gas in the reporting month was carried out by the Contractor under ND/2019/01 at excavation location Portion 6b. No Limit Level exceedance was recorded.

Built Heritage Monitoring

10. Built heritage monitoring was carried out in the reporting month by the Contractor under ND/2019/05 for surveyed cultural heritage. No Limit Level exceedance was recorded.

Ecological Monitoring

11. All ecological monitoring was conducted as scheduled in the reporting month. The monitoring result is shown in **Appendix L** and will be compared with the Action/Limit level after the issuance of Final Baseline Ecological Report.

Egretry Monitoring

12. All Egretry monitoring was conducted as scheduled in the reporting month. The monitoring results can refer to the Monthly Egretry Monitoring Report for March 2023.

Complaint Log

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

Notification of Summons and Successful Prosecutions

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

Reporting Changes

15. This report has been prepared in compliance with the reporting requirements for the subsequent monthly EM&A Report as required by the "Updated Environmental Monitoring and Audit Manual for Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas" (Updated EM&A Manual).

Future Key Issues

16. The major site activities for the coming three months are shown in **Table IV**.

Table IV	Summary Table for Site Activities in the coming Three Months				
Contract No.	Site Activities (April to June 2023)				
ND/2019/01	(a) Site Clearance, tree felling, removal of existing structures, slope work and drainage				
	works in Portion 1a				
	(b) Excavation, backfilling, drainage works, construction of hoarding/fencing and road				
	works in Portion 1b				
	(c) Site clearance, site formation and socket H piling in Portion 1c				
	(d) Temporary storage of material and site formation in Portion 1e				
	(e) Tree felling, site formation work and construction of subway in Portion 2				
	(f) Excavation, backfilling and drainage works in Portion 3				
	(g) Drainage works, watermain, excavation, backfilling, road works, sheet piling and pipe jacking in Portion 5				
	(h) Drainage works, backfilling, road works, watermains work in Portion 6a				
	(i) Operation of HAC treatment facility in Portion 6b				
	(j) Site formation, sheet piling, excavation and drainage works in Portion 7				
	(k) Construction of retaining wall, RC construction of flushing water service reservoir and fresh water reservoir, construction of WSD's maintenance access and backfilling works in Portion 8a				
	(l) Construction of jacking pit at LWSC's car park and trenchless work, excavation, watermain construction and trial pit in Portion 8b				
	(m) Sheet piling, excavation, drainage works and watermain construction in Portion 9b				
	(n) Stockpile of soil in Portion 9c				
	(o) Utilities works in Portion 10a				
	(p) Sheet piling, excavation and drainage works in Portion 10b				
	(q) Site clearance, tree felling, remove of existing structure in Portion 13				
ND/2019/02	(a) Pipe Jacking				
	(b) Backfilling				
	(c) Concreting				
	(d) Bedding & Pipe Laying				
	(e) ELS				
	(f) Sheet Pile Installation				
	(g) Cut and Fill of Slope				
ND/2019/03					
	(a) Portion 1 & Portion 1A				
	- Road & Drainage works and watermains works at Yin Kong Road				
	- Construction of Pai Lau				
	- Installation of Street Lighting				
	- Construction of Pavilion at Yin Kong Road				
	(b) Portion 2 to Portion 20C				
	- Wetland creation & restoration, Dry agricultural land creation				
	- Construction of Tea House Pavilion				
	- Construction of compacted earth path				
	- Construction of Water Treatment Wetland				
	- Tree felling and tree pruning work				
	Construction of Lodging FacilityConstruction of Dry Weather Flow Interception (DWFI)				
	- Construction of Dry weather Flow Interception (DWF1)				

Contract No.	Site Activities (April to June 2023)
ND/2019/04	(a) Tree Felling and transplant
	(b) Pile Cap
	(c) Excavation
	(d) Grouting
	(e) Sheet Piling (f) Road works
	(g) Pre-drill
	(h) Bore pile
	(i) ELS
ND/2019/05	(a) North Team Works
	- ELS and Pile cap construction at B2-01, B2-02, B2-03, C1-01a, C2-03b, C2-04b
	& D2-01
	- Pier construction at C1-01a, C2-03b, C2-04b, D2-01 & E2-01.
	- Pier head construction at C3-01b, C1-01a & E2-01
	 Cross head construction at C2-01, C2-02, C3-02. Slope works, road works and drainage work at Jockey Club Road (3SW-C/F63),
	Tong Hang Junction and Portion VI (FS28 & 29)
	(b) <u>Viaduct Works</u>
	- Segment fabrication for bridge C2 & D1 & E1.
	- Segments erection by LG at bridges C4,C3,
	- Segments erection by crane at bridge D1 and E1.
	- T-span construction by form traveler at Pier E2-02, E3-03, D2-02, E3-01
	- SOP construction at D2-02, E3-02, D2-03
	- Construction of pile cap and installation of bridge rotation components at pier E2-01, D2-01.
	- Design and fabrication of 3rd and 4th set of form traveler.
	- Design and fabrication of truss formwork for Bridge B1.
	- Erection of tower crane at E2-01.
	(c) South Team Works
	- TWSRW – Road work (section ch 250 to 450). UU diversion.
	- TWSRW – Slope work for FS06. Soil nail for FS04. Outage of CLP 132 kv.
	- TWSRE – Form D300 new road, BBI footing, relocation of existing BBI and
	road diversion
	 HKY FB (East) – Erection of stair case HKY FB (West) – Construction of LT2
	- HK1 FB (West) – Construction of L12 - E2-03 – Pier and pier head construction.
	- E2-03 – Fier and pier head construction E3-04a, E3-05M, E4-01 and E4-02 – cap construction.
	- NB109 – bay 5~8, base slab construction.
ND/2019/06	The construction phase has been completed and handed over to AFCD since 4 April 2022.
ND/2019/07	(a) Road works at Portion 1, 4 and 5
	(a) Road works at Portion 1, 4 and 5 (b) C&D waste disposal at Portion 1, 2, 4 and 5
	(c) Construction of box culvert at Portion 2
	(d) Filling works at Portion 2 and 4
	(e) Construction of site haul road at Portion 4
	(f) Drainage works, Sewerage works at Portion 1, 3, 4 and 5
	(g) Mini piling works at Portion 4
	(h) Construction of noise barrier at Portion 4 and 5
	(i) Waterworks at Portion 1

1 INTRODUCTION

1.1 Wellab Limited was commissioned by Civil Engineering and Development Department (CEDD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) services for the Works Contracts involved in the implementation of the First Phase Development of Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs) Project to ensure that the environmental performance of the Works Contracts complies with the requirements specified in the Environmental Permits (EPs), Updated EM&A Manual, Environmental Impact Assessment (EIA) Report of the KTN FLN NDAs project and other relevant statutory requirements.

Purpose of the report

1.2 This is the 41st EM&A Report which summarises the key findings of the EM&A programme in March 2023.

Structure of the report

- 1.3 The structure of the report is as follows:
 - Section 1: **Introduction -** purpose and structure of the report.
 - Section 2: **Project Information -** summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.
 - Section 3: **Air Quality Monitoring -** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
 - Section 4: **Noise Monitoring -** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
 - Section 5: **Water Quality Monitoring s**ummarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels and Event / Action Plans.
 - Section 6: Land Contamination (Ambient Arsenic Monitoring) summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
 - Section 7: **Landfill Gas Monitoring -** summarises the monitoring requirement, monitoring parameters and frequency, monitoring locations, Action and Limit Levels, monitoring results and observation, and Event / Action Plans.
 - Section 8: **Built Heritage Monitoring** summarises the monitoring requirement, monitoring parameters and frequency, monitoring locations, Action and Limit Levels, monitoring results and observation.
 - Section 9: **Ecological Monitoring** summarises the details of monitoring of measures to minimise disturbance to waterbirds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley, monitoring of measures to

- minimise impacts on ecological sensitive habitats from disturbance and pollution during the reporting month.
- Section 10: **Environmental Site Inspection -** summarises the audit findings of the weekly site inspections undertaken within the reporting month.
- Section 11: **Environmental Non-conformance -** summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.
- Section 12: **Future Key Issues -** summarises the impact forecast, proposed mitigation measures and monitoring schedule for the upcoming months.
- **Section 13: Conclusions and Recommendations**

2 PROJECT INFORMATION

Background

- 2.1 The Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs) are one of the important sources of land and housing supply in the medium and long term. The development of the KTN and FLN NDAs will be implemented in phase for full completion by 2031. The Phase 1 of the NDAs development, comprising the Advance Works and First Stage Works, is targeted to be implemented from the second half of 2019 progressively. The Advance and First Stage Works would include site formation, engineering infrastructure works (including roads, drainage, sewerage, waterworks, landscaping works, pumping stations, and fresh water and flushing water service reservoirs), soil remediation, reprovisioning of North District Temporary Wholesale Market, development of a nature park at Long Valley and implementation of environmental mitigation measures.
- 2.2 The scope of works under the Advance and First Stage Works comprises the following:
 - a) The Advance Works (PWP item No. 7747CL-2) consist of:
 - i) site formation of land (including soil remediation) in KTN and FLN NDAs for housing, community facilities and engineering infrastructure;
 - ii) construction of roads including the eastern section of Fanling Bypass (FLBP(E)) connecting the FLN NDA to Fanling Highway and other roads with footpaths and cycle tracks, and associated junction/ road improvements;
 - iii) engineering infrastructure works including drainage. Sewerage (including two sewage pumping stations), waterworks (including a fresh water service reservoir and a flushing water service reservoir in the KTN NDA), landscape works and slopeworks;
 - iv) part expansion and upgrading of Shek Wu Hui Sewage Treatment Works (SWHSTW);
 - v) reprovisioning works; and
 - vi) implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programme for the works mentioned in (i) to (v) above.
 - b) The First Stage Works (PWP item No. 7759CL) consist of:
 - i) development of a nature park at Long Valley including provision of a visitor centre and a footbridge spanning across Sheung Yue River for connection between these two facilities;
 - ii) reprovisioning of two egretry sites in the FLN NDA and enhancement works to an existing egretry site in the KTN NDA;
 - iii) site formation of land for a village resite area and a district police station in the KTN NDA;
 - iv) engineering infrastructure works including roads, drainage, sewerage, waterbirds, and landscape works; and
 - v) implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programme for the works mentioned in (i) to (iv) above.

2.3 The Project which covers KTN and FLN NDAs is a designated project (DP) under Schedule 3 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). In October 2013, the EIA Report (AEIAR-175/2013) for the Project was approved by the Director of Environmental Protection pursuant to the EIA Ordinance. The relevant EPs under the Project and the respective Work Contracts are summarised in **Tables 2.1a** and **2.1.b**.

Table 2.1a Summary of EPs under the Project and the Respective Work Contracts

EP No.	Designated Project		C2	С3	C5 A	C5 B	C6	С7
EP-466/2013/A	Castle Peak Road Diversion	✓						
EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement							
EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	✓		✓				
EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area		✓					
EP-470/2013/A	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works							
EP-473/2013/A	Fanling Bypass Eastern Section			✓	✓	✓		
EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area						✓	
EP-546/2017	Fanling North Temporary Sewage Pumping Station				✓			

C5B: ND/2019/05 C6: ND/2019/06 C7: ND/2019/07

Table 2.1b Summary of Scope of Works under concerned EP

Environmental Permit (EP) No.	Work Contract(s)	Scope of Works under concerned EP(s)	Site Layout Plan under concerned EP(s)
EP- 466/2013/A(Part)	C1	Realign Castle Peak Road and join with the Pak Shek Au Interchange at the western end	Figure 12
EP- 467/2013/A(Part)	C1	Construction of new primary distributor road (P1) within Kwu Tung North New Development Area	
EP-	C1	Construction of new primary distributor roads (D1, D3, D4 and part of D5) within Kwu Tung North New Development Area	Figure 14
468/2013/A(Part)	C3	Development of a nature park at Long Valley and ecological mitigation and enhancement works for the nature park (Condition 2.9)	Figure 15
EP- 469/2013(Part)	C2	Construction of one sewage pumping station in Kwu Tung North with installed capacity of more than 2,000 m3 per day	Figure 16

Environmental Permit (EP) No.	Work Contract(s)	Scope of Works under concerned EP(s)	Site Layout Plan under concerned EP(s)
EP- 470/2013/A(Part)	C1	Construction of service reservoir and watermain for the reuse of treated sewage effluent for reuse in Kwu Tung North Development Areas	Figure 17
EP- 473/2013/A(Part)	C3	Establishment of alternative egretry sites and enhance the existing egretry site at Ho Sheung Heung and/or its vicinity (Condition 2.7)	Figure 18
EP- 473/2013/A(Part)	C5A	Construction of new district distributor inside FLN NDA, which provides a	Figure 19
EP- 473/2013/A(Part)	C5B	linkage between the Man Kam To Road and the proposed Fanling Bypass Eastern Section	Figure 20
EP-475/2013/A	C6	The re-provisioned wholesale market will have approximately 1,000 market stalls within a site area of around 1.3 ha	Figure21
EP-546/2017	C5A	Construct and operate a temporary sewage pumping station in Fanling North with installed capacity (average dry weather flow) of about 3,600m3/day	Figure 22

Remark: The EP(s) not related to the Project of the First Phase of the Kwu Tung North (KTN) and Fanling North (FLN) New Development Area (NDA) Development Areas are not included in the Table.

- 2.4 The site boundary of the Project and all Works Contracts are shown in **Drawing No. 1**.
- 2.5 The required submissions and submission status under Environmental Permits are shown in **Appendix U**.
- 2.6 The site layout plans under concerned Environmental Permits are shown in Figures 12 22.

Project Organization

- 2.7 Different parties with different levels of involvement in the Project organisation include:
 - Project Proponent Civil Engineering and Development Department (CEDD)
 - Supervisor / Supervisor's Representative AECOM Asia Co. Ltd.
 - Environmental Team (ET) Wellab Limited
 - Independent Environmental Checker (IEC) Mott MacDonald Hong Kong Ltd (MottMac)
- 2.8 The names and contact numbers of key personnel are summarised in **Table 2.2**.

Table 2.2 Key Contacts of the Project

Table 2.2 Key Contacts of the Project							
Party	Role	Contact Person	Phone No.	Fax No.			
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Raymond Cheng	3619 3919	3547 1658			
Supervisor / Supervisor's Representative	Chief Resident Engineer	Mr. Alan Lee	6398 5982	2680 9515			
(AECOM Asia Co. Ltd.)	Senior Resident Engineer	Mr. King-man Chan	9651 2635	2680 9515			
Environmental Team (Wellab Limited)	Environmental Team Leader	Dr. Priscilla Choy	2898 7388	2898 7076			
Independent Environmental Checker (MottMac)	Independent Environmental Checker	Mr. Thomas Chan	2828 5967	2827 1823			
Contract No. ND/2019/01	Site Agent	Mr. Ivan Leung	9640 8340				
Contractor (Build King – Richwell Engineering Joint Venture)	Environmental Officer	Mr. Edward Tam	9287 8270				
Contract No. ND/2019/02	Site Agent	Mr. Andy Chan	3485 9780				
Contractor (Chun Wo – Kwan Lee Joint Venture.)	Environmental Officer	Mr. Wesley So	9144 1643				
Contract No. ND/2019/03	Site Agent	Mr. Tang Wing Kai	9300 7037				
Contractor (Sang Hing Kuly Joint Venture)	Environmental Officer	Mr. Ken Cheung	9803 5297				
G (N N N N N N N N N N N N N N N N N N	Site Agent	Mr. Eric Wu	9786 8630				
Contract No. ND/2019/04 Contractor (Daewoo – Chun Wo – Kwan Lee Joint Venture)	Environmental Manager	Mr. Jimmy Cheng	9609 5916				
Rwan Lee Joint Venture)	Environmental Officer	Mr. Sam Lam	6178 3179				
C	Site Agent	Mr. Darvin Lo	9467 5891				
Contract No. ND/2019/05 Contractor (CRCC – Paul Y. Joint Venture)	Environmental Manager	Mr. Pan Fong	9436 9435				
Venture	Environmental Officer	Ms. Louise Poon	5272 5709				
Contract No. ND/2019/06	Project Manager	Mr. Joe Cheng	9861 0060				
Contractor (New Concepts Engineering Development Ltd.)	Environmental Officer	Mr. Alex Choy	6360 3236				
Classification A NI - NID /0040/07	Site Agent	Mr. Daniel Wong	5335 9572				
Contract No. ND/2019/07 Contractor (China Road and Bridge Corporation)	Environmental Officer	Mr. K. M. Lui	5113 8223				
Corporation	Environmental Supervisor	Mr. Attlee Chau	6386 9018				

Summary of Construction Works Undertaken During Reporting Month

2.9 The major site activities undertaken in the reporting month are shown in **Table 2.3**.

Table 2.3 Summary Table for Major Site Activities in the Reporting Month

Table 2.5	Summary Table for Major Site Activities in the Reporting Month			
Contract No.	Site Activities (March 2023)			
	(a) Site clearance, removal of existing structures at Portion 1a			
	(b) Excavation, backfilling and drainage works at Portion 1b			
	(c) Site clearance and site formation at Portion 1c			
	(d) Temporary storage of material at Portion 1e			
	(e) Site clearance, site formation and construction of subway at Portion 2			
	(f) Site clearance, excavation, sheet piling and drainage works at Portion 3			
	(g) Drainage works, excavation, backfilling and sheet piling at Portion 5			
	(h) Drainage works and backfilling at Portion 6a			
	(i) Operation of HAC soil treatment facility at Portion 6b			
ND/2019/01	(j) Drainage works, excavation and backfilling at Portion 7			
ND/2019/01	(k) Construction of retaining wall, RC construction of flushing & fresh water			
	service reservoir and backfilling works at Portion 8a			
	(1) Construction of jacking pit at LWSC's car park, trenchless work, watermain			
	construction and trial pit at Portion 8b			
	(m) Sheet piling, excavation, drainage works and watermain construction at			
	Portion 9b			
	(n) Stockpile of soil at Portion 9c			
	(o) Utilities work at Portion 10a			
	(p) Excavation and road works at Portion 10b			
	(q) Site clearance and removal of existing structures at Portion 13			
	(a) Pipe Jacking (b) Post-Filing			
	(b) Backfilling			
ND/2019/02	(c) Concreting			
ND/2019/02	(d) Bedding and pipe laying (e) ELS			
	(f) Sheet Pile Installation			
	(g) Cut and Fill of Slope			
	(a) Portion 1 & Portion 1A			
	- Road work at Yin Kong Road			
	- Construction of Pai Lau			
	(b) Portion 2 to Portion 20C			
	- Erection of Permanent Boundary Structure			
	- Construction of Type 1 Storage House			
ND/2019/03	- Construction of Type 2 Storage House			
ND/2019/03	- Construction of Tea House			
	- Construction of Composting Facility			
	- Construction works of Bird Hide			
	- Construction works of Outdoor Classroom			
	- Wetland Creation & Restoration works			
	- Construction of Compacted Earth Path/ Walkway			
	- Construction of Wetland Boardwalk			

Contract No.	Site Activities (March 2023)
ND/2019/04	 (a) Tree Felling and transplant (b) Pile Cap (c) Excavation (d) Grouting (e) Sheet Piling (f) Road works (g) Pre-drill (h) Bore pile (i) ELS
ND/2019/05	 (a) The segment erection using launching gantry is critical to completion of section 4. (b) The pier D2-01 with bridge rotation system is critical to completion of section 5. (c) 5th set of form traveler will be procured to be used at E2-01, thus, delay of E2-01, E2-02 and E3-03 will be mitigated.
ND/2019/06	The construction phase was completed and handed over to AFCD since 4 April 2022.
ND/2019/07	 (a) Road works at Portion 1, 4 and 5 (b) C&D waste disposal at Portion 1, 2, 4 and 5 (c) Drainage works, Sewerage works at Portion 1, 3 and 4 (d) Construction of box culvert at Portion 2 (e) Filling works at Portion 2 and 4 (f) Construction of site haul road at Portion 4 (g) Waterworks at Portion 1

Construction Programme

2.10 Copies of Contractors' construction programmes are provided in **Appendix A**.

Status of Environmental Licences, Notifications and Permits

2.11 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in **Table 2.4**.

Table 2.4 Status of Environmental Licences, Notifications and Permits

		Valid P	eriod	
Contract No.	Permit / Licence No.	From	То	Status
Environmental Peri	mit (EP)			
	EP-466/2013/A	21/11/2013	N/A	Valid
ND/2019/01	EP-467/2013/A	27/01/2017	N/A	Valid
ND/2019/01	EP-468/2013/A	27/01/2017	N/A	Valid
	EP-470/2013/A	21/11/2013	N/A	Valid
ND/2019/02	EP-469/2013	21/11/2013	N/A	Valid
ND/2019/03	EP-468/2013/A	27/01/2017	N/A	Valid
ND/2019/03	EP-473/2013/A	27/01/2017	N/A	Valid
ND/2019/04	EP/473/2013/A	27/01/2017	N/A	Valid
1110/2019/04	EP/546/2017	16/11/2017	N/A	Valid

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

		Valid	Period	
Contract No.	Permit / Licence No.	From	То	Status
ND/2019/05	EP-473/2013/A	27/01/2017	N/A	Valid
ND/2019/06	EP-475/2013/A	13/01/2017	N/A	Valid
Construction Noise				
	GW-RN1059-22	09/11/2022	08/03/2023	Expired in reporting month
	GW-RN0867-22	25/09/2022	24/03/2023	Expired in reporting month
	GW-RN0063-23	26/01/2023	25/04/2023	Valid
ND/2019/01	GW-RN1250-22	05/01/2023	04/04/2023	Valid
ND/2019/01	GW-RN0144-23	13/02/2023	12/05/2023	Valid
	GW-RN1196-22	19/12/2022	18/05/2023	Valid
	GW-RN0252-23	16/03/2023	15/08/2023	Valid
	GW-RN0304-23	26/03/2023	31/08/2023	Valid
	GW-RN1199-22	15/12/2022	14/03/2023	Expired in reporting month
	GW-RN1130-22	22/11/2022	10/05/2023	Valid
ND/2019/02	GW-RN0048-23	08/02/2023	07/06/2023	Valid
	GW-RN0049-23	16/02/2023	15/05/2023	Valid
	GW-RN0234-23	15/03/2023	14/07/2023	Valid
ND/2019/03	GW-RN0054-23	01/03/2023	31/08/2023	Valid
	GW-RN1193-22	19/12/2022	18/03/2023	Expired in reporting month
	GW-RN0069-23	18/02/2023	17/06/2023	Valid
	GW-RN0074-23	01/02/2023	31/03/2023	Expired in reporting month
	GW-RN0078-23	01/03/2023	31/05/2023	Valid
	GW-RN0097-23	11/02/2023	10/05/2023	Valid
	GW-RN0099-23	06/02/2023	12/04/2023	Valid
NTD (2010) (0.1	GW-RN0164-23	15/02/2023	31/03/2023	Expired in reporting month
ND/2019/04	GW-RN0168-23	15/02/2023	31/03/2023	Expired in reporting month
	GW-RN0183-23	27/02/2023	26/05/2023	Valid
	GW-RN0184-23	27/02/2023	14/04/2023	Valid
	GW-RN0188-23	27/02/2023	10/04/2023	Valid
	GW-RN0269-23	19/03/2023	18/06/2023	Valid
	GW-RN0282-23	20/03/2023	30/04/2023	Valid
	GW-RN0300-23	23/03/2023	22/06/2023	Valid
	GW-RN1195-22	19/12/2022	18/03/2023	Expired in reporting month
	GW-RN0886-22	30/09/2022	29/03/2023	Expired in reporting month
	GW-RN0134-23	15/02/2023	14/05/2023	Valid
ND /2010/05	GW-RN0203-23	02/03/2023	30/04/2023	Valid
ND/2019/05	GW-RN0221-23	01/03/2023	30/04/2023	Valid
	GW-RN0239-23	08/03/2023	07/06/2023	Valid
	GW-RN0262-23	22/03/2023	21/06/2023	Valid
	GW-RN0288-23	30/03/2023	31/08/2023	Valid
Notification pursua	ant to Air Pollution Cont	rol (Construction D	ust) Regulation	
ND/2019/01	451792	11/12/2019	N/A	Valid
ND/2019/02	454012	05/03/2020	N/A	Valid
ND/2019/03	452216	24/12/2019	N/A	Valid

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

		Valid 1	Period	
Contract No.	Permit / Licence No.	From	To	Status
	452332	31/12/2019	N/A	Valid
	452333	31/12/2019	N/A	Valid
ND/2019/04	461184	23/10/2020	N/A	Valid
ND/2019/05	454323	13/03/2020	N/A	Valid
ND/2019/06	449369	24/09/2019	N/A	Valid
ND/2019/07	459393	28/08/2020	N/A	Valid
Billing Account for	· Disposal of Construction	n Waste		
ND/2019/01	7036265	17/01/2020	N/A	Valid
ND/2019/02	7036898	01/04/2020	N/A	Valid
ND/2019/03	7036378	22/01/2020	N/A	Valid
ND/2019/04	7038391	22/09/2020	N/A	Valid
ND/2019/05	7036901	01/04/2020	N/A	Valid
ND/2019/06	7035473	17/10/2019	N/A	Valid
ND/2019/07	7038309	14/09/2020	N/A	Valid
	emical Waste Producer			
ND/2019/01	5213-545-B2578-01	10/01/2020	N/A	Valid
ND/2019/02	5213-548-C4439-01	06/05/2020	N/A	Valid
ND/2019/03	5213-623-S4231-01	14/04/2020	N/A	Valid
ND/2019/04 ND/2019/05	5211-624-D2709-01 5213-625-C4464-01	26/11/2020 20/05/2020	N/A N/A	Valid Valid
ND/2019/05 ND/2019/06	5213-625-C4464-01 5213-625-N2716-01	02/10/2019	N/A N/A	Valid
ND/2019/00 ND/2019/07	5213-625-C4498-01	21/09/2020	N/A N/A	Valid Valid
	License under Water Po			vanu
Elitacht Discharge	WT00036071-2020	22/06/2020	30/06/2025	Valid
	WT00036073-2020	22/06/2020	30/06/2025	Valid
	WT00036067-2020	22/06/2020	30/06/2025	Valid
	WT00036075-2020	22/06/2020	30/06/2025	Valid
ND/2019/01	WT00036076-2020	22/06/2020	30/06/2025	Valid
ND/2019/01	WT00037191-2020	21/04/2022	28/02/2026	Valid
	WT00037204-2020	02/02/2021	28/02/2025	Valid
	WT00037412-2021	15/04/2021	30/04/2026	Valid
	WT00037564-2021	19/04/2021	30/04/2026	Valid
	WT00037886-2021	28/06/2021	30/06/2026	Valid
ND/2019/02	WT00036584-2020	21/10/2020	31/10/2025	Valid
	WT00036952-2020 WT00035847-2020	17/12/2020	31/12/2025	Valid
	WT00035847-2020 WT00036414-2020	12/08/2020 25/02/2021	31/08/2025 28/02/2026	Valid Valid
ND/2019/03	WT00030414-2020	08/07/2021	31/07/2026	Valid Valid
	WT00037771-2021 WT00035984-2020	25/02/2021	28/02/2026	Valid
ND/2019/04	WT00037539-2021	16/04/2021	30/04/2026	Valid
ND/2019/05	WT00036996-2020	22/12/2020	31/12/2025	Valid
ND/2019/06	WT00035415-2019	20/03/2020	31/03/2025	Valid
ND/2019/07	WT00037526-2021	21/04/2022	31/05/2026	Valid

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3 AIR QUALITY MONITORING

Monitoring Requirements

- 3.1 In accordance with the Updated EM&A Manual, impact 1-hour TSP and 24-hr TSP monitoring shall be conducted to monitor the air quality for the Works Contracts. **Appendix B** shows the established Action/Limit Level for the air quality monitoring works.
- 3.2 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.

Monitoring Location

3.3 Impact air quality monitoring was conducted at the monitoring stations under the Works Contracts, as shown in **Figure 1 and Figure 2** according to Table 1.1 of Updated EM&A Manual and Baseline Air Quality Monitoring Report (KTN & FLN NDA).

Alternative Monitoring Station for KTN-DMS4

- 3.4 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. KTNE162).
- The alternative monitoring location **KTN-DMS4(B)** is agreed by EPD on 17 August 2022. The 1-hr and 24-hrs TSP monitoring commenced starting from **24 August 2022**. **Table 3.1** describes the location of the air quality monitoring stations.

Table 3.1 Location for Air Quality Monitoring Locations

EP No.	Contract No.	Monitoring Station	Location
	ND/2019/03	ELN DMG1[2]	Scattered Village Houses
	ND/2019/04	FLN-DMS1 ^[2]	North of Proposed Potential Ecopark
EP-473/2013/A	ND/2019/05	FLN-DMS3 ^[3]	House near Tong Hang
	ND/2019/03	FLN-DMS5 ^[4]	Noble Hill
	ND/2019/04	FLN-DMS5A	Good View New Village
EP-466/2013/A			
EP-467/2013/A	ND/2019/01	IZTNI DMC4/D\[5]	Temporary Structure near
EP-468/2013/A		KTN-DMS4(B) ^[5]	Fanling Highway (near Pak Shek Au)
EP-468/2013/A	ND/2019/03		Shek Mu)

Remarks:

^{[1]:} Noting that construction phase air quality monitoring at the other proposed monitoring stations (e.g. planned), where access is permitted, will be conducted during construction phase of relevant works contract(s).

^{[2]:} Since the distance between monitoring station and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/05.

^{[3]:} Since the distance between monitoring station and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04.

^{[4]:} Since the distance between monitoring station and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m, the monitoring

station is not applicable to ND/2019/05 [5] KTN-DMS4(B) commenced starting from 24 August 2022 as an alternative monitoring station of KTN-DMS4.

Monitoring Equipment

- 3.6 As the power supply for High Volume Sampler (HVS) for TSP monitoring at FLN-DMS 5A, KTN-DMS 4 and KTN-DMS 4(B) were rejected, direct reading dust meter was used to measure both 1-hour and 24-hour TSP levels:-
 - The proposal for alternative monitoring equipment (i.e. direct reading dust meter) for TSP monitoring was approved by EPD according to the approved Baseline Air Quality Monitoring Report (KTN & FLN NDA); and
 - Same measurement methodology (i.e. direct reading dust meter) was adopted as baseline monitoring for a reliable comparison.
- 3.7 The proposed use of portable direct reading dust meters was also submitted to IEC and agreement was obtained from the IEC in accordance with Section 2.4.5 of the Updated EM&A Manual.
- 3.8 HVS for 24-hour TSP monitoring will be adopted once secured supply of electricity become available at FLN-DMS 5A and KTN-DMS 4(B).
- 3.9 **Table 3.2** summarises the equipment used in the impact air monitoring programme. Copies of calibration certificates are attached in **Appendix C**.

Table 3.2 Air Quality Monitoring Equipment

Monitoring Station	Equipment	Manufacturer	Model and Make	Quantity
FLN-DMS5 FLN-DMS5A KTN-DMS4(B)	Dust Monitor (1-hour and 24-hour TSP)	Met One Instruments	AEROCET-831	7
FLN-DMS1	Dust Monitor (1-hour TSP)			
FLN-DMS3	HVS Sampler (TSP) (24-hour TSP)	Tisch	TISCH Model: TE-5170	2

- 3.10 Meteorological information extracted from "Hong Kong Observatory Ta Kwu Ling Weather Station" was proposed as the alternative method to obtain representative wind data. For Ta Kwu Ling Weather Station, it is located nearby the Project site and situated at approximately 15m above mean sea level. The station's wind data monitoring equipment is set above the existing ground 10 meters in compliance with the general setting up requirements. Furthermore, this station also provides other meteorological information, such as humidity, rainfall, air pressure and temperature etc.
- 3.11 The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staffs during the monitoring days.

Monitoring Parameters, Frequency and Duration

3.12 **Table 3.3** summarises the monitoring parameters and frequencies of impact dust monitoring

during the Works Contracts activities. The air quality monitoring schedule for the reporting month is shown in **Appendix D**.

Table 3.3 Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hour TSP	Three times/ 6 days
24-hour TSP	Once / 6 days

Monitoring Methodology and QA/QC Procedure

1-hour and 24-hour TSP Air Quality Monitoring

Instrumentation

- 3.13 Direct reading dust meter was deployed for the air quality monitoring as shown in **Table 3.2**.
- 3.14 The measuring procedures of the dust meters were in accordance with the Manufacturer's Instruction Manual as follows:

(AEROCET-831)

- Place the 1-hour 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 1 hour sampling.
- Information such as sampling date, time, value and site condition were recorded during the monitoring period.
- All data were recorded in the data logger for further data processing.

Maintenance/Calibration

- 3.15 The following maintenance/calibration was required for the direct dust meters:
 - Check and calibrate the meters by 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.

24-hour TSP Air Quality Monitoring

Instrumentation

(TISCH Model: TE-5170)

3.16 High volume Samplers (HVS) completed with appropriate sampling inlets were employed for 24-hour TSP monitoring. Each sampler was composed of a motor, a filter holder, a flow

controller and a sampling inlet and its performance specification complies with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

HVS Installation

- 3.17 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.
 - No two samplers were 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 samples.
 - A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
 - No furnaces or incineration flues were nearby.
 - Airflow around the sampler was unrestricted.
 - The samplers were more than 20 meters from the drip line.
 - Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.
 - Permission and access to the monitoring stations have been obtained to set up the samplers.
 - A secured supply of electricity was provided to operate the samplers.

Filters Preparation

- 3.18 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.
- 3.19 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

- 3.20 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

- 3.21 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.

Results and Observations

3.22 The monitoring results for 1-hour TSP and 24-hour TSP are summarised in **Tables 3.4** and **3.5** respectively. Detailed monitoring results and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix E**.

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

Monitoring Station	Concentration (μg/m³)		Action Level,	Limit Level,	
·	Average	Range	μg/m ³	μg/m³	
FLN-DMS1	98.2	68.2 – 143.3	303	500	
FLN-DMS3	92.9	68.9 – 131.6	301	500	
FLN-DMS5	78.0	43.1 – 151.3	279	500	
KTN-DMS4(B)	99.9	30.2 - 201.0	297	500	

Table 3.5 Summary Table of 24-hour TSP Monitoring Results during the Reporting Month

Monitoring	Concentration (µg/m³)		Action Level,	Limit Level,	
Station	Average	Range	μg/m ³	μg/m³	
FLN-DMS1	83.7	61.5 – 115.8	150	260	
FLN-DMS3	87.7	35.9 – 121.1	165	260	
FLN-DMS5A	81.1	61.0 – 123.2	153	260	
KTN-DMS4(B)	88.5	69.1 – 130.9	192	260	

- 3.23 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. 24-hour TSP monitoring at FLN-DMS1 on 10 and 16 March 2023 were cancelled due to power failure. It has been resumed on 22 March 2023. No Action/Limit Level exceedances were recorded.
- 3.24 According to our field observations, the major dust sources identified at the designated air quality monitoring stations in the reporting month are shown in **Table 3.6**:

Table 3.6 Observation at Dust Monitoring Stations

Monitoring Station	Major Dust Sources	
FLN DMS1	Mobile crane, Excavator, piling, road traffic	
FLN-DMS3	Excavator, piling, mobile crane, road traffic	
FLN-DMS5	Road traffic	
KTN-DMS4(B)	Excavator, piling, mobile crane, dump truck, road traffic	

Event and Action Plan

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

4 NOISE MONITORING

Monitoring Requirements

4.1 In accordance with the Updated EM&A Manual, construction noise monitoring shall be conducted 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 was conducted. Appendix B shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Location

4.2 Impact noise monitoring was conducted at the monitoring stations, as shown in **Figures 3** and **4** according to Table 1.1 of the Updated EM&A Manual. **Table 4.1** describes the locations of the noise monitoring stations.

Table 4.1 Location of Noise Monitoring Stations

Contract No.	Monitoring Station(s)	Location(s)	
ND/2019/06			
ND/2019/04	CP-FLN-NMS1 ^[2]	Belair Monte	
ND/2019/05	CP-FLN-NMS2 ^[3]	Scattered Village Houses in Tong	
	CI -I LIV-IVIII	Hang	
	CP-KTN-NMS2 ^[4]	Residential Buildings at Ma Tso	
ND/2019/01	CI -KTIV-IVIII	Lung	
100/2019/01	CP-KTN-NMS3 ^[5]	Fung Kong Garden	
	CI -KTIV-IVIISS		
ND/2019/01	CP-KTN-NMS5	N/A	
		Ho Sheung Heung, Hau Ku Shek	
ND/2019/02	CP-KTN-NMS6	Ancestral Hall, Hung Shing Temple	
110/2017/02	& Pai Fung Temple and Sin		
		Nunnery	

Remarks:

Monitoring Equipment

4.3 Integrating Sound Level Meters were used for impact noise monitoring. The meters were Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x) that complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 4.2** summarises the noise monitoring equipment used. Copies of calibration certificates are attached in **Appendix C**.

^{[1]:} Noting that construction phase noise monitoring at the other proposed monitoring stations (e.g. planned), where access is permitted, will be conducted during construction phase of relevant works contract(s).

^{[2]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

^{[3]:} Since the distance between monitoring station and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04.

^{[4],[5]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

Table 4.2 Noise Monitoring Equipment

Equipment	Manufacturer	Model	Quantity
Sound Level Meter	BSWA	BSWA 308	3
Acoustical Calibrator	SVANTEK	SV30A	2

Monitoring Parameters, Frequency and Duration

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

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

Contract No.	Monitoring Stations	Parameters ^[2]	Duration	1	Measurement
ND/2019/06					
ND/2019/04	CP-FLN-NMS1 ^[3]				Façade
ND/2019/05					Taçade
ND/2019/03	CP-FLN-NMS2 ^[4]				
ND/2019/01	CP-KTN NMS2 ^[5]	$\begin{array}{c} L_{10(30\; min.)}\; dB(A) \\ L_{90(30\; min.)}\; dB(A) \end{array}$	0700-1900 hours on	Once per	
ND/2019/01	CP-KTN NMS3 ^[6]	$\begin{array}{c} L_{eq(30 \text{ min.})} dB(A) \\ (as \text{ six consecutive} \\ L_{eq, 5 \text{min}} \text{ readings}) \end{array}$	normal weekdays	week	Free-field ^[1]
ND/2019/01	CP-KTN NMS5				
ND/2019/02	CP-KTN-NMS6				Façade

Remarks:

^{[1]:} Correction of +3dB (A) for free-field measurement.

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

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

^{[3]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

^{[4]:} Since the distance between monitoring station and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04.

^{[5],[6]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

Monitoring Methodology and QA/QC Procedures

- The microphone head of the sound level meter was positioned at 1m from the exterior of the noise sensitive I and lowered sufficiently so that the building's external wall acted as a reflecting surface;
- The battery condition was checked to ensure the correct functioning of the meter;
- Parameters such as frequency weighting, time weighting and measurement time were set as follows:

frequency weightingtime weightingFast

time measurement : $L_{eq}(30 \text{ min.}) dB(A)$

(as six consecutive $L_{eq, 5min}$ readings) during non-restricted hours (i.e. 0700-1900 hours on normal

weekdays)

- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment;
- During the monitoring period, the values of L_{eq} , L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were also recorded on a standard record sheet;
- Noise measurement was paused temporarily during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible and observation records during measurement period should be provided; and
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. The wind speed should be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Maintenance and Calibration

- 4.5 The microphone heads of the sound level meters and calibrators were cleaned with a soft cloth at quarterly intervals.
- 4.6 The sound level meters and calibrators were checked and calibrated at yearly intervals.
- 4.7 Immediately prior to and following each noise measurement, the accuracy of the sound level meter should be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements would be accepted as valid only if the calibration levels before and after the noise measurement agreed to within 1.0 dB.

Results and Observations

4.8 The noise monitoring results are summarised in **Table 4.4**. Detailed monitoring results and graphical presentations of noise monitoring are shown in **Appendix F**. The weather information for the reporting month is summarised in **Appendix M**.

Table 4.4 Summary Table of Noise Monitoring Results during the Reporting Month

Contract No.	Monitoring Station	Noise Level Leq (30 min), dB(A)	Baseline Level, dB(A)	Limit Level, dB(A)
ND/2019/06				
ND/2019/04	CP-FLN-NMS1 ^[1]	65.9 – 71.9	69.9	
NID/2010/05				
ND/2019/05	CP-FLN-NMS2 ^[2]	66.0 - 69.2	59.6	7.
ND/2019/01	CP-KTN-NMS2 ^[3]	51.7 - 62.0	58.6	75
ND/2019/01	CP-KTN-NMS3 ^[4]	44.5 – 60.7	51.6	
ND/2019/01	CP-KTN-NMS5	55.2 – 61.6	57.2	
ND/2019/02	CP-KTN-NMS6	49.7–61.9	55.1	

Remarks:

- 4.9 All noise monitoring was conducted as scheduled in the reporting month. No complaint on construction noise was received during the reporting month. No Action/Level exceedance was recorded. The summary of exceedance record in reporting month is shown in **Appendix O**.
- 4.10 According to our field observations, the major noise sources identified at the designated noise monitoring stations in the reporting month are as follows:

Table 4.5 Observation at Noise Monitoring Stations

Contract No.	Monitoring Station	Location	Major Noise Source
ND/2019/06			Excavator, dump truck,
ND/2019/04	CP-FLN-NMS1 ^[1]	Belair Monte (Existing)	mobile crane, piling, road traffic
ND/2019/05	CP-FLN-NMS2 ^[2]	Scattered Village House in Tong Hang (Existing)	Excavator, piling, dump truck, road traffic
ND/2019/01	CP-KTN-NMS2 ^[3]	Residential Buildings at Ma Tso Lung (Existing)	Dump truck, excavator, road traffic
ND/2019/01	CP-KTN-NMS3 ^[4]	Fung Kong Garden (Existing)	Road traffic
ND/2019/01	CP-KTN-NMS5	N/A	Road traffic
ND/2019/02	CP-KTN-NMS6	Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)	Road traffic

Remarks:

^{[1]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

^{[2]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

^{[3],[4]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

^{[1]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

^{[2]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

^{[3],[4]:} Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

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Event and Action Plan

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

5 WATER QUALITY MONITORING

Monitoring Requirements

- 5.1 In accordance with the Updated EM&A Manual, impact water quality monitoring shall be carried out three days per week at all the designated monitoring stations during the construction period. The measurement periods are during the construction of channel specified in Table 4.1 of the Updated EM&A Manual. The interval between two sets of monitoring shall not be less than 36 hours.
- 5.2 Replicate in-situ measurements of Dissolved Oxygen (DO), temperature, turbidity, pH, Suspended Solids (SS) and samples for Suspended Solids (SS), ammonia nitrogen, unionized ammonia, nitrate nitrogen and orthophosphate from each independent sampling event were collected to ensure a robust statistically interpretable database.
- 5.3 **Appendix B** shows the established Action and Limit Levels for the water quality monitoring work according to the Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

Monitoring Parameters, Frequency

Table 5.1 summarises the monitoring parameters, monitoring periods and frequencies of the water quality monitoring.

Table 5.1 Water Quality Monitoring Parameters and Frequency

Table 5.1 Water Quanty Monitoring Farameters and Frequency					
Parameters, unit	Depth	Frequency			
 Temperature(°C) pH(pH unit) turbidity (NTU) water depth (m) salinity (ppt) DO (mg/L and % of saturation) SS (mg/L) Ammonia Nitrogen (NH₃-N) (mg NH₃-N/L) Unionized Ammonia (UIA) (mg/L) Nitrate-nitrogen (NO₃-N) (mg NO₃-N/L) Ortho-phosphate (PO₄) (mg PO₄³-P/L) 	 3 water depths: 1m below water surface, mid-depth and 1m above river bed. If the water depth was less than 3m, mid-depth sampling only. If water depth was less than 6m, mid-depth may be omitted. 	3 days per week during construction of channel			

Results and Observations

According to Section 5.6.1.2 of the approved EIA Report, the potential water quality impact during construction is due to the alternation of natural streams (i.e. channelization of Ma Tso Lung Stream and Siu Hang San Tsuen Stream) as these two streams are the ecologically important streams.

5.6 No construction of channel was carried out at Ma Tso Lung Stream and Siu Hang San Tsuen Stream during the reporting month. Therefore, no water quality monitoring was conducted.

Additional Water Quality Monitoring

Monitoring Requirements

- 5.7 Additional Water Quality Monitoring shall be carried out at River Beas, River Indus and near Siu Hang San Tsuen Stream three days per week at all designated monitoring stations during the construction period. The measurement period are during the construction site drainage along River Beas, construction of footbridge across River Beas and during construction of bridge across River Indus.
- 5.8 Replicate in-situ measurement and samples from each independent sampling event were collected to ensure a robust statistically interpretable database. DO, temperature, turbidity and pH were measured in-situ whereas SS and arsenic were determined by an accredited laboratory. Other relevant data, including monitoring location / position, time, water depth, weather conditions and any special phenomena or work underway at the construction site were recorded.
- 5.9 For all the monitoring stations, sampling were taken at 3 water depths, namely 1m below the water surface, mid depth and 1m above the river bed. For stations that were less than 3m in depth, only the mid depth sample was taken. Should the water depth was less than 6m, in which case the mid-depth station may have been omitted. The interval between two sampling surveys was not less than 36 hours.
- 5.10 **Appendix B** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

5.11 Additional impact water quality monitoring was conducted at 6 monitoring stations (SYR-CS1, SYR-IS1, NTR-CS1, NTR-IS1, SHST-IS2, MWR-IS3) which are summarised in **Table 5.2**. The location of monitoring stations is shown in **Figures 5** and **6**.

Table 5.2 Additional Water Quality Monitoring Stations

Station	Description	Locations	Measurement Periods				
River Beas	River Beas						
SYR-CS1	Control Station	Upstream of river	During the construction site drainage along River Beas and				
SYR-IS1	Impact Station	Downstream of river	construction of the footbridge across River Beas				
River Indus and near Siu Hang San Tsuen Stream							
NTR-CS1	Control Station	Upstream of river					
NTR-IS1	Impact Station	Downstream of river					
SHST-IS2	Impact Station	Water sensitive receiver at near Siu Hang San Tsuen Stream	During construction of the bridge across River Indus				
MWR-IS3	Impact Station	Water sensitive receiver at near Ma Wat River					

Monitoring Equipment

Instrumentation

5.12 Multi-parameter meters (Model YSI EXO) were used to measure DO, turbidity, salinity, pH and temperature.

Dissolved Oxygen (DO) and Temperature Measuring Equipment

- 5.13 The instrument for measuring dissolved oxygen and temperature should be portable and weatherproof complete with cable, sensor, and use DC power source. The equipment was capable of measuring:
 - A dissolved oxygen level in the range of 0-20mg/L and 0-200% saturation; and
 - The temperature within 0-45 degree Celsius.
- 5.14 The equipment had a membrane electrode with automatic temperature compensation complete with a cable.
- 5.15 Sufficient stocks of spare electrodes and cables were available for replacement where necessary.
- 5.16 Salinity compensation was built-in in the DO equipment. *In-situ* salinity was measured to calibrate the DO equipment prior to each DO measurement.

Turbidity

5.17 Turbidity was measured *in situ* by using the nephelometric method. The instrument was portable and weatherproof using a DC power sources complete with cable, sensor and comprehensive operation manuals. The equipment was capable of measuring turbidity between 0-1000 NTU. The probe cable was not less than 25m in length. The meter was calibrated in order to establish the relationship between NTU units and the levels of Suspended Solids.

Salinity

5.18 A portable salinometer capable of recording salinity within the range of 0-40 parts per thousand (ppt) was used for salinity measurement.

Water Depth Detector

5.19 A portable, battery-operated and hand held echo sounder was used for the determination of water depth at each designated monitoring station.

<u>pH</u>

5.20 The instrument consisted of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device. It was readable to 0.1pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 and pH 10 were used for calibration of the instrument before and after use.

Water Sampling for Laboratory Analysis

5.21 A water sampler, consisting of a transparent Polyvinyl Chloride (PVC) of a capacity of not less than two litres which can be effectively sealed with cups at both ends was used. The water sampler had a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth. In addition, a sampling cup attached to a fixed or extendable rod was also used for sampling at the monitoring stations with swallow water.

Sample Container and Storage

5.22 Following collection, water samples for laboratory analysis were stored in high density polyethylene bottles with appropriate preservatives added, packed in the ice (cooled to 4°C without being frozen). The samples were delivered to WELLAB Limited (HOKLAS Registration No. HOKLAS083) and analysed as soon as possible after collection of the water samples. Sufficient volume of samples was collected to achieve the detection limit.

Calibration of In Situ Instruments

- 5.23 The pH meter, DO meter and turbidimeter were checked and calibrated before use. DO meter and turbidimeter were certified by WELLAB Limited before use and subsequently re-calibrated at quarterly basis throughout all stage of water quality monitoring programme. Response of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring station.
- 5.24 For on-site calibration of field equipment (Multi-parameter Water Quality System), the standard BS 1427:2009 "Guide to on-site test methods for analysis of waters" was observed.

Back-up Equipment

5.25 Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was also be made available so that monitoring could proceed uninterrupted even when some equipment was under maintenance, calibration, etc.

5.26 **Table 5.3** summarises the equipment used in the water quality monitoring programme. Copies of the calibration certificates of the multi-parameter water quality systems are shown in **Appendix C**.

Table 5.3 Water Quality Monitoring Equipment

Equipment	Model and Make	Qty.
Water sampler and sampling cup	A 2-Litre transparent PVC cylinder with latex cups at both ends and sampling cup for monitoring stations with swallow water	1
Sonar Water Depth Detector	Garmin Striker plus 4	1
Multi-parameter Water Quality System	YSI EXO 1	4

Monitoring Parameters and Frequency

5.27 **Table 5.4** summarises the monitoring parameters and frequencies of the additional water quality monitoring. The water quality monitoring schedule for the reporting month is shown in **Appendix D**.

Table 5.4 Additional Water Quality Monitoring Parameters and Frequency

Monitoring		Parameters, unit	Depth	Frequency
River Beas	SYR-CS1 SYR-IS1	 Temperature (°C) pH (pH unit) Turbidity (NTU) Water depth (m) Salinity (ppt) Dissolved Oxygen (DO) (mg/L and % of saturation) Suspended Solids (SS) (mg/L) Arsenic (As) (μg/L) 	 3 water depths: 1m below water surface, middepth and 1m above river bed. If the water depth was 	3 days per
River Indus and near Siu Hang San Tsuen Stream	NTR-CS1 NTR-IS1 SHST-IS2 MWR-IS3	 Temperature (°C) pH (pH unit) Turbidity (NTU) Water depth (m) Salinity (ppt) Dissolved Oxygen (DO) (mg/L and % of saturation) Suspended Solids (SS) (mg/L) 	 less than 3m, mid-depth sampling only. If water depth was less than 6m, mid-depth might be omitted. 	week

5.28 Monitoring location and position, time, sampling depth, weather conditions and any special phenomena or work underway nearby was also recorded.

Monitoring Methodology

Instrumentation

5.29 Multi-parameter meters (Model YSI EXO) were used to measure DO, turbidity, salinity, pH and temperature.

Operating/Analytical Procedures

5.30 At each measurement, two consecutive measurements of DO concentration, DO saturation, salinity, turbidity, pH and temperature were taken. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.

Laboratory Analytical Methods

5.31 Duplicate samples from each independent sampling event were required for all parameters. Analysis of suspended solids and arsenic were carried out by WELLAB Ltd. and comprehensive quality assurance and control procedures were in place in order to ensure the quality and consistency in results. The analysis methods and limits of reporting are provided in **Table 5.5.**

Table 5.5 Method for Laboratory Analysis for Water Samples

Determinant	Proposed Method	Limit of Reporting
Total Suspend Solids (SS)	APHA 17ed 2540 D	2.5 mg/L
Arsenic (As)	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

QA/QC Requirements

Decontamination Procedures

5.32 Water sampling equipment used during the course of the monitoring process was decontaminated by manual washing and rinsed with distilled water after each sampling event. All of the disposal equipment was discarded after the sampling.

Sampling Management and Supervision

5.33 All sampling bottles were labelled with the sample I.D. (including sampling station), laboratory number and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible. All the collected samples were stored in a cool box to keep the temperature less than 4°C but without frozen. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

Quality Control Measures for Sample Testing

- 5.34 The samples testing and following QC programmes were performed by WELLAB Ltd. for every batch of 20 samples:
 - One method blank; and
 - One set of QC sample.

Results and Observations

- 5.35 All additional water quality monitoring was conducted as scheduled in the reporting month. The water quality monitoring schedule for this reporting month is shown in **Appendix D**.
- 5.36 The monitoring results and graphical presentation of additional water quality monitoring are shown in **Appendix G**.
- 5.37 No Action/Limit Level exceedance was recorded in the reporting month. The summary of exceedance record in the reporting month is shown in **Appendix O**.

Event and Action Plan

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

6 LAND CONTAMINATION (AMBIENT ARSENIC MONITORING)

Monitoring Requirements

- 6.1 According to Section 7.5 of the updated EM&A Manual, an ambient arsenic monitoring is required to be conducted in KTN during the clean-up processes of arsenic containing soil and the construction phase.
- 6.2 The Respirable Suspended Particulate (RSP, or PM10) was measured by High Volume Sampler (HVS) equipped with PM10 selector 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.
- 6.3 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 (details on measurement period are provided in Section 9.5.5), 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.
- 6.4 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 was 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.

Monitoring Location

6.5 Ambient arsenic monitoring was conducted at the monitoring station(s) under the Work Contract(s), as shown in **Figure 5**. **Table 6.1** describes the location of the ambient arsenic monitoring station.

Table 6.1 Location of Ambient Arsenic Monitoring station

EP. No	Contract No.	Monitoring Stations	Location
EP-466/2013/A EP-467/2013/A	ND/2019/01	KTN-DMS-4A ^[1]	Temporary Structure at Pak Shek
EP-468/2013/A		KIIV DIVIS 411	Au
EP-468/2013/A	ND/2019/03		

Remark:

[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.

Monitoring Equipment

6.6 **Table 6.2** summarises the equipment used in the ambient arsenic monitoring. Copies of calibration certificates are attached in **Appendix C**.

Table 6.2 Ambient Arsenic Monitoring Equipment

Monitoring Stations	Equipment	Model and Make	Quantity
KTN-DMS-4A	Calibrator	TISCH Model: TE-5025A	1
KIN-DNIS-4A	HVS Sampler (RSP)	TISCH Model: TE-6070X	1

Monitoring Parameters, Frequency and Duration

6.7 **Table 6.3** 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 is shown in **Appendix D**.

Table 6.3 Impact Ambient Arsenic Monitoring Parameters, Frequency and Duration

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

Monitoring Methodology and QA/QC Procedure

24-hour RSP Monitoring

Instrumentation

- 6.8 High volume samplers (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).
- 6.9 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 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 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.
- 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.

Maintenance/Calibration

- 6.10 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.
 - High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the ambient arsenic monitoring.

Laboratory Measurement / Analysis

- 6.11 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.
- 6.12 All filters, which were prepared by Wellab Ltd., 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 $\pm 5\%$. A convenient working RH was 40%.
- 6.13 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.

Results and Observations

6.14 The ambient arsenic monitoring results are summarised in **Table 6.4**. Detailed monitoring results and test report are shown in **Appendix E**.

Table 6.4 Summary Table of 24-hour RSP Monitoring Results (Ambient Arsenic) during the Reporting Month

Monitoring Date	Monitoring Station	Concentration (ng/m³)	Action Level (ng/m³)	Limit Level, (ng/m³)
02/03/2023		6.03		
08/03/2023		6.35		
14/03/2023	VTN DMC4(A)	6.02	0.26	11.7
20/03/2023	KTN-DMS4(A)	5.67	9.36	11./
24/03/2023		3.87		
30/03/2023		4.67		

6.15 All ambient arsenic monitoring was conducted as scheduled in the reporting month. During the reporting month, around 985.51m³ of arsenic soil transported to soil treatment plant and 1,684.21m³ treated. No Action/Limit Level exceedances were recorded.

Event and Action Plan

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

7 LANDFILL GAS MONITORING

Monitoring Requirement

- 7.1 In accordance with the updated EM&A Manual, monitoring of landfill gas (LFG) is required for the construction works within the Ma Tso Lung Landfill (MTLL, close to KTN NDA) during the construction phase. This section presents the results of landfill gas measurements performed by the Contractor. **Appendix B** shows the Limit Levels for the monitoring works.
- 7.2 The MTLL is situated in the vicinity of the KTN NDA. A portion of the development falls within the MTLL and its 250m Consultation Zone.

Monitoring Parameters and Frequency

- 7.3 Monitoring parameters for Landfill gas monitoring include Methane, Carbon dioxide and Oxygen.
- 7.4 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".
- 7.5 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.

Monitoring Locations

7.6 Monitoring of oxygen, methane and carbon dioxide was performed for the construction of infrastructure and the development within the Consultation Zone and within MTLL when the works involved confined spaces. In this reporting month, the area required to be monitored for landfill gas are shown below and **Figure 6** shows the landfill gas monitoring locations.

Excavation Locations: Portion 6bManholes and Chambers: N/A

Relocation of monitoring wells: N/A

Any other Confined Spaces: Containers in Portion 6b

Monitoring Equipment

7.7 **Table 7.1** summarises the equipment employed by the Contractor for the landfill gas monitoring.

Table 7.1 Landfill Gas Monitoring Equipment

Equipment	Model and Make	Quantity
Portable gas detector	Rasi 700 BIO (Serial No. 330055)	1

Results and Observations

7.8 In the reporting month, landfill gas monitoring was carried out by the Contractor on 1 occasion

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at 6 monitoring stations. No Limit Level exceedance for landfill gas monitoring was recorded in the reporting month. The monitoring results are provided in $Appendix\ J$. Copies of calibration certificates are attached in $Appendix\ C$.

Event and Action Plan

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

8 BUILT HERITAGE MONITORING

Monitoring Requirement

- 8.1 In accordance with the updated EM&A Manual, baseline condition survey and baseline vibration impact assessment shall be conducted for identified built heritage prior to the commencement of construction works. Baseline condition survey and baseline vibration impact assessment shall be conducted by a qualified building surveyor or qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historical buildings and historical buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase to ensure the construction performance meets the vibration standard stated in the EIA report.
- 8.2 According to the condition survey report from cultural heritage condition survey for Fanling Bypass Eastern Section under EP-473/2013/A, a vibration monitoring plan was proposed for the surveyed cultural heritage based on the Buildings Department's Practice Note (PNAP) APP-137. This section presents the results of built heritage monitoring performed by the Contractor according to the proposed monitoring plan in baseline condition survey report. **Appendix B** shows the Limit Levels for the monitoring works.

Monitoring Location

8.3 In the reporting month, construction vibration monitoring was conducted for built heritage features at FL02 when pile driving operation was conducted within assessment area of the construction works. The location of the construction vibration monitoring stations was summarised in **Table 8.1** and shown in **Appendix K**.

Table 8.1 Location of Construction Vibration Monitoring

	<u> </u>				
EP. No	Contract	Monitoring	Nature of Cultural	Location (s)	
	No.	Station (s)	Heritage		
EP- 473/2013/A	ND/2019/05	FL02	Grave	Northwest side of Shung Him Tong Tsuen, at the hillside behind On Lok Garden	

Monitoring Parameters and Frequency

8.4 **Table 8.2** summarises the vibration monitoring plan for surveyed cultural heritage under the Works Contracts. Vibration monitoring was conducted for surveyed built heritage when pile driving operation was conducted within the assessment area of construction works.

Table 8.2 Vibration Monitoring Plan

EP. No	Contract No.	Monitoring Stations	Distance with Construction Works	Monitoring Plan
		Stations		
			Within 50m	Daily assessment is required
EP- 473/2013/A	ND/2019/05	FL02	Within 75m	Bi-daily assessment is required
			Within 100m	Weekly assessment is required

Remark:

8.5 The construction vibration monitoring was conducted throughout each event of the pile driving operation on a daily basis. The effect of ground-borne vibration from piling works on the surveyed built heritage was assessed by the maximum peak particle velocity (ppv), which was obtained from the maximum value of measurement of all pile driving operation events.

Monitoring Equipment

8.6 Copies of calibration certificates of the monitoring equipment employed by the Contractor of the construction vibration monitoring are attached in **Appendix C**.

Results and Observations

8.7 In the reporting month, construction vibration monitoring was carried out by the Contractor for the built heritage features at FL02 on a daily basis when pile driving operation was conducted within 50m of the construction work. No Limit Level exceedance for construction vibration monitoring was recorded in the reporting month. The monitoring results are provided in **Appendix K**.

Event and Action Plan

8.8 **Table 8.3** summarises the vibration limits for construction vibration monitoring for surveyed cultural heritage.

Table 8.3 Vibration Limits for Construction Vibration Monitoring

Type of Building	Guide Values of Maximum ppv* (mm/Sec)				
	Transient Vibration	Continuous Vibration			
Vibration-sensitive / dilapidated buildings#	7.5	3.0			
Declared monuments/ Historical structures	3.0				

Remarks:

8.9 If any exceedance of limits is found or damage to either structural or non-structural elements of the historic buildings is identified, the construction works should be stopped immediately and structural engineer's advices should be sought for any remedial work.

^[1] Baseline condition survey was conducted for built heritage features at HFL08, FL05, FL07, FL08, FL10, FL11, FL17, FL19, FL31 and FL33 under ND/2019/04, also HFL05, FL02, FL04, FL24, FL27 and FL36 under ND/2019/05 for EP-473/2013/A. As HFL05, HFL08, FL04, FL05, FL07, FL08, FL10, FL11, FL17, FL19, FL24, FL27, FL31, FL33 and FL36 were not within the assessment area of the related construction work, no construction vibration monitoring was conducted for the built heritage in the reporting month.

^{*} peak particle velocity

[#] as cultural heritages are sensitive receivers, vibration monitoring should be classified as vibration-sensitive

9 ECOLOGICAL MONITORING

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

Monitoring Requirements and Protocol

- 9.1 As required under Section 12.3.2.5 of the Updated EM&A Manual, where development under the NDAs project is undertaken within 200m (the maximum distance at which it is predicted there may be some disturbance, and hence a reduction in numbers of large waterbirds) of Sheung Yue River and Long Valley, weekly transect at both high and low tides should be followed (It is considered high tide when the tidal levels are above 1.5m and low tide when the tidal levels are below 1.5m at Tsim Bei Tsui Station).
- 9.2 The purpose of the survey is to identify and enumerate all bird species utilizing the river channels and Long Valley Nature Park (LVNP) and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period according to the methodology specified in Table 12.1 in the Updated EM&A Manual.
- 9.3 Monitoring in Long Valley followed the methodology adopted by the regular HKBWS bird monitoring programme in order to obtain comparable results and a complete coverage of the area in the shortest possible time.

Monitoring Frequency

9.4 High tide and low tide avifauna monitoring was required to be carried out on a weekly basis. Additional night-time avifauna monitoring in Long Valley was required to be carried out twice monthly from September to April.

Date of avifauna monitoring: 2, 9, 10, 14, 16, 23, 24, 28 and 29 March 2023

Date of night-time monitoring: 2 and 24 March 2023

Monitoring Location

- 9.5 The avifauna monitoring was carried out at Ng Tung River, Sheung Yue River and Long Valley in the reporting month according to the construction programme. The transect routes in the reporting month were as follows:
 - T1. Ng Tung River
 - T2. Ng Tung River
 - T3. Sheung Yue River
 - T5. Long Valley
- 9.6 As the sensitive receivers (large waterbirds) were easily visible, the transect route only needed to follow one bank of the rivers. The location of Transects T1, T2, T3 and T5 is shown in **Figure 9** for reference.

Monitoring Parameters

- 9.7 The monitoring parameters and survey methodology for each transect are described below:
 - Abundance of birds
 - Types of habitat of which birds in use
 - Notable bird behaviours such as roosting, feeding, nesting and presence of juveniles
 - Birds heard through birdcalls that could not be located were marked as "heard", while birds flying over the survey area were marked as "flight". Species of conservation significance were specified.
- 9.8 Other information at the time of survey such as weather condition, tidal condition, tide level and noticeable natural or anthropogenic activities were documented.
- 9.9 For Avifauna survey, Ornithological nomenclature would make reference to 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 list from other sources (e.g. Hong Kong Bird Watching Society).

Monitoring Results

- 9.10 In total, 85 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 29 species of waterbirds. The detailed list of waterbirds and all recorded birds are shown in **Appendices L1k and L1l** respectively.
- 9.11 Among the four transects, transect T5 had a higher species diversity and abundance due to its diverse habitat types within Long Valley. Species such as *Ardeola bacchus* and *Egretta garzetta* were commonly found roosting and foraging at wetland habitats such as agricultural lands and shallow water habitats.
- 9.12 Along transect T5 in Long Valley, species with conservation interest such as *Himantopus himantopus*, which is a passage migrant, was commonly observed in shallow water habitats.
- 9.13 Construction works were observed in T5 in the reporting month.
- 9.14 Transect T3 was conducted along Sheung Yue River. Bird species such as *Ardeola bacchus* and *Egretta garzetta* were commonly observed feeding and roosting on the river bank and river bed. Construction works were observed beside Sheung Yue River.
- 9.15 Transects T1 and T2 are located at Ng Tung River. *Ardeola bacchus* and *Egretta garzetta* were commonly found feeding and roosting along the Ng Tung River. Fishing activities were observed at both T1 and T2. Potential anthropogenic sources of disturbance observed along T1 and T2 including the usage of remote control boats.
- 9.16 Avifauna monitoring in construction phase was conducted during the reporting month and the detailed results are attached in **Appendix L1**.

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

Monitoring Requirements and Protocol

- 9.17 As required under Section 12.3.2.14 of the Updated EM&A Manual, aquatic faunal monitoring should be carried out during the construction phase.
- 9.18 Larger organisms such as fish should be monitored by direct counting, while kick-netting and

sweep-netting should be used for invertebrate sampling. There should be three replicates for invertebrate sampling at each sampling point. For kick-netting, the net should be placed with the opening facing the water current, and the substrate should be disturbed by kicking to dislodge organisms from the stream bed. Sweep-netting should be conducted when kick-netting is not feasible, such as in area with no water current. Small organisms that could not be identified with naked eye should be brought to the laboratory for identification under the dissecting microscope.

Monitoring Frequency

9.19 Quantitative aquatic fauna replicate surveys of stream fauna was required to be carried out on a monthly basis only during wet season. Three replicates for invertebrates sampling and direct counting of fish fauna should be performed respectively.

Monitoring Location

9.20 During wet season, the monitoring locations required to be carried out in Ma Tso Lung Stream are as follow:

•	MS_01	•	MS_02	•	MS_03	•	MS_04	•	MS_05
•	MS_06	•	MS_07	•	MS_08	•	MS_09	•	MS_10
•	MS_11	•	MS_12	•	MS_13	•	MS_14	•	MS_15

9.21 The location of monitoring stations is shown in **Figure 10** for reference.

Monitoring Parameters

- 9.22 The monitoring parameters and survey methodology for each monitoring station are described below:
 - Species composition
 - Abundance
 - Distribution for invertebrates and fish fauna
 - Species of conservation significance would be specified
- 9.23 Other information at the time of survey such as weather conditions and noticeable natural or anthropogenic activities were recorded.

Monitoring Status

9.24 According to the Updated EM&A Manual, quantitative aquatic fauna replicate surveys of stream fauna is required to be carried out on monthly basis during wet season. During the reporting Month, no aquatic fauna replicate surveys was carried out.

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

Monitoring Requirements and Protocol

- 9.25 As required under Section 12.3.2.17 of the Updated EM&A Manual, monitoring of measures to minimise impacts should be carried out during the construction phase.
- 9.26 The purpose of survey is to monitor the effectiveness of measures to minimise impacts on ecologically sensitive habitats from disturbance and pollution by standard faunal transect

surveys.

Mammal survey

- 9.27 Mammal survey should be performed during both day and night times, in areas along the transect routes which may potentially be utilized by terrestrial mammals. Field signs such as droppings, footprints, diggings and burrows left by larger terrestrial mammals should be observed. Mammals directly observed should be recorded, and identification should be made as accurate as possible form the field signs observed.
- 9.28 Bat survey should be conducted along the transect routes shortly after sunset, with the use of a bat detector to record the echolocation calls. The relative abundance of the species encountered should be estimated with reference to the baseline monitoring results, i.e. using a scale from one (species recorded within transect routes) to three (dominant species within transect routes), for comparison between baseline results and the current monitoring results. Nomenclature of mammal should be based on Shek (2006).

Herpetofauna survey (Amphibians and Reptiles)

- 9.29 Amphibian surveys should be conducted whenever possible on evenings following or during periods of rainfall, focusing on areas suitable for amphibians (e.g. forest, shrublands, grasslands, streams, ponds, marshes, etc.). Calling amphibians should be recorded, supplemented by visual observation of eggs, tadpoles, adult frogs, and toads.
- 9.30 Active searching of appropriate microhabitats such as stones, pond bunds, crevices and leaf debris should be performed mainly. Observation of exposed, basking and foraging reptiles should also be conducted. Nomenclature of amphibian and reptile should be based on Chan et al. (2005) and Karsen et al. (1998), respectively.

Insect survey (Butterfly and Dragonfly)

9.31 Butterflies and dragonflies observed along the transects should be identified and counted. Preferable habitats of the insects such as watercourses, fishponds, and vegetated areas should be observed with special attention. Nomenclature and protection status of the species should be based on Lo et al. (2005) for butterflies and Tam et al. (2011) for dragonflies.

Monitoring Frequency

9.32 Monitoring surveys of ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herpetofauna was undertaken on a monthly bases.

Date of monitoring surveys of ecological sensitive receivers: 3, 27 March 2023

Monitoring Location

- 9.33 The transect routes in the reporting month according to the construction works are as follows:
 - T1. Ma Tso Lung riparian zone and associated wetland habitats;
 - T1. Green belt areas E1-8, D1-8 and G1-3 in KTN NDA;
 - T1. AGR one C2-4 and C2-2 in KTN NDA;
 - T1. Area north of Ng Tung River;
 - 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.

9.34 The location of Transects is shown in **Figure 11** for reference.

Monitoring Parameters

- 9.35 The monitoring parameters and survey methodology for each transect are described below:-
 - Species composition
 - Abundance
 - Distribution for fauna observed
 - Species of conservation significance would be specified

Monitoring Results

Mammal

- 9.36 During the survey, a total of 3 mammal species were recorded from transects. Two species of conservation importance were recorded, namely bat species *Cynopterus sphinx* and *Pipistrellus abramus*.
- 9.37 Domestic dogs, *Canis lupus familiaris*, were commonly found at transect T4 and T6, where associated with human settlements.
- 9.38 Echolocation calls of bats were recorded with a bat detector. The bat detector would list out possible bat species having similar echolocation calls in pattern and frequency. The structure of the echolocation calls from the recordings was later analysed to identify species as far as possible (the lack of literature on echolocation call structure makes the field identification of some bat species in Hong Kong difficult, and some species could only be identified to genus level, or remain unidentified from the recordings).
- 9.39 Identification of bat species encountered in the surveys was made with consideration of the possible bat species suggested by the bat detector, the distribution of suggested bat species in Hong Kong, previous records of bat species in the EIA Report and Baseline Monitoring Report, and the structure of echolocation calls of the recordings (including call structure, frequency, duration, inter pulse interval etc., with reference to relevant literatures).
- 9.40 *Pipistrellus abramus* was recorded with FM/QCF call structure and frequency around 45 kHz to 68 kHz (Ma et al., 2010, p.319). The above characteristics were further compared with data from relevant literatures to confirm the identities. References were also made to Tong (2016).
- 9.41 Bat species, *Cynopterus sphinx* was observed roosting in the tent-shaped shelter under fronds of Chinese Fan-palm during the monitoring at T1. *Pipistrellus abramus* was recorded in flight at nighttime at T1, T3 and T4.
- 9.42 *Pipistrellus abramus* was recorded in flight at nighttime at T1, T3, T4 and T6.

Herpetofauna (Amphibians and Reptiles)

9.43 Along the transects, a total of 6 herpetofauna species was observed. No species of conservation importance was recorded. Species including toads, frogs, skinks and geckos were recorded near wetland habitats and watercourse. Transects T1 had the highest species diversity among all transects.

Insects (Butterfly and Dragonfly)

9.44 During the insect survey, a total of 22 butterfly species were recorded from transects. 5 odonata

species were recorded in the reporting month. No species of butterfly recorded was of particular conservation interes. Transect T1 had recorded the highest butterfly diversity among all transects.

- 9.45 5 species of odonata were recorded in the reporting month. One species recorded was of particular conservation interest, namely *Rhodothemis rufa*.
- 9.46 Ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herpetofauna monitoring during construction phase was conducted in the reporting month and the results are attached in **Appendices L2 to L5**.
- 9.47 For the monitoring conducted on 27 March 2023 at Transect T5, a section of the transect route was found located within a private property and hence not accessible. Another section of transect T5 was found blocked by a new accumulation of fallen trees. The inaccessible part are shown in **Photo 1** and **Photo 2** below. The adjusted accessible transect route is shown in **Figure 11**.



Photo 1. Inaccessible part of transect T5 located within a private property.



Photo 2. Inaccessible part of transect T5 blocked by fallen trees.

Results and Observation

Details of the Influencing Factors

Major Activities

- 9.48 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley, anthropogenic activities including soil turning with excavator and other construction activities were observed in Long Valley. Construction works were observed beside Sheung Yue River.
- 9.49 The anthropogenic activities affected only a small area of the habitat in Long Valley during monitoring and would only pose minor disturbances to the birds..
- 9.50 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, anthropogenic activities including construction works beside T2, recreational usage of remote control boats and helicopters at both T1 and T2, and recreational fishing by fishing rod at both T1 and T2 were observed.
- 9.51 During the survey of Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution, construction activities NOT under this Project were observed at T5.

Weather Conditions

- 9.52 According to the observation during survey, temperature and the rain flow records in the reporting month (Reference: http://www.weather.gov.hk/wxinfo/pastwx/metob202303.htm), weather conditions might pose influence towards the monitoring results.
- 9.53 The detailed ecological monitoring results are attached in **Appendix L**.

References

Ma, J., Jones, G., Zhu, G. J., & Metzner, W. (2010). Echolocation behaviours of the Japanese pipistrelle bat *Pipistrellus abramus* during foraging flight. Acta Theriologica, 55(4), 315-332.

Tong, C. F. (2016). Distribution and preference of landscape features and foraging sites of insectivorous bats in Hong Kong urban parks. (Master dissertation)

10 ENVIRONMENTAL SITE INSPECTION

Site Audits

10.1 Site audits were carried out by ET on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site. Summary of the site audits are presented in **Table 10.1** and **Appendix P**.

Table 10.1 Summary of Site Audits

Environmental	mental Works Contracts						
Site Inspection	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/
	01	02	03	04	05	06	07
Weekly site audit with representative of the Supervisor's Representative and the Contractor	7, 14, 23	1, 8, 15, 24	3, 10, 17,	2, 9, 15, 23	6, 16, 20	2, 9, 15, 23	3, 10, 17,
	and 28 Mar	and 29 Mar	21 and 31	and 30 Mar	and 27 Mar	and 30 Mar	24 and 31
	23	23	Mar 23	23	23	23	Mar 23
Joint Site Audit with representative of the Supervisor's Representative, the Contractor and IEC	23 Mar 23	24 Mar 23	21 Mar 23	15 Mar 23	16 Mar 23	N/A	17 Mar 23

- 10.2 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table 10.2**.
- 10.3 All construction activities with significant environmental impact undertaken by Contract No. ND/2019/06 was substantially completed in March 2022 and the majority of outstanding works were also completed in April 2022 with defect rectification works remained. The outstanding installation works were the short-duration works which would be completed within 2 months during the 1-year defect correction period, originally estimated.
- 10.4 Due to problems in material deliveries from Mainland China in 2022, the completion date of the outstanding works would be extended to June 2023 tentatively.
- 10.5 ET would record the environmental deficiency, if any, for NDTWM (EP-475/2013/A) during the whole defect correction period under Contract ND/2019/04 site inspection and would email weekly those inspection records to the Project Team of Contract ND/2019/06 for information.

Table 10.2 Observations and Recommendations during Site Audits

Table 10.2 Observations and Recommendations during Site Audits						
Parameters	Date	Observations and Recommendations	Follow-up			
Contract No.: NI	D/2019/01		,			
Contract No.: NI	D/2019/02					
Water Quality	20/02/2023	Drainage should be cleared and maintained	Item remarked as 230301-R01. Follow-up action is needed to be review.			
muci Quuniy	01/03/2023	properly.	Improvement/Rectification was observed during follow-up audit session on 8 March 2023.			
Landscape and Visual	20/02/2023	Tree protection zone should be enhanced.	Improvement/Rectification was observed during follow-up audit session on 1 March 2023.			
Air Quality	24/03/2023	To enhance dust suppression measures by watering regularly.	Improvement/Rectification was observed during follow-up audit session on 29 March 2023.			
Contract No.: ND	/2019/03					
	03/03/2023		Item remarked as 230310-O01. Follow-up action is needed to be review.			
	10/03/2023	Dusty debris was observed in Yin Kong Road. Contractor was reminded to clear the dusty debris immediately. Provide NRMM label for regulated machine. Provide impervious sheeting for dusty	Improvement/Rectification was observed during follow-up audit session on 17 March 2023.			
	31/03/2023		Follow-up action is needed to be reported in the following month.			
Air Quality	03/03/2023		Item remarked as 230310-R01. Follow-up action is needed to be review.			
	10/03/2023		Improvement/Rectification was observed during follow-up audit session on 17 March 2023.			
	17/03/2023		Item remarked as 230321-R01. Follow-up action is needed to be review.			
	21/03/2023	stockpile.	Improvement/Rectification was observed during follow-up audit session on 31 March 2023.			
Water Quality	31/03/2023	Clear the wheel-washing bay regularly.	Follow-up action is needed to be reported in the following month.			
Waste / Chemical	03/03/2023	Provide drip tray for chemical/fuel containers.	Improvement/Rectification was observed during follow-up audit session on 10 March 2023.			
Management	17/03/2023	Trovide drip day for enemical/fuer containers.	Item remarked as 230321-R02. Follow-up action is needed to be review.			

Parameters	Date	Observations and Recommendations	Follow-up
	21/03/2023		Item remarked as 230331-R01. Follow-up action is needed to be review.
	31/03/2023		Follow-up action is needed to be reported in the following month.
Contract No.: ND	/2019/04		
Air Quality	24/02/2023	Provide impervious sheeting or water spraying for dusty stockpile in whole sale market.	Improvement/Rectification was observed during follow-up audit session on 2 March 2023.
	24/02/2023		Item remarked as 230302-R01. Follow-up action is needed to be review.
	02/03/2023		Item remarked as 230309-R01. Follow-up action is needed to be review.
	09/03/2023	Covering of stockpile is required to minimize	Item remarked as 230315-R01. Follow-up action is needed to be review.
Water Quality	15/03/2023	the muddy runoff during rainstorm.	Item remarked as 230323-R01. Follow-up action is needed to be review.
	23/03/2023		Item remarked as 230330-R01. Follow-up action is needed to be review.
	30/03/2023		Follow-up action is needed to be reported in the following month.
	24/02/2023	Provide barrier (e.g., sandbag) for G.I. operation.	Improvement/Rectification was observed during follow-up audit session on 2 March 2023.
	24/02/2023		Item remarked as 230302-R02. Follow-up action is needed to be review.
Waste/Chemical Management	02/03/2023	Drip tray should be provided for chemical storage. / Provide drip tray for chemical/fuel containers.	Item remarked as 230309-R02. Follow-up action is needed to be review.
	09/03/2023		Improvement/Rectification was observed during follow-up audit session on 15 March 2023.
Contract No.: ND	/2019/05		
Air Quality	27/02/2023	Provide impervious sheeting to cover the dusty stockpile in JCR.	Improvement/Rectification was observed during follow-up audit session on 6 March 2023.
Air Quality	06/03/2023	Provide impervious sheeting for the dusty stockpile to avoid dust generation.	Improvement/Rectification was observed during follow-up audit session on 16 March 2023.

Parameters	Date	Observations and Recommendations	Follow-up			
Waste/Chemical Management	06/03/2023	Provide drip tray for chemical/fuel containers.	Improvement/Rectification was observed during follow-up audit session on 16 March 2023.			
Water Quality	27/03/2023	Should provide adequate capacity of water treatment to prevent muddy runoff going through site surface in Kwu Tung site.	Follow-up action is needed to be reported in the following month.			
Contract No.: N	D/2019/06					
						
Contract No.: N	Contract No.: ND/2019/07					
						

Implementation Status of Environmental Mitigation Measures

10.6 According to the EIA Report, EPs and the Updated EM&A Manual, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule is provided in **Appendix Q**. The photographic records of measures as stipulated in EPs to mitigate environmental impacts in the reporting month are presented in **Table 10.3**.

Table 10.3 Photographic Records and Implementation Status of Measures

I	Table 10.3 Photographic Records and Implementation Status of Measures						
EP No.	Condition	Photographic Record	Implementation Status				
EP- 466/2013/ <u>A</u>	2.9	To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.	^ [1]				
EP- 467/2013/ <u>A</u>	2.9	To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.	^ [1]				
EP- 468/2013/ <u>A</u>	2.11	To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.	^ [1]				
EP- 469/2013	2.7	To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.	^ [1]				

EP- 473/2013/ A	2.13	To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.	^ [1]
<u>EP-</u> 475/2013/ <u>A</u>	2.7	To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.	$oldsymbol{\Lambda}_{[1]}$
Implementa	tion status:	 Mitigation measure was fully implemented * Observation/reminder was made during site audit but 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 period 	ctified by the

Remark:

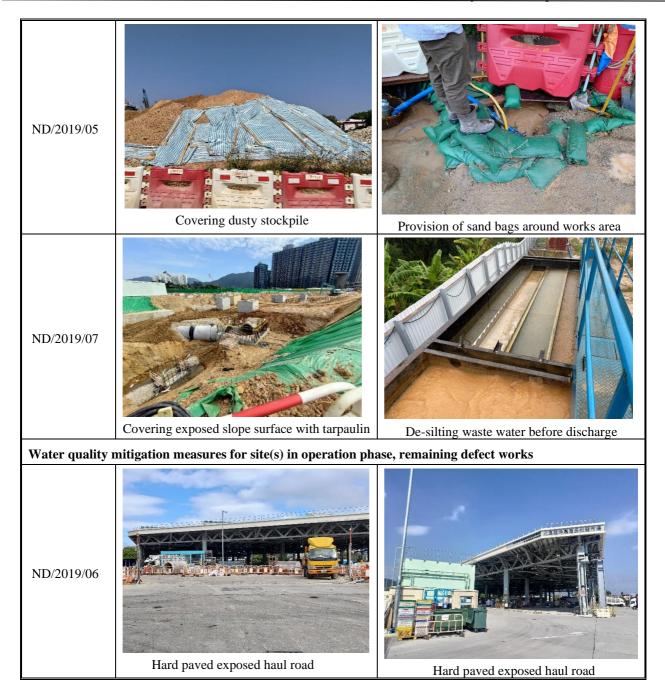
[1]: Barrier fences might be subjected to change according to the phasing plan designed at detailed design stage

Implementation Status of Water Quality Mitigation Measures

10.7 The water quality mitigation measures detailed in the EIA Report and the Updated EM&A Manual are recommended to be implemented during the construction phase. Water quality mitigation measures implemented by the contractors were closely monitored to prevent water pollution, especially during rainy season. An updated summary of the Environmental Mitigation Implementation Schedule is provided in **Appendix Q**. Specific water quality mitigation measures for major construction works in the reporting month are presented in **Table 10.4**.

Table 10.4 Specific Water Quality Mitigation Measures for Major Construction Works in the Reporting Month

in the Reporting Month							
Works Contracts	Photographic	c Records					
ND/2019/01	Hard paved exposed slope surface	Hydroseeding for slope area					
ND/2019/02	Hard paved exposed haul road						
	Train paved exposed flaur road	Hard paved exposed slope surface					
ND/2019/03	Hard paved exposed haul road	Regular clearance of water for wheel					
ND/2019/04	Hard paved exposed slope surface	washing facility Deployment of silt curtain around works area in Ng Tung River					



Solid and Liquid Waste Management Status

- 10.8 Waste generated from Contract Nos. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05 and ND/2019/07 included inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting month. The site of ND/2019/06 was handed over to AFCD for operation since 4 April 2022.
- 10.9 The amount of wastes generated by the construction works of the Contract Nos. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05 and ND/2019/07 during the reporting month are shown in **Appendix R**. The site of ND/2019/06 was handed over to AFCD for operation since 4 April 2022.
- 10.10 The Contractors are advised to minimise the wastes generated through recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and

reduction measures are summitted in **Appendix Q**.

Ecological Mitigation Measures – Creation of Long Valley Nature Park (LVNP)

- 10.11 Based on the findings of the EIA Report, the area of Long Valley has been assessed as of high to very high ecological value and is the largest contiguous area of freshwater wetland habitats in Hong Kong. To safeguard the ecological value of Long Valley, about 37 hectares of land in Long Valley has been proposed to develop into Long Valley Nature Park (LVNP) for conserving and enhancing the ecologically important environment as well as for compensation of the wetland loss due to the NDA development.
- 10.12 LVNP is developed according to the approved Habitat Creation and Management Plan (HCMP) submitted under EP-468/2013/A. HCMP provides a framework and specifications for development and management of LVNP and guides the development to maintain and enhance the 37 hectares of low-lying wetland habitats.
- 10.13 Regarding the design, the zoning of land use in LVNP is intended to maintain the existing mosaic pattern of wet and dry agriculture, while controlling the activities that could potentially disturb target habitats and species. LVNP will be divided into three broad zones of land use as below:
 - Biodiversity Zone of about 21 hectares largely designated for biodiversity conservation through cultivation of specified crops and habitat management.
 - Agricultural Zone of about 11 hectares designated for commercially focuses crop production and eco-friendly agricultural practice for farming.
 - Visitor Zone of about 5 hectares designed to accommodate visitors as well as storage and other facilities and for educational purposes.
- 10.14 The construction of LVNP started in late 2019 and was expected to be completed in 2023. During the construction period, the progress of construction and wetland enhancement works has been under observation by different stakeholders including AFCD and green groups. Close communication between AFCD and CEDD were conducted to exchange views on conservation, restoration and management of habitats as well as on the planning and design of the park. In addition, advices from green groups, Hong Kong Bird Watching Society (HKBWS) and The Conservancy Association (CA), have been taken on habitat management of Long Valley and potential effects on habitat and wildlife of each individual work conducted in Long Valley. The last meeting was held on 18 November 2022 to share the progress of LVNP with different stakeholders, including CEDD, AFCD, CA, HKBWS, Contractor, ET, IEC and farmers.
- 10.15 Proposals on wetland creation and restoration, dry agricultural land creation, pond creation, water treatment wetland and design of irrigation channel were submitted by the Contractor to achieve the objectives stated in HCMP and accepted by the Engineer with consent from AFCD before implementation. The Contractor would consult the stakeholders for recommendations and suggestions on mitigation measures to minimise the environmental impacts arising from construction works. The progress of works would be arranged to minimise impacts to avifauna and maintain the habitat for avifauna. The photographic records of site activities in LVNP are presented in **Table 10.5**.

Table 10.5 Photographic Records of Site Activities in LVNP



Continuing agricultural practice in existing farmland to maintain habitats in Long Valley



Open water Habitat



Open water Habitat Creation of wetland with designated habitat for biodiversity conservation





Planting of paddy rice to provide foraging ground for Yellow-breasted Bunting





Enhancement of irrigation channel to provide reliable water source for farmland in Long Valley



Provision of bird island (hidden area)



Restoring of water flea pond to provide food source to water birds



Construction of storage sheds for farmers



Glareola maldivarum were recorded



Wet agricultural land



Provision of noise barrier for noisy works in Long Valley

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11 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 11.1 No Action/Limit Level exceedance for air quality, water quality, construction noise, ambient arsenic and landfill gas monitoring was recorded in the reporting month. The summary of exceedance record in the reporting month is shown in **Appendix O**.
- 11.2 Ecological monitoring was carried out in the reporting month. The results will be compared with Action and Limit Levels after issuance of the Final Baseline Ecological Report.
- 11.3 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that Action / Limit Levels are exceeded, the actions in accordance with the Event/Action Plan in **Appendix N** would be carried out.

Summary of Environmental Non-Compliance

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

Summary of Environmental Complaint

11.5 No environmental complaint was received in the reporting month. The Cumulative Complaint Log since the commencement of the Project is presented in **Appendix S**.

Summary of Environmental Summon and Successful Prosecution

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

12 FUTURE KEY ISSUES

Key Issues in the Coming Three Months

12.1 The major site activities, potential environmental impacts and recommended mitigation measures for the coming three months are shown in **Table 12.1.**

Table 12.1 Summary Table for Site Activities, Potential Environmental Impacts and Recommended Mitigation Measures in the Coming Months

Contract No.	Major Site Activities (April to June 2023)	Location/ Working Period	Potential Environmental Impact	Recommended Mitigation Measures
ND/2019/01	June 2023) (a) Site clearance / tree felling (b) GI works (c) Excavation (d) Construction of retaining wall (e) Construction of hoarding (f) Site Formation (g) Removal of existing structure (h) Construction of subway	Portions 1a, 1c, 2, 13 NIL Portions 1b, 3, 5, 6a, 7, 8b, 9b, 10b Portions 8a Portion 1b Portions 1c, 1e, 2, 7 Portions 1a, 13 Portions 2	Impact - Construction Dust impact - Noise Impact (Construction Phase) - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste)	 Provide shelter with top and 3-sides for cement production activities.
	(i) Operation of HAC treatment facility(j) Drainage works / watermains	Portions 6b Portions 1a, 1b, 3, 5,		- Speed control of site vehicles. Noise - Regular inspect of construction plants in
		6a, 7, 8b, 9b, 10a, 10b		good condition.

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(k) Road Construction	Portion 1b, 5, 6a	- Provide temporary noise screens if necessary.
(l) Trenchless	Portion 5, 8b	- Use of Quiet plants (QPME) and working methods if possible.
(m) Construction of reservoir	Portions 8a	- Sequencing operation of construction plants where practicable.
(n) Soil nail	Portion 1a	- Shut down the machines and plant if not in use.
		- Only well-maintained plant to be operated
(o) Sheet piling / ELS	Portion 1c, 5, 7, 8b, 9b, 10a, 10b	on-site Mobile plant to be sited as far away from
		NSRs as possible practicable Conduct noise monitoring regularly.
		- Erect silent-up noise barrier at portion 6b.
		Water
		- Set up wastewater treatment system (AquaSed) on site
		- Erect soil bund / temporary drain to divert /collect surface runoff.
		- Maintain the drainage and wastewater treatment facilities.
		Waste / Chemical Management
		- Sort out demolition debris and excavated
		materials from demolition works to
		recover reusable / recyclable portions
		- Provide recycling bins on site, encourage
		reuse and recycle as much as possible.
		- Provide drip trays for chemical containers.
		- Chemical spill kit available on site.
		- Chemical waste cabinet available on site.

				Withing Livida Report – Water 20
				 Chemical wastes to be stored in appropriate containers and collected by a licensed chemical waste collector. Delivery of yard waste to tree shredding facility for upcycling.
ND/2019/02	(a) Pipe Jacking	Portions 3	Air, Noise, Waste	- Dusty works should be spray water. Idle stockpile or slop should be covered by
	(b) Backfilling	Portion 2, 3 & 4	Air, Noise, Waste	Tarpaulin sheet properly. - Wheel washing should be carried out at
	(c) Concreting	Portions 4, 7, 8, 9 & 10	Air, Noise, Water, Waste, Ecology	 every exit. Plants should be well maintained to prevent dark smoke and oil leakage. Idle
	(d) Bedding & Pipe Laying	Portion 2, 3 & 5	Air, Noise, Water, Waste, Ecology	plant should be turned off. Drip tray should be provided for all
	(e) ELS	Portions 2, 3, 4 & 5	Air, Noise, Water, Waste, Ecology	chemical and stationary plants. No construction works shall be carried
	(f) Sheet Pile Installation	Portions 3, 4	Air, Noise, Water, Waste	out in restricted hours (7:00 pm to 7:00 am) unless CNP is obtained. - Erect noise screen along site boundary.
	(g) Cut and Fill of Slope	Portion 8	Air, Noise, Water, Waste	 Waste should be sorted and dispose according to the Waste Management Plan No direct discharge of wastewater into storm drains is allowed. Wastewater must be de-silted before discharged in accordance with the water discharge license. Dull green barrier and ecological measures should be implemented according to the Ecological protection plan.
ND/2019/03	(a) Excavation & ELS	Portion 1, 1A, 2, 3, 4, 4A, 4B, 5, 5A	WasteAir pollutionNoise pollution	- Dusty works should be sprayed with water or stockpile should be covered by Tarpaulin properly.
	(b) Site Clearance	Sections 7, 8 and 9	- Waste	

				Trioning Divider Freport Triaren 2
	(c) Tree Felling	Sections 6, 7, 8 and 9	 Air pollution Noise pollution Waste Air pollution Noise pollution 	 Plants should have maintenance to prevent dark smoke and oil leakage. Idle plant should be turned off. Drip tray should be provided for all chemical and stationary plants. No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is granted. Waste should be sorted and disposed according to Waste Management Plan. No direct discharge of wastewater into storm water drains is allowed. Wastewater must be desilted before discharging according to water discharge license.
ND/2019/04	(a) Sheet piling	Portion H	- Air, Noise, Waste	- Dusty works should be sprayed with water or stockpile should be covered by tarpaulin
	(b) Pile cap	Bridge A1, A2 and A3	- Air, Noise, Water, Waste	properly Plants should have maintenance to prevent
	(c) Grouting	Bridge F, A2, A3 and Portion B, K, H	- Air, Noise, Water, Waste	dark smoke and oil leakage. Idle plant should be turned off.Drip tray should be provided for all
	(d) Excavation & ELS	Portion B, J, F, H, K Bridge A1, A2, A3, F	- Air, Noise, Waste	chemical and stationary plants. No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is granted.
	(e) Road works	Portion J, H, Q, R, S, U and VY	- Air, Noise, Waste	- Waste should be sorted and disposed according to Waste Management Plan.
	(f) Pre-drilling	Portion K, J	- Air, Noise, Water, Waste	- No direct discharge of wastewater into storm water drains is allowed. Wastewater
	(g) Tree felling	Portion C, P, U and S	- Air, Noise, Waste	must be desilted before discharging according to water discharge license.

	(h) Tree transplant	Portion A	- Air, Noise, Waste	
ND/2019/05	(a) ELS & Pile Cap Construction	B2-01, B2-02, B2- 03, C1-01a, C2- 03b, C2-04b & D2- 01; pier E2-01, D2-01	Construction Dust ImpactNoise ImpactWater Quality Impact	Regular watering on exposed worksite and haul road. Stockpiling area should be provided wit covers and water spraying system. Only well maintained plant to be operate
	(b) Pier/Pier head Construction	C1-01a, C2-03b, C2-04b, D2-01 & E2-01; C3-01b, C1-01a & E2-01.	(Construction Phase) - Waste Management (Construction Waste)	 on site. plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs.
	(c) Cross head construction C2-01, C2-02, C3-02	Cross head construction C2-01, C2-02, C3-02	Landscape and Visual Cultural Heritage	mobile plant to be sited as far away from NSRs as possible practicable.All open stockpiles of construction
	(d) Slope works	JCR (3SW-C/F63); Tong Hang Junction and Portion VI (FS28 & 29); FS04, FS06		 materials of more than 50m3 to be cove red with tarpaulin. Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being
	(e) Fabrication for segment	bridge C2 & D1 & E1		washed into the drainage system.All vehicles and plant to be cleaned before
	(f) Fabrication for Form Traveler	3rd and 4th set of form traveler.		leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.
	(g) Fabrication for truss formwork	Bridge B1		- Segregate and store different types of waste in different containers, skip or
	(h) Segment Erection by Launching Girder & Crane	bridges C4,C3; bridge D1 and E1		stockpiles to enhance reuse or recycling of materials and their proper disposal.
	(i) SOP construction (precast & insitu cast in type)			

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(j)	T-span construction by Form Traveler	Pier E2-02, E3-03, D2-02, E3-01		- Sort out demolition debris and ex cavated materials from demolition works to
(k)	Installation of bridge rotation components	pier E2-01, D2-01		recover reusable/recyclable portions Provide training to workers on appropriate
(1)			 waste management procedures, including waste reduction, reuse and recycling. To adopt other good site practice, such as arrangements for collection and effective 	
(m)) Base slab construction	NB109 – bay 5~8		disposal to an appropriate facility, of all wastes generated at the site and regular cleaning and maintenance programme for
(n)	Tree Works	All works areas	appropriate contain licensed chemical Chemical wastes (a should be recycle facility as far as chemical waste the should be dispose Chemical Waste another licensed for with the Waste Dispose (General) Regulation - Conducting Conduct	 Chemical wastes to 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 ca nnot 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. Conducting Construction Vibration

				 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. Erect 2m high dull green site boundary fence.
ND/2019/06	N/A	N/A	N/A	N/A
ND/2019/07	(a) Road works	Portion 1, 4, 5	- Construction Dust Impact	- Regular watering on exposed worksites and haul road.
	(b) C&D waste disposal	Portion 1, 2, 4, 5	Noise ImpactWater Quality	- Stockpiling area should be provided with covers and water spraying system.
	(c) Construction of box culvert	Portions 2	Impact (Construction Phase)	on-site.
	(d) Filling works	Portions 1, 2, 4	- Waste Management (Construction Waste)	- plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby
	(e) Construction of site haul road	Portions 4	- Landscape and Visual	NSRs mobile plant to be sited as far away from
	(f) Drainage Works	Portion 1, 3, 4, 5		NSRs as possible practicable All open stockpiles of construction
	(g) Sewerage works	Portion 1, 3, 4, 5		materials of more than 50m3 to be covered with tarpaulin.
	(h) Construction of Noise Barrier	Portion 5		- Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being
	(i) Waterworks	Portion 1, 4		washed into the drainage system. - All vehicles and plant to be cleaned before leaving a construction site to ensure no

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

	Monthly EM&A Report –	<u>- March 2</u> 02
	earth, mud, debris and the like is	deposited
	by them on roads.	
	- Segregate and store different	
	waste in different containers,	
	stockpiles to enhance reuse or re	•
	materials and their proper dispos	
	- Sort out demolition debris and	
	materials from demolition	
	recover reusable/recyclable port	
	- Provide training to workers on a	
	waste management procedures,	_
	waste reduction, reuse and recyc	•
	- To adopt other good site practic	
	arrangements for collection and	
	disposal to an appropriate facil	•
	wastes generated at the site ar	_
	cleaning and maintenance programming drainage.	rannine for
	- Chemical wastes to be s	stored in
	appropriate containers and colle	
	licensed chemical waste C	•
	Chemical wastes (e.g. spent lub	
	should be recycled at an a	
	facility as far as possible,	* * *
	chemical waste that cannot be	
	should be disposed of at e	
	Chemical Waste Treatment C	
	another licensed facility, in a	•
	with the Waste Disposal (Chemic	
	(General) Regulation.	•
	- Tree Protection & Preservation	- Exiting
	trees to be retained within the P	
	should be carefully protecte	d during

	Withing Enviored Report Water 202
	construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. 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. Erect 2m high dull green site boundary fence.
	- Light Control – Construction day and night time lighting should be controlled to
	minimize glare impact to adjacent VSRs during the Construction phase.

12.2 The major site activities in coming three months are shown in **Table IV**.

Monitoring Schedule for the Next Month

12.3 The tentative environmental monitoring schedule for the next month is shown in **Appendix D**.

Construction Programme for the Next Month

12.4 A tentative construction programme is provided in **Appendix A**.

13 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 13.1 This monthly EM&A Report presents the EM&A work undertaken in March 2023 in accordance with the Updated EM&A Manual.
- 13.2 No Action/Limit Level exceedance for air quality, construction noise, water quality, ambient arsenic, landfill gas monitoring and build heritage monitoring was recorded in the reporting month.

Contract No. ND/2019/01

13.3 Environmental site inspections were conducted on 7, 14, 23 and 28 Mar 23 by ET in the reporting month.

Contract No. ND/2019/02

13.4 Environmental site inspections were conducted on 1, 8, 15, 24 and 29 Mar 23 by ET in the reporting month.

Contract No. ND/2019/03

13.5 Environmental site inspections were conducted on 3, 10, 17, 21 and 31 Mar 23 by ET in the reporting month.

Contract No. ND/2019/04

13.6 Environmental site inspections were conducted on 2, 9, 15, 23 and 30 Mar 23 by ET in the reporting month.

Contract No. ND/2019/05

13.7 Environmental site inspections were conducted on 6, 16, 20 and 27 Mar 23 by ET in the reporting month.

Contract No. ND/2019/06

13.8 Environmental site inspections were conducted on 2, 9, 15, 23 and 30 Mar 23 by ET in the reporting month.

Contract No. ND/2019/07

- 13.9 Environmental site inspections were conducted on 3, 10, 17, 24 and 31 Mar 23 by ET in the reporting month.
- 13.10 No environmental complaint was received in the reporting month. No notification of summons or successful prosecutions was received in the reporting month.
- 13.11 The ET would keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

Recommendations

13.12 According to the environmental audits performed in the reporting month, the following recommendations were made:

Air Quality Impact

- To regular water haul roads;
- To provide vehicle washing facilities with high pressure water jet at every discernible or designated vehicle exit point;
- To maintain the impervious material to entirely cover the stockpile of dusty materials; and
- To ensure all regulated machines displayed with valid Non-road Mobile Machinery (NRMM) labels.

Construction Noise Impact

• To ensure compressor operated with doors closed.

Water Impact

- To review and implement temporary drainage system;
- To prevent any surface runoff discharge into Sheung Yuen River, Ma Wat River or public road:
- To provide sandbags or construct berm to prevent any outflow of muddy water from site area;
- To ensure all vehicle clear of earth and mud before leaving the site areas;
- To ensure the drainage facilities would not be clogged with waste or sediment to avoid overflow:
- To regularly check the condition of desilting materials for proper function;
- To regularly maintain and ensure water treatment facilities proper operation and function;
- To divert all the water generated from the construction site to de-silting facilities with sufficient handling capacity before discharge; and
- To avoid or regularly clear the stagnant water in drip trays;

Waste/Chemical Management

- To dispose of general refuse properly;
- To clear and avoid oil stains at site areas;
- To provide proper storage areas for chemical; and
- To maintain drip trays for chemical storage well.

Landfill Gas Hazard

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

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

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.

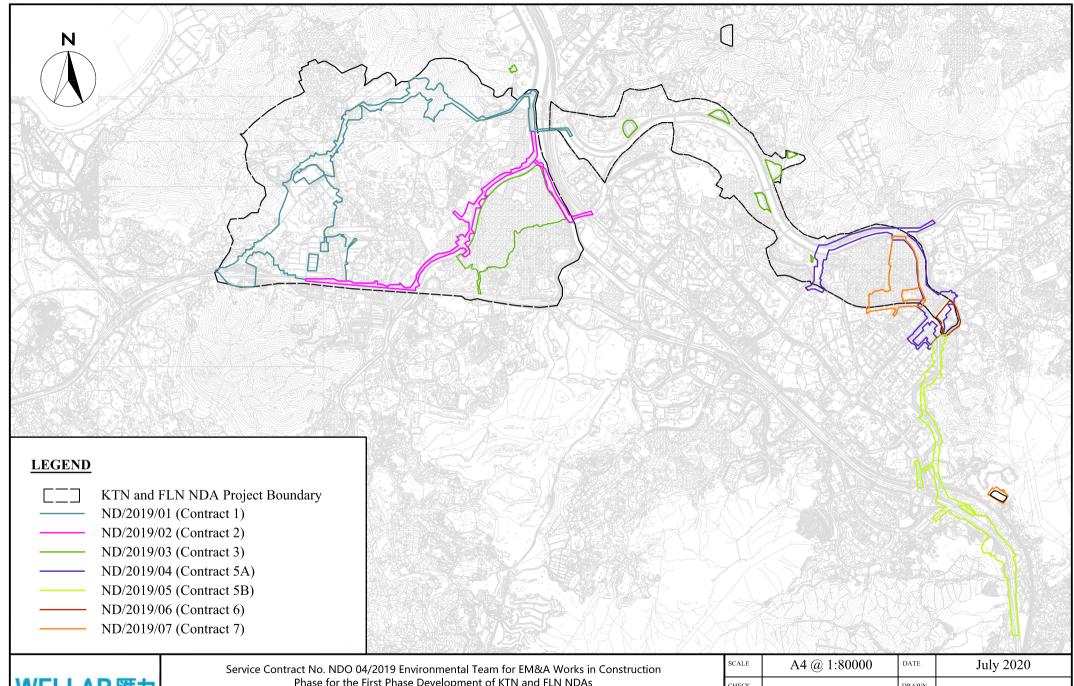
Ecology

• Properly erect and maintain 2m high solid barriers for protecting Siu Hang San Tsuen Stream.

Permit/Licences

• To display valid Permit or Licences at the site entrances.

DRAWING(S)



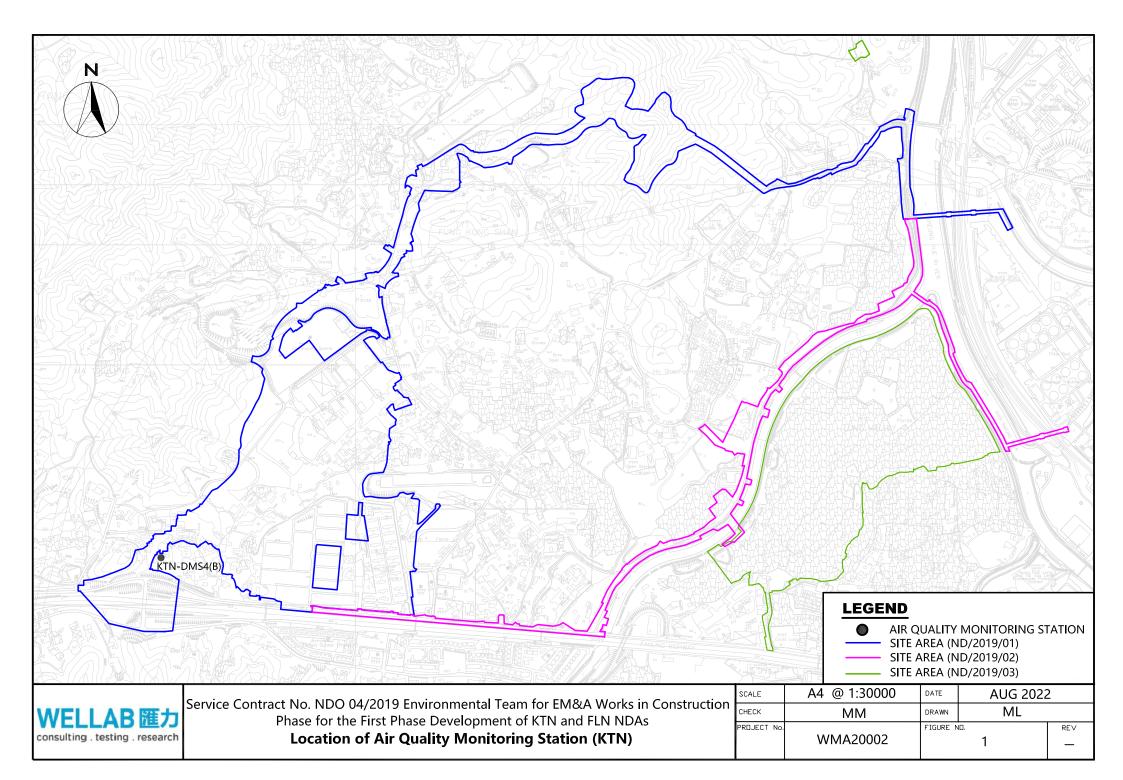
consulting . testing . research

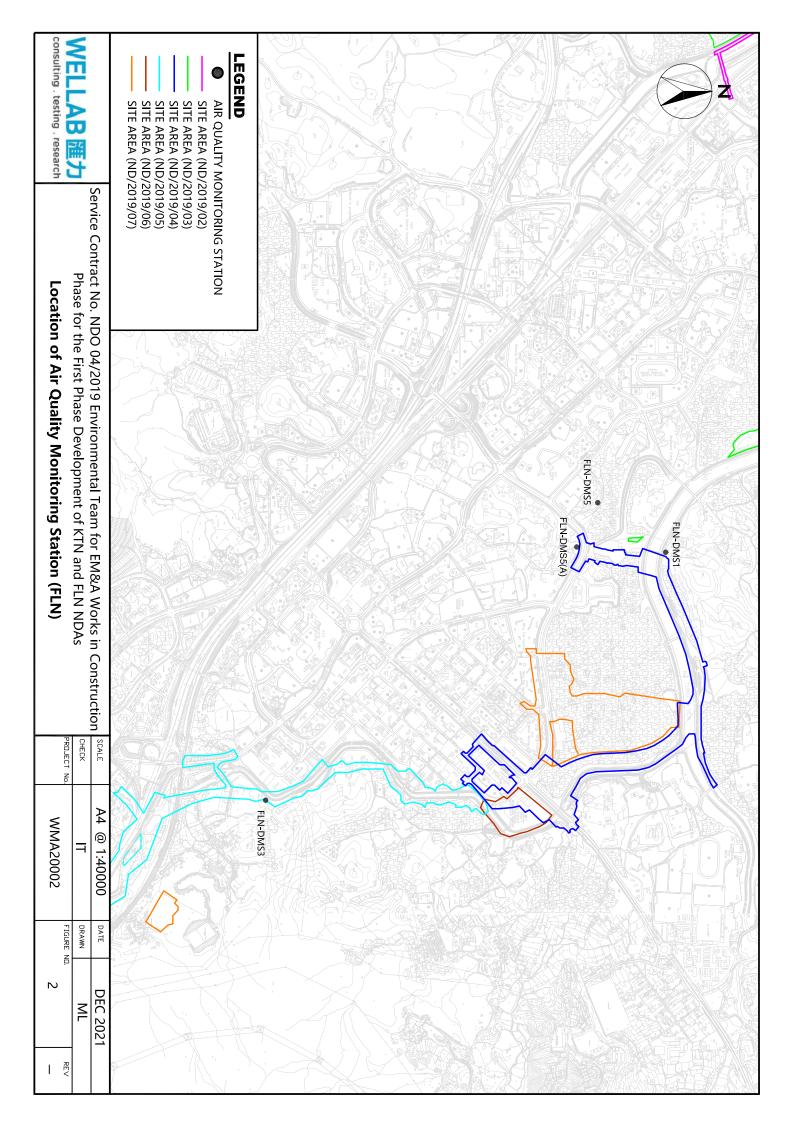
Phase for the First Phase Development of KTN and FLN NDAs

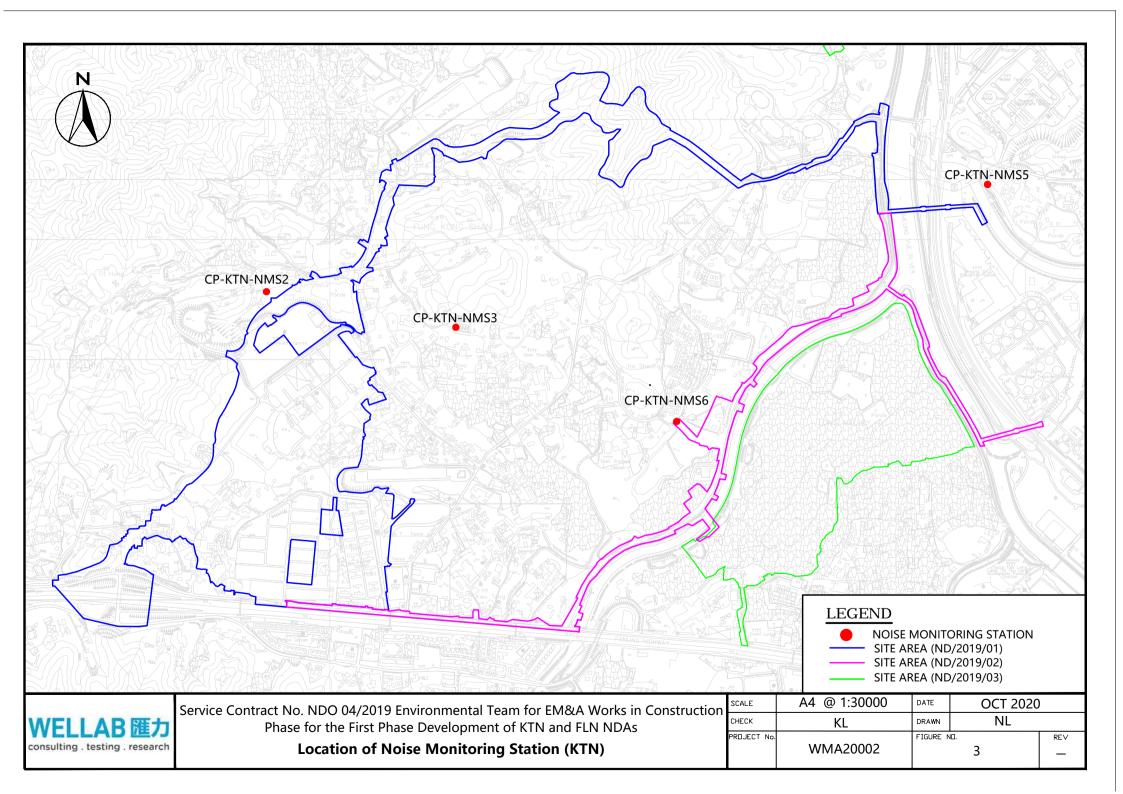
Project Boundary for the Advance and First Stage Works of Kwu Tung North and **Fanling North New Development Areas**

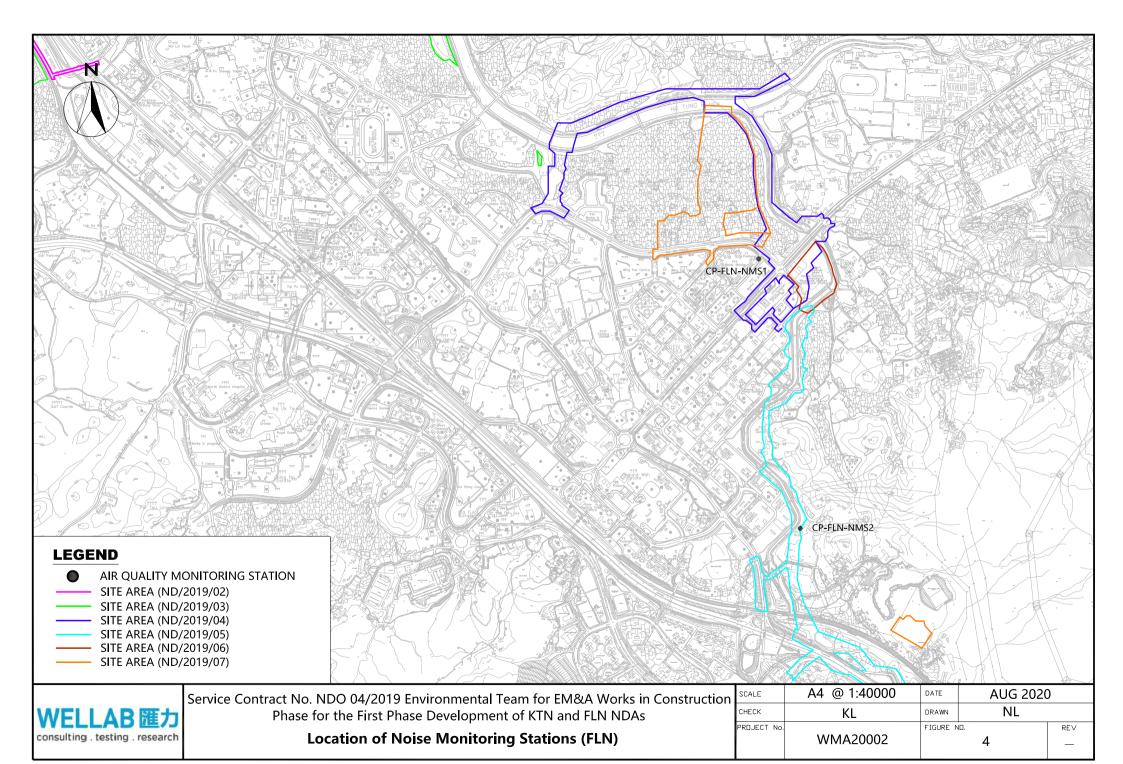
SCALE	A4 @ 1:80000	DATE	July 2020
CHECK	KL	DRAWN	ML
Project No.	WMA20002	Drawing No	1 REV -

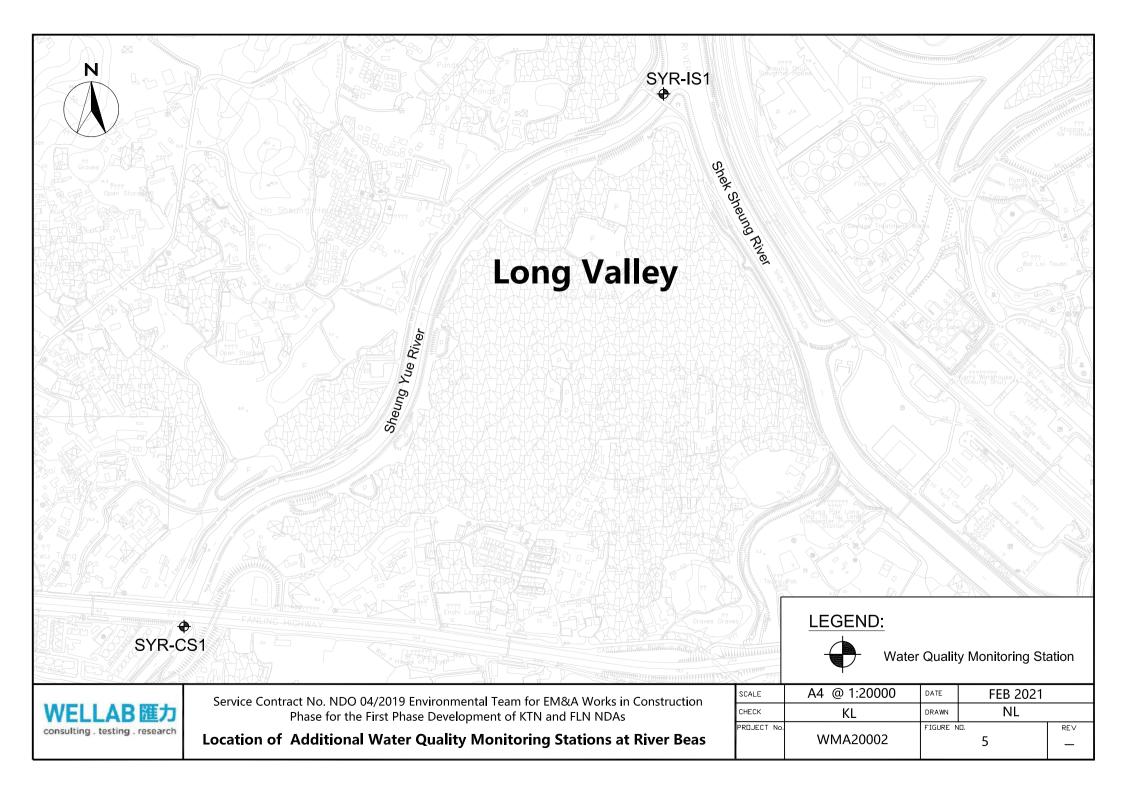
FIGURE(S)

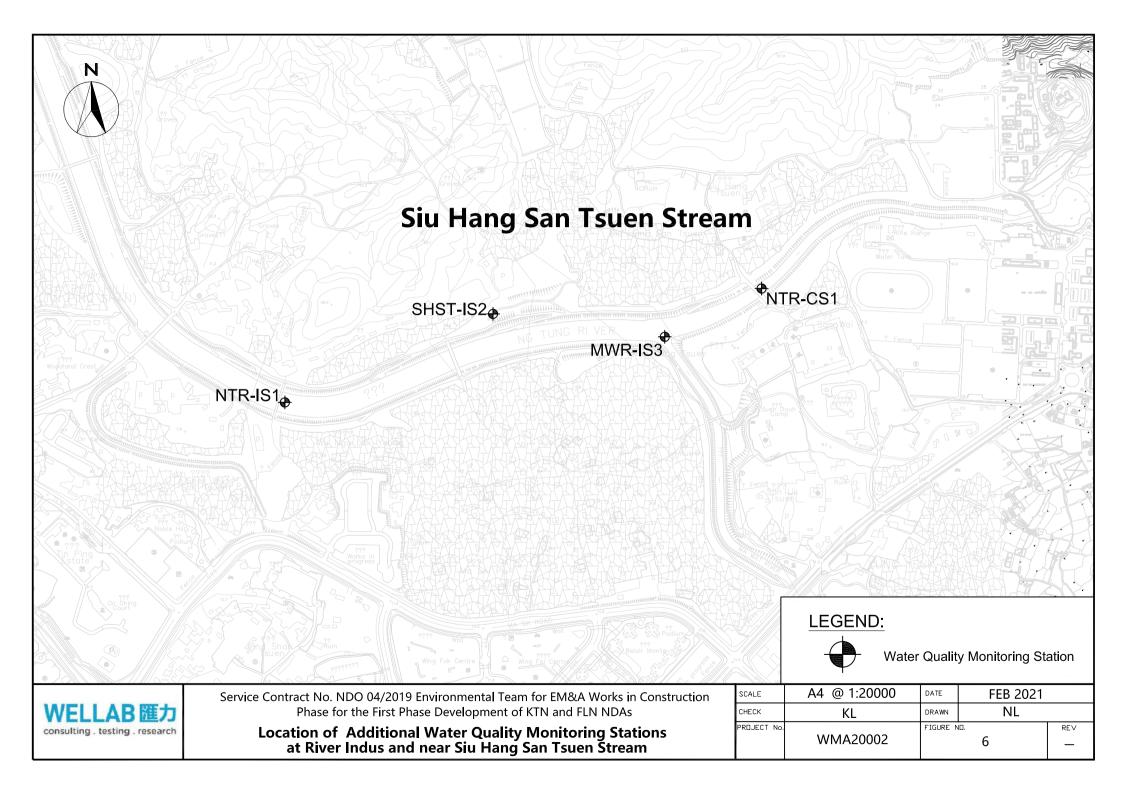


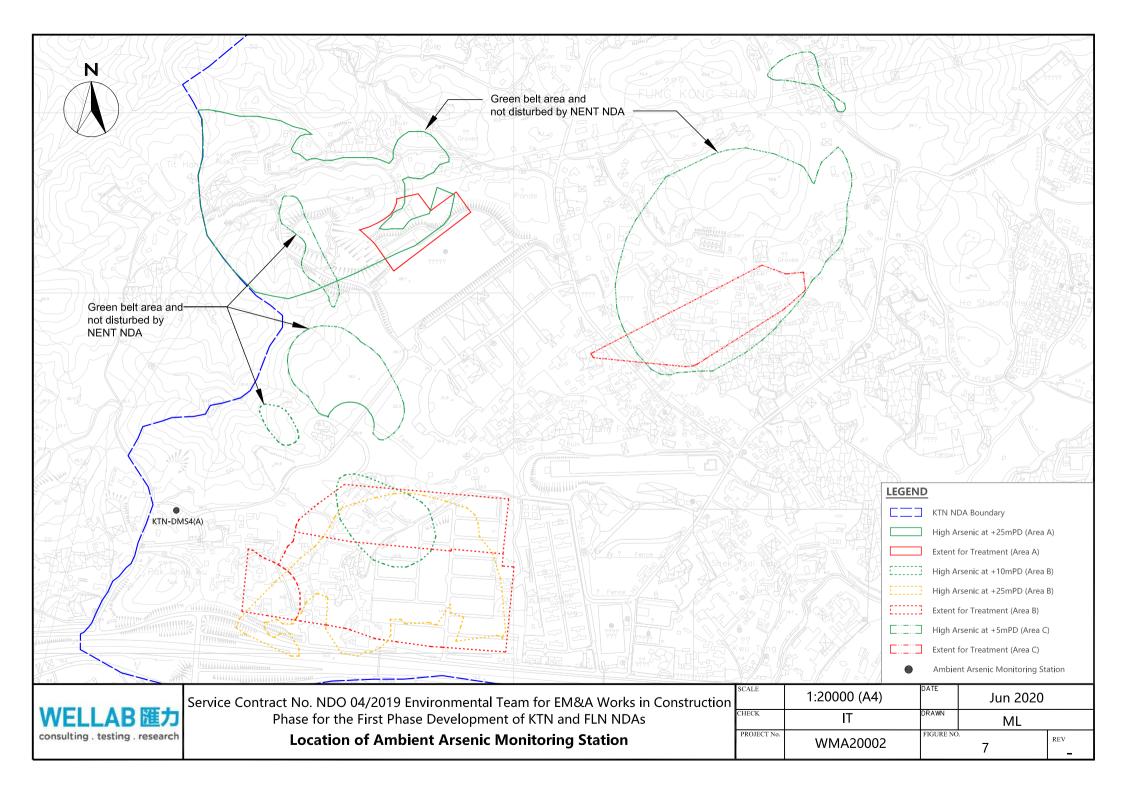


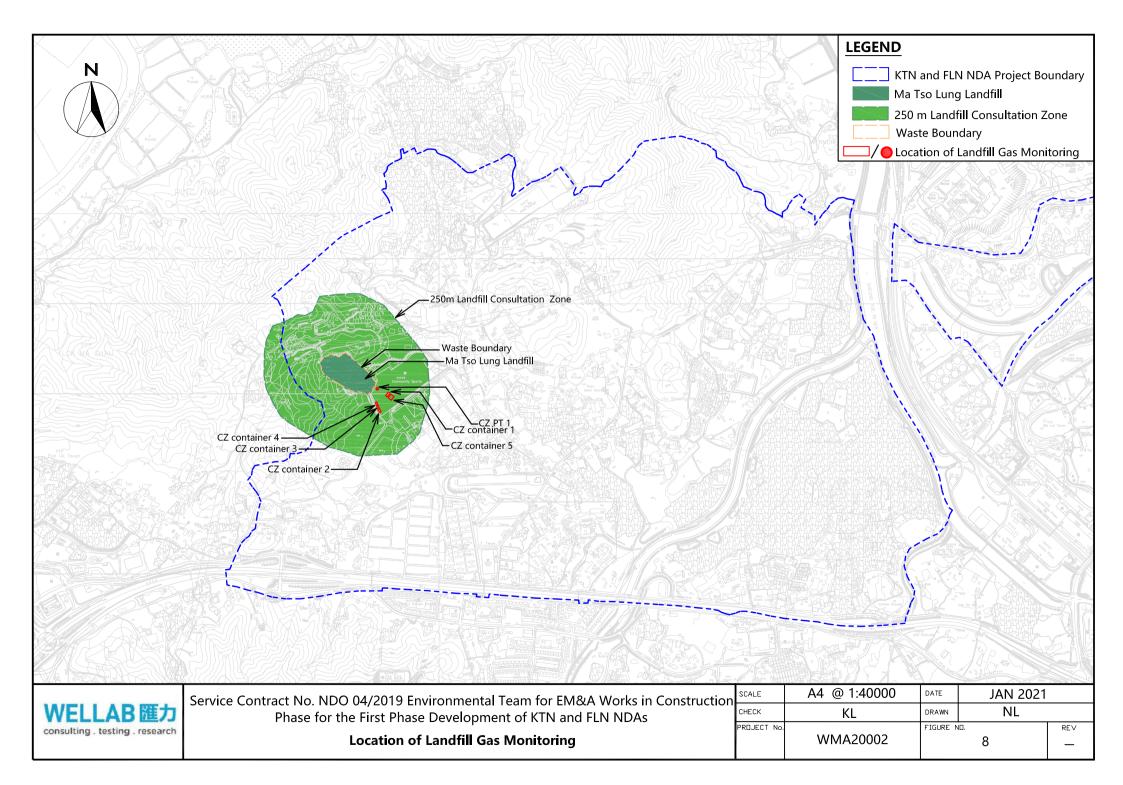


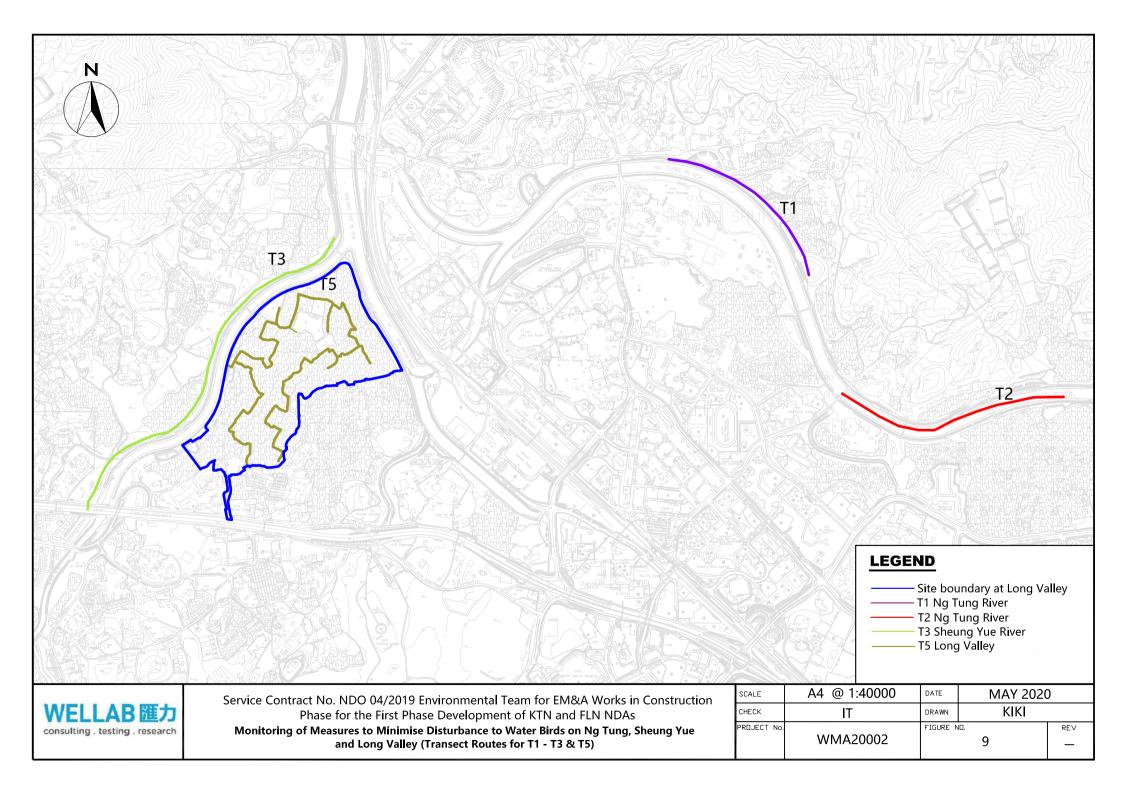


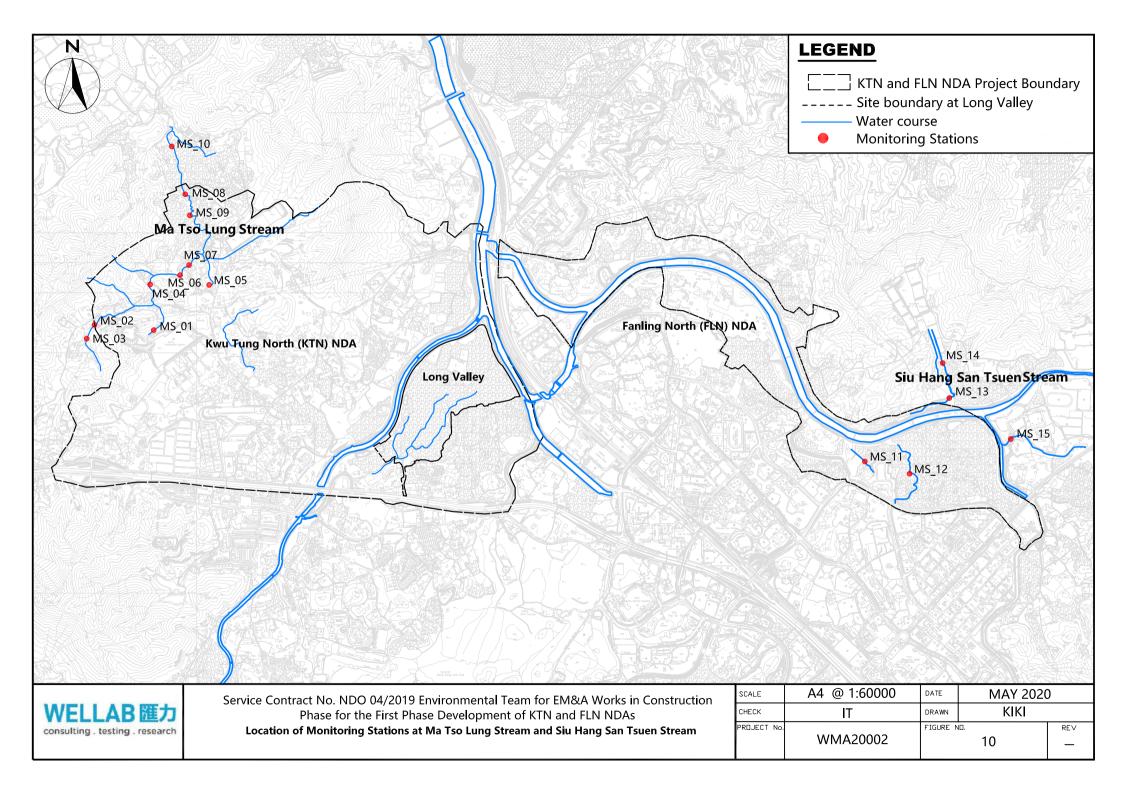


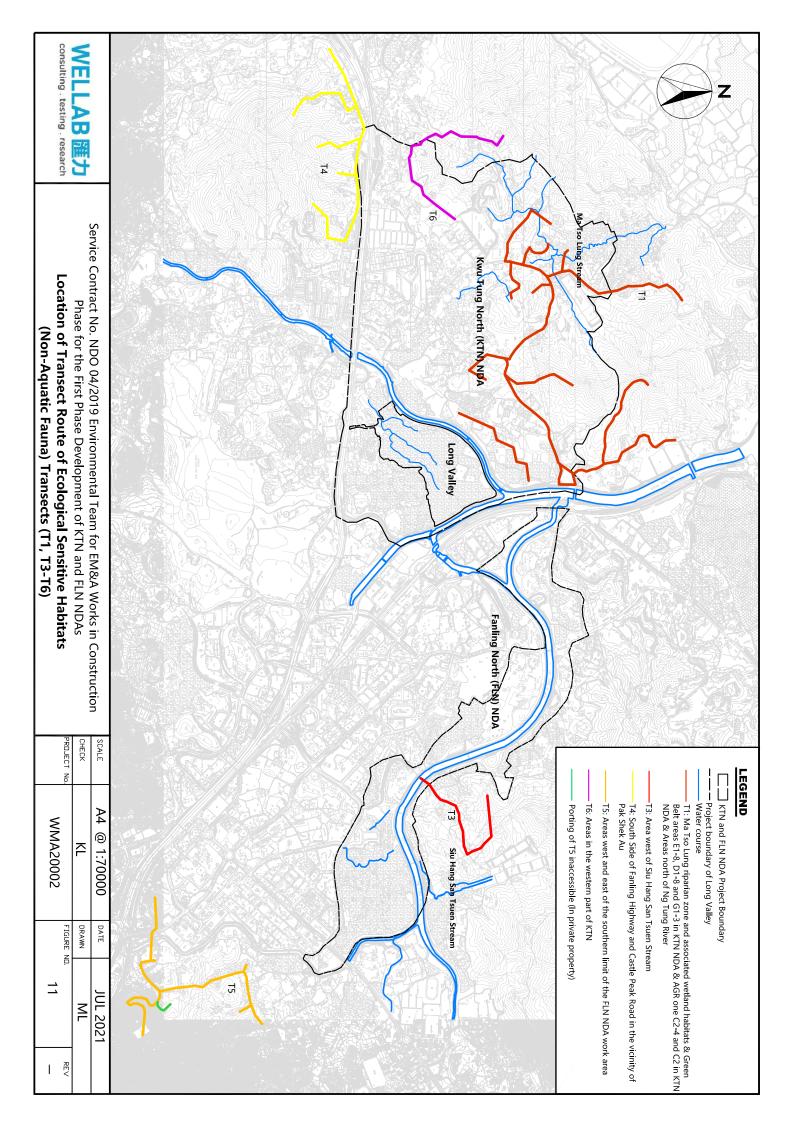






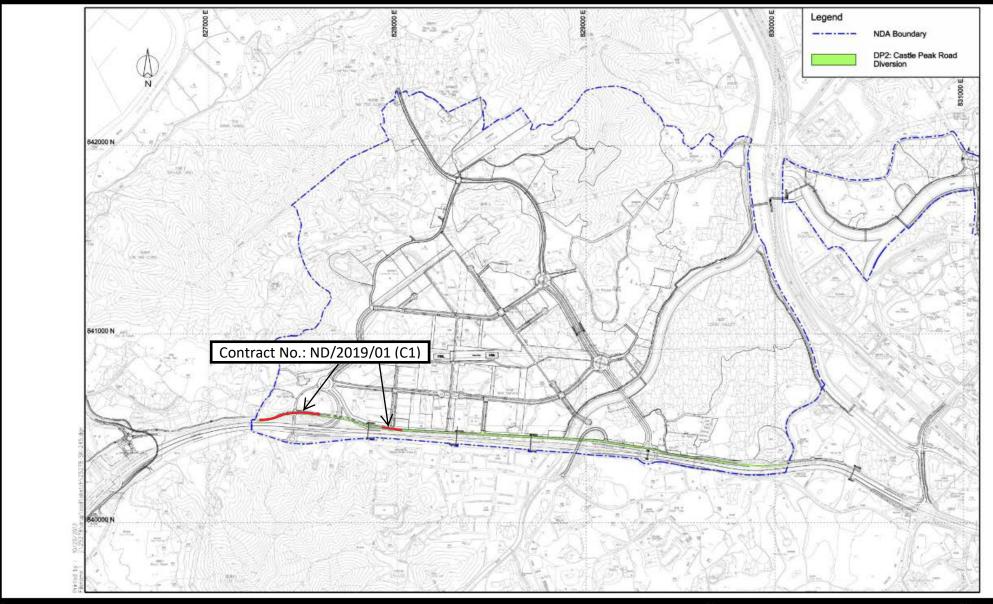






Site Layout Plan of Contract ND/2019/01

under EP-466-2013-A



Project Title: Castle Peak Road Diversion

Figure 1: Location Plan for Castle Peak Road Diversion Project

(Extracted from Drawing No. SK/245 of North East New Territories New Development Area Planning and Engineering Study)

Environmental Permit No: EP-466/2013/A



Site Layout Plan of Contract ND/2019/01

under EP-467-2013-A

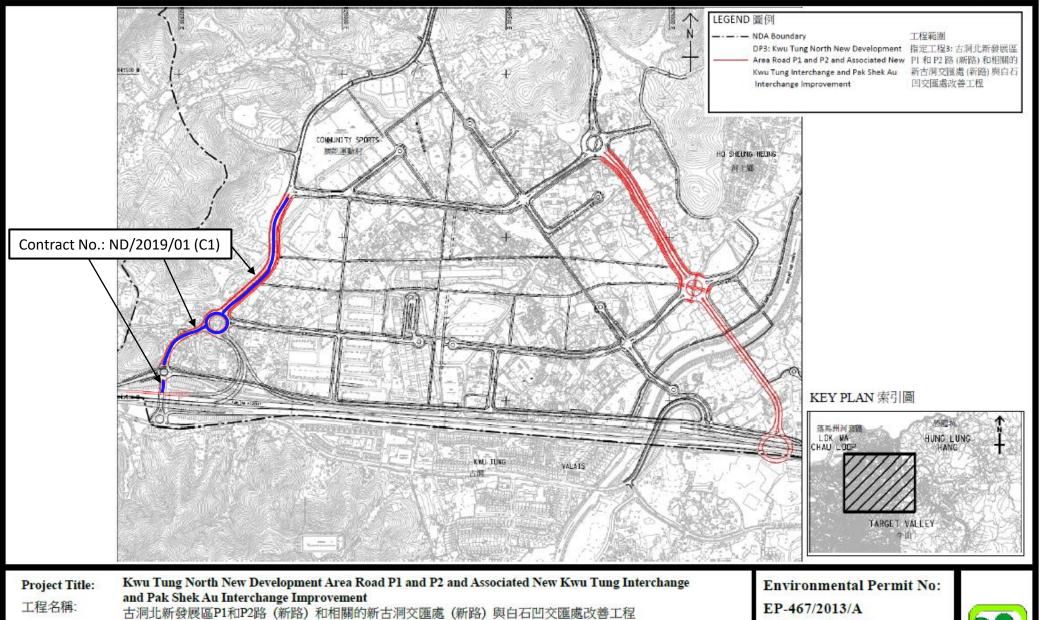


Figure 1: Location Plan for Interchange Improvement (Indicative)

(This figure was prepared based on Figure 1.2 of VEP application (No.: VEP-523/2016))

圖1:交匯處改善工程位置(示意圖)

(本圖是根據申請更改環境許可證(編號: VEP-523/2016)圖1.2編制)

EP-467/2013/A

環境許可證編號:

EP-467/2013/A



Site Layout Plan of Contract ND/2019/01 under EP-468-2013-A

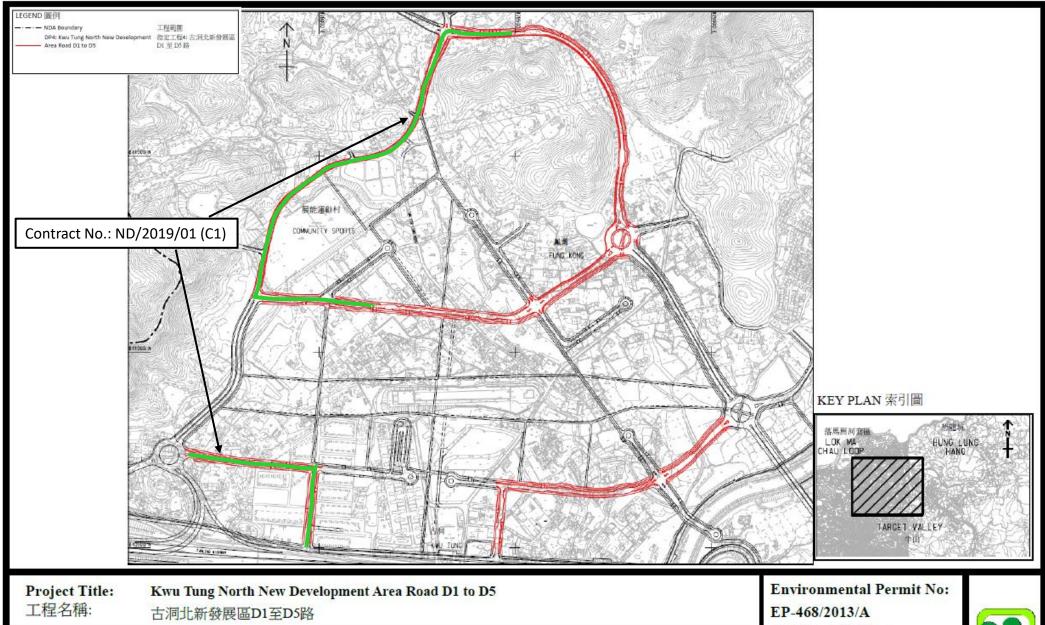


Figure 1: Location Plan for The Project (Indicative)

(This figure was prepared based on Figure 1.4 of VEP application (No.: VEP-524/2016))

[64] 1

圖1:工程項目位置(示意圖)

(本圖是根據申請更改環境許可證(編號: VEP-524/2016)圖1.4編制)

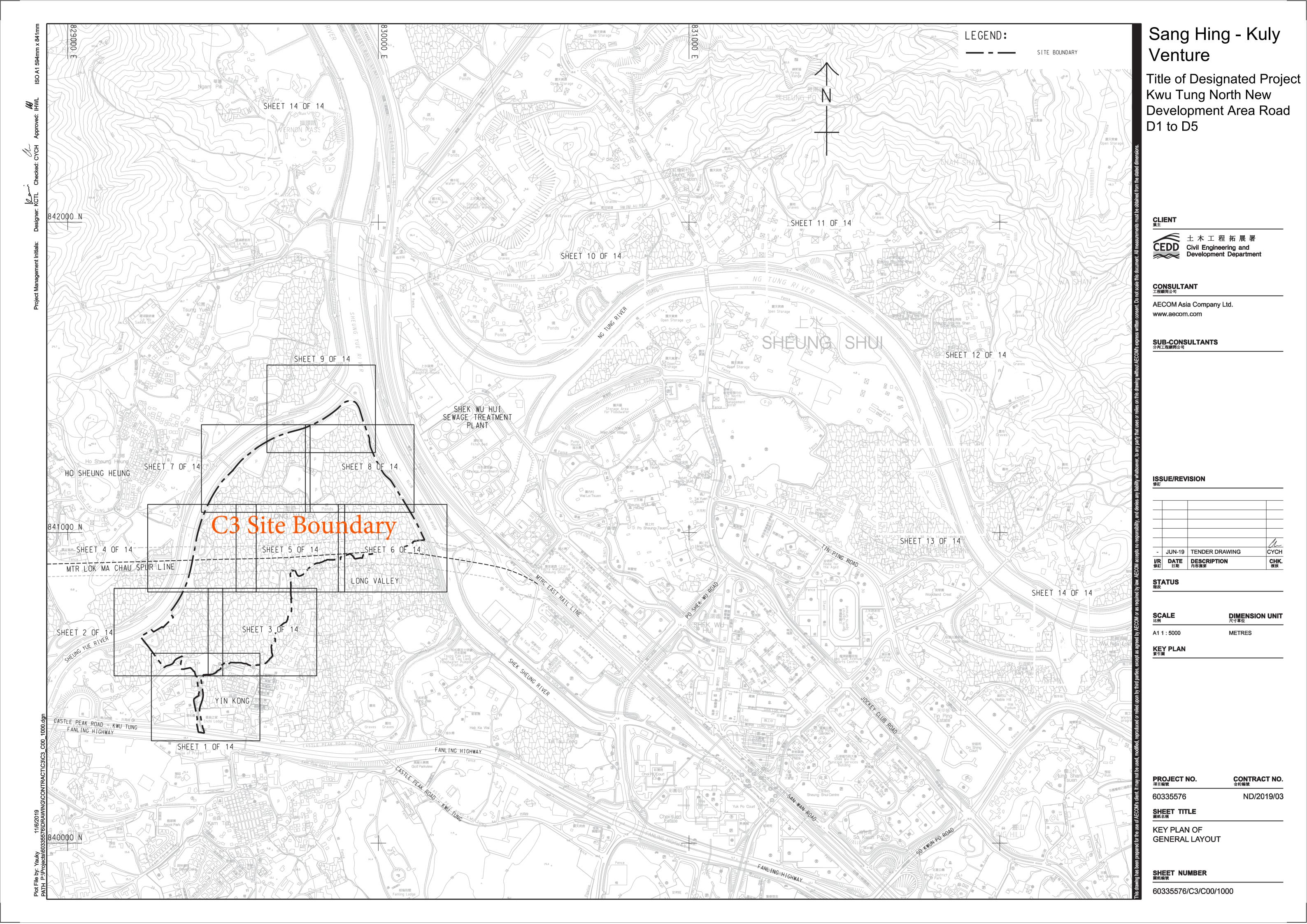
環境許可證編號:

EP-468/2013/A

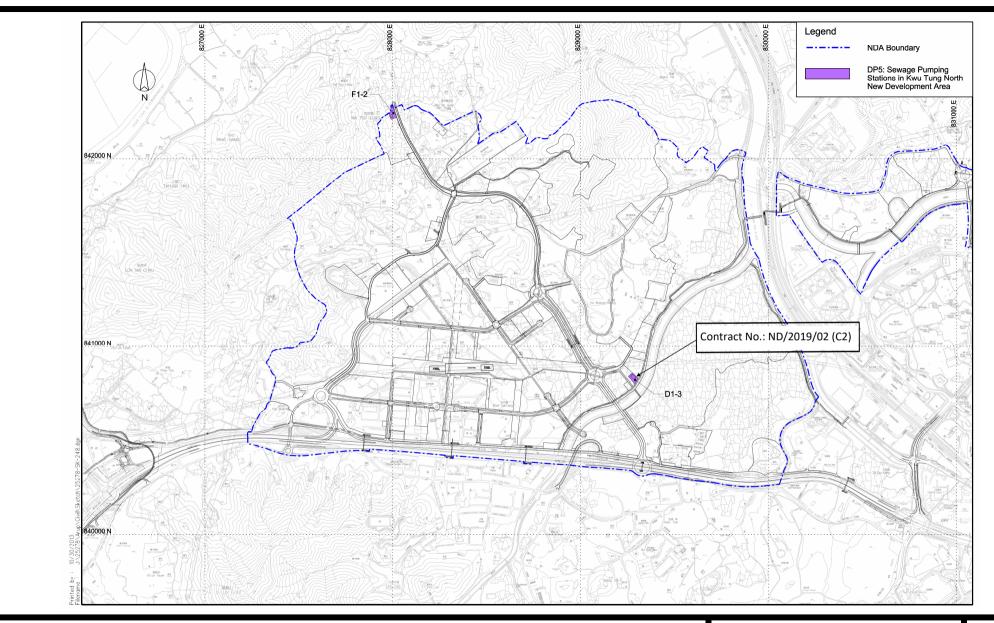


Site Layout Plan of Contract ND/2019/03

under EP-468-2013-A



Site Layout Plan of Contract ND/2019/02 under EP-469-2013



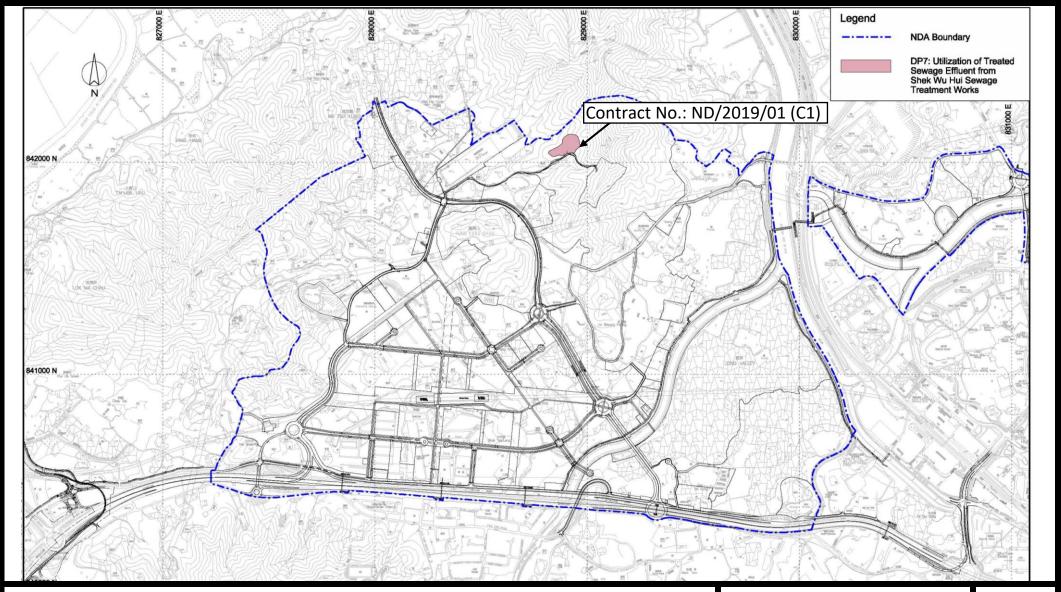
Project Title: Sewage Pumping Stations in Kwu Tung North New Development Area Figure 1: Location Plan for the Proposed Pumping Stations

(Extracted from Drawing No. SK/248 of North East New Territories New Development Area Planning and Engineering Study)

Environmental Permit No: EP-469/2013



Site Layout Plan of Contract ND/2019/01 under EP-470-2013-A



Project Title: Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage

Treatment Works

Figure 1: Location Plan for the Project

(Extracted from Drawing No. SK/249 of North East New Territories New Development Area Planning and Engineering Study)

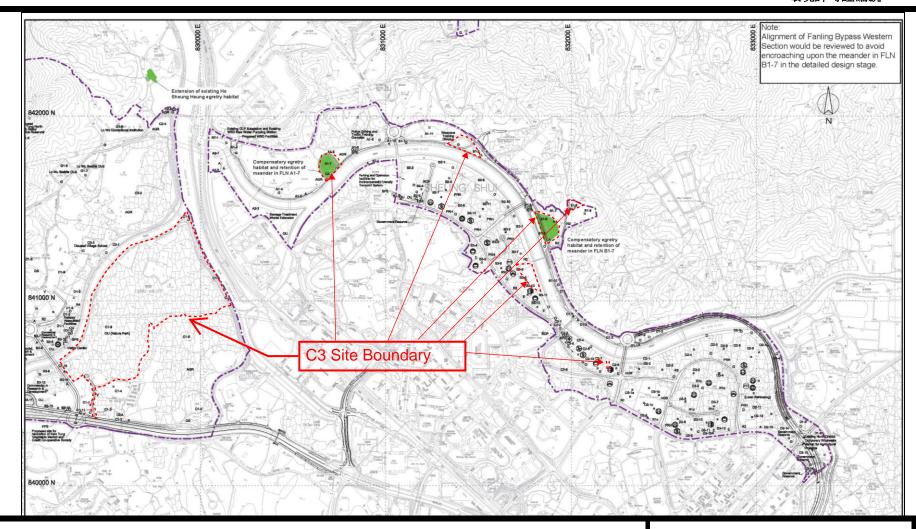
Environmental Permit No: EP-470/2013/A



Figure 18

Site Layout Plan of Contract ND/2019/03

under EP-473-2013-A



Project Title: Fanling Bypass Eastern Section

工程名稱: 粉嶺繞道東段

Figure 2: Location of Alternative Egretry Sites and Retained Meanders

圖 2: 替代鷺鳥林選址和保留河曲的位置

(Extracted from Drawing No. SK/254 of North East New Territories New Development Area Planning and Engineering Study) (摘錄自新界東北新發展區規劃及工程研究 圖: SK/254)

Environmental Permit No:

EP-473/2013/A

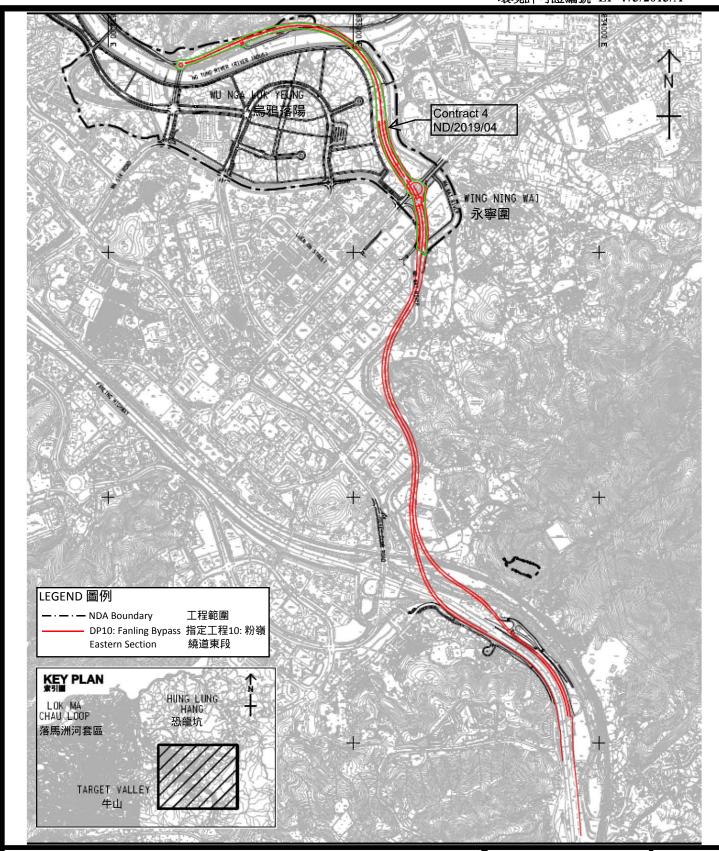
環境許可證編號: EP-473/2013/A



Figure 19

Site Layout Plan of Contract ND/2019/04

under EP-473-2013-A



Project Title: Fanling Bypass Eastern Section

工程名稱: 粉嶺繞道東段

Figure 1: Location Plan for the Project (Indicative)

圖 1: 工程項目位置 (示意圖)

This figure was prepared based on Figure 1.1 of VEP application (No.:VEP-526/2016) 本圖是根據申請更改環境許可證(編號: VEP-526/2016)圖1.1編制

Environmental Permit No: EP-473/2013/A 環境許可證編號:

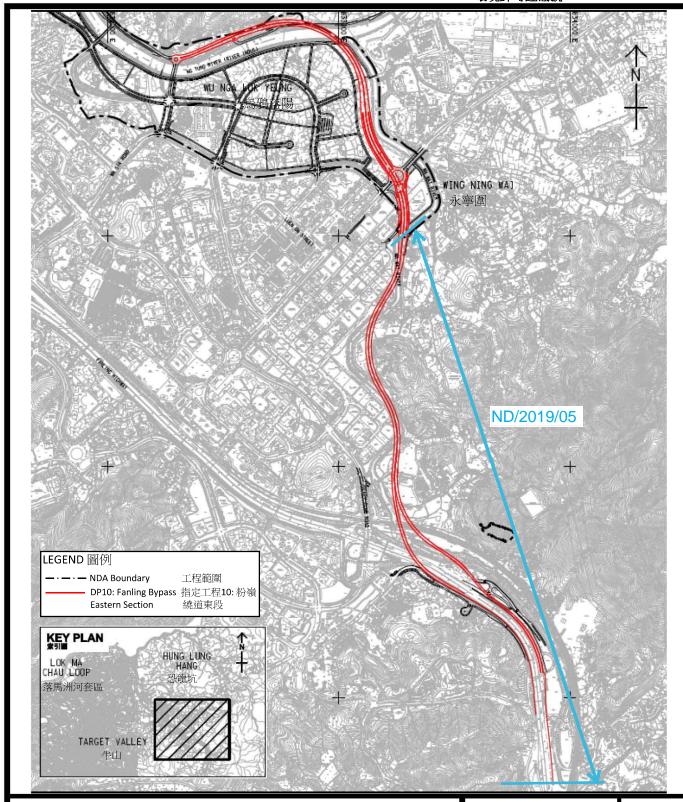
EP-473/2013/A



Figure 20

Site Layout Plan of Contract ND/2019/05

under EP-473-2013-A



Project Title: Fanling Bypass Eastern Section

工程名稱: 粉嶺繞道東段

Figure 1: Location Plan for the Project (Indicative)

圖 1: 工程項目位置 (示意圖)

This figure was prepared based on Figure 1.1 of VEP application (No.:VEP-526/2016) 本圖是根據申請更改環境許可證(編號: VEP-526/2016)圖1.1編制

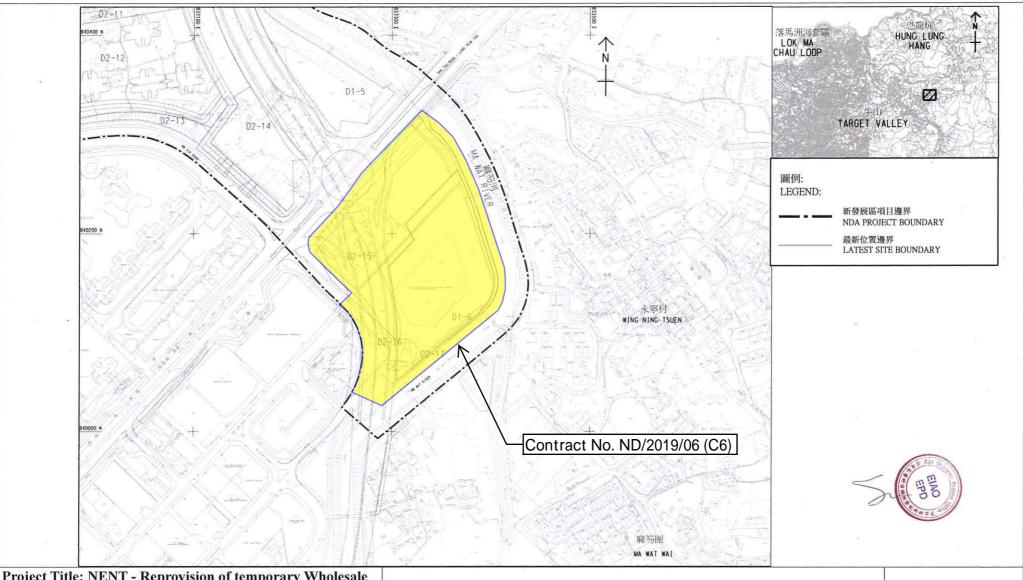
Environmental Permit No: EP-473/2013/A 環境許可證編號:

EP-473/2013/A



Figure 21

Site Layout Plan of Contract ND/2019/06 under EP-475-2013-A



Project Title: NENT - Reprovision of temporary Wholesale Market in Fanling North New Development Area 工程名稱:粉嶺北新發展區重置臨時批發市場

Environmental Permit No.: EP-475/2013/A 環境許可證編號 : EP-475/2013/A

Figure 1: Project Location Plan (Indicative)

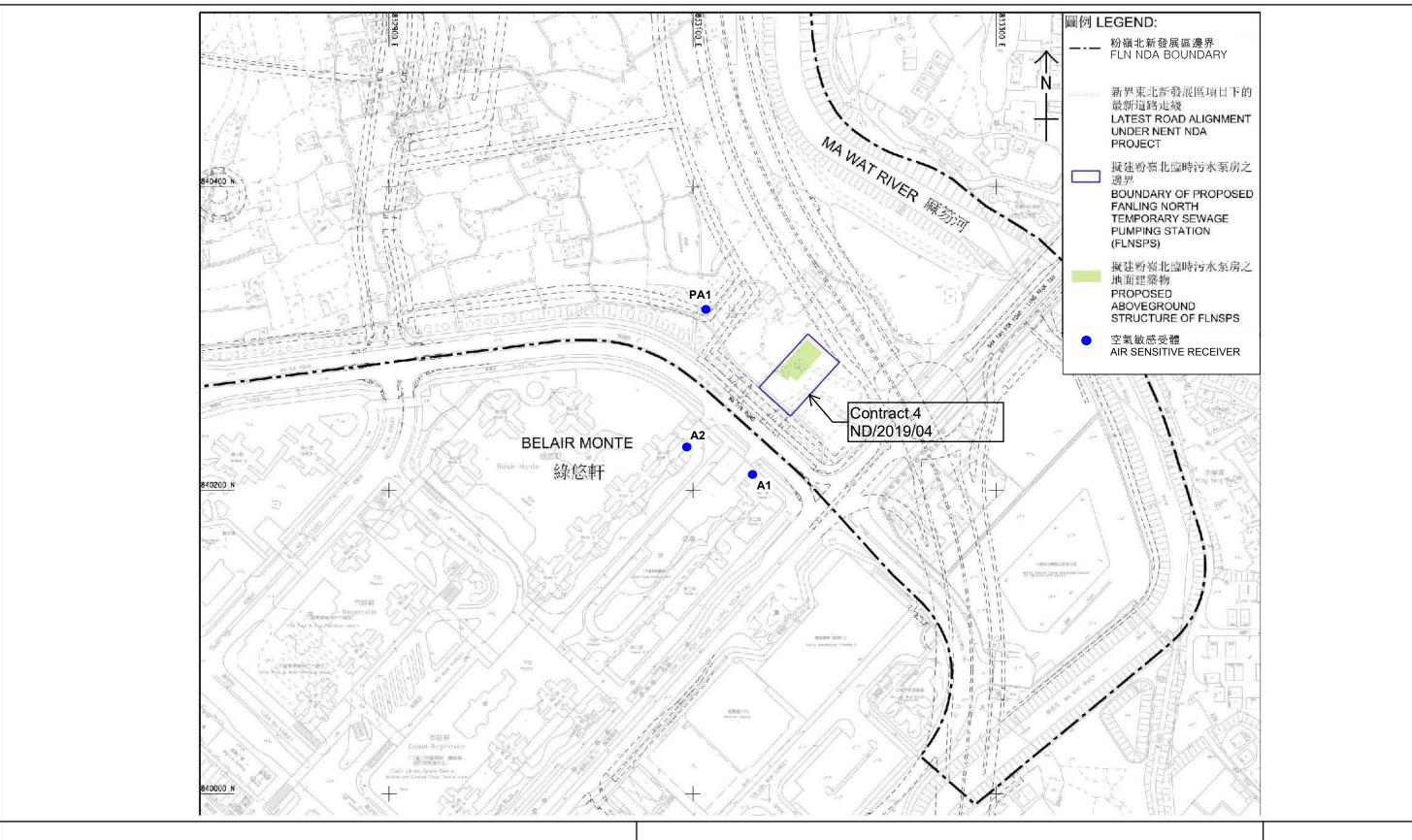
圖 1: 工程項目位置圖 (示意圖)

(This figure was prepared based on Figure 1.1 of VEP application (No.: VEP-516/2016)) (本圖是根據申請更改環境許可證(編號 VEP-516/2016) 圖 1.1 編制)



Figure 22

Site Layout Plan of Contract ND/2019/04 under EP-546-2017



Project Title: Fanling North Temporary Sewage Pumping Station

工程名稱:粉嶺北臨時污水泵房

Environmental Permit No.: EP-546/2017 環境許可證編號 : EP-546/2017

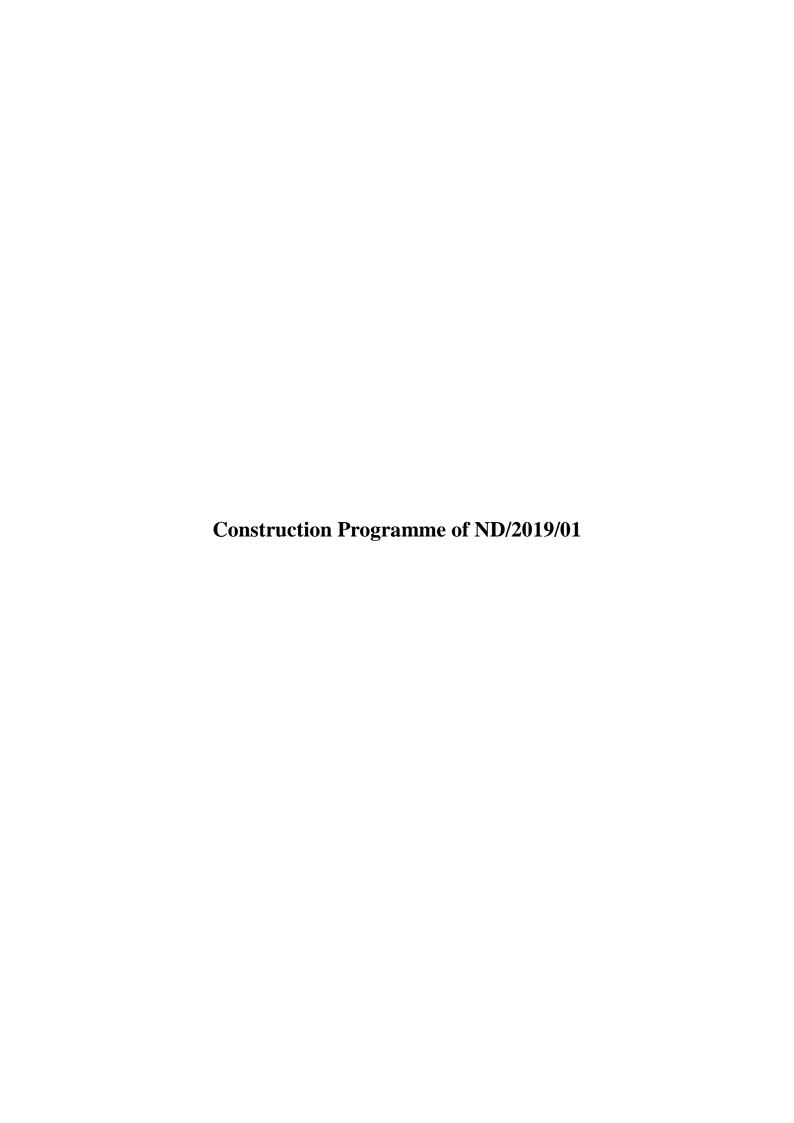
Figure 1: Project Location Plan (Indicative)

圖 1:工程項目位置圖 (示意圖)

(This figure was prepared based on Figure 1.1 of Project Profile No: PP-557/2017 (本圖是根據工程項目簡介編號: PP-557/2017 圖 1.1 編制)



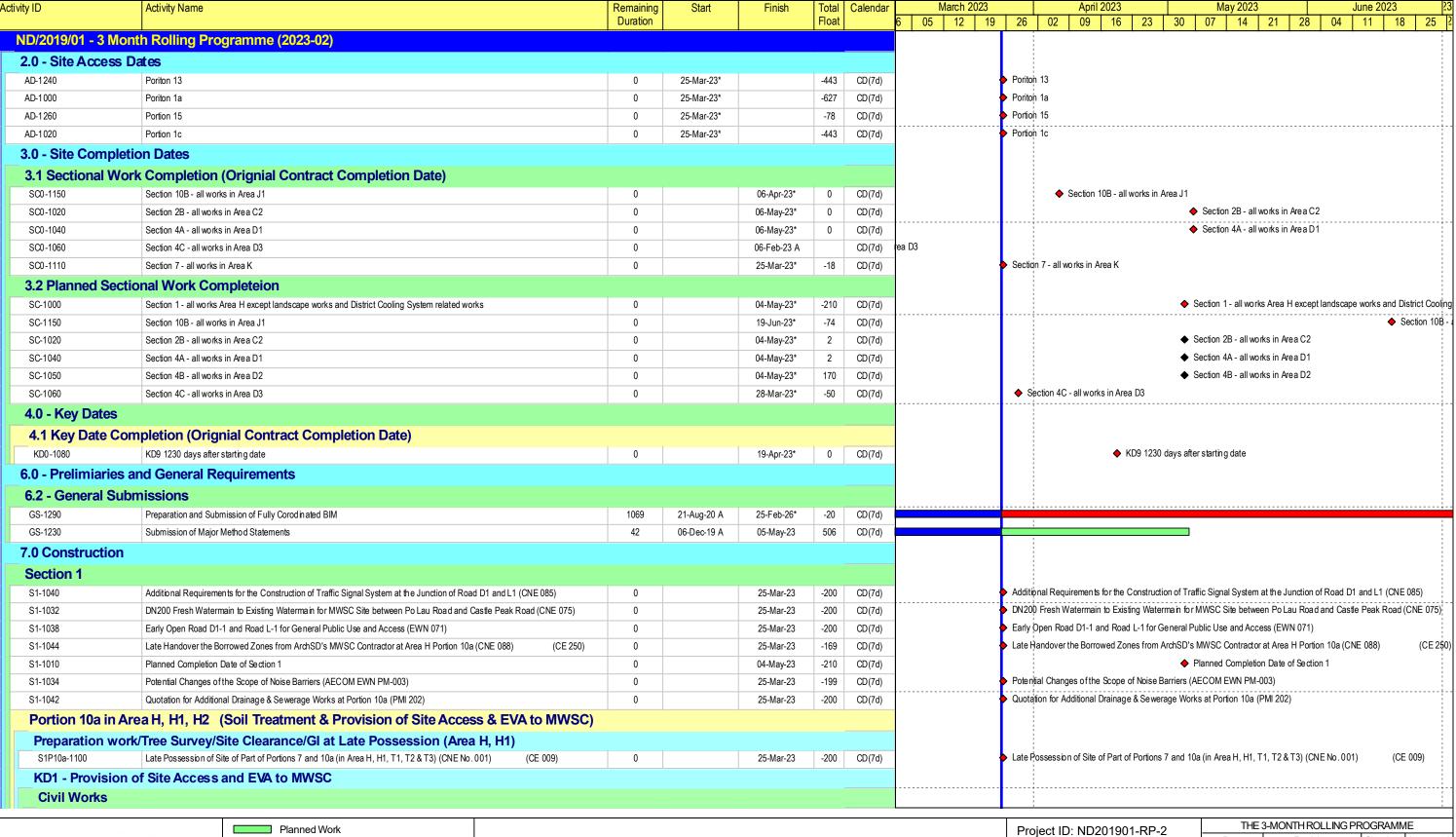
APPENDIX A CONSTRUCTION PROGRAMME





ND/2019/01 - Kwu Tung North New Development Area, Phase 1:Site Formation and Infrastructure Works







Joint Venture

Critical Work
Actual Work

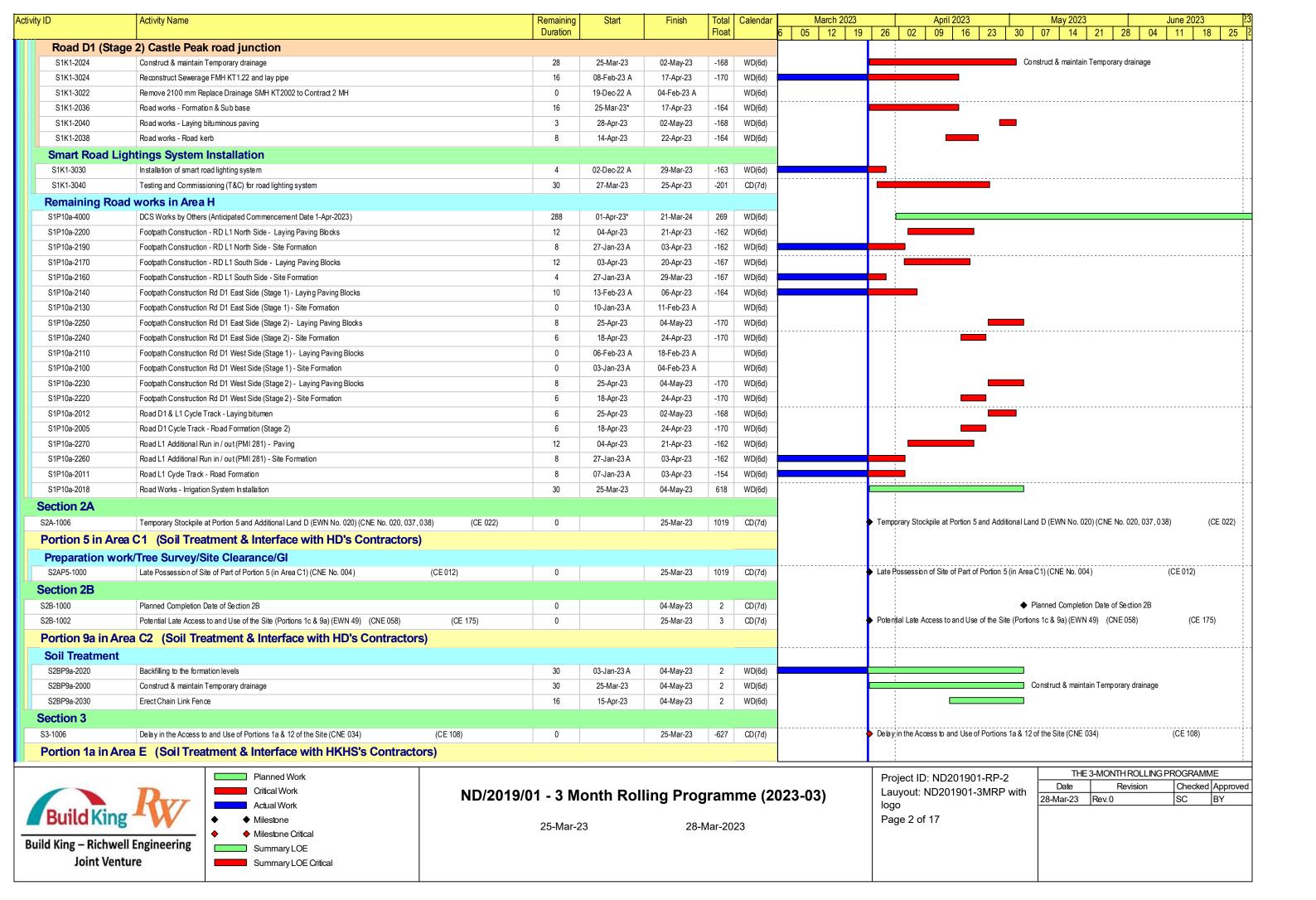
Milestone
Milestone Critical
Summary LOE
Summary LOE Critical

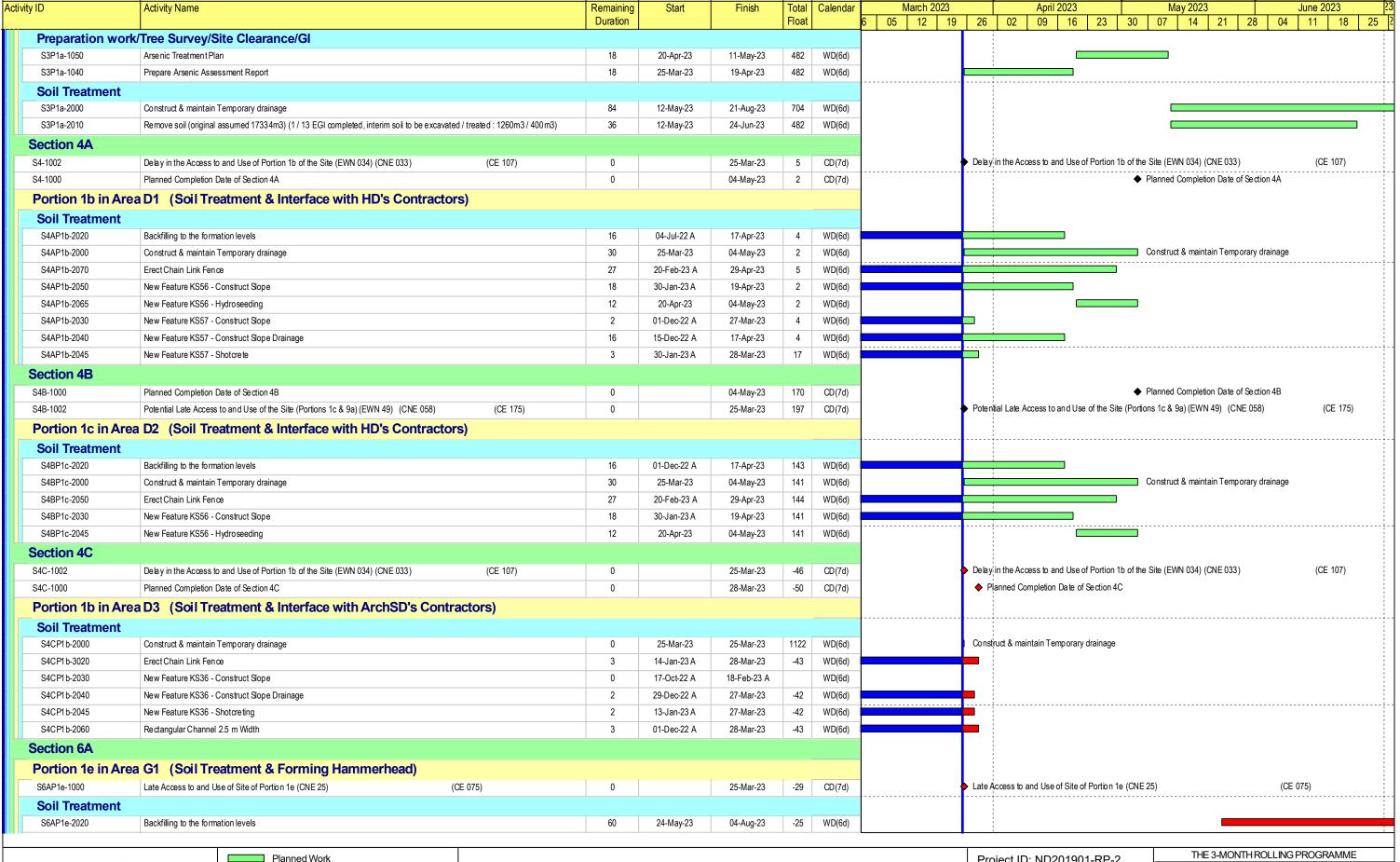
ND/2019/01 - 3 Month Rolling Programme (2023-03)

25-Mar-23 28-Mar-2023

Project ID: ND201901-RP-2 Lauyout: ND201901-3MRP with logo Page 1 of 17

THE 3-MONTH MOLLING FROGRAMMINE					
Date	Revision	Checked	Approved		
-Mar-23	Rev. 0	SC	BY		







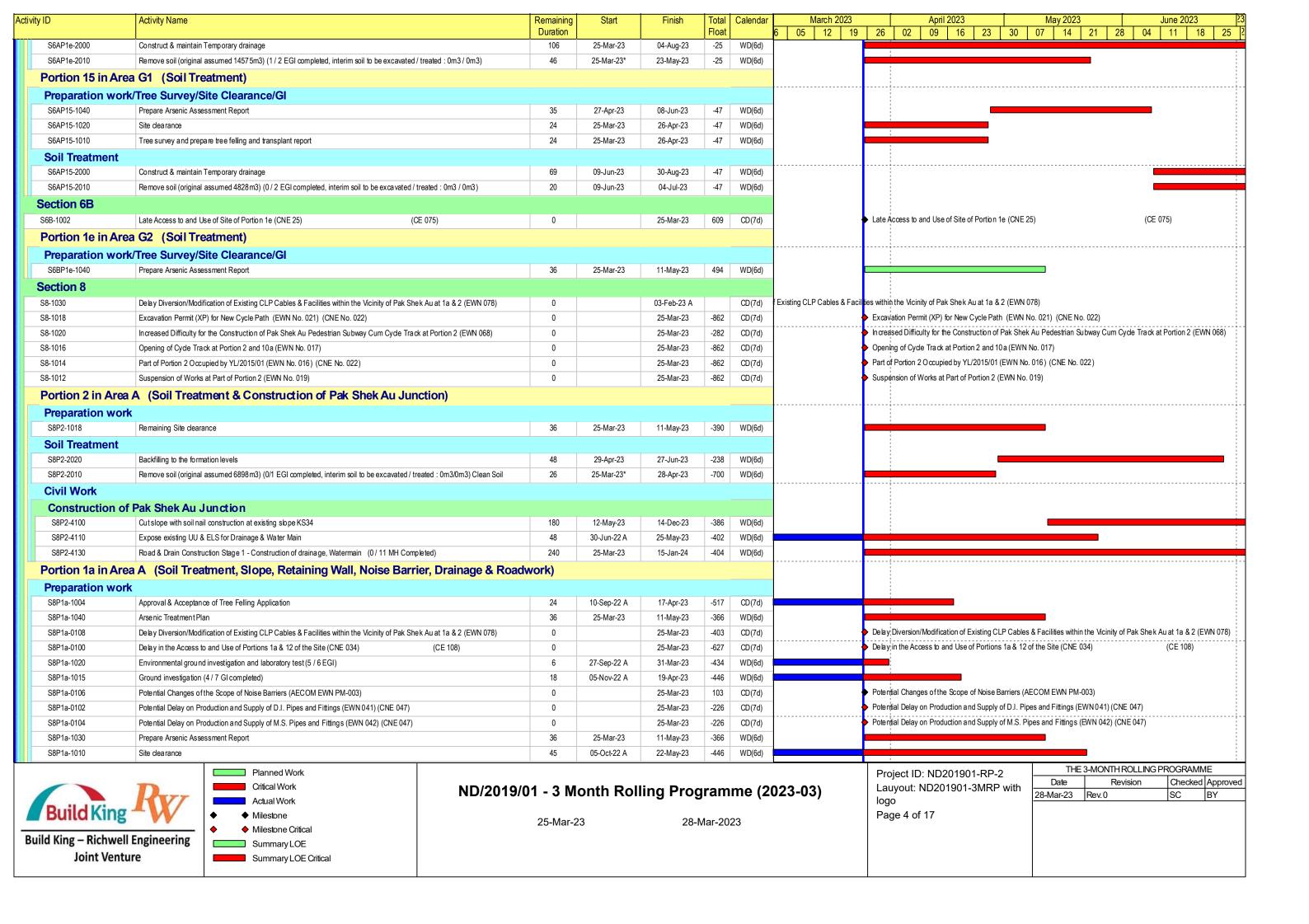


ND/2019/01 - 3 Month Rolling Programme (2023-03)

25-Mar-23

Project ID: ND201901-RP-2
Lauyout: ND201901-3MRP with
logo
Page 3 of 17

Date	Revision	Checked	Approved
28-Mar-23	Rev. 0	SC	BY
		•	



tivity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	March 2023 6 05 12 19	9 26	April 2023	23 30 07	May 2023 28	June 2023 04 11 18 25
S8P1a-1025	Verification of Ground Condition & Design Review by Project Manager	60	20-Apr-23	18-Jun-23	-551	CD(7d)	0 03 12 13	9 20	02 09 10	23 30 07	14 21 20	04 11 10 23
Soil Treatment	<u> </u>								1			
S8P1a-2020	Backfilling to the formation levels	35	21-Jun-23	02-Aug-23	-344	WD(6d)						
S8P1a-2010	Remove soil (original assumed 10988m3) (0 / 6 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	33	12-May-23*	20-Jun-23	-366	WD(6d)	_		1			
Civil Work			,									
S8P1a-3000	Construct & maintain Temporary drainage	709	19-Jun-23	07-Nov-25	-444	WD(6d)			1			
S8P1a-7000	Excavation for retaining wall KW16	45	19-Jun-23	11-Aug-23	-444	WD(6d)	_					
S8P1a-3020	Slopeworks for new feature KS03 (with about 200 nos. of soil nails)	84	19-Jun-23	26-Sep-23	-397	WD(6d)			-			
S8P1a-3010	Slopeworks for new feature KS34 (with about 200 nos. of soil nails)	84	19-Jun-23	26-Sep-23	-397	WD(6d)	_					
Portion 3 in Ar	rea A (Soil Treatment, Drainage & Roadwork)			'								
Preparation w	Assumed Handover Date of Portion 3 (Late Possession) (CNE No. 005) (CE 015)	0	25-Mar-23*		-147	CD(7d)		Acc.	imed Handover Date of Portio	n 3 (Late Desession)	(CNE No. 005)	(CE 015)
S8P3-0104	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0	25-Wai-25	25-Mar-23	26	CD(7d)			eased Risk for Damages to Ex		`	
S8P3-0106	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Mar-23	236	CD(7d)	_		ntial Changes of the Scope of	0 , 0	, , ,	(00)
S8P3-0102	Potential Delay on Production and Supply of D.I. Pipes and Fittings (EWN 041) (CNE 047)	0		25-Mar-23	26	CD(7d)	_		ntial Delay on Production and	·	,	47)
S8P3-0103	Potential Delay on Production and Supply of M.S. Pipes and Fittings (EWN 041) (CNE 047) Potential Delay on Production and Supply of M.S. Pipes and Fittings (EWN 042) (CNE 047)	0		25-Mar-23	26	CD(7d)	_		ntial Delay on Production and			,
		0		20-11101-20	20	OD(ru)		1 010	in being off Froduction and	oupply of M.O. 1 ipos c	ma riungo (Evvivo-2) (Orve	J-11)
Soil Treatment	Backfilling to the formation levels	45	25-Mar-23	22-May-23	-121	WD(6d)			 			
	Backlining to the formation levels	40	25-IVIAI-25	22-IVIay-23	-121	VVD(0u)			1			
Civil Work	Outstand Outstand Transcorrent debits and	400	05 Mar 02	07.0 04	404	M/D/C-I)						
S8P3-3000	Construct & maintain Temporary drainage	432	25-Mar-23	07-Sep-24	-121	WD(6d)	_					
S8P3-3005	Slopeworks (KS53 cut slope)	88 45	23-May-23	05-Sep-23	-121	WD(6d)	_					
S8P3-3010.00	Underground Drainage work (SMH1007 to 1008) (0 / 5 Completed)	45	06-Aug-22 A	22-May-23	-121	VVD(6u)						
	rea A (Soil Treatment, Bored Pile Wall, Drainage & Roadwork)											
	ork/Tree Survey/Site Clearance/Gl			1								
S8P5-0102	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0		25-Mar-23	-227	CD(7d)	_		gn Layout and Profile for the V		,	
S8P5-0108	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Mar-23	-218	CD(7d)	_		eased Risk for Damages to Ex		, , , ,	160)
S8P5-0110	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Mar-23	248	CD(7d)			ntial Changes of the Scope of			
S8P5-0104	Potential Delay on Production and Supply of D.I. Pipes and Fittings (EWN 041) (CNE 047)	0		25-Mar-23	-227	CD(7d)	_		ntial Delay on Production and			
S8P5-0106	Potential Delay on Production and Supply of M.S. Pipes and Fittings (EWN 042) (CNE 047)	0		25-Mar-23	-227	CD(7d)			ntial Delay on Production and			
S8P5-0100	Resumption date from suspension of works at part of Portions 5 & 6a (CNE No. 002) (EWN No. 005) (CE 018)	0		25-Mar-23	-227	CD(7d)	_		umption date from suspension	·	, , ,	WN No. 005) (CE 018
S8P5-0000	The footing detail for Roadside Directional Sign ADS30 at Portion 5 (EWN 043)	0		25-Mar-23	1384	CD(7d)		→ The	footing detail for Roadside Dir	ectional Sign ADS30 a	t Portion 5 (EWN 043)	
	according to CSD for Alternative on Bored Pile Wall		ı	1								
S8P5-2005	Construct & maintain Temporary drainage	521	25-Mar-23	24-Dec-24	-240	WD(6d)			!			
Civil Work												
S8P5-4002	Divert Local Road	72	19-Apr-22 A	24-Jun-23	-137	WD(6d)						
S8P5-4014	Drainage works across DJ watermain (SMH1006a and pipe laying to 1006) (CNE 060, EC-1086)	90	25-Mar-23	17-Jul-23	-179	WD(6d)	_					
S8P5-4004.02	Underground Fresh & Flushing watermains (South bound Carriageway)	24	30-Jul-22 A	26-Apr-23	-187	WD(6d)				-		
S8P5-4004.01	Underground Fresh watermain (North bound Carriageway) CH 690 to CH 770	110	25-Mar-23	09-Aug-23	-195	WD(6d)	_					_
S8P5-4010	Underground utilities (North bound Carriageway)	64	15-Jun-23	30-Aug-23	-195	WD(6d)	_					
Portion 6a & 6	b in Area A (Soil Treatment, Bored Pile Wall, Drainage & Roadwork)								1 1 1			
S8P6a-0002	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0		25-Mar-23	-601	CD(7d)		De ta	nils of DCS pipe at D4-1 & D5	Road (EWN 030)		
S8P6a-0003	Entrustment of Works for Installation of District Cooling System (DCS) pipelines along Road D4-1 (EWN 033)	0		25-Mar-23	-601	CD(7d)			stment of Works for Installation			
S8P6a-0005	Further Changes to the Works Information for the Construction of DCS Pipes at Road D4-1 (PMI 155 CE157) (CNE 095)	0		25-Mar-23	-120	CD(7d)			her Changes to the Works Info	rmation for the Constru	uction of DCS Pipes at Road [04-1 (PMI 155 CE157) (CNE 09
S8P6a-0004	Insufficient Design Information and Construction Details for the Works of Tentative N B adiacent to KB01 (EWN 079)	0		25-Mar-23	-45	CD(7d)		h sut	fficient Design Information and	Construction Details f	or the Works of Tentative N B	adia cent to KB01 (EWN 079)
Preparation w	ork/Tree Survey/Site Clearance/Gl								1 1 1			
S8P6a-1000	Resumption date from suspension of works at part of Portions 5 & 6a (CNE No. 002) (EWN No. 005) (CE 018)	0		25-Mar-23	17	CD(7d)		Resu	umption date from suspension	of works at part of Por	tions 5 & 6a (CNE No. 002) (E	WN No. 005) (CE 018
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	Planned Work							l l	oject ID: ND201901		Date Revision	II .
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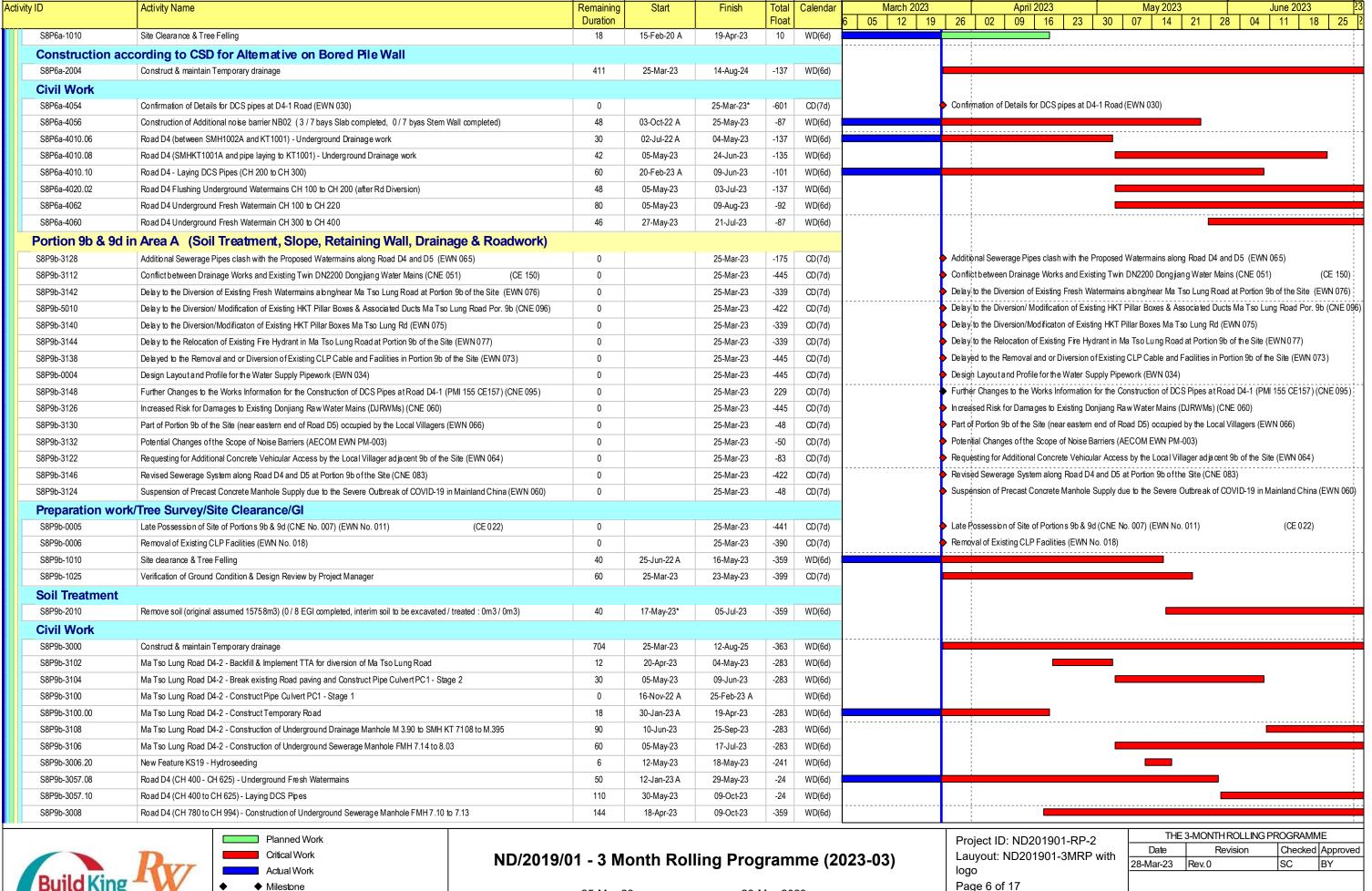
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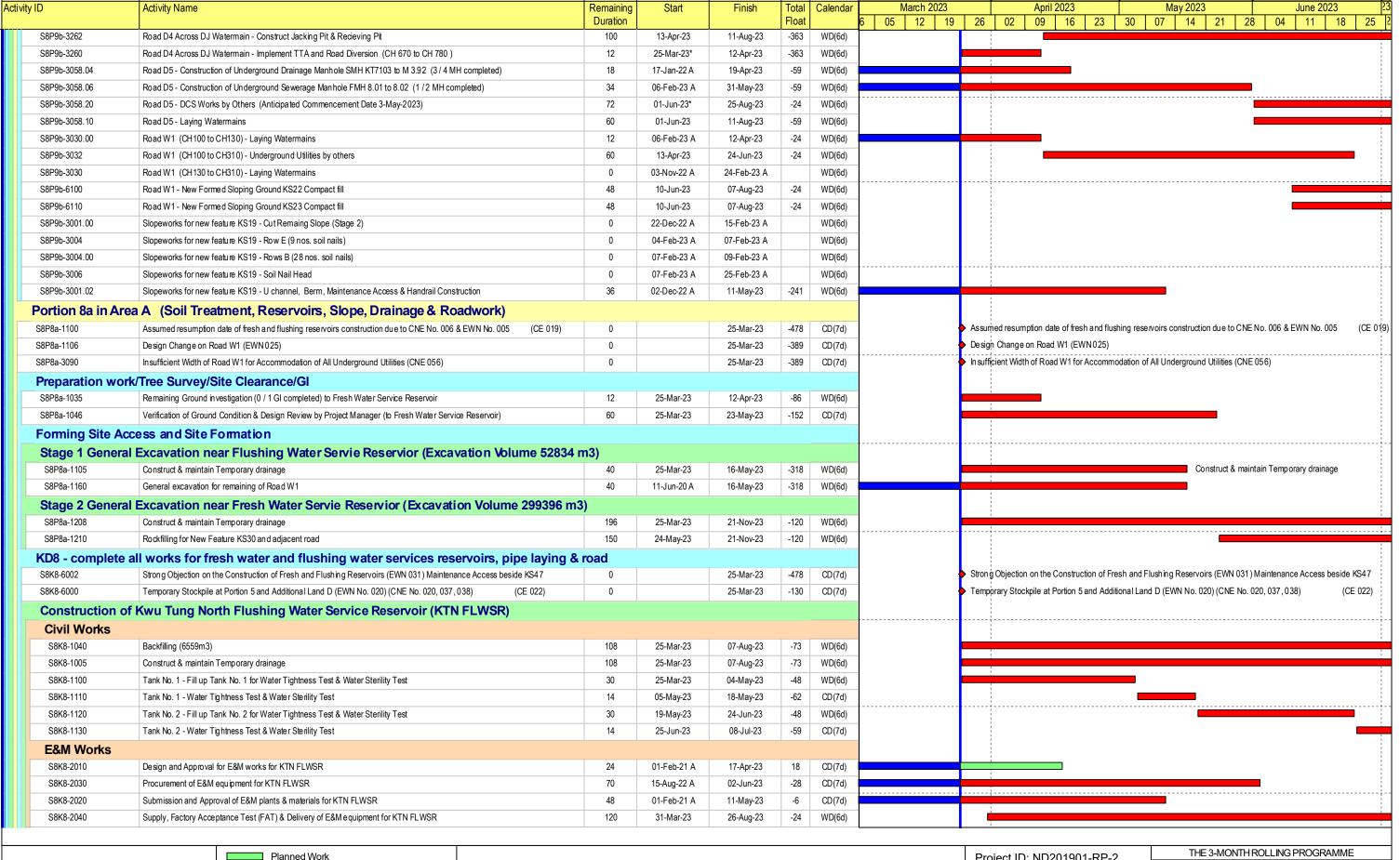
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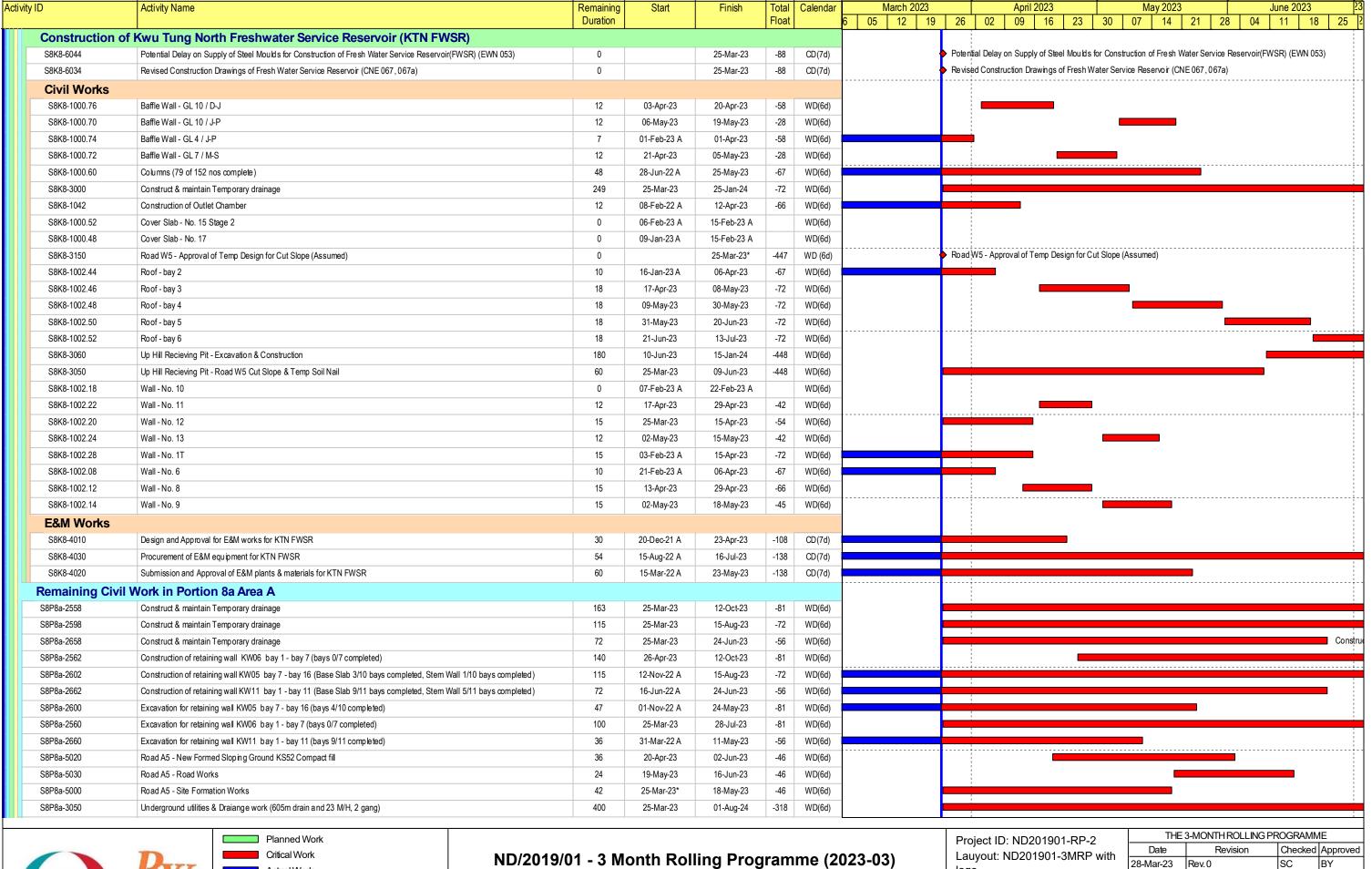


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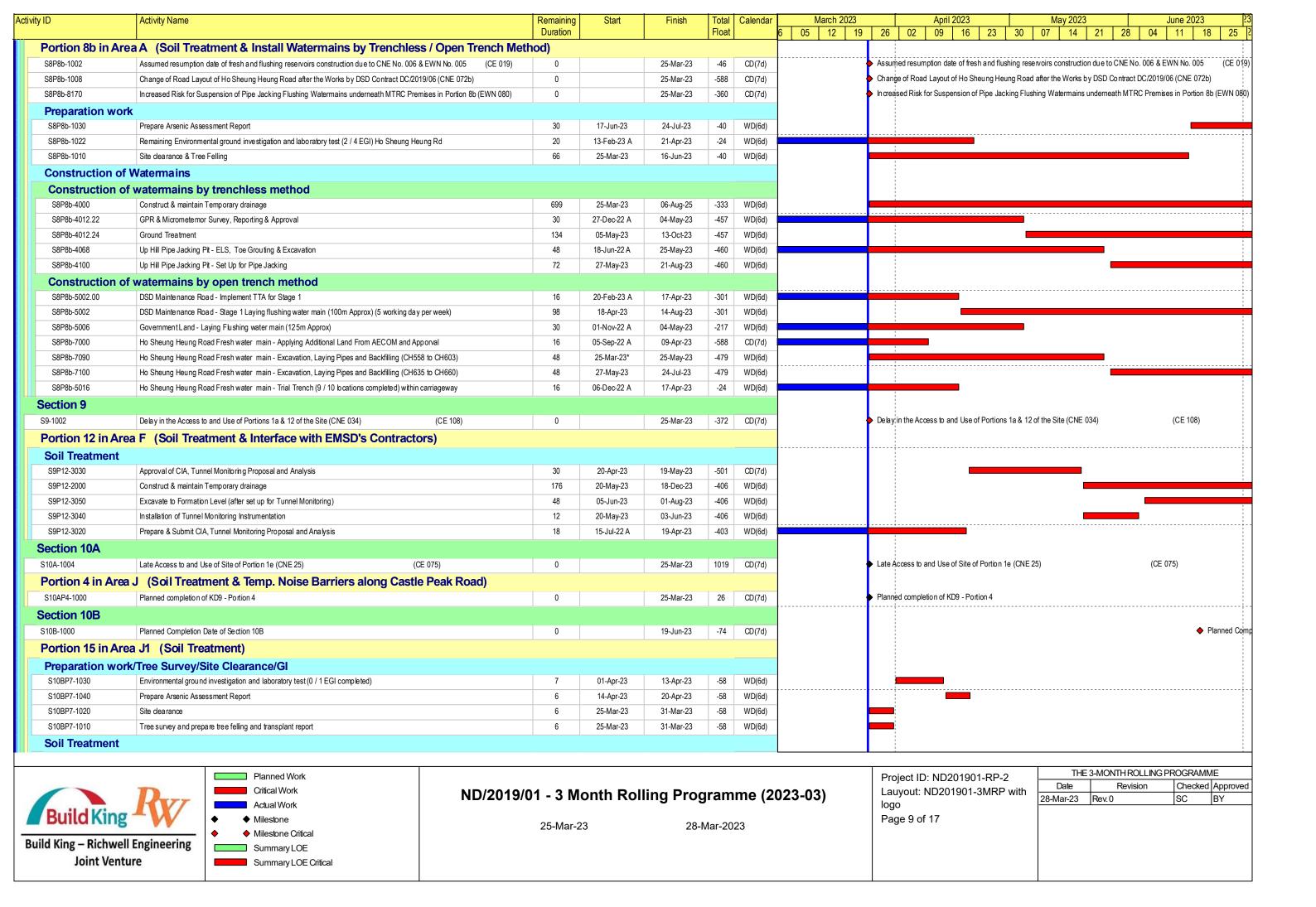
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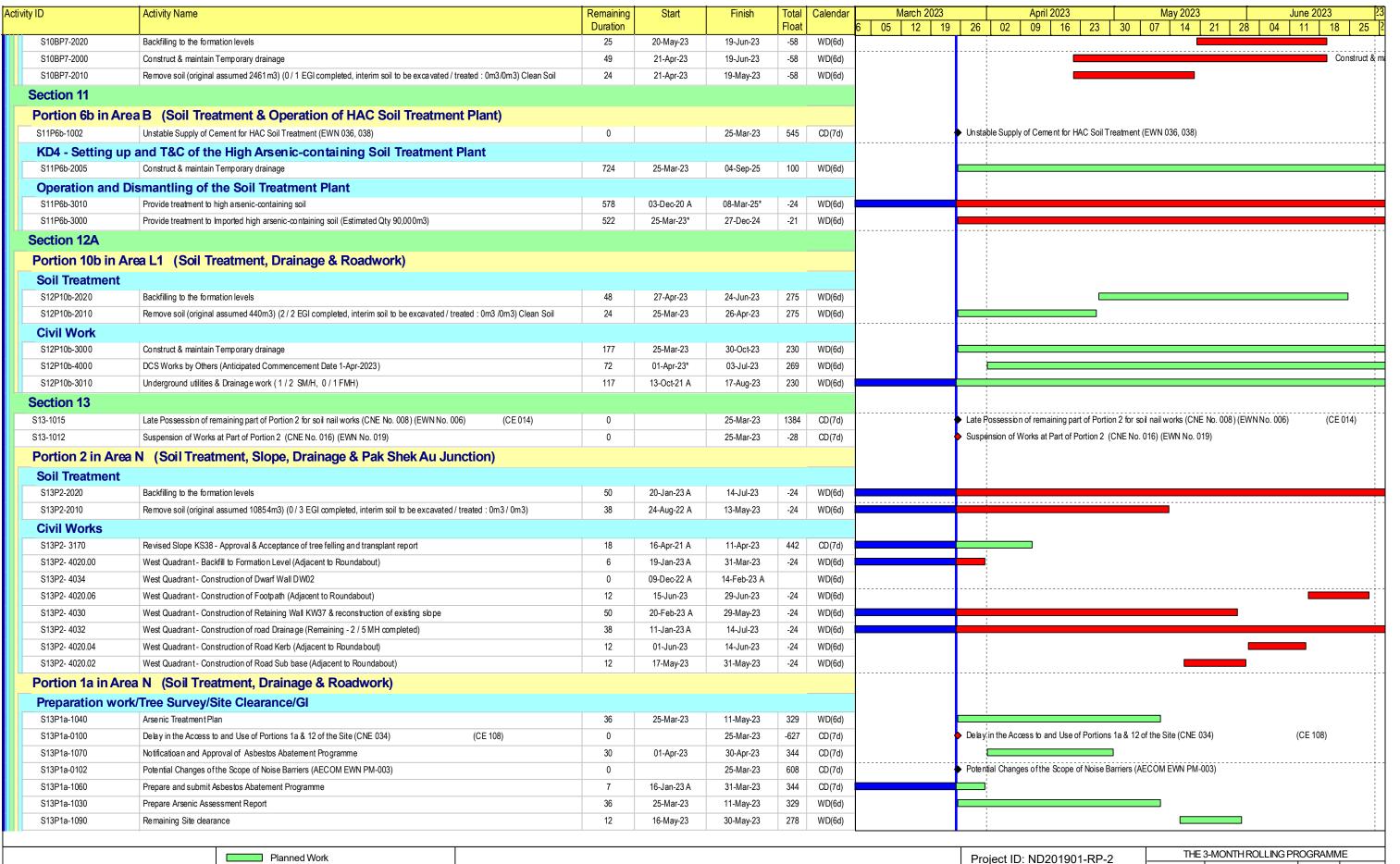
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soil (original assumed 14182m3) (0 / 4 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3) & maintain Temporary drainage und utilities & Drainage work (0 / 11 SMH & 0 / 4 FM/H Completed) il Treatment, Drainage & Roadwork) Changes of the Scope of Noise Barriers (AECOM EWN PM-003) urvey/Site Clearance/GI Arsenic Assessment Report & maintain Temporary drainage ks by Others und drainage (2 / 8 M/H completed) oil Treatment, Drainage & Roadwork) urvey/Site Clearance/GI he Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107) & maintain Temporary drainage ion of Sewerage	Duration 24 46 442 314 0 6 6 77 0 0 168 168	02-May-23 31-May-23 31-May-23 31-May-23 16-Jul-20 A 25-Mar-23 10-Feb-23 A 18-Jun-21 A	30-May-23 25-Jul-23 21-Nov-24 20-Jun-24 25-Mar-23 31-Mar-23 03-Jul-24 08-Jul-23 09-Feb-23 A	278 278 278 278 278 396 396 396 396 396	WD(6d) WD(6d) WD(6d) WD(6d) WD(6d) WD(6d) WD(6d) WD(6d)	6 05 12 19	◆ Potentia	02 09 16 23 30 07 14 21 28 04 11 18 25
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und drainage (2 / 8 WH completed) oil Treatment, Drainage & Roadwork) urvey/Site Clearance/GI the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107) & maintain Temporary drainage ion of Sewerage	0 0 168		09-Feb-23 A		WD(6d)			
oil Treatment, Drainage & Roadwork) urvey/Site Clearance/GI he Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107) & maintain Temporary drainage ion of Sewerage	0 168	IO-JUII-Z I A		-46	,			
turvey/Site Clearance/GI he Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) & maintain Temporary drainage ion of Sewerage			25-Mar-23	-46			- -	
he Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107) & maintain Temporary drainage ion of Sewerage			25-Mar-23	-46		İ		
& maintain Temporary drainage ion of Sewerage			25-Mar-23	-46				
ion of Sewerage				10	CD(7d)		Delay ir	n the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107)
ion of Sewerage				, , ,				
<u> </u>		25-Mar-23	18-Oct-23	633	WD(6d)		1	
	30	30-Dec-22 A	04-May-23	627	WD(6d)			
ion of Underground Drainage (3 / 5 M/H complete)	30	10-Jun-22 A	04-May-23	627	WD(6d)		1	
Watermain	60	05-May-23*	17-Jul-23	627	WD(6d)			
(Soil Treatment, Noise Barrier, Drainage & Roadwork)								
urvey/Site Clearance/Gl								
ayout and Profile for the Water Supply Pipework (EWN 034)	0		25-Mar-23	429	CD(7d)		▶ De sign	Layout and Profile for the Water Supply Pipework (EWN 034)
Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Mar-23	429	CD(7d)		◆ In crease	ed Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)
Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Mar-23	763	CD(7d)		◆ Potentia	al Changes of the Scope of Noise Barriers (AECOM EWN PM-003)
on date from suspension of works at part of Portions 5 & 6a (CNE No. 002) (EWN No. 004) (CE 018)	0		25-Mar-23	429	CD(7d)		Resum	ption date from suspension of works at part of Portions 5 & 6a (CNE No. 002) (EWN No. 004) (CE 018)
to the formation levels	60	05-May-23	17-Jul-23	525	WD(6d)			
soil (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil	30	25-Mar-23*	04-May-23	524	WD(6d)			
& maintain Temporary drainage	439	25-Mar-23	16-Sep-24	362	WD(6d)		1	
ks by Others (Anticipated Commencement Date 2-May-2023)	288	02-May-23*	19-Apr-24	390	WD(6d)			
works across DJ watermain (CNE 060, EC-1086)	160	25-Mar-23	09-Oct-23	344	WD(6d)		-	
und utilities & Drainage work (0 / 5 SM/H & 0 / 3 FMH)	265	01-Apr-23	23-Feb-24	344	WD(6d)		Į.	
oil Treatment, Drainage & Roadwork)								
Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)	0		25-Mar-23	794	CD(7d)		Revised	d Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)
urvey/Site Clearance/Gl			1					
Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Mar-23	486	CD(7d)		Potentia	al Changes of the Scope of Noise Barriers (AECOM EWN PM-003)
Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0		25-Mar-23	590	CD(7d)		Potentia	al Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)
			<u> </u>					
to the formation levels	0	13-Jun-22 A	18-Feb-23 A		WD(6d)			
	-				(**/			
ks wo	the formation levels if (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil maintain Temporary drainage by Others (Anticipated Commencement Date 2-May-2023) orks across DJ watermain (CNE 060, EC-1086) dutilities & Drainage work (0 / 5 SM/H & 0 / 3 FMH) il Treatment, Drainage & Roadwork) ise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081) rvey/Site Clearance/GI nanges of the Scope of Noise Barriers (AECOM EWN PM-003) the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	the formation levels of the formation levels of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil of (original assumed 566m3) (Clean Soil) (Clean Soil of (o	to the formation levels of the formation leve	the formation levels it (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil it (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil it (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil 30 25-Mar-23* 04-May-23* 16-Sep-24 ib y Others (Anticipated Commencement Date 2-May-2023) 288 02-May-23* 19-Apr-24 orks across DJ watermain (CNE 060, EC-1086) 160 25-Mar-23 09-Oct-23 id utilities & Drainage work (0 / 5 SWH & 0 / 3 FMH) 265 01-Apr-23 23-Feb-24 iil Treatment, Drainage & Roadwork) ise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081) 7 vey/Site Clearance/GI Panges of the Scope of Noise Barriers (AECOM EWN PM-003) the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175) 0 25-Mar-23	the formation levels of the Sep-24 of t	be the formation levels of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the formation levels of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) of the Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058)	to the formation levels to the formation levels 60	by the formation levels 1



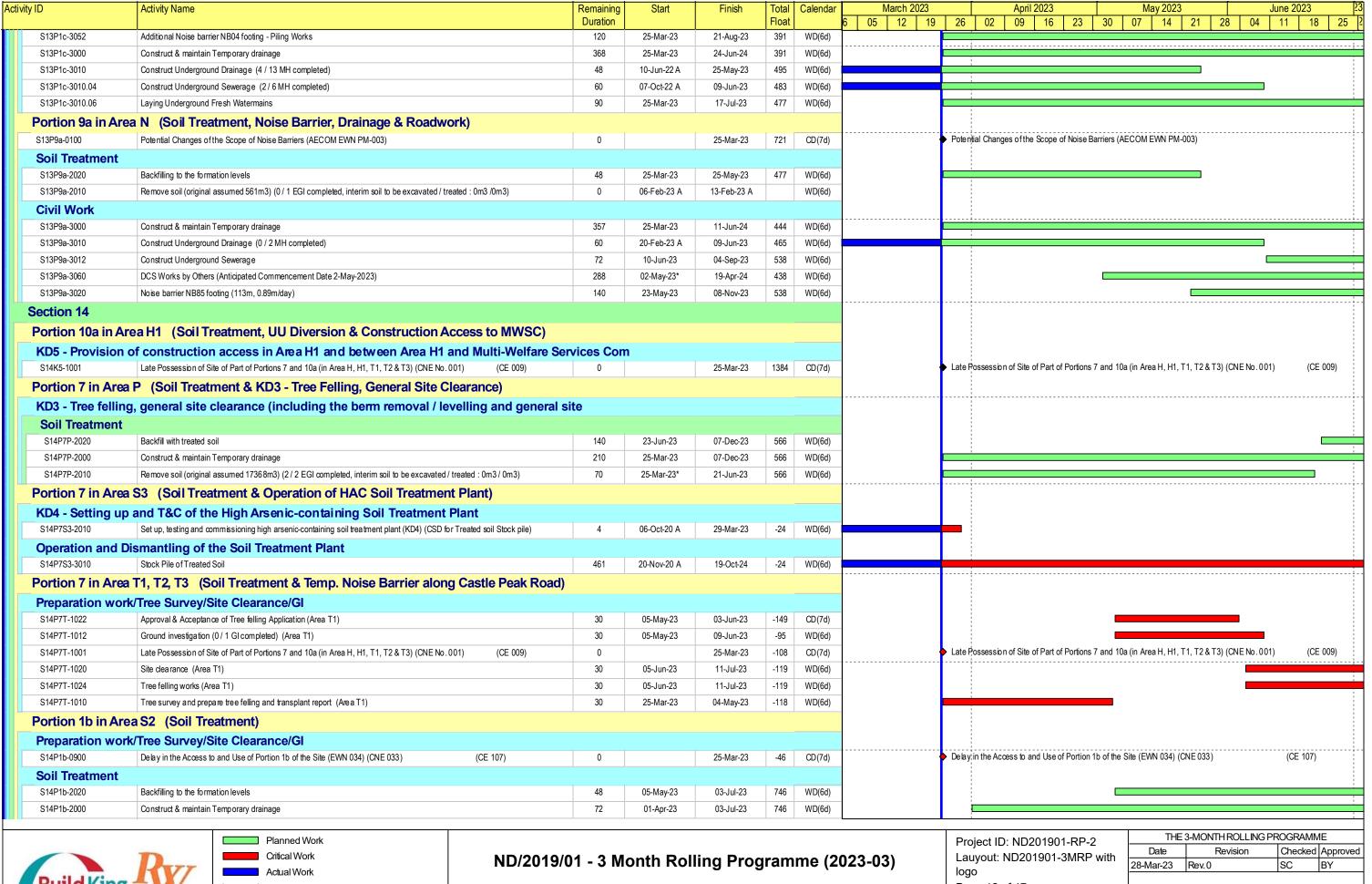


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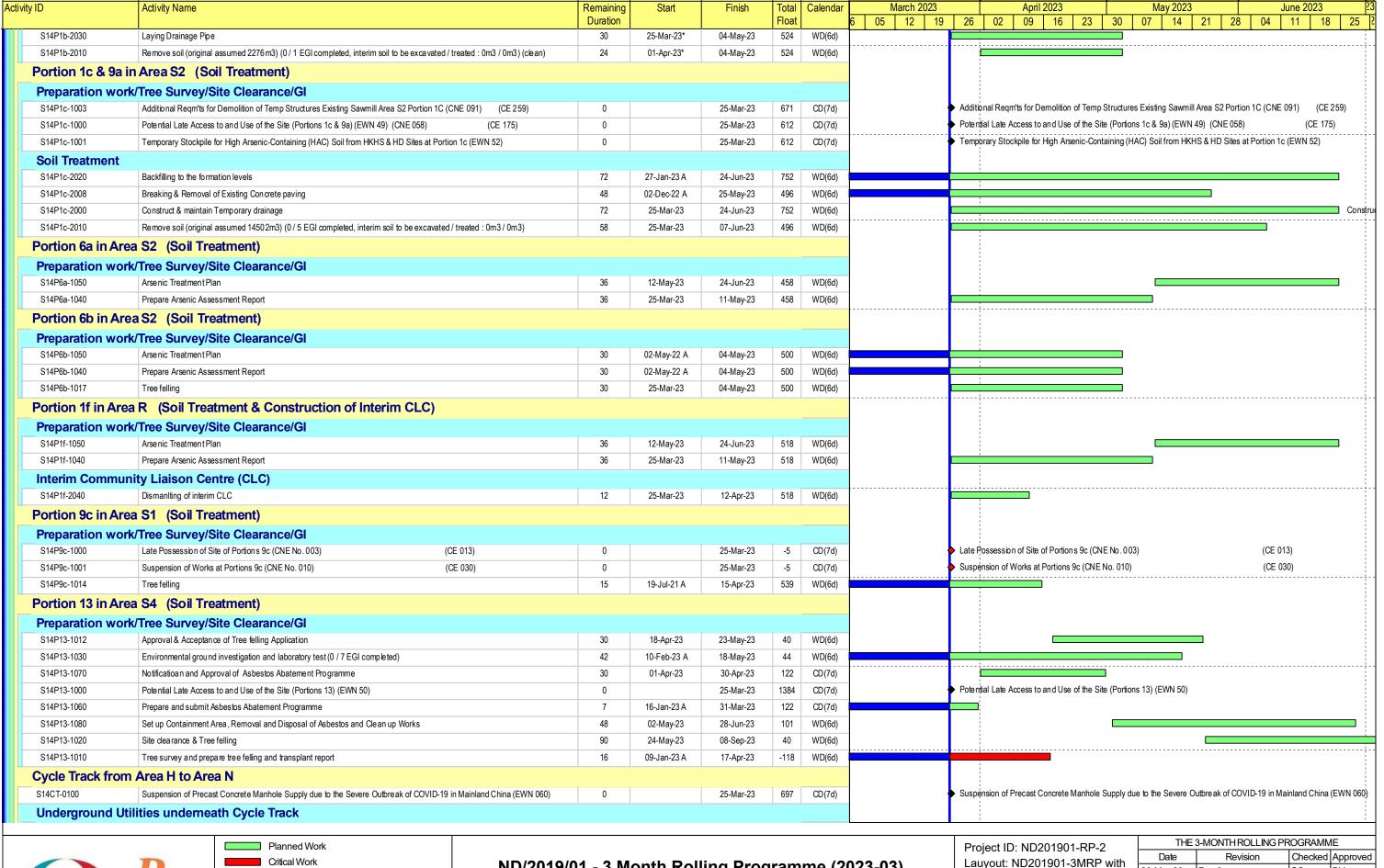






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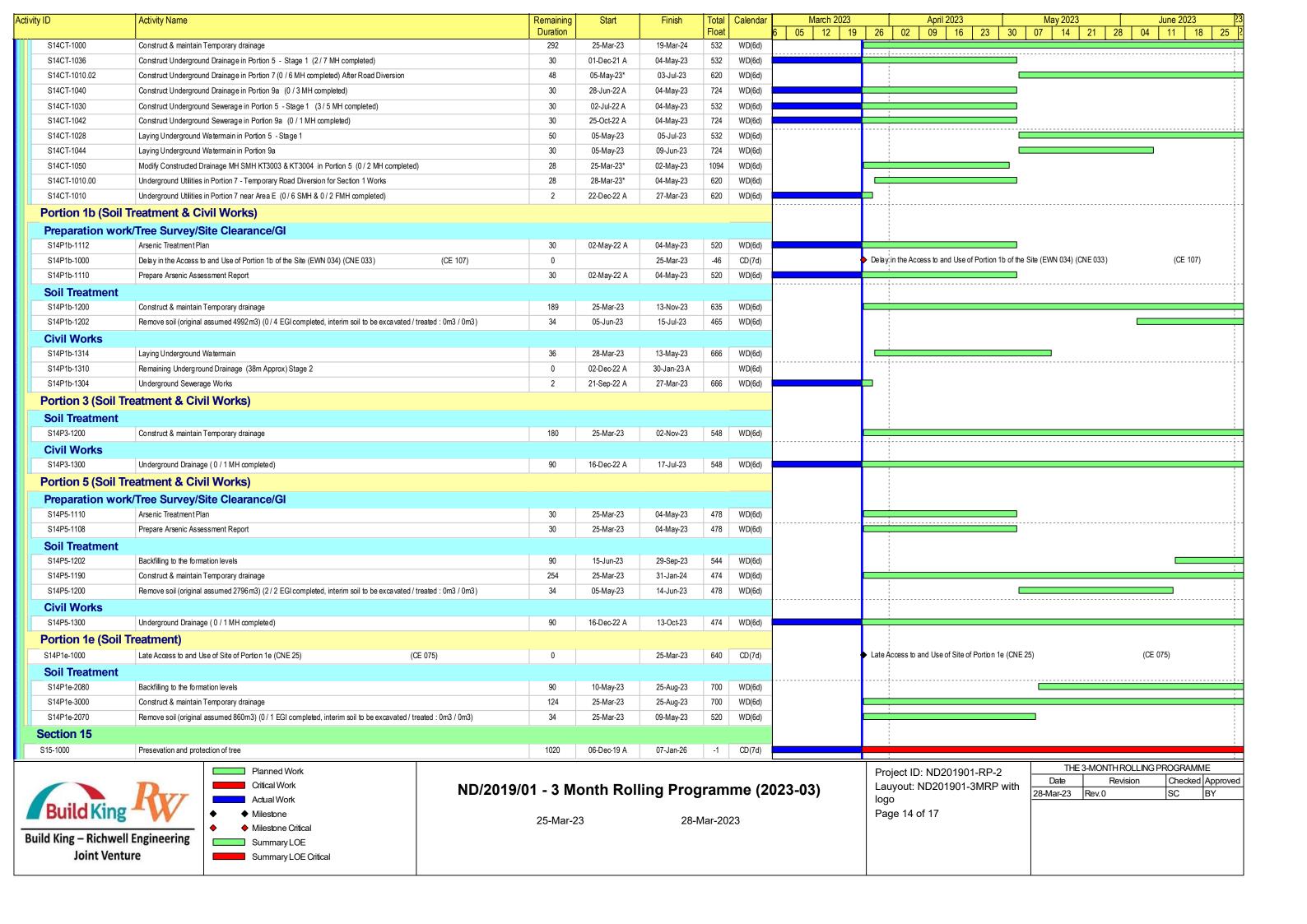
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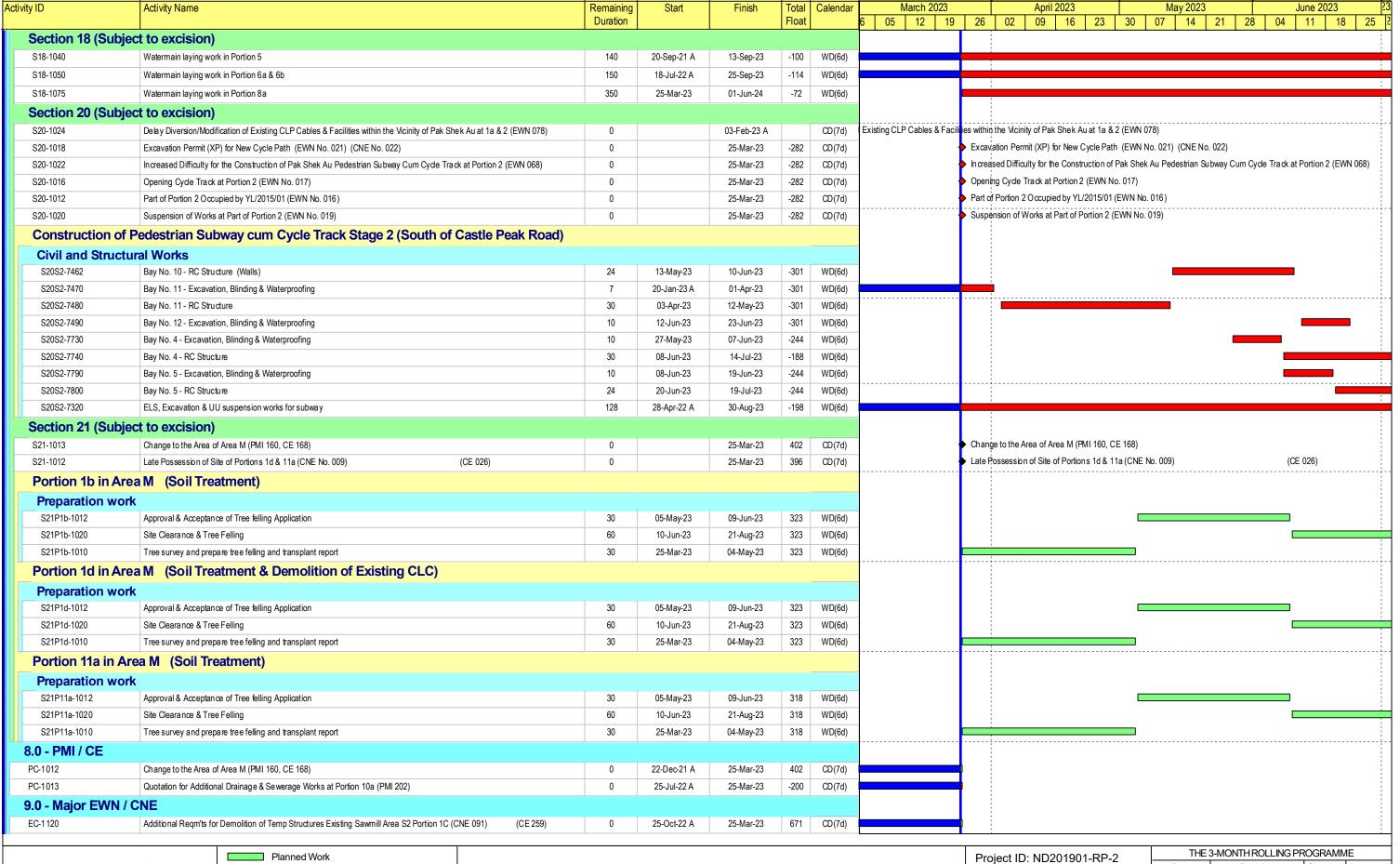
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Build King – Richwell Engineering
Joint Venture



Summary LOE Critical

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EC-1111 EC-1089 EC-1087 EC-1067 EC-1068 EC-1107 EC-1079 EC-1045 EC-1046	Additional Requirements for the Construction of Traffic Signal System at the Junction of Road D1 and L1 (CNE 085) Additional Sewerage Pipes clash with the Proposed Watermains along Road D4 and D5 (EWN 065) Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b) Conflict between Drainage Works and Existing Twin DN2200 Dongjang Water Mains (CNE 051) (CE 150) Conflict between Drainage Works and Water Mains in Road W1 (CNE 052) Delay Diversion/Modification of Existing CLP Cables & Facilities within the Vicinity of Pak Shek Au at 1a & 2 (EWN 078) Delay in Supply of Precast Concrete Pipe due to the Severe Outbreak of Omicron (EWN 056)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30-Jul-22 A 27-Apr-22 A 20-Apr-22 A 29-Nov-21 A	25-Mar-23 25-Mar-23 25-Mar-23	-200 -175	CD(7d) CD(7d)	6 05 12 19 26 02 09 16 23 30 07 14 21 28 0	4 11 18 25
EC-1087 EC-1067 EC-1068 EC-1107 EC-1079 EC-1045	Additional Sewerage Pipes clash with the Proposed Watermains along Road D4 and D5 (EWN 065) Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b) Conflict between Drainage Works and Existing Twin DN2200 Dong jang Water Mains (CNE 051) (CE 150) Conflict between Drainage Works and Water Mains in Road W1 (CNE 052) Delay Diversion/Modification of Existing CLP Cables & Facilities within the Vicinity of Pak Shek Au at 1a & 2 (EWN 078)	0	20-Apr-22 A		-175	` '		
EC-1087 EC-1067 EC-1068 EC-1107 EC-1079 EC-1045	Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b) Conflict between Drainage Works and Existing Twin DN2200 Dong jang Water Mains (CNE 051) (CE 150) Conflict between Drainage Works and Water Mains in Road W1 (CNE 052) Delay Diversion/Modification of Existing CLP Cables & Facilities within the Vicinity of Pak Shek Au at 1a & 2 (EWN 078)	0	20-Apr-22 A					
EC-1067 EC-1068 EC-1107 EC-1079 EC-1045	Conflict between Drainage Works and Existing Twin DN2200 Dong jang Water Mains (CNE 051) (CE 150) Conflict between Drainage Works and Water Mains in Road W1 (CNE 052) Delay Diversion/Modification of Existing CLP Cables & Facilities within the Vicinity of Pak Shek Au at 1a & 2 (EWN 078)	0	·		-588	CD(7d)		
EC-1068 EC-1107 EC-1079 EC-1045	Conflict between Drainage Works and Water Mains in Road W1 (CNE 052) Delay Diversion/Modification of Existing CLP Cables & Facilities within the Vicinity of Pak Shek Au at 1a & 2 (EWN 078)			25-Mar-23	-445	CD(7d)		
EC-1107 EC-1079 EC-1045	Delay Diversion/Modification of Existing CLP Cables & Facilities within the Vicinity of Pak Shek Au at 1a & 2 (EWN 078)	0	02-Dec-21 A	25-Mar-23	-28	CD(7d)		
EC-1079 EC-1045		0	18-Aug-22 A	25-Mar-23	-403	CD(7d)		
EC-1045	being in dupping of the data of one of the data of the data of the order of the ord	0	16-Feb-22 A	25-Mar-23	1384	CD(7d)		
	Delay in the Access to and Use of Portion 1b of the Site (CNE 033) (CE 107)	0	06-Jul-21 A	25-Mar-23	-46	CD(7d)		
LO-1040	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0	06-Jul-21 A	25-Mar-23	-627	CD(7d)		
EC-1101	Delay to the Diversion of Existing Fresh Watermains along/near Ma Tso Lung Road at Portion 9b of the Site (EWN 076)	0	19-Jul-22 A	25-Mar-23	-339	CD(7d)		
EC-1125	Delay to the Diversion/ Modification of Existing HKT Pillar Boxes & Associated Ducts Ma Tso Lung Road Por. 9b (CNE 096)	0	14-Nov-22 A	25-Mar-23	-422	CD(7d)		
EC-1100	Delay to the Diversion/Modification of Existing HKT Pillar Boxes & Associated ducts in Ma Tso Lung Rd (EWN 075) (CNE 096)	0	15-Jul-22 A	25-Mar-23	-339	CD(7d)		
EC-1100		0	19-Jul-22 A	25-Mar-23	-339	CD(7d)		
EC-1 102 EC-1 099	Delay to the Relocation of Existing Fire Hydrant in Ma Tso Lung Road at Portion 9b of the Site (EWN 077)	0				. ,		
	Delayed to the Removal and or Diversion of Existing CLP Cable and Facilities in Portion 9b of the Site (EWN 073)		31-Mar-22 A	25-Mar-23	-445	CD (7d)		
EC-1039	Design Change on Road W1 (EWN 025)	0	22-Mar-21 A	25-Mar-23	-389	CD(7d)		
EC-1088	Design Changes to the Permanent Street Lighting Works (CNE 074)	0	04-Mar-22 A	25-Mar-23	1384	CD(7d)		
EC-1050	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0	17-Sep-21 A	25-Mar-23	-445	CD(7d)		
EC-1042	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0	21-May-21 A	25-Mar-23	-601	CD(7d)		
EC-1093	DN200 Fresh Watermain to Existing Watermain for MWSC Site between Po Lau Road and Castle Peak Road (CNE 075)	0	25-May-22 A	25-Mar-23	-200	CD(7d)		
EC-1097	Early Open Road D1-1 and Road L-1 for General Public Use and Access (EWN 071)	0	19-May-22 A	25-Mar-23	-200	CD(7d)		
EC-1049	Entrustment of Works for Installation of District Cooling System (DCS) pipelines along Road D4-1 (EWN 033)	0	18-Aug-21 A	25-Mar-23	-601	CD(7d)		
EC-1030	Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022)	0	19-Oct-20 A	25-Mar-23	-862	CD(7d)		
EC-1064	Extra Time on Production and Delivery of Road Lighting Products (EWN 51)	0	13-Dec-21 A	25-Mar-23	-199	CD(7d)		
EC-1122	Further Changes to the Works Information for the Construction of DCS Pipes at Road D4-1 (PMI 155 CE157) (CNE 095)	0	08-Nov-22 A	25-Mar-23	-120	CD(7d)		
EC-1026	Handling of Unlawful Occupied Property Affected by the Works (CNE No. 014)	0	21-Aug-20 A	25-Mar-23	1384	CD(7d)		
EC-1027	Handling of Unlawful Occupied Property Affected by the Works within the SIte (CNE No. 015)	0	31-Aug-20 A	25-Mar-23	1384	CD(7d)		
EC-1106	Inclement Weather in June 2022 (CNE 080) (CE 216)	0	02-Jun-22 A	25-Mar-23	1384	CD(7d)		
EC-1112	Inclement Weather in August 2022 (CNE 087) (CE 236)	0	03-Aug-22 A	25-Mar-23	1384	CD(7d)		
EC-1108	Indement Weather in July 2022 (CNE 082) (CE 227)	0	02-Jul-22 A	25-Mar-23	1384	CD(7d)		
EC-1104	Inclement Weather in May 2022 (CNE 078) (CE 212)	0	11-May-22 A	25-Mar-23	1384	CD(7d)		
EC-1116	Inclement Weather in October 2022 (CNE 093) (CE 273)	0	07-Oct-22 A	25-Mar-23	1384	CD(7d)		
EC-1114	Indement Weather in September 2022 (CNE 089) (CE 244)	0	19-Sep-22 A	25-Mar-23	1384	CD(7d)		
EC-1056	Indement Weather on 8th October 2021 (CNE 036) (CE 163)	0	08-Oct-21 A	25-Mar-23	1384	CD(7d)		
EC-1092	Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track at Portion 2 (EWN 068)	0	25-May-22 A	25-Mar-23	-282	CD(7d)		
EC-1086	In creased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0	31-Mar-22 A	25-Mar-23	-445	CD(7d)		
EC-1118	Increased Risk for Suspension of Pipe Jacking Flushing Watermains underneath MTRC Zone Portion 8b (EWN 080) (CNE 092)	0	18-Oct-22 A	25-Mar-23	-360	CD(7d)		
EC-1117	Insufficient Design Information and Construction Details for the Works of Tentative NB02 (EWN 079) (CNE 090)	0	17-Oct-22 A	25-Mar-23	-45	CD(7d)		
EC-1070	Insufficient Width of Road W1 for Accommodation of All Underground Utilities (CNE 056)	0	04-Jan-22 A	25-Mar-23	-389	CD(7d)		
EC-1038	Late Access to and Use of Site of Portion 1e (EWN 024) (CNE 25) (CE 075)	0	06-Apr-21 A	25-Mar-23	-29	CD(7d)		
EC-1115	Late Handover the Borrowed Zones from ArchSD's MWSC Contractor at Area H Portion 10a (CNE 088) (CE 250)	0	26-Sep-22 A	25-Mar-23	-169	CD(7d)		
EC-1007	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006) (CE 014)	0	06-Jan-20 A	25-Mar-23	1384	CD(7d)		
EC-1004	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004) (CE 012)	0	06-Apr-20 A	25-Mar-23	1019	CD(7d)		
EC-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001) (CE 009)	0	06-Apr-20 A	25-Mar-23	-200	CD(7d)		
EC-1005	Late Possession of Site of Portion 3 (CNE No. 005) (CE 015)	0	06-Apr-20 A	25-Mar-23	-147	CD(7d)		
EC-1015	Late Possession of Site of Portions 1d & 11a (CNE No. 009) (CE 026)	0	06-Jul-20 A	25-Mar-23	396	CD(7d)		
EC-1013	Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011) (CE 014) (CE 022)	0	06-Jul-20 A	25-Mar-23	-441	CD(7d)		
EC-1003	Late Possession of Site of Portions 9c (CNE No. 003) (CE 013)	0	06-Apr-20 A	25-Mar-23	-441	CD(7d)		
EC-1003	Later Supply and Installation of Traffic Signal and Ducting at the Junction of Road D1 and Road L1 in Area H (EWN 070)	0	09-Jun-22 A	25-Iviai-23 25-Feb-23 A	-5	CD(7d)		
LO-1030	Later Supply and installation of manic Signal and Ducting at the Junicity of Road D1 and Road E1 in Alea in (EVVIN 070)	U	US-JUII-ZZ A	20-F80-20 A		OD(10)	Project ID: NID201001 PD 2 THE 3-MONTH ROLLI	IO DDOGDANA





ND/2019/01 - 3 Month Rolling Programme (2023-03)

25-Mar-23

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Page 16 of 17	

Date	Revision	Checked	Approved
3-Mar-23	Rev.0	SC	BY

ctivity ID	Activity Name	Remaining	Start	Finish	Total	Calendar	March 2023				April 2	2023			M	ay 2023			une 202	.3
,		Duration			Float		6 05 12 19	26	6	02			23	30	07		28	04		18 2
EC-1018	Opening of Cycle Track at Portion 2 and 10a (EWN No. 017) (CNE No. 022)	0	04-Aug-20 A	25-Mar-23	-862	CD(7d)			-	<u> </u>	<u>.</u>				<u> </u>		•		<u> </u>	
EC-1014	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016) (CNE No. 022)	0	23-Dec-19 A	25-Mar-23	-862	CD(7d))												
EC-1090	Part of Portion 9b of the Site (near eastern end of Road D5) occupied by the Local Villagers (EWN 066)	0	03-May-22 A	25-Mar-23	-48	CD(7d)											 			
EC-1080	Possible Suspension of Concrete Supply due to the Severe Outbreak of COVID-19 (EWN 059)	0	02-Mar-22 A	25-Mar-23	1384	CD(7d))												
EC-1094	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0	23-May-22 A	25-Mar-23	-199	CD(7d))												
EC-1123	Potential Delay due to Aggregate Supply Chain Shortage before Chinese New Year 2023 (EWN 082)	0	22-Nov-22 A	25-Mar-23	1384	CD(7d))												
EC-1124	Potential Delay due to the Increased Difficulties and Uncertainties in Concrete Supply in Coming Years (EWN 084)	0	14-Dec-22 A	25-Mar-23	1384	CD(7d))												
EC-1054	Potential Delay on Production and Supply of D.I. Pipes and Fittings (EWN 041) (CNE 047)	0	11-Oct-21 A	25-Mar-23	-227	CD(7d)]									 			
EC-1055	Potential Delay on Production and Supply of M.S. Pipes and Fittings (EWN 042) (CNE 047)	0	16-Oct-21 A	25-Mar-23	-227	CD(7d)														
EC-1053	Potential Delay on Production and Supply of Precast Concrete Pipes (EWN 040) (CNE 047)	0	06-Oct-21 A	25-Mar-23	-200	CD(7d)														
EC-1076	Potential Delay on Supply of Steel Moulds for Construction of Fresh Water Service Reservoir(FWSR) (EWN 053)	0	18-Feb-22 A	25-Mar-23	-88	CD(7d)														
EC-1063	Potential Late Access to and Use of the Site (Portions 13) (EWN 50) (CNE 057)	0	13-Dec-21 A	25-Mar-23	1384	CD(7d)		l												
EC-1062	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0	13-Dec-21 A	25-Mar-23	3	CD(7d)]									 			
EC-1110	Provision of Fill Materials for Contract Nos. ND/2019/05 and ND/2019/07 (CNE 084)	0	17-Aug-22 A	25-Mar-23	1384	CD(7d)		l												
EC-1085	Requesting for Additional Concrete Vehicular Access by the Local Villager adjacent 9b of the Site (EWN 064)	0	25-Apr-22 A	25-Mar-23	-83	CD(7d)		l												
EC-1071	Revised Construction Drawings of Fresh Water Service Reservoir (CNE 067, 067a)	0	14-Dec-21 A	25-Mar-23	-88	CD(7d)		l												
EC-1119	Revised Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)	0	19-Oct-22 A	25-Mar-23	794	CD(7d))												
EC-1109	Revised Sewerage System along Road D4 and D5 at Portion 9b of the Site (CNE 083)	0	02-Aug-22 A	25-Mar-23	-422	CD(7d)]									 			
EC-1066	Shortage of Aggregate Supply before Chinese New Year 2022 (CNE 048) (EWN 001.6, 001.8)	0	29-Nov-21 A	25-Mar-23	1384	CD(7d))												
EC-1052	Shortage of Cement Supply due to "Energy Consumption Dual Control Policy" (EWN 039) (CNE 049)	0	06-Oct-21 A	25-Mar-23	1384	CD(7d)		l												
EC-1043	Strong Objection on the Construction of Fresh and Flushing Reservoir at Portions 8a and 8b (EWN 031) Maintenance Access	0	09-Jun-21 A	25-Mar-23	-478	CD(7d)														
EC-1006	Strong Objection on the Construction of Service Reservoirs at Portions 8a & 8b (CNE No. 006) (EWN No. 005) (CE 019)	0	18-Mar-20 A	25-Mar-23	-478	CD(7d)		l												
EC-1061	Suspension of Concretes Supply due to Cement Shortage (EWN 045) (CNE 046)	0	02-Nov-21 A	25-Mar-23	1384	CD(7d)]									 			
EC-1081	Suspension of Precast Concrete Manhole Supply due to the Severe Outbreak of COVID-19 in Mainland China (EWN 060)	0	14-Mar-22 A	25-Mar-23	-48	CD(7d)		l												
EC-1028	Suspension of Works at Part of Portion 2 (CNE No. 016) (EWN No. 019)	0	31-Aug-20 A	25-Mar-23	-862	CD(7d)		l												
EC-1002	Suspension of Works at Part of Portions 5 & 6a (in Area A, N & C1) (CNE No. 002) (EWN No. 004) (CE 018)	0	09-Mar-20 A	25-Mar-23	-227	CD(7d)		l												
EC-1022	Suspension of Works at Part of Portions 9c (CNE no. 010) (CE 030)	0	21-Jul-20 A	25-Mar-23	-5	CD(7d)		l												
EC-1029	Temporary Stockpile at Portion 5 and Additional Land D (EWN No. 020) (CNE No. 020, 037, 038) (CE 057)	0	15-Sep-20 A	25-Mar-23	-130	CD(7d)]									 			
EC-1065	Temporary Stockpile for High Arsenic-Containing (HAC) Soil from HKHS & HD Sites at Portion 1c (EWN 052)	0	04-Jan-22 A	25-Mar-23	612	CD(7d))												
EC-1059	The footing detail for Roadside Directional Sign ADS30 at Portion 5 (EWN 043)	0	22-Oct-21 A	25-Mar-23	1384	CD(7d)		j												
EC-1105	Tropical Cyclone Warning Signal No.8 from 1st to 2nd July 2022 (CNE 079) (CE 214)	0	01-Jul-22 A	25-Mar-23	1384	CD(7d))												
EC-1113	Tropical Cyclone Warning Signal No.8 from 24th to 25th Auguest 2022 (CNE 086) (CE 232)	0	24-Aug-22 A	25-Mar-23	1384	CD(7d)		j												
EC-1121	Tropical Cyclone Warning Signal No.8 from 2nd to 3rd November 2022 (CNE 094) (CE 274)	0	02-Nov-22 A	25-Mar-23	1384	CD(7d)]	i								 			
EC-1058	Tropical Cyclone Warning Signal No.8 on 13th October 2021 (CNE 040) (CE 165)	0	12-Oct-21 A	25-Mar-23	1384	CD(7d)		l												
EC-1057	Tropical Cyclone Warning Signal No.8 on 9th October 2021 (CNE 039) (CE 164)	0	09-Oct-21 A	25-Mar-23	1384	CD(7d))												
EC-1072	Unavailability of Vehicular Access and Movement towards Receiving Pit (CNE 068)	0	29-Dec-21 A	25-Mar-23	-562	CD(7d)		l												
EC-1051	Unstable Supply of Cement for HAC Soil Treatment (EWN 036, 038) (CNE 049)	0	27-Sep-21 A	25-Mar-23	545	CD(7d))	-											
EC-1075	Works affecred by the Sever Outbreak of Omicron (CNE 073) (EWN 058)	0	25-Feb-22 A	25-Mar-23	1384	CD(7d)]									 			

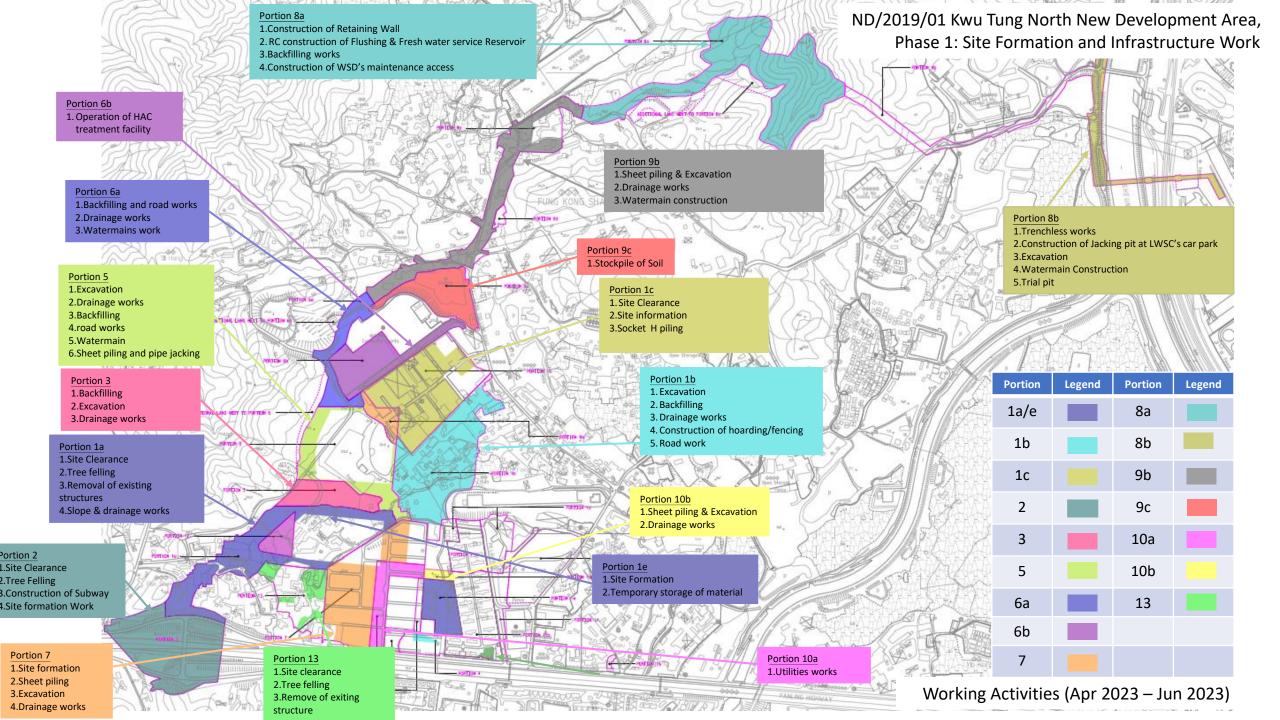


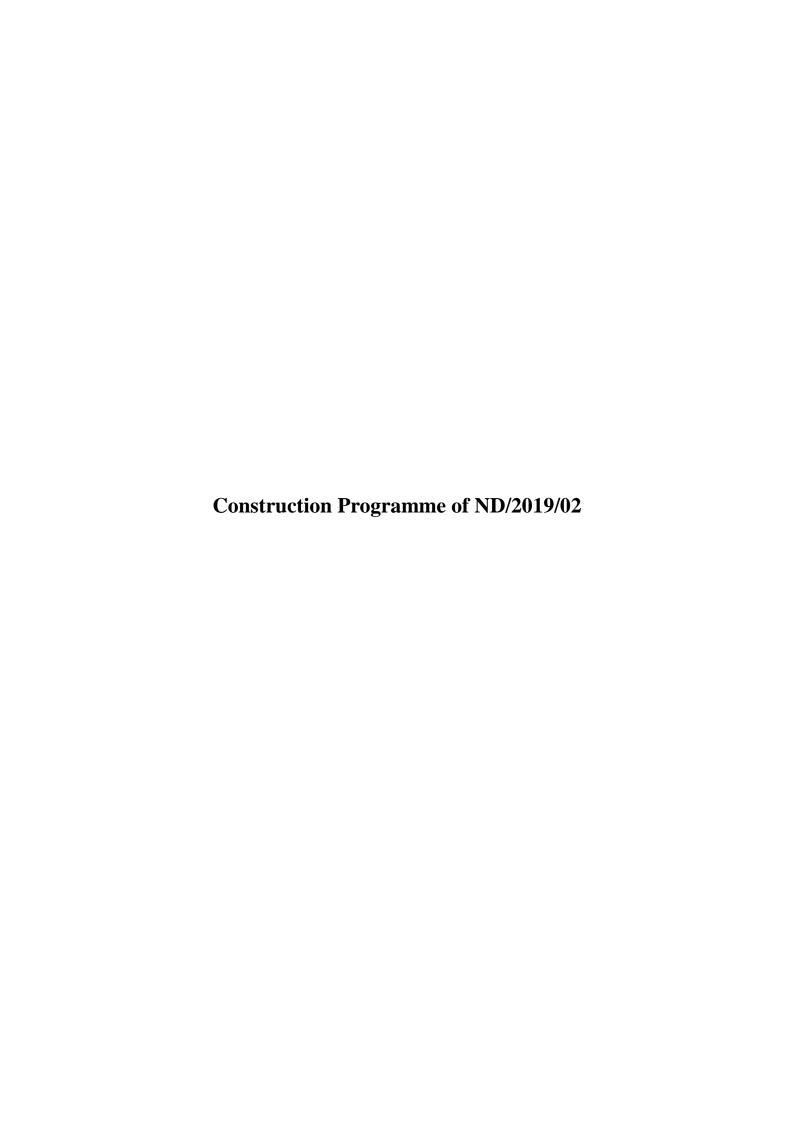


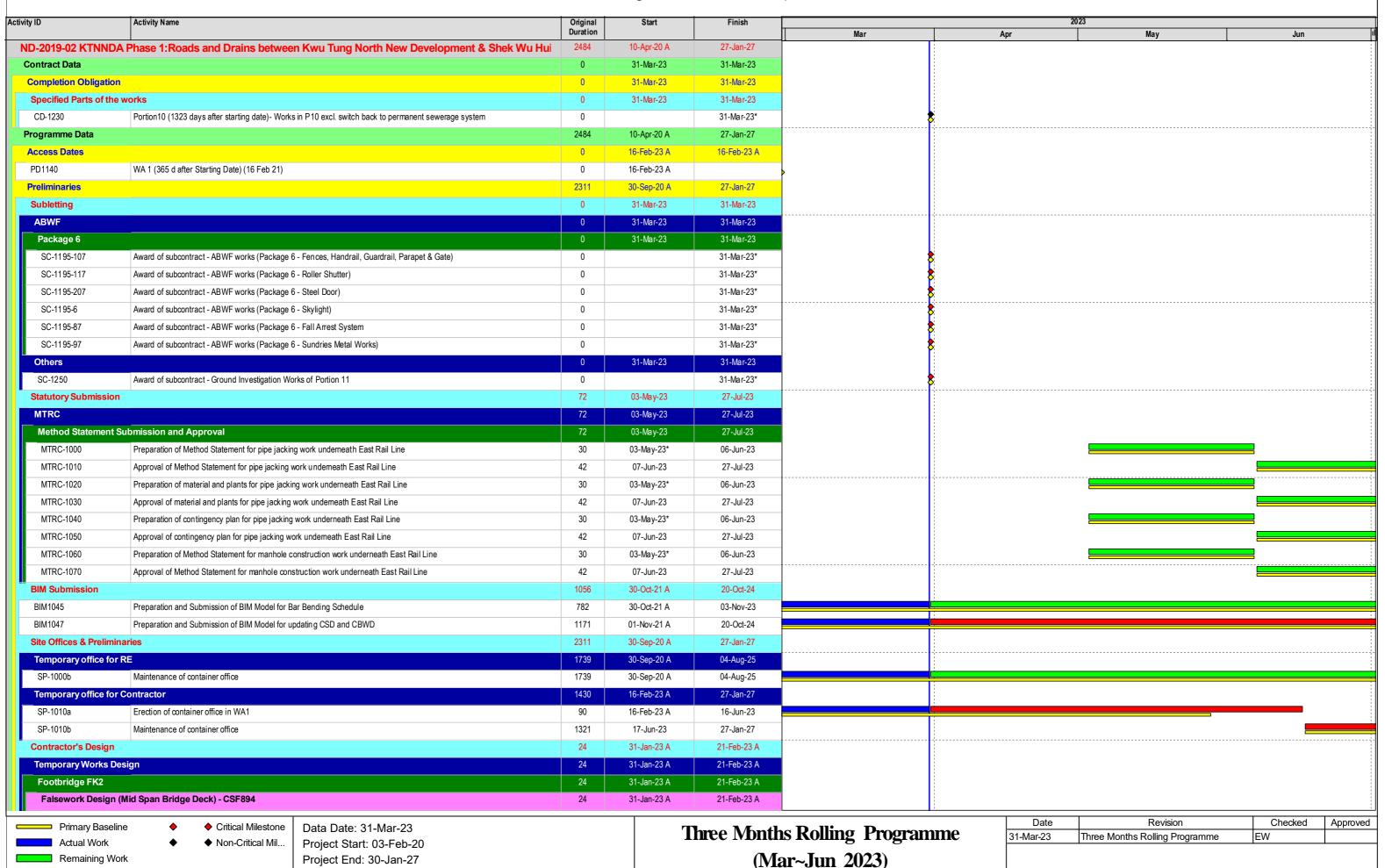
ND/2019/01 - 3 Month Rolling Programme (2023-03)

25-Mar-23

THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
8-Mar-23	Rev.0	sc	BY





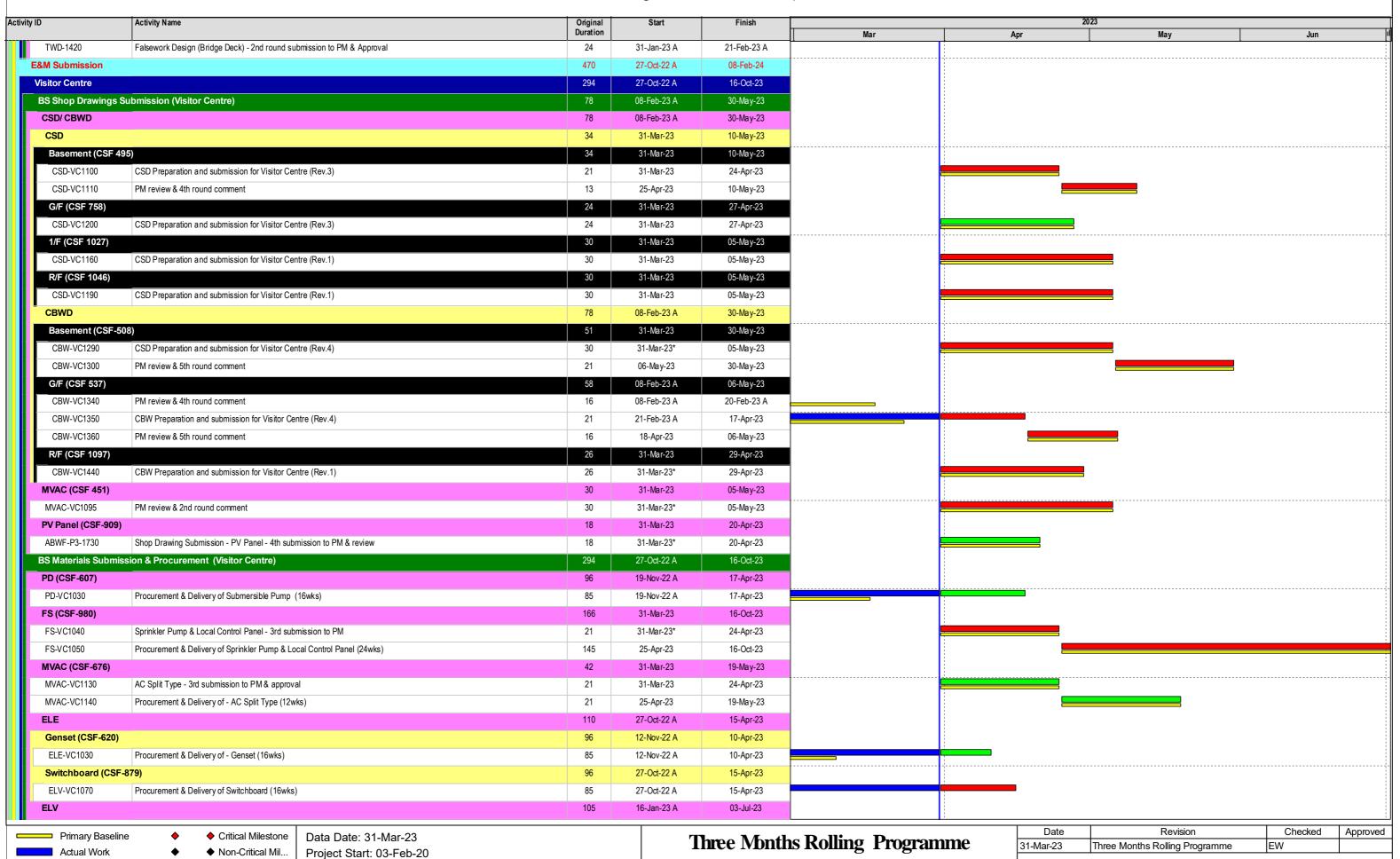


Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

15 April 2021)

Critical Remaining Work

♦ Baseline Milestone



Remaining Work

Baseline Milestone

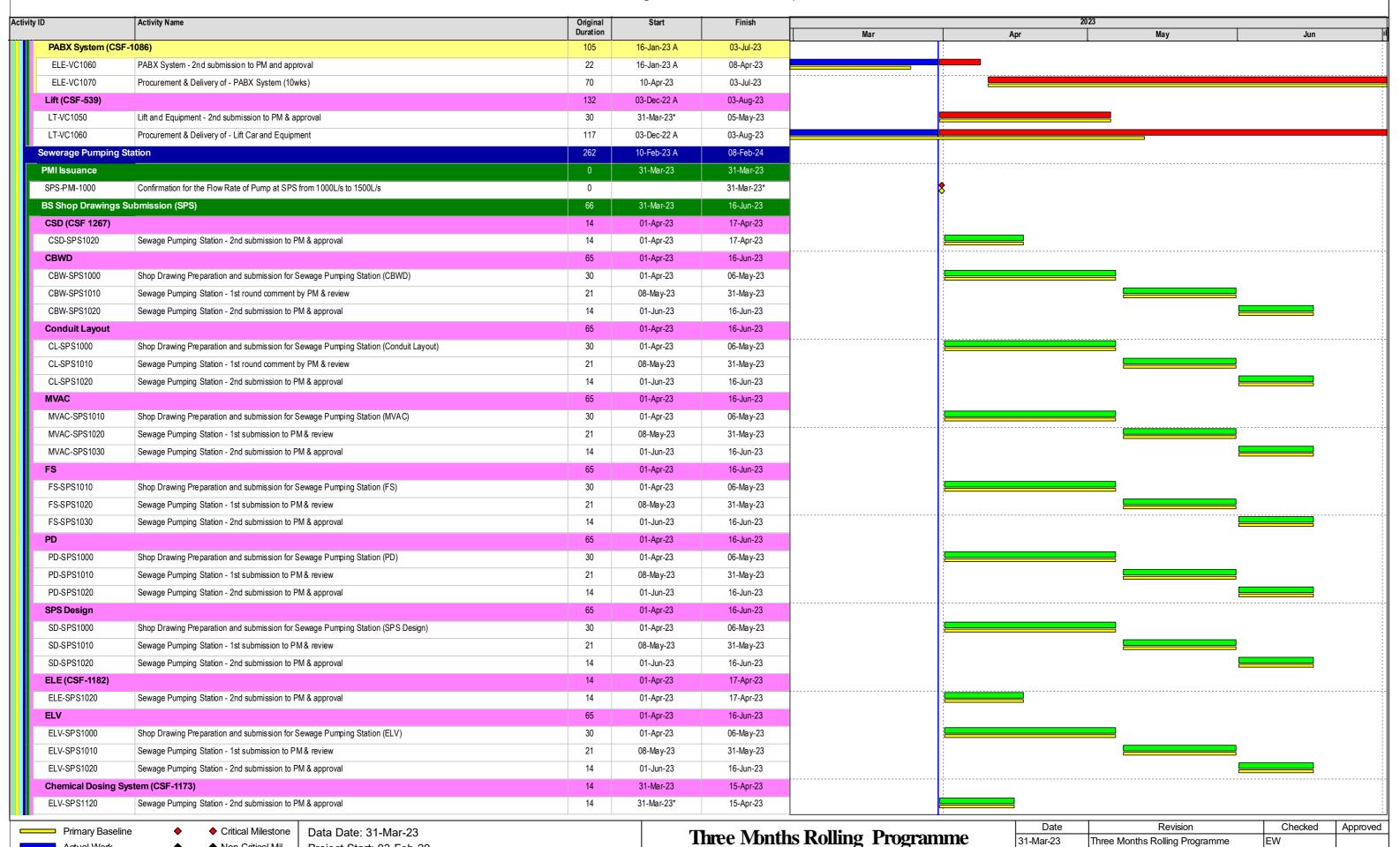
Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

(Mar~Jun 2023)



(Mar~Jun 2023)

◆ Non-Critical Mil...

Remaining Work

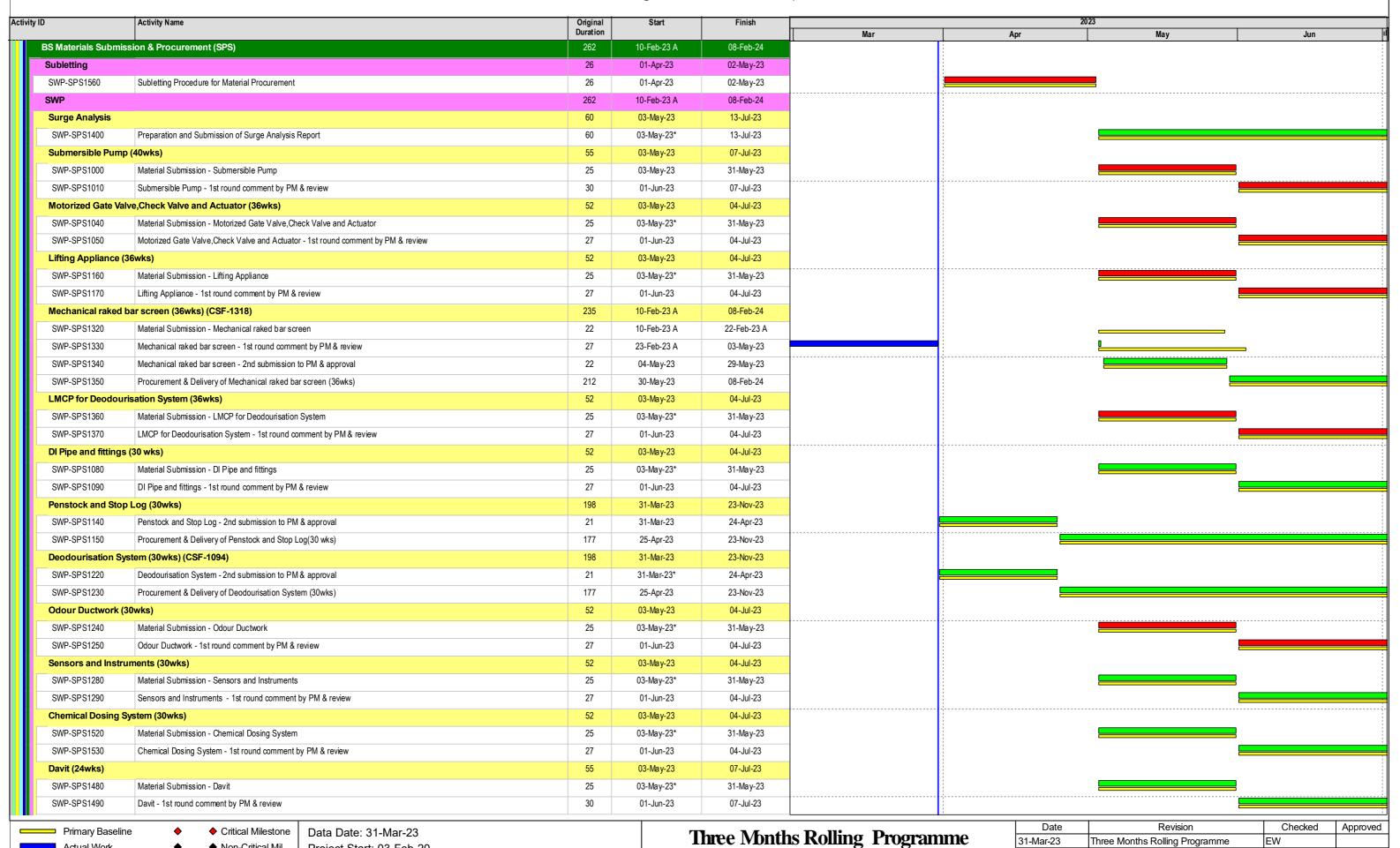
Critical Remaining Work ♦ Baseline Milestone

Project Start: 03-Feb-20

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



(Mar~Jun 2023)

◆ Non-Critical Mil...

Remaining Work

♦ Baseline Milestone

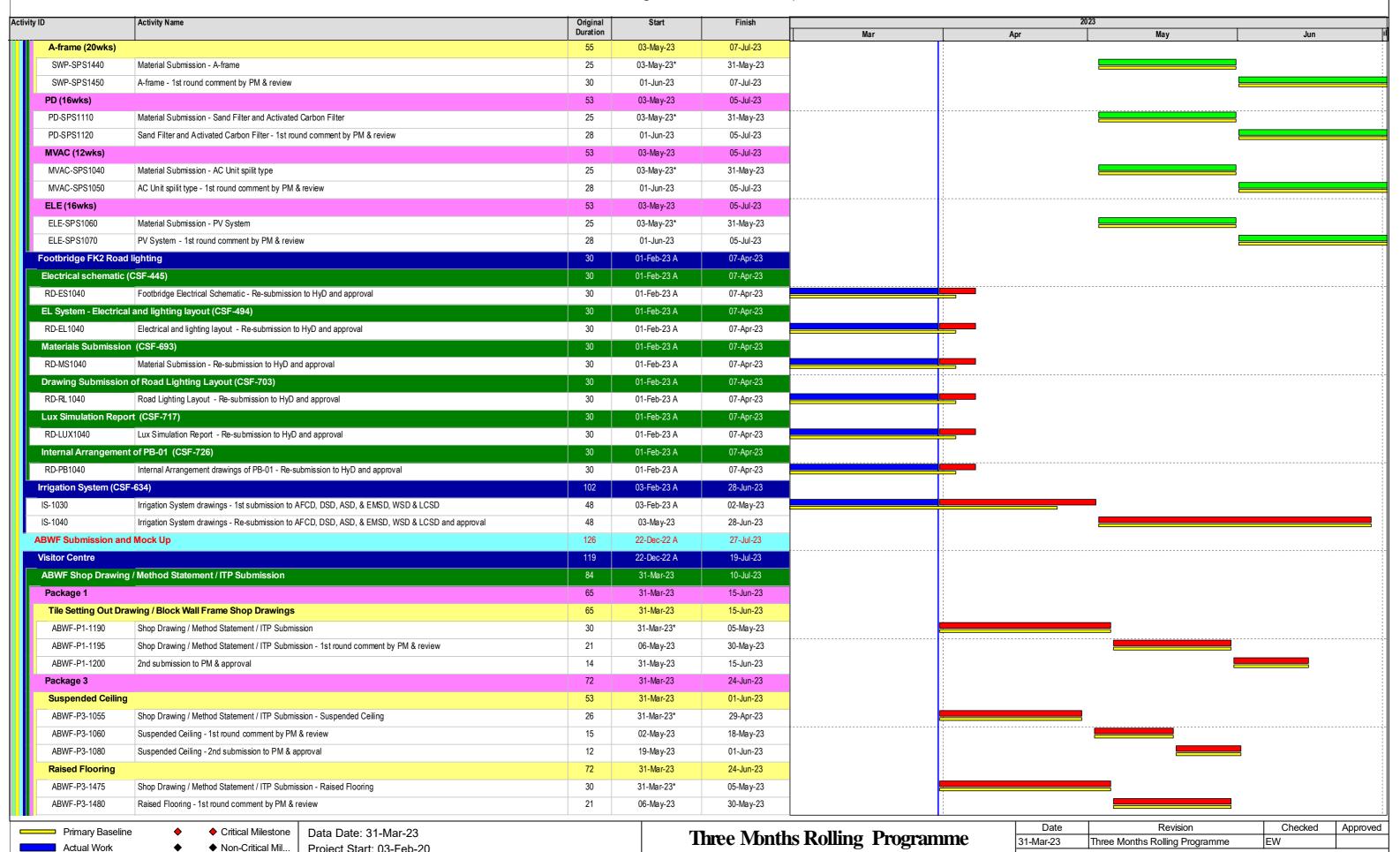
Critical Remaining Work

Project Start: 03-Feb-20

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



(Mar~Jun 2023)

Project Start: 03-Feb-20

Project End: 30-Jan-27

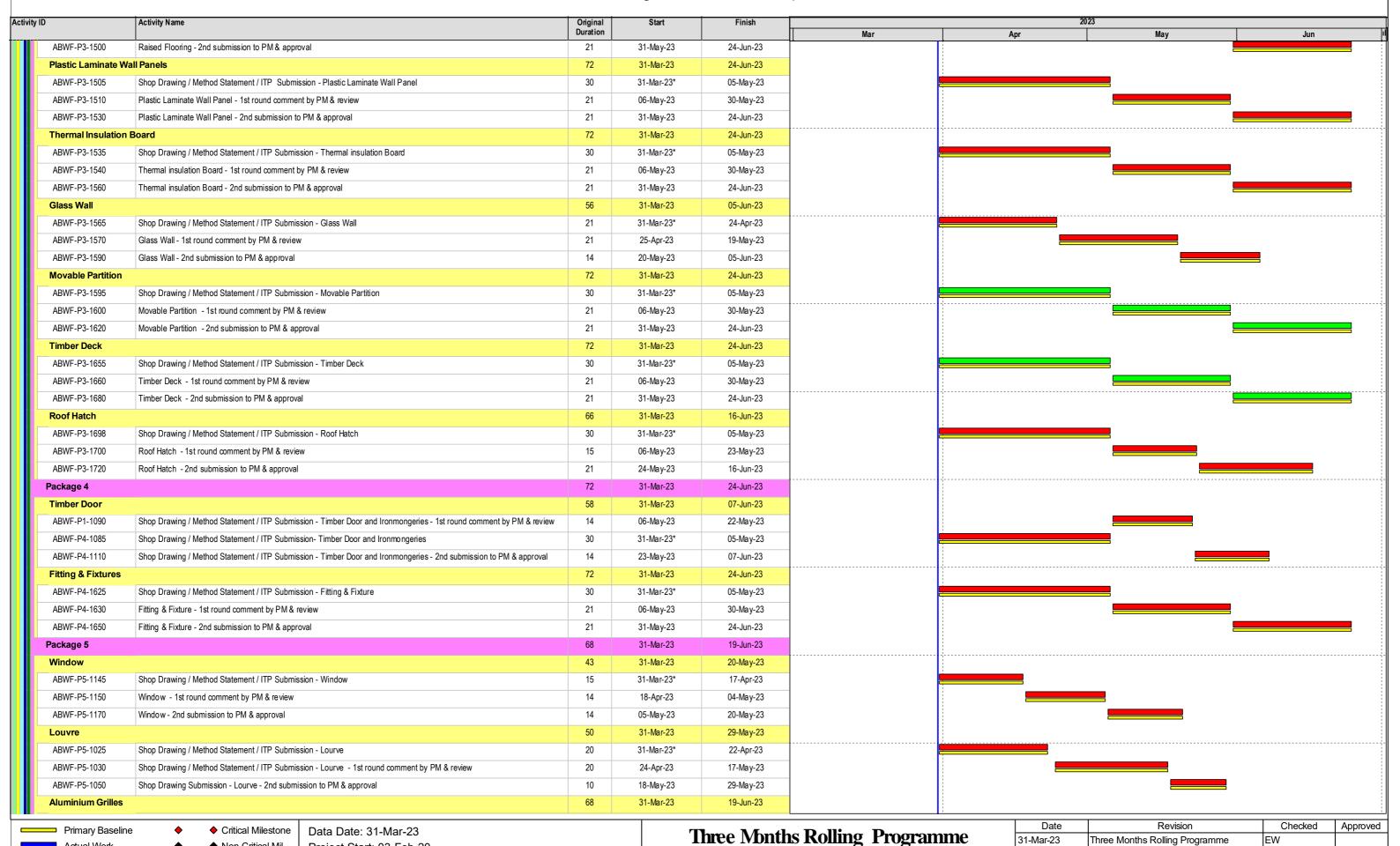
15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

Remaining Work

♦ Baseline Milestone

Critical Remaining Work



(Mar~Jun 2023)

◆ Non-Critical Mil..

Remaining Work

♦ Baseline Milestone

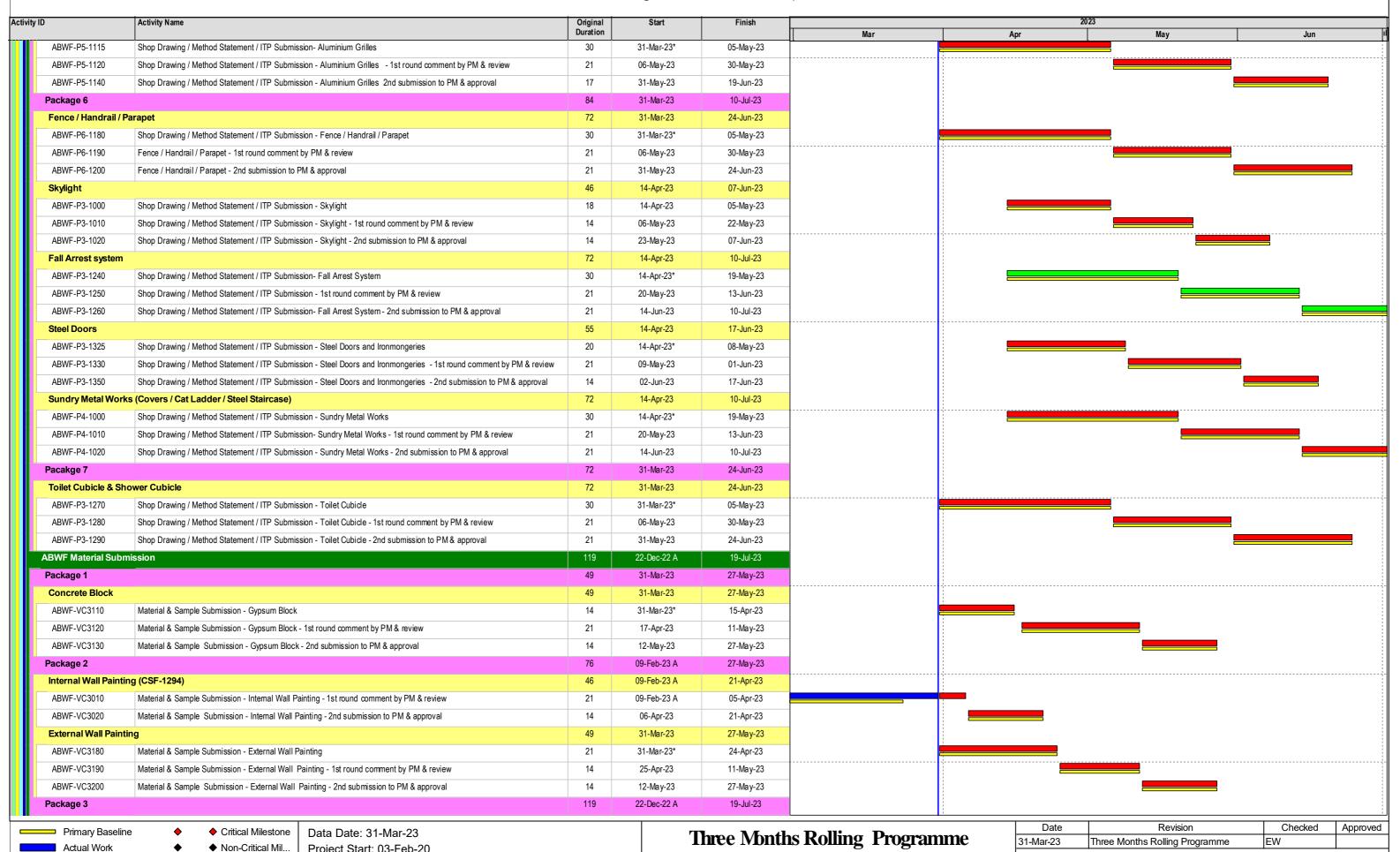
Critical Remaining Work

Project Start: 03-Feb-20

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



(Mar~Jun 2023)

Project Start: 03-Feb-20

Project End: 30-Jan-27

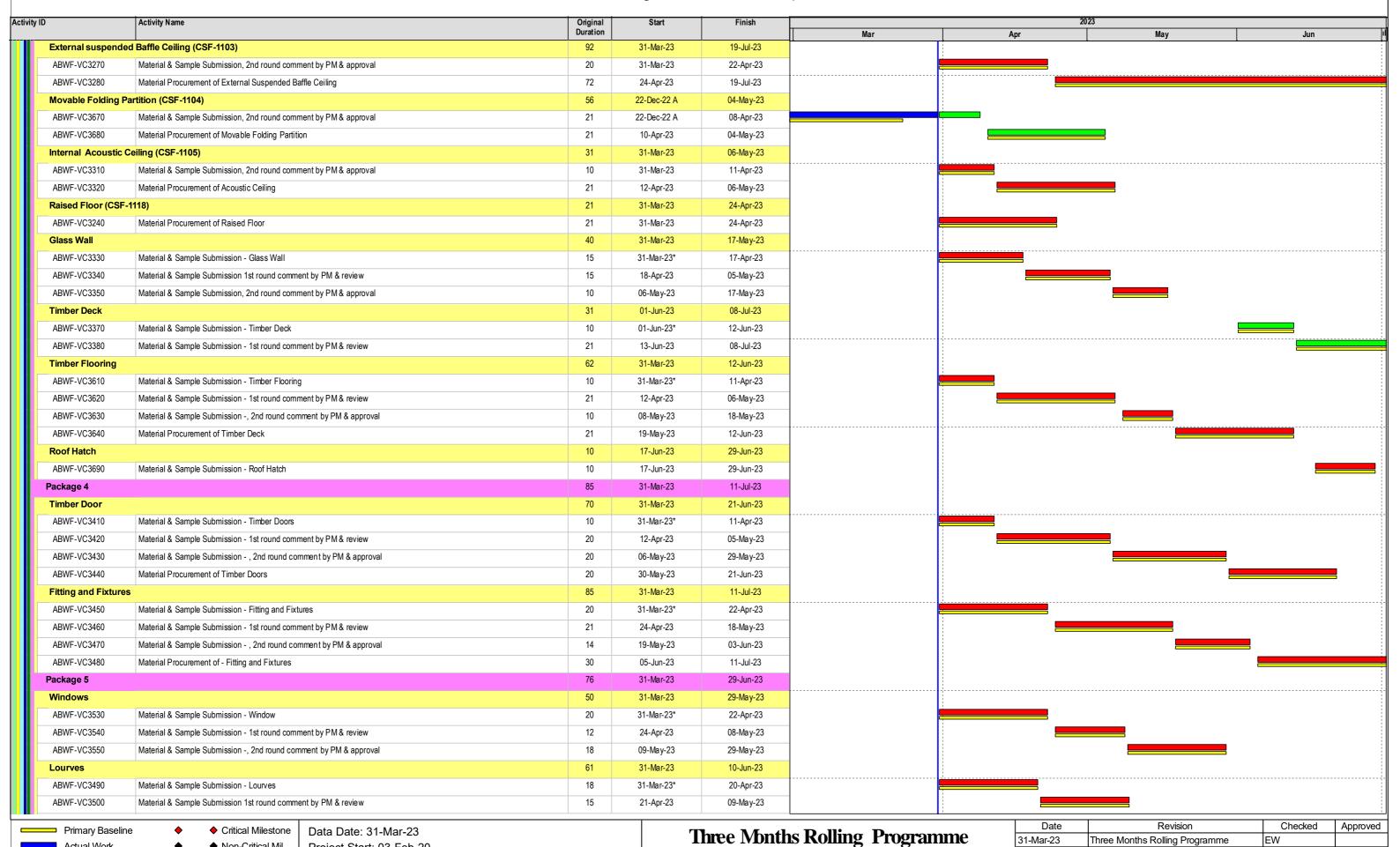
15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

Remaining Work

♦ Baseline Milestone

Critical Remaining Work



(Mar~Jun 2023)

◆ Non-Critical Mil...

Remaining Work

♦ Baseline Milestone

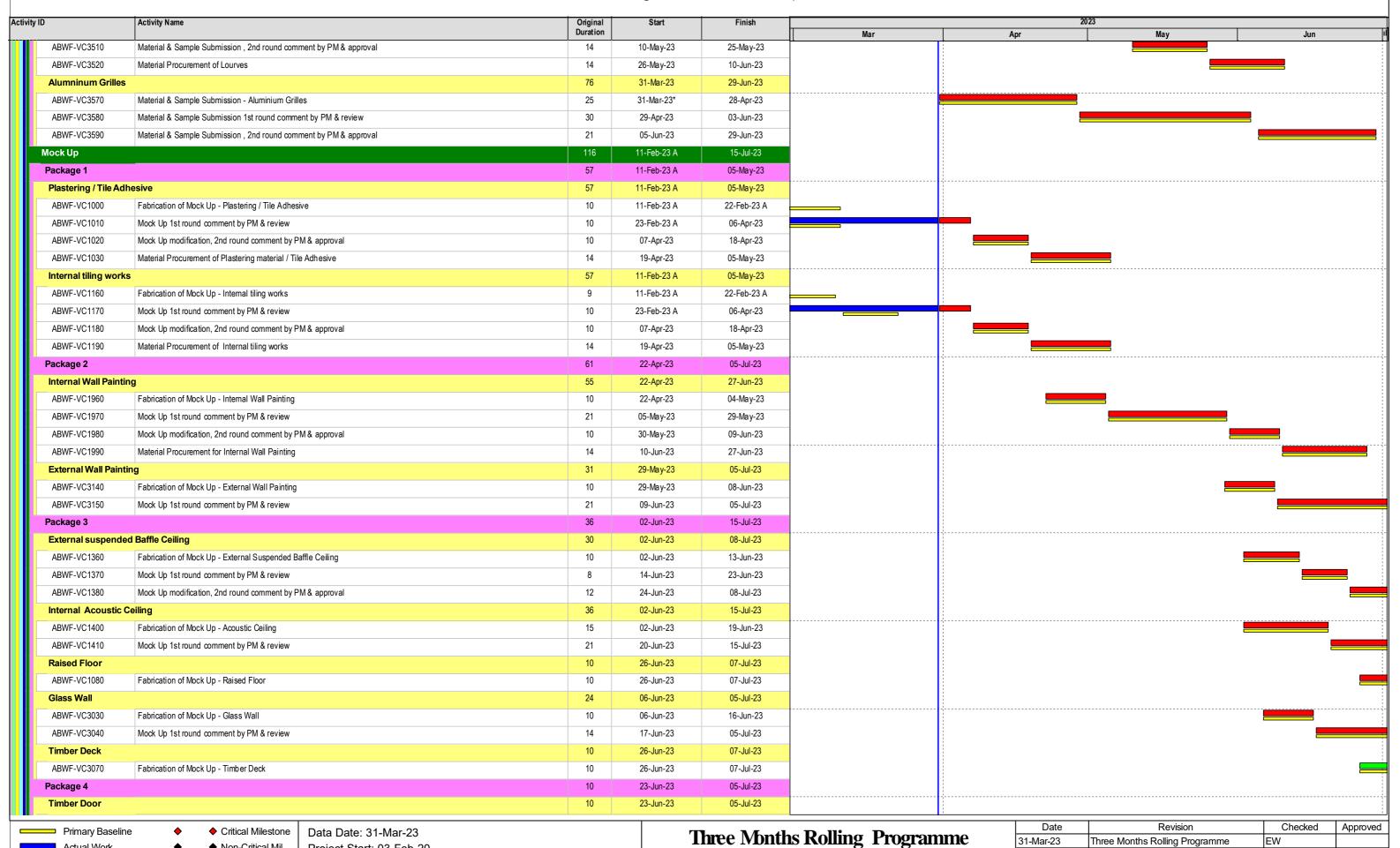
Critical Remaining Work

Project Start: 03-Feb-20

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



(Mar~Jun 2023)

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Remaining Work

♦ Baseline Milestone

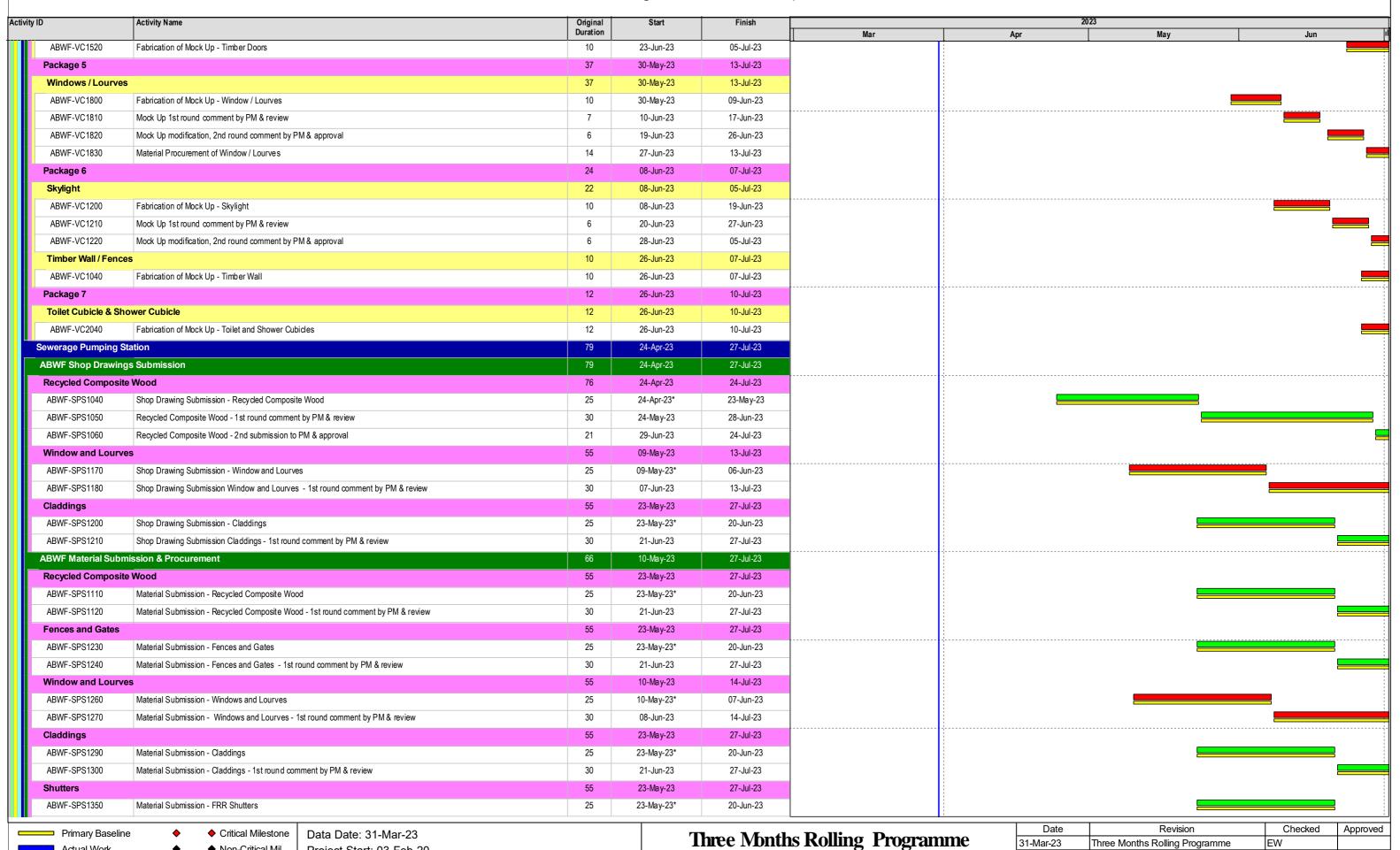
Critical Remaining Work

Project Start: 03-Feb-20

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



(Mar~Jun 2023)

◆ Non-Critical Mil...

Remaining Work

♦ Baseline Milestone

Critical Remaining Work

Project Start: 03-Feb-20

Project End: 30-Jan-27

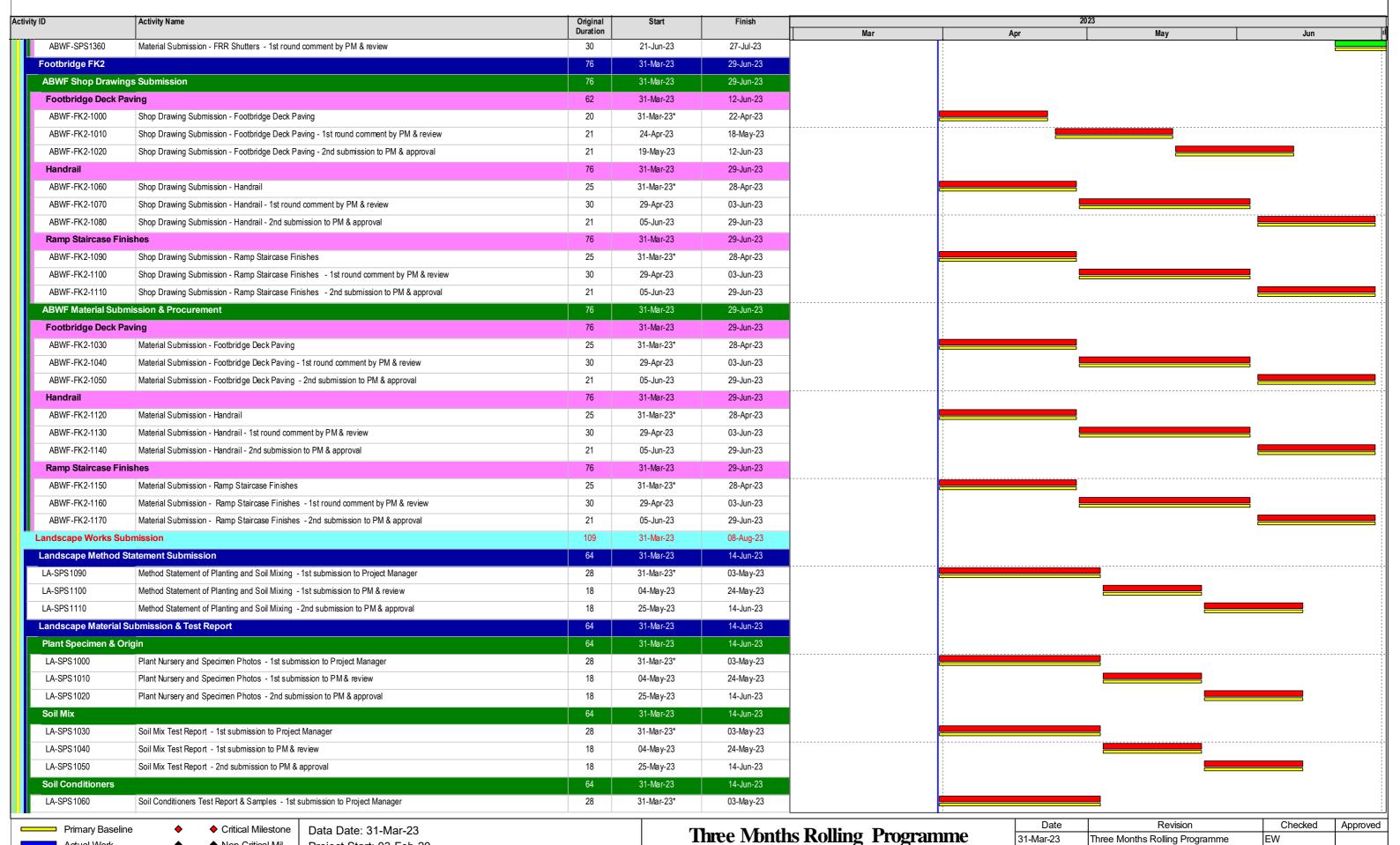
15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

31-Mar-23

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Three Months Rolling Programme



(Mar~Jun 2023)

◆ Non-Critical Mil...

Remaining Work

♦ Baseline Milestone

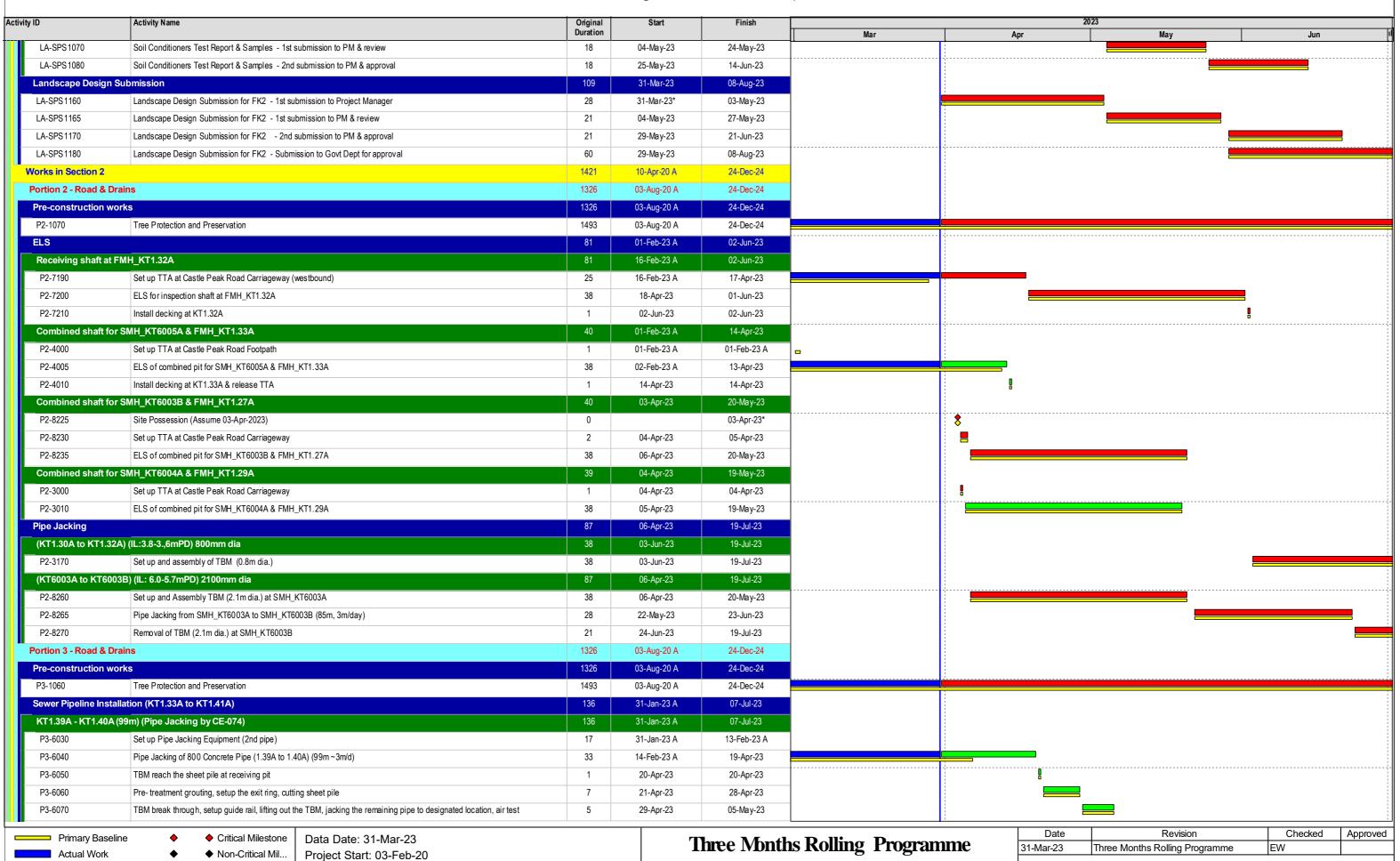
Critical Remaining Work

Project Start: 03-Feb-20

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



Remaining Work

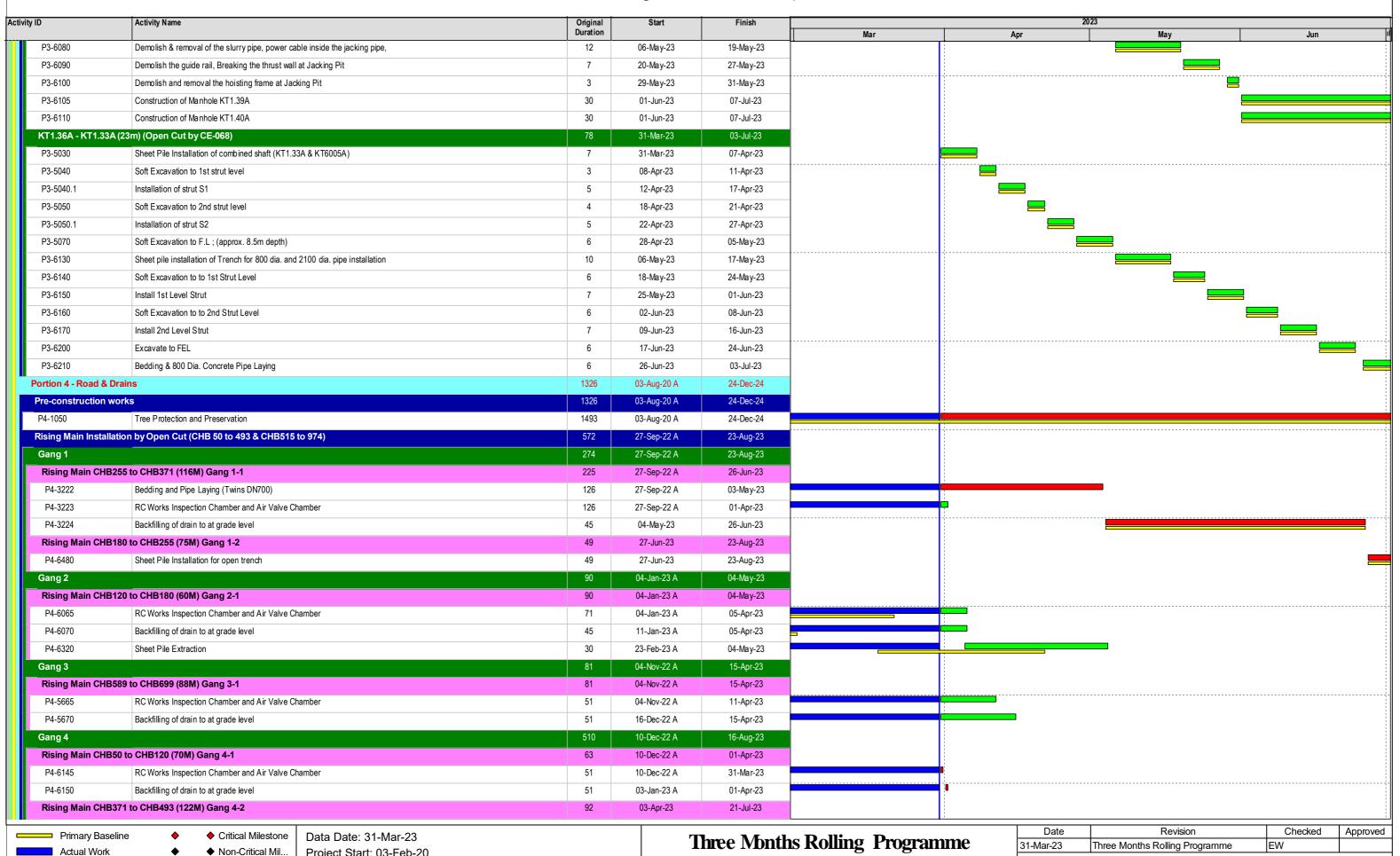
♦ Baseline Milestone

Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



(Mar~Jun 2023)

Project Start: 03-Feb-20

Project End: 30-Jan-27

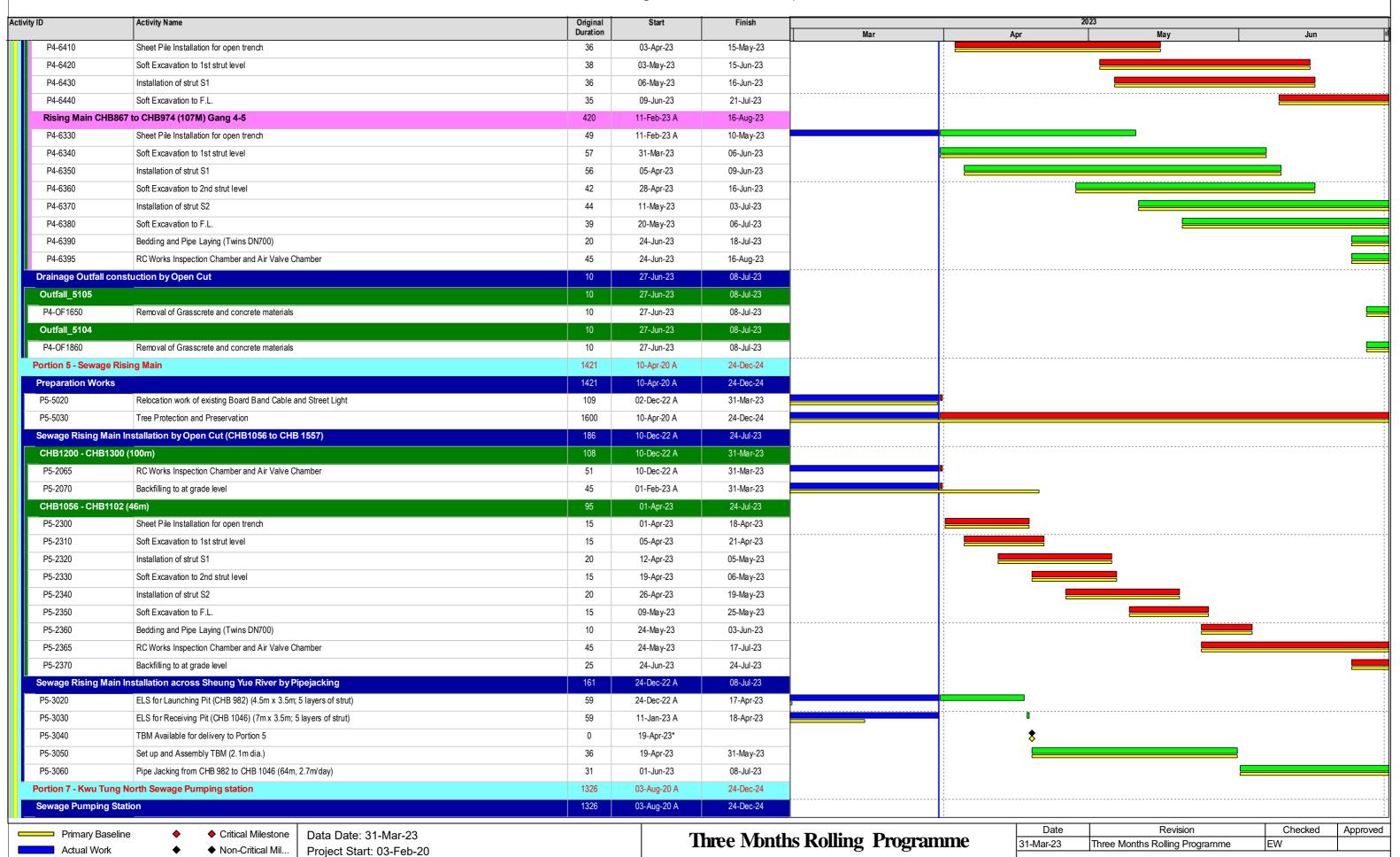
15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

Remaining Work

♦ Baseline Milestone

Critical Remaining Work



Remaining Work

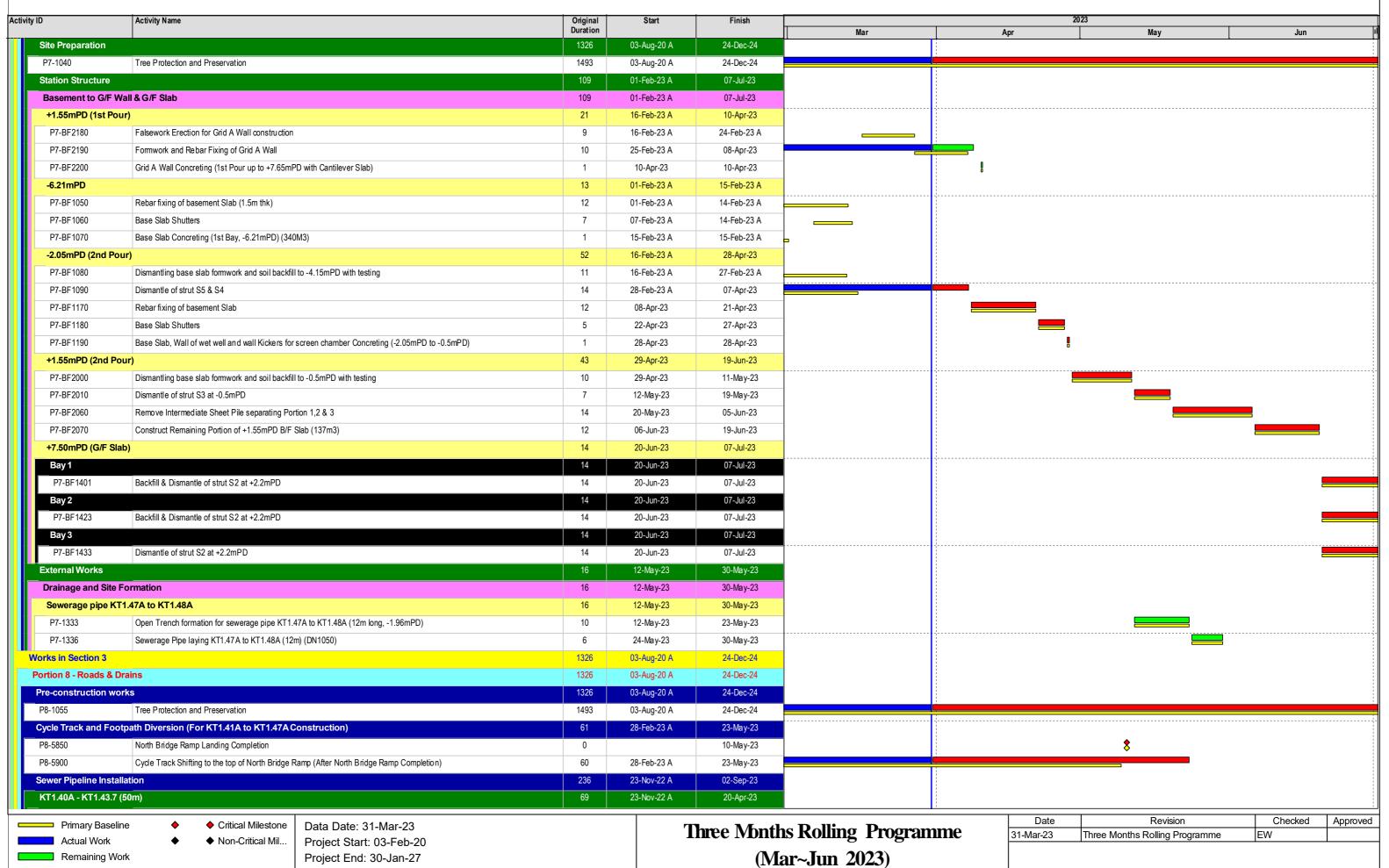
♦ Baseline Milestone

Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

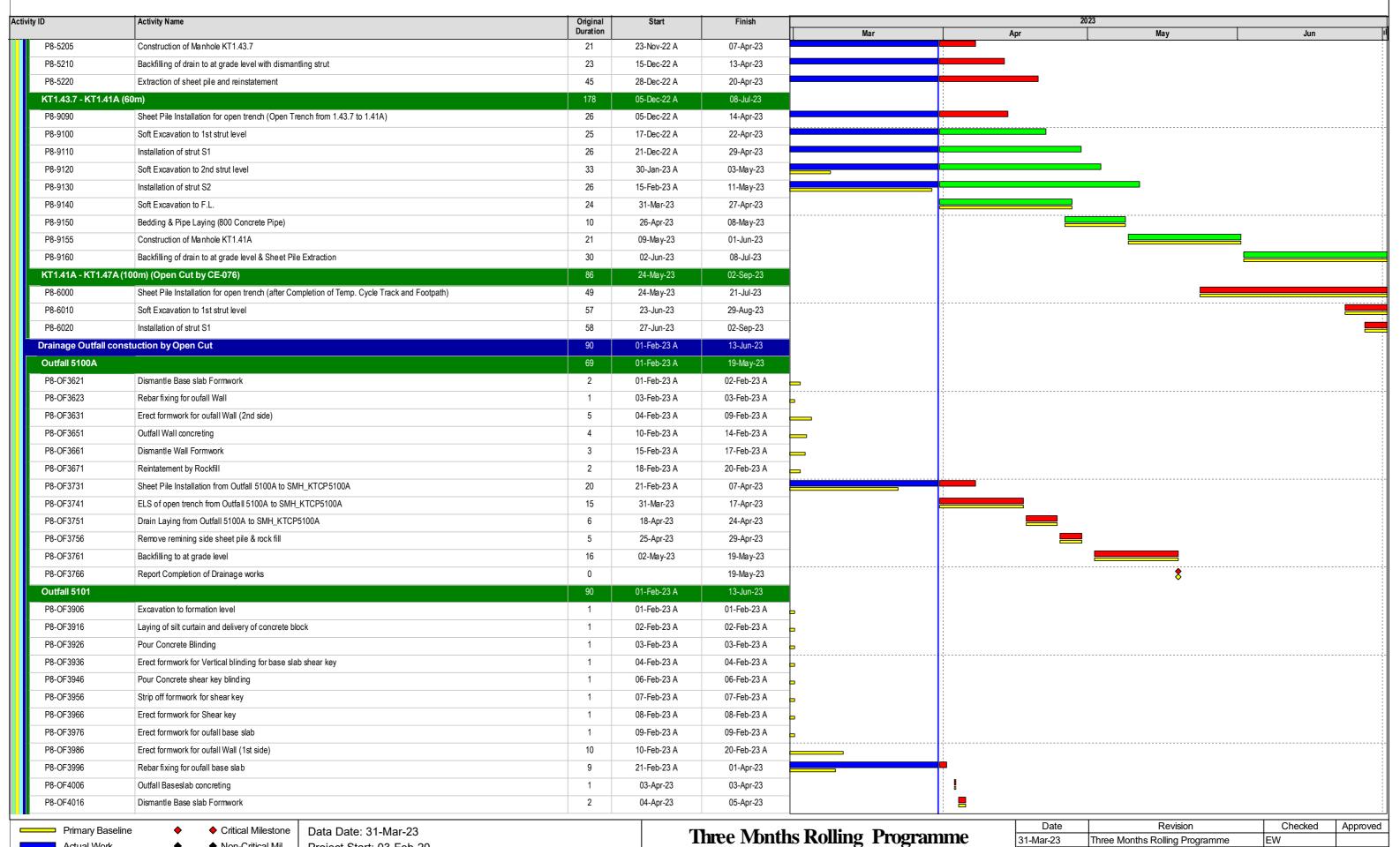


Baseline: Monthly Markup Programme (Feb 2021) (Accepted on

15 April 2021)

Critical Remaining Work

♦ Baseline Milestone



(Mar~Jun 2023)

◆ Non-Critical Mil...

Remaining Work

Baseline Milestone

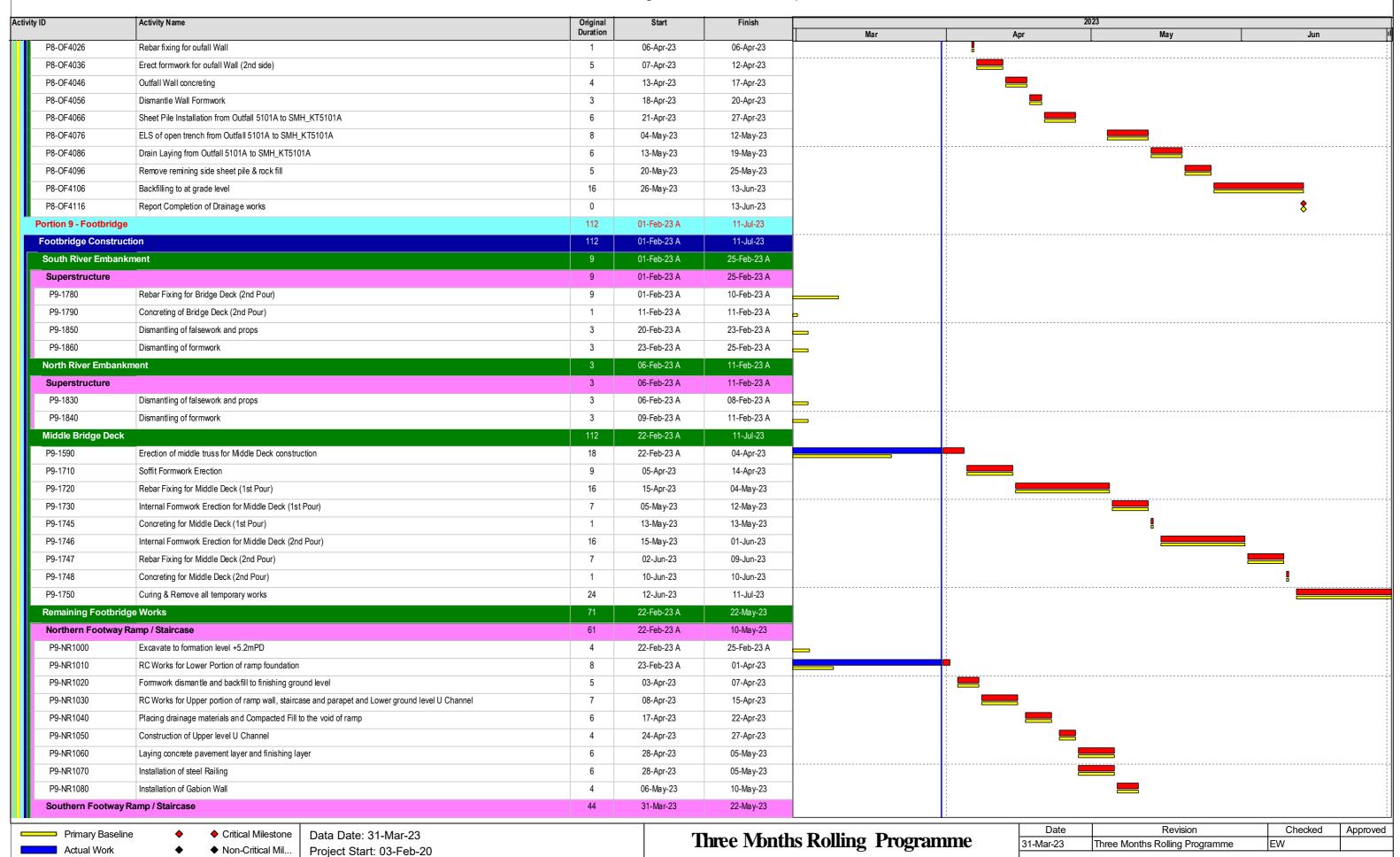
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Project Start: 03-Feb-20

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



Remaining Work

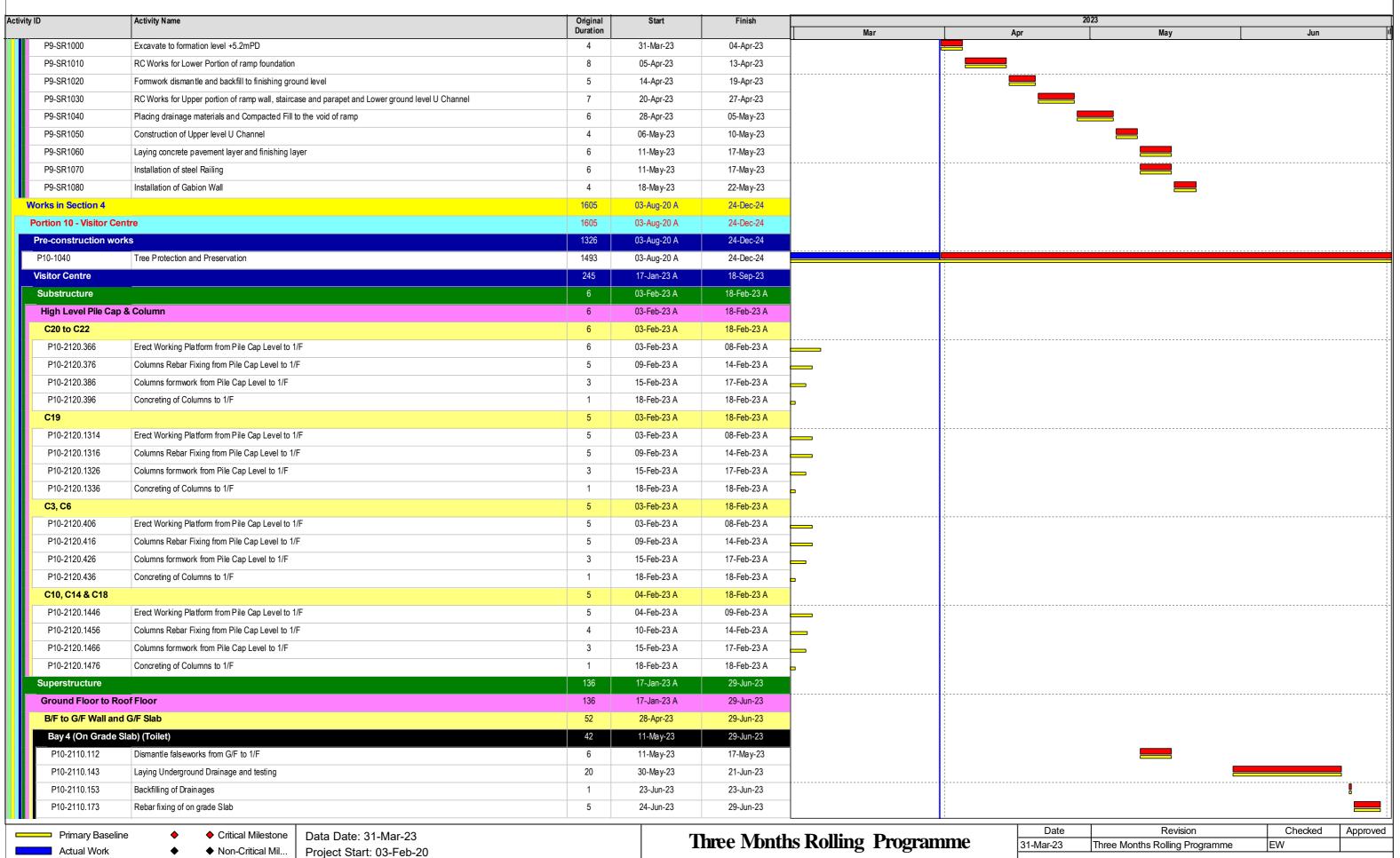
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Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



Remaining Work

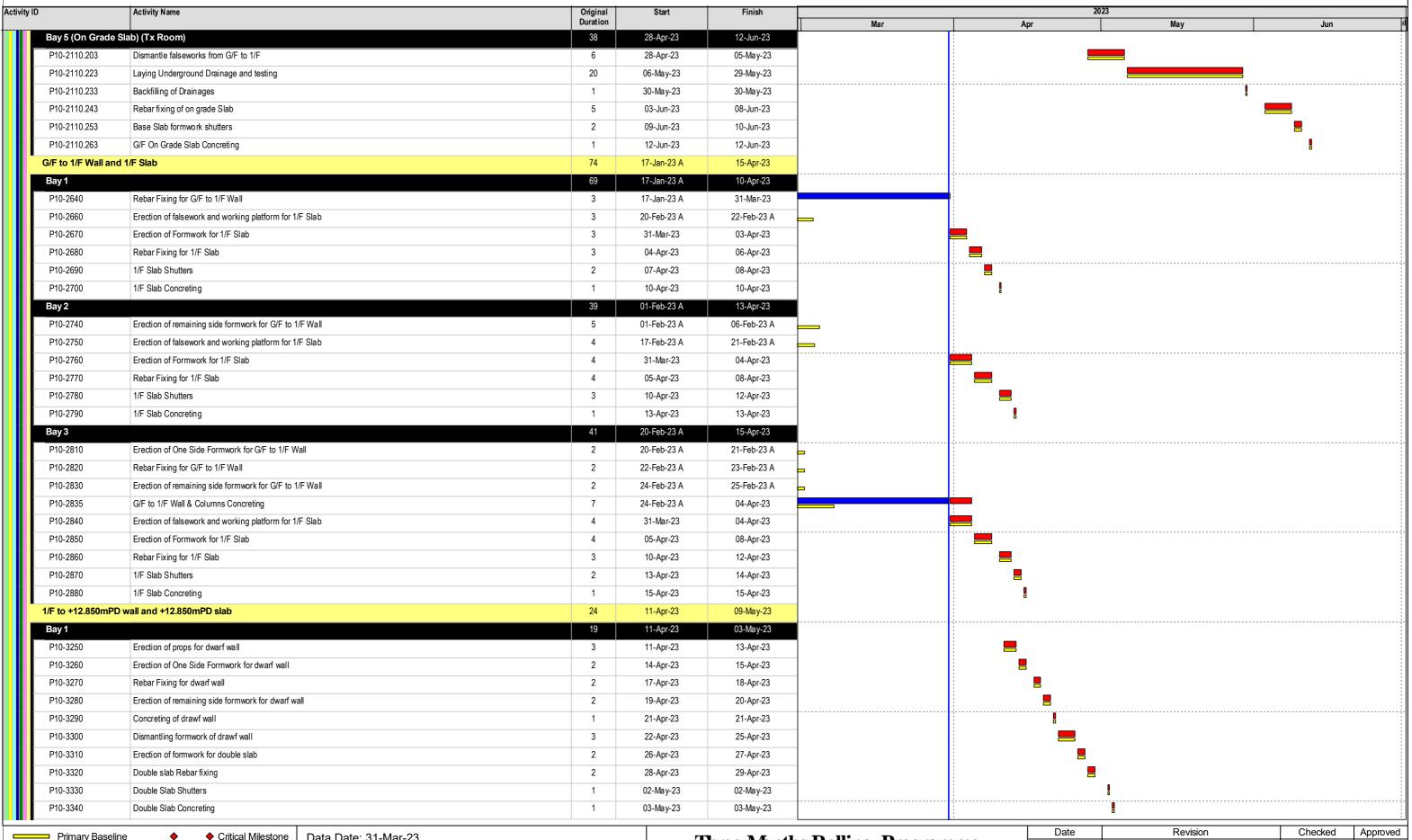
♦ Baseline Milestone

Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

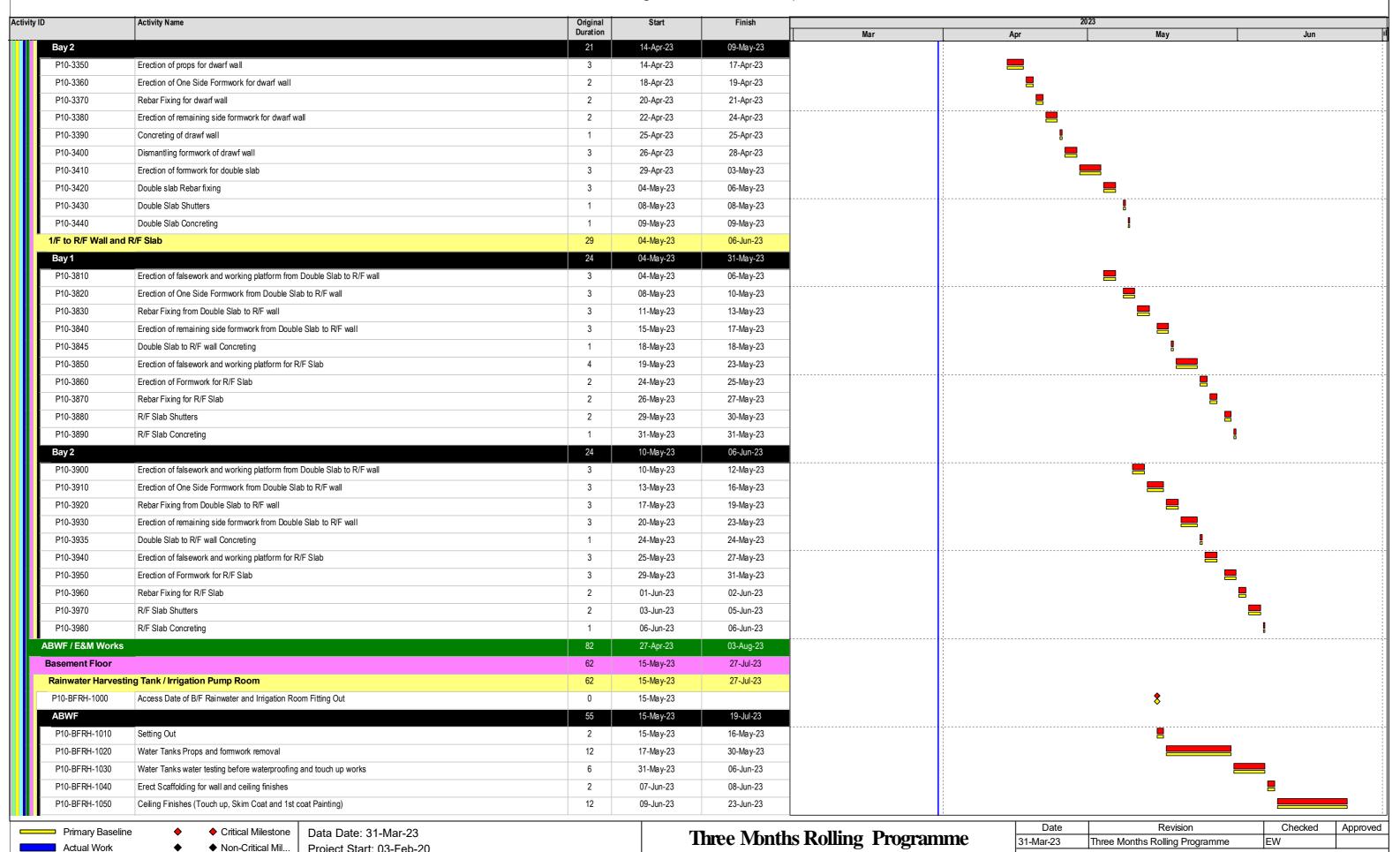
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Data Date: 31-Mar-23 Project Start: 03-Feb-20 Project End: 30-Jan-27

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on 15 April 2021)

Three Months Rolling Programme (Mar~Jun 2023)

Date Revision Checked Approved
31-Mar-23 Three Months Rolling Programme EW



(Mar~Jun 2023)

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Project End: 30-Jan-27

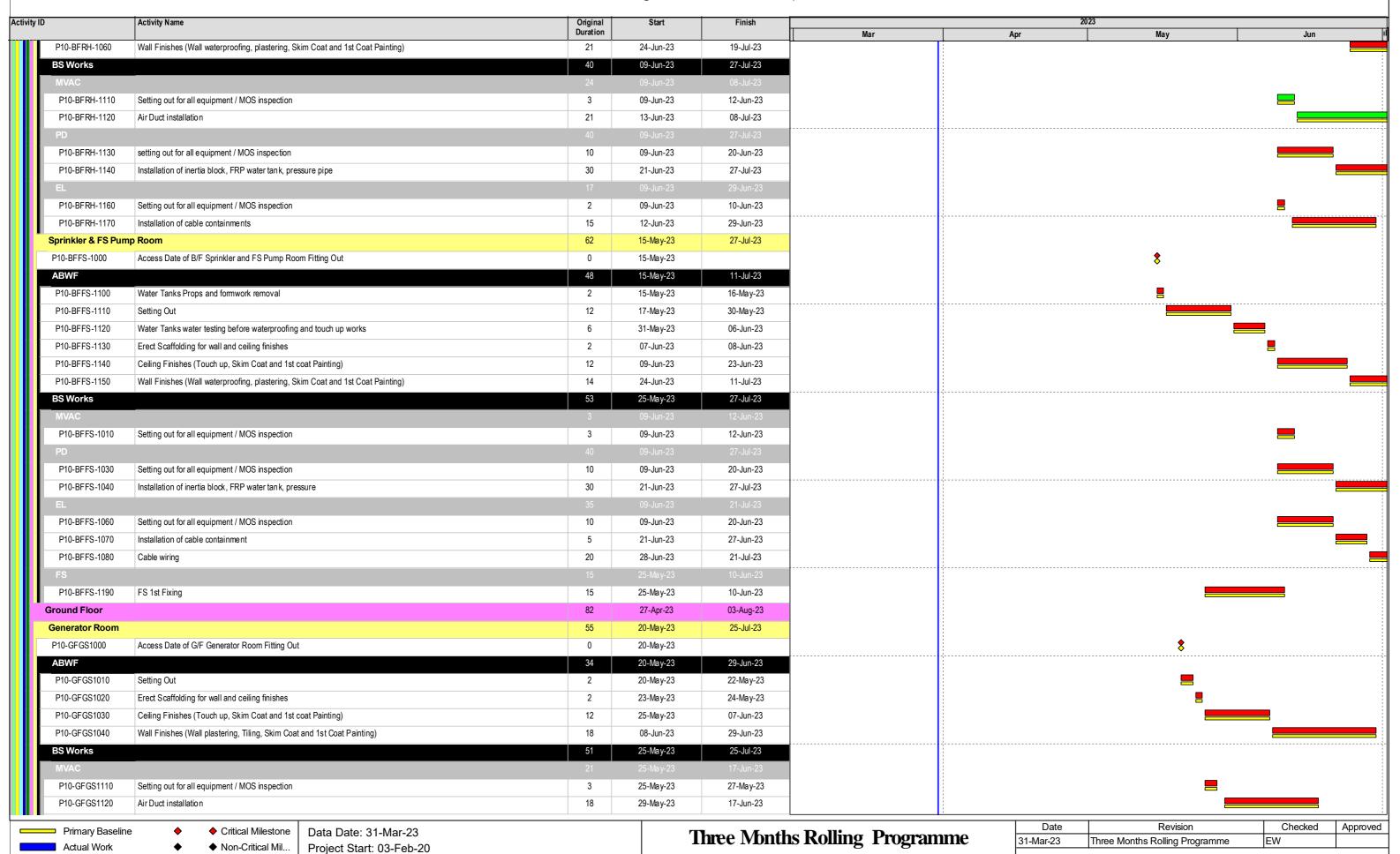
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Remaining Work

♦ Baseline Milestone

Critical Remaining Work



Remaining Work

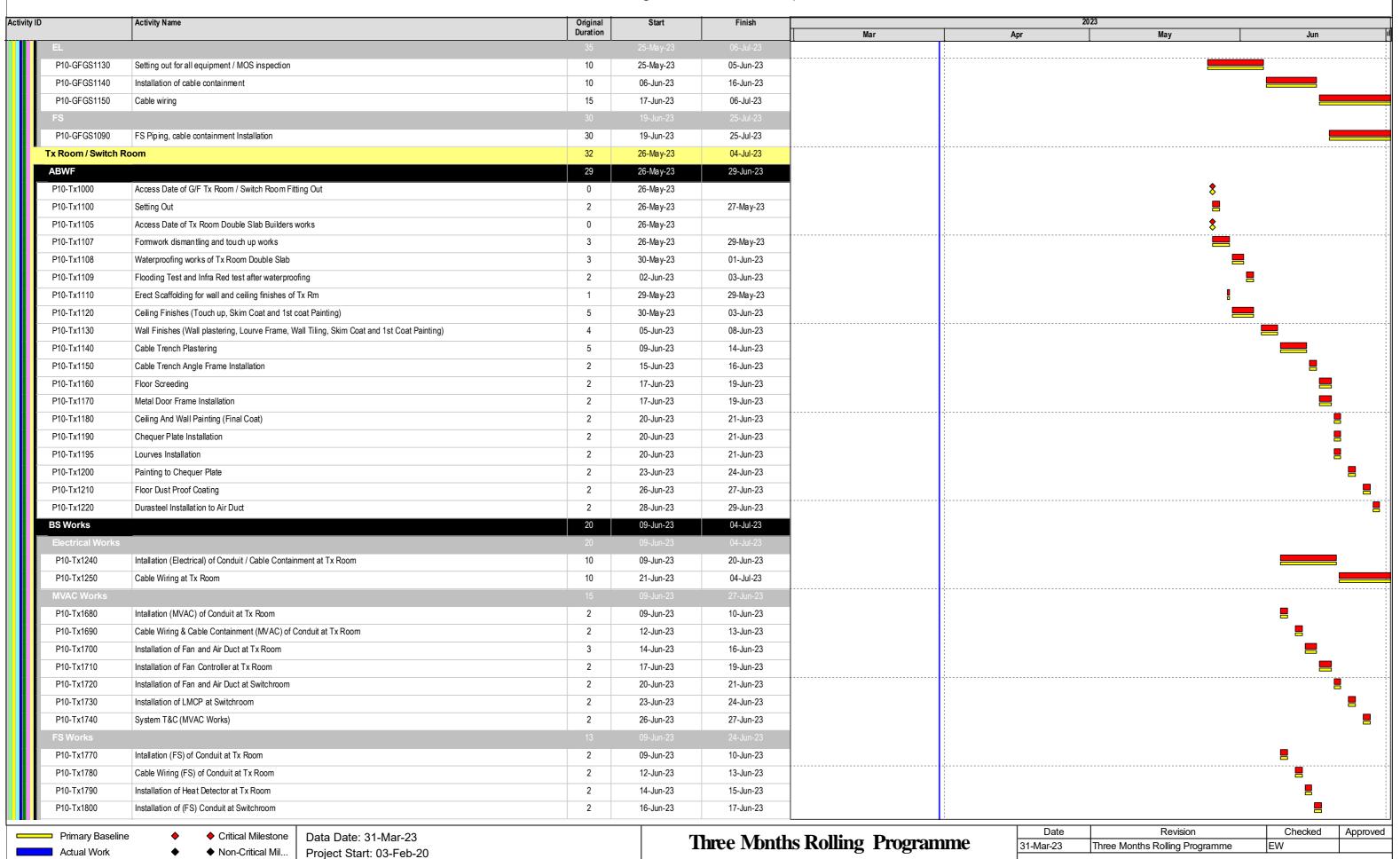
Baseline Milestone

Critical Remaining Work

Project End: 30-Jan-27

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Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



Remaining Work

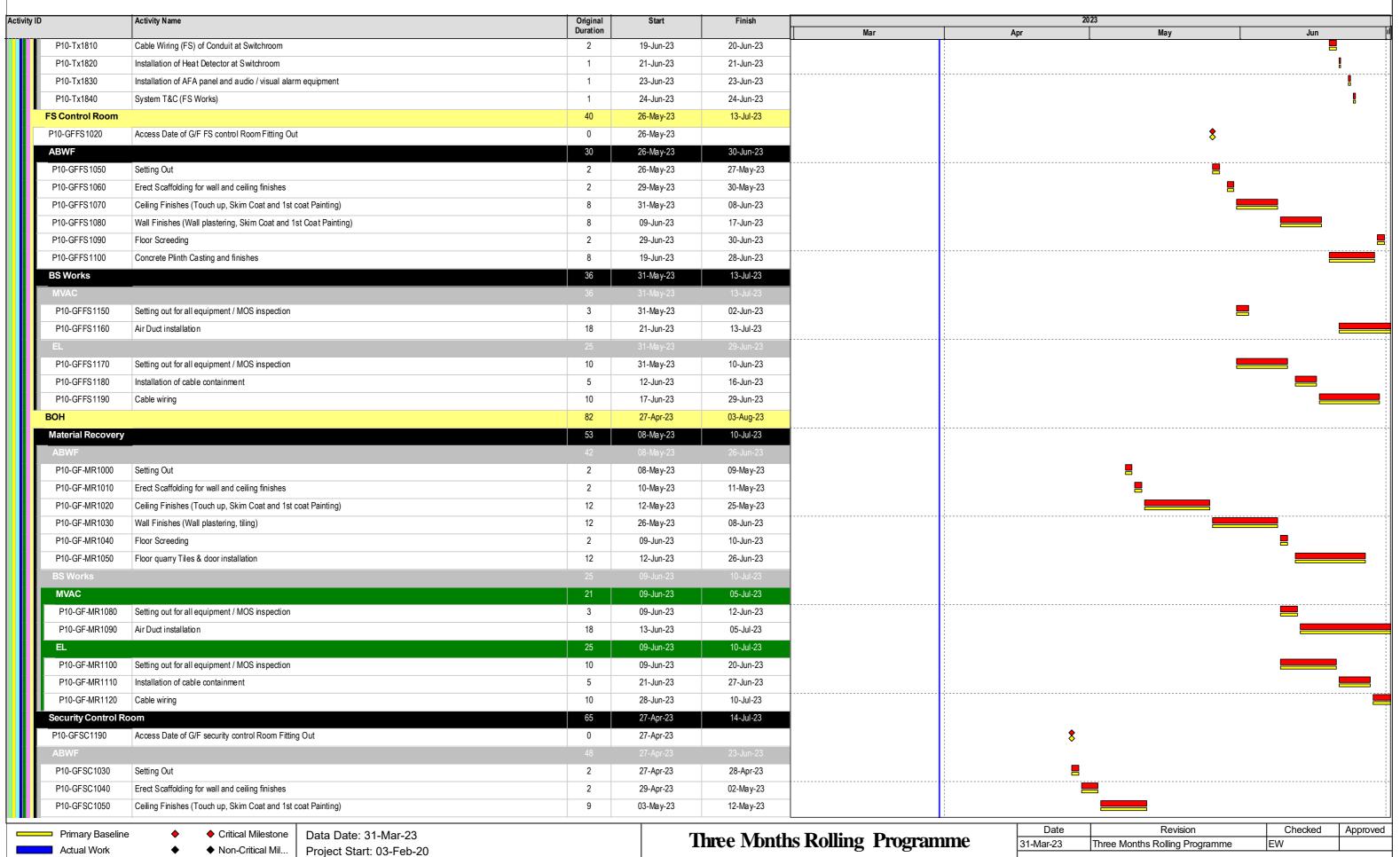
Baseline Milestone

Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



Remaining Work

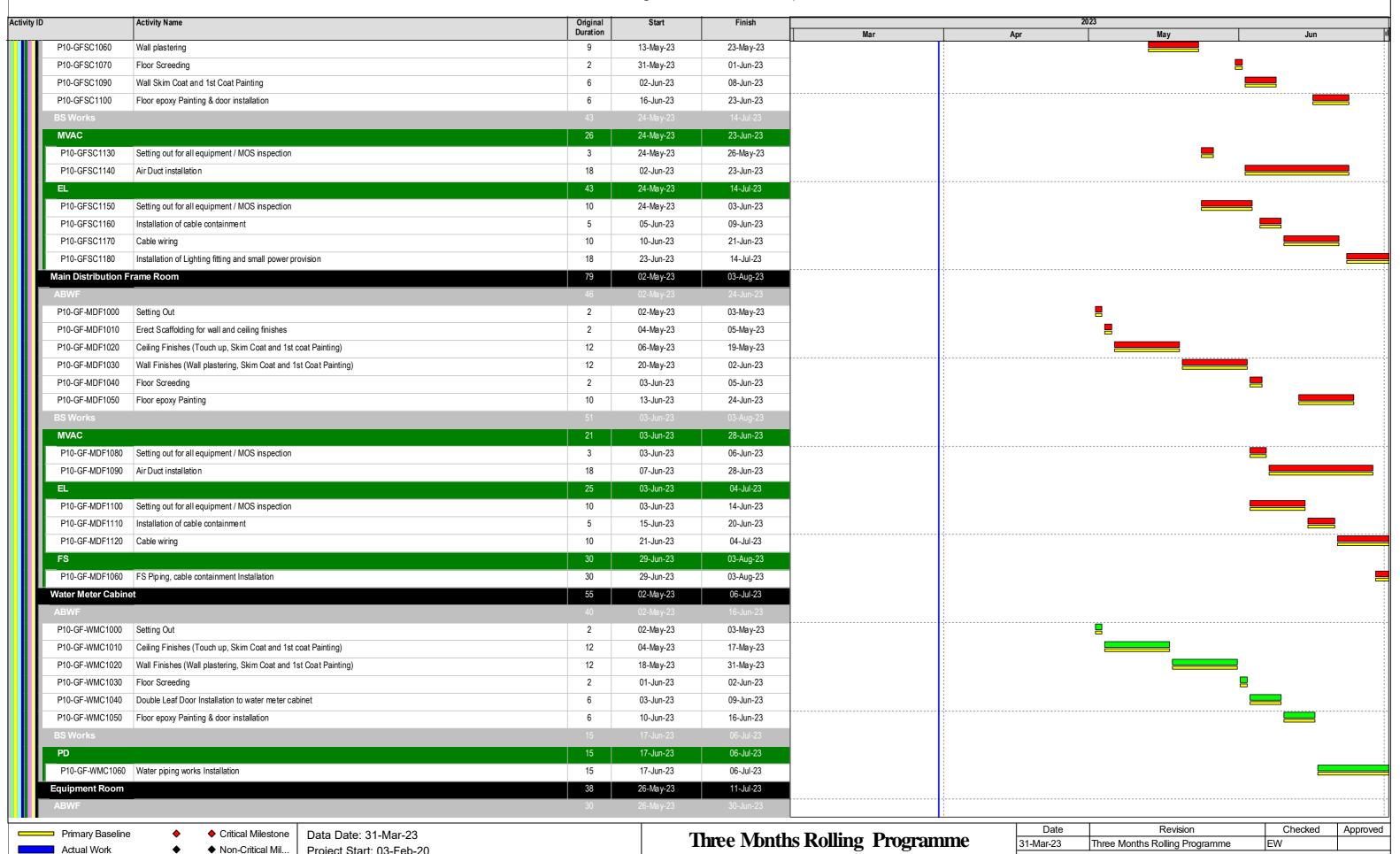
Baseline Milestone

Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

Baseline: Monthly Markup Programme (Feb 2021) (Accepted on



(Mar~Jun 2023)

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Project End: 30-Jan-27

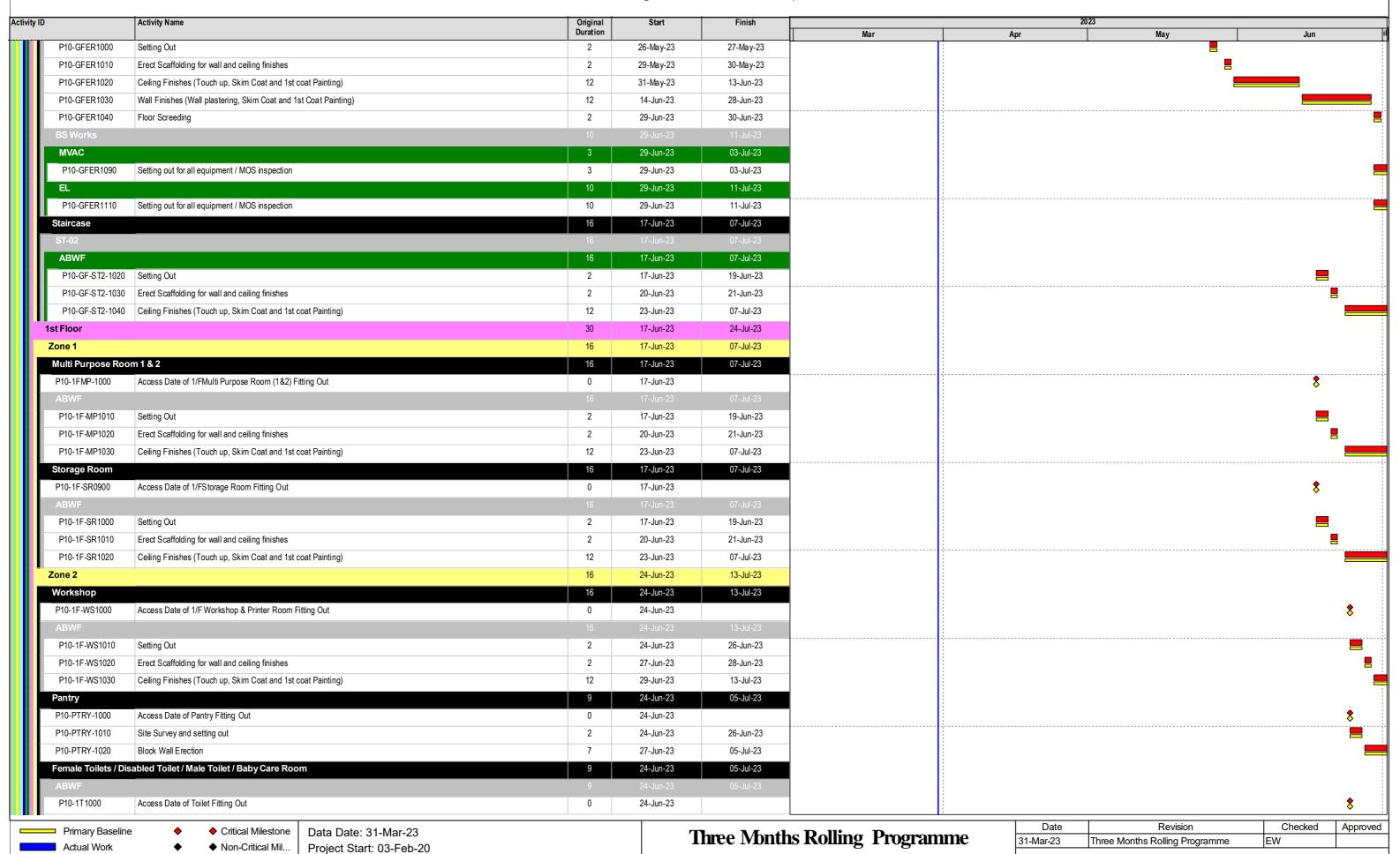
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Remaining Work

Baseline Milestone

Critical Remaining Work



Remaining Work

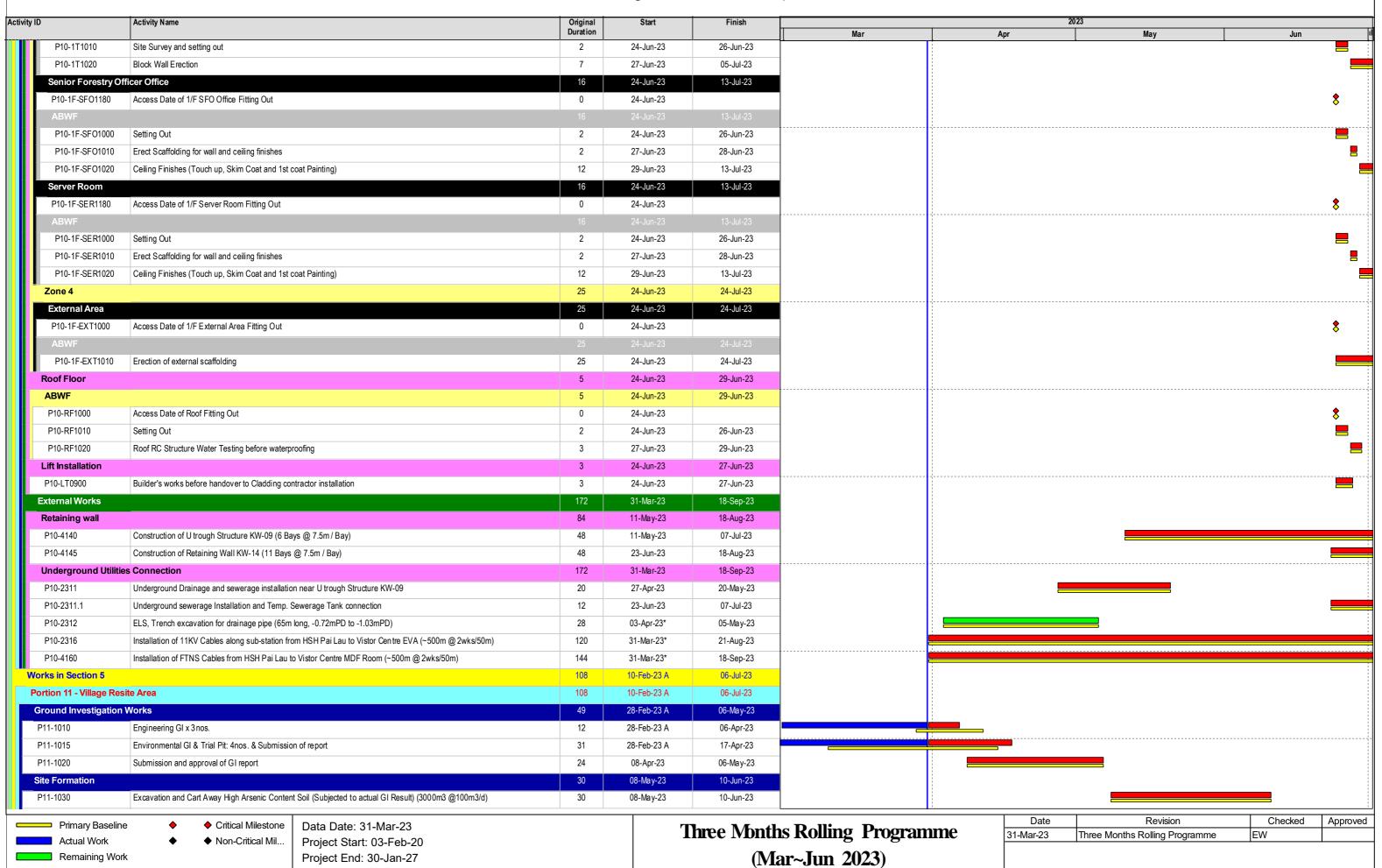
♦ Baseline Milestone

Critical Remaining Work

Project End: 30-Jan-27

15 April 2021)

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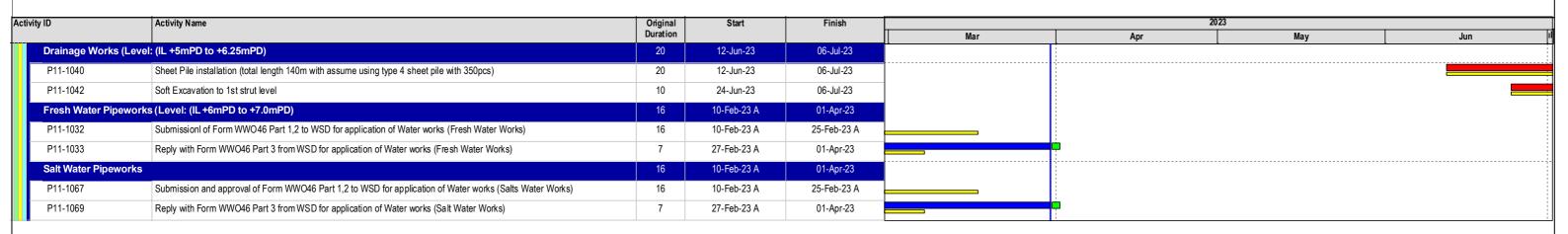


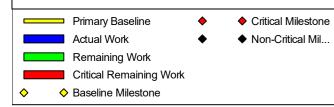
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Critical Remaining Work

♦ Baseline Milestone

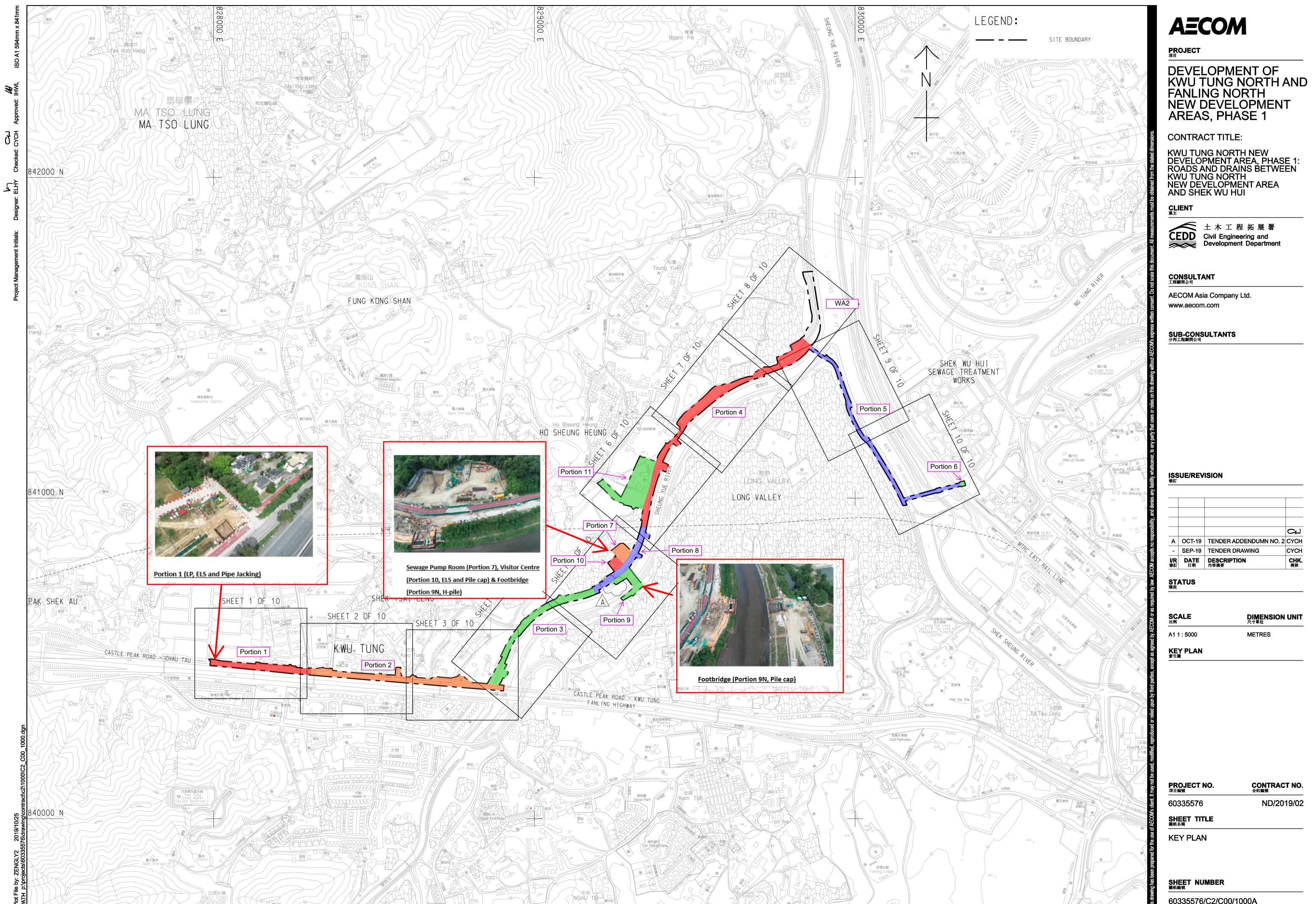




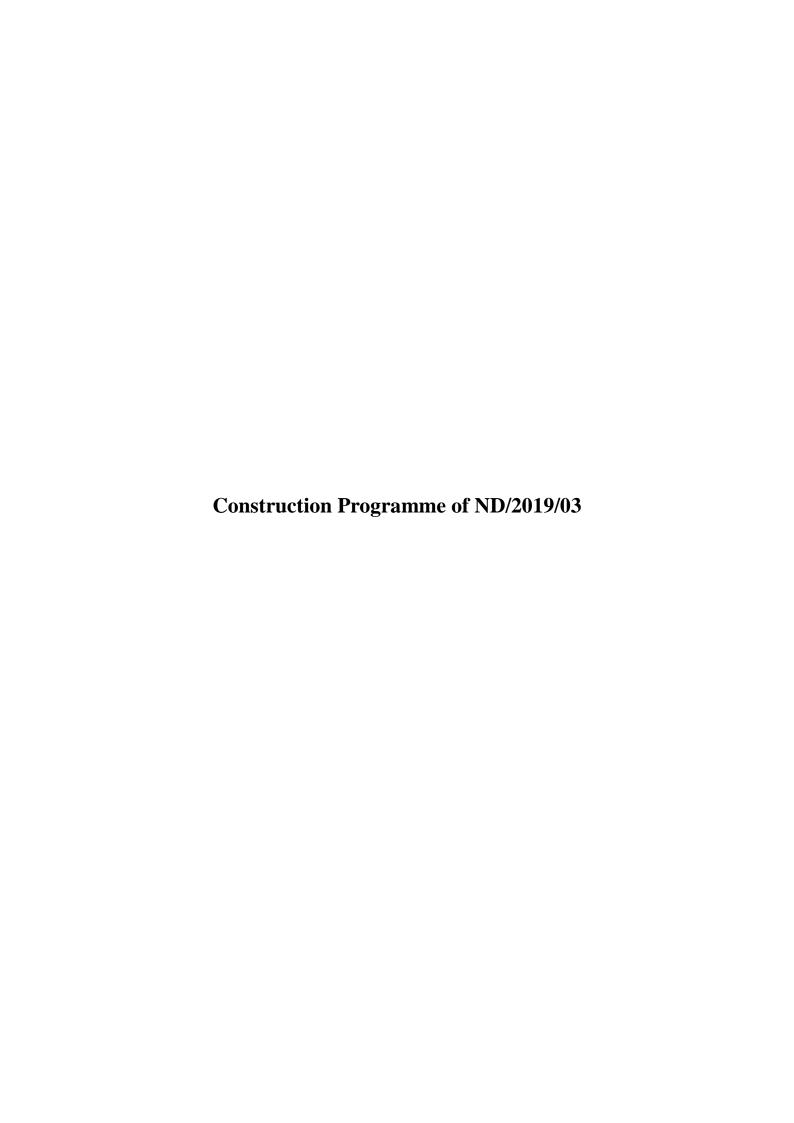
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Project End: 30-Jan-27
Baseline: Monthly Markup Programme (Feb 2021) (Accepted on 15 April 2021)

Three Months Rolling Programme (Mar~Jun 2023)

Date	Revision	Checked	Approved
31-Mar-23	Three Months Rolling Programme	EW	



60335576/C2/C00/1000A



Contract No. ND/2019/03

Data Date: 2022-9-3

Rolled Up Critical Task

Sang Hing - Kuly Joint Venture

Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park Project Programme of the Works 2021 2022 Duration Start Task Name H2 Tue 10/12/19 Tue 10/12/19 0 days **Contract Key Dates** Tue 10/12/19 1.1 Contract Date 0 days Tue 10/12/19 Thu 19/12/19 1.2 Starting Date Thu 19/12/19 Thu 19/12/19 Thu 19/12/19 Thu 19/12/19 Portions 25, 26, 27 0 days Portions 1, 5, 64, 7, 84, 94, 9C, 9E, 9F, 9G, 10A, 10B, 11A, 11B, 12A, 12C, 12D, 13A, 15B, 15C, 16, 17, 19A, 19B, 19C, 20A, 20B Sat 18/1/20 Sat 18/1/20 6 . 0 days Mon 17/2/20 Mon 17/2/20 Portions 15A, 18, 19, 20, 20C, 22 0 days Sat 18/4/20 Sat 18/4/20 Delay of Site Access Dates: Portion 15A, 18, 19, 20 (Structure has not Thu 7/5/20 19 days Wed 13/5/20 Delay of Site Access Dates: Portion 22 (Structure has not been 25 days Sun 19/4/20 Portions 1A 2 2A 3.4.4A 4B 5A 6 B 7A 7B Sat 18/7/20 11 Delay of Site Access for Area with Structure & Tudigong in Portion 203 days Sun 19/7/20 Sat 6/2/21 Delay of Site Access Dates: 4B.5A Sun 19/7/20 Mon 10/5/21 296 days Sun 18/10/20 Sun 18/10/20 Portions 88, 9, 98, 9D, 10, 11, 12, 128, 13, 14 0 days Delay of Site Access Date: Portion 9D 151 days Mon 19/10/20 Thu 18/3/21 Sat 3/4/21 Mon 19/10/20 Delay of Site Access for Area with Structure in Portion 88, 98 167 days Mon 18/1/21 Mon 18/1/21 Portions 15, 16A, 16B, 17A, 17B, 21 0 days Delay of Site Access for Area with Structure in Portion 16B 79 days Tue 19/1/21 Wed 7/4/21 Thu 19/12/19 Thu 19/12/19 O days Works Area WA1 0 days Thu 19/12/19 Thu 19/12/19 1.4 Completion of the works Fri 30/6/23 0 days Section 1 Fri 30/6/23 Fri 30/6/23 Section 2 Wed 30/8/23 Section 3 0 days Wed 30/8/23 0 days Sun 17/9/23 Sun 17/9/23 Section 3A 0 days Wed 21/10/20 Wed 21/10/20 Section 4 Sat 16/1/21 Sat 16/1/21 Section 5 0 days 0 days Sun 30/5/21 Sun 30/5/21 Section 6 0 days Mon 2/8/21 Mon 2/R/21 Tue 13/7/21 0 days Tue 13/7/21 Section 8 Sat 6/11/21 Sat 6/11/21 Section 9 Section 11 0 days Sun 18/12/22 Sun 18/12/22 Mon 18/12/23 Mon 18/12/23 0 days Section 11A Fri 18/12/20 Frt 18/12/20 Fri 20/12/19 Thu 3/3/22 805 days 2. Prefiminary works Set up Project Manager's Accommodation in WA1 (1st part) Wed 17/6/20 Tue 30/6/20 Set up Project Manager's Accommodation in Portion 3 (2nd part) 14 days Mon 8/3/21 Sun 21/3/21 Mon 3/2/20 Tue 3/3/20 Prepare, submit & Approve ICE Prepare, submit & Approve Traffic Consultant 30 days Wed 1/1/20 Thu 30/1/20 Mon 3/2/20 Tue 12/5/20 100 days Prepare, submit & Approve Landscape Team Leader Prepare, submit & Approve Agricultural Specialist Fri 20/12/19 Sat 18/1/20 Prepare, submit & Approve Constructed / Treatment Wetland 30 days Fri 28/2/20 Sat 28/3/20 30 days Fri 20/12/19 Sat 18/1/20 Prepare, submit & Approve Ecological Team Leader Habitat Survey 112 days Sun 19/1/20 Sat 9/5/20 Submission/approval of Habitat Surveys Method Statement Sun 19/1/20 Thu 27/2/20 40 days and Programme Habitat Surveys 30 days Fri 28/2/20 Sat 28/3/20 Sat 11/4/20 Submission of Habitat Record 14 days Sun 29/3/20 28 days Sun 12/4/20 Approval of Habitat Survey Record Prepare and Submit Wetland Restoration Proposal 50 days Sun 10/5/20 Sun 28/6/20 Fri 25/12/20 Approval of Wetland Restoration Proposal 180 days Mon 29/6/20 Sun 10/5/20 Sun 28/6/20 Prepare and Submit Wetland Creation Proposal 50 days oval of Wetland Cretation Proposal 180 days Mon 29/6/20 Fri 25/12/20 Thu 2/1/20 Prepare and Submit Ecological Protection Plan Fri 20/12/19 14 days Prepare, Submit and Approval of Maintenance Proposal for Stage 1 Maintenance Works Fri 10/7/20 Prepare, submit & Approve G.I. Contractor 90 days Wed 15/7/20 Mon 12/10/20 Fri 20/12/19 Sat 18/1/20 30 days Prepare and submit Smart Card Sysytem Prepare, submit Draft Safety Plan 14 days Fri 20/12/19 Thu 2/1/20 Thu 6/2/20 Review & Approve Safety Plan 35 days Frl 3/1/20 Fri 20/12/19 Thu 9/1/20 Prepare, Submit Draft Environmental Management Plan 21 days Review & Approve Environmental Management Plan 45 days Fri 10/1/20 Sun 23/2/20 Fri 20/12/19 Sun 2/2/20 62 🗸 Prepare, submit & Approve Site Management Plan for Trip Ticket 45 days 63 🗸 Submission and Approval of Construction Method for water 90 days Tue 15/9/20 Sun 13/12/20 treatment wetland Submission of Proposal for Source of Water for Water Treatment 120 days Fri 20/12/19 Fri 17/4/20 64 Approval of Source of Water for Water Treatment Wetland Sat 18/4/20 Thu 15/7/20 66 Design/submission/approval of Lodging Facilities 300 days Tue 30/6/20 Sun 25/4/21 Design / Submission / approval of Sewerage System of Lodging Facilities 150 days Wed 16/9/20 Design/submission/approval of alluminium roofing system, timber 180 days for wall/floor/soffit for Birdhide Sat 25/9/21 Tue 30/3/21 69 **(a)** Wed 30/9/20 Design/submission/approval of E&M works for Facilities Design/submission/approval of Plumbing works for Facilities Wed 7/7/21 Thu 3/3/22 Tue 30/6/20 Sat 26/12/20 Design/submission/approval and supply of Lighting 180 days Thu 25/2/21 180 days Sun 30/8/20 Design/submission/approval and supply of park facilities Submission and Approval for Fire Extinguisher 50 days Wed 14/4/21 Wed 2/6/21 Thu 5/8/21 Wed 13/5/20 Tree survey and submission 450 days Fri 12/6/20 Sat 4/9/21 Tree felling / Site clearance Design/submission/approval of Entrance gantry signages 180 days Wed 1/9/21 Sun 27/2/22 Mon 27/9/21 77 180 days Thu 1/4/21 Design/submission/approval of Irrigation system for landscape Design/submission/approval of Irrigation Channel and other associated facilities 78 Tue 1/9/20 Fri 8/1/21 Start-only External Tasks Rolled Up Milestone Revised Programme; Sep 2022 Manual Summary Rollup Finish-only Progress Inactive Summary Critical Task Rolled Up Task Rolled Up Progress Project Summary

..... Group By Summary

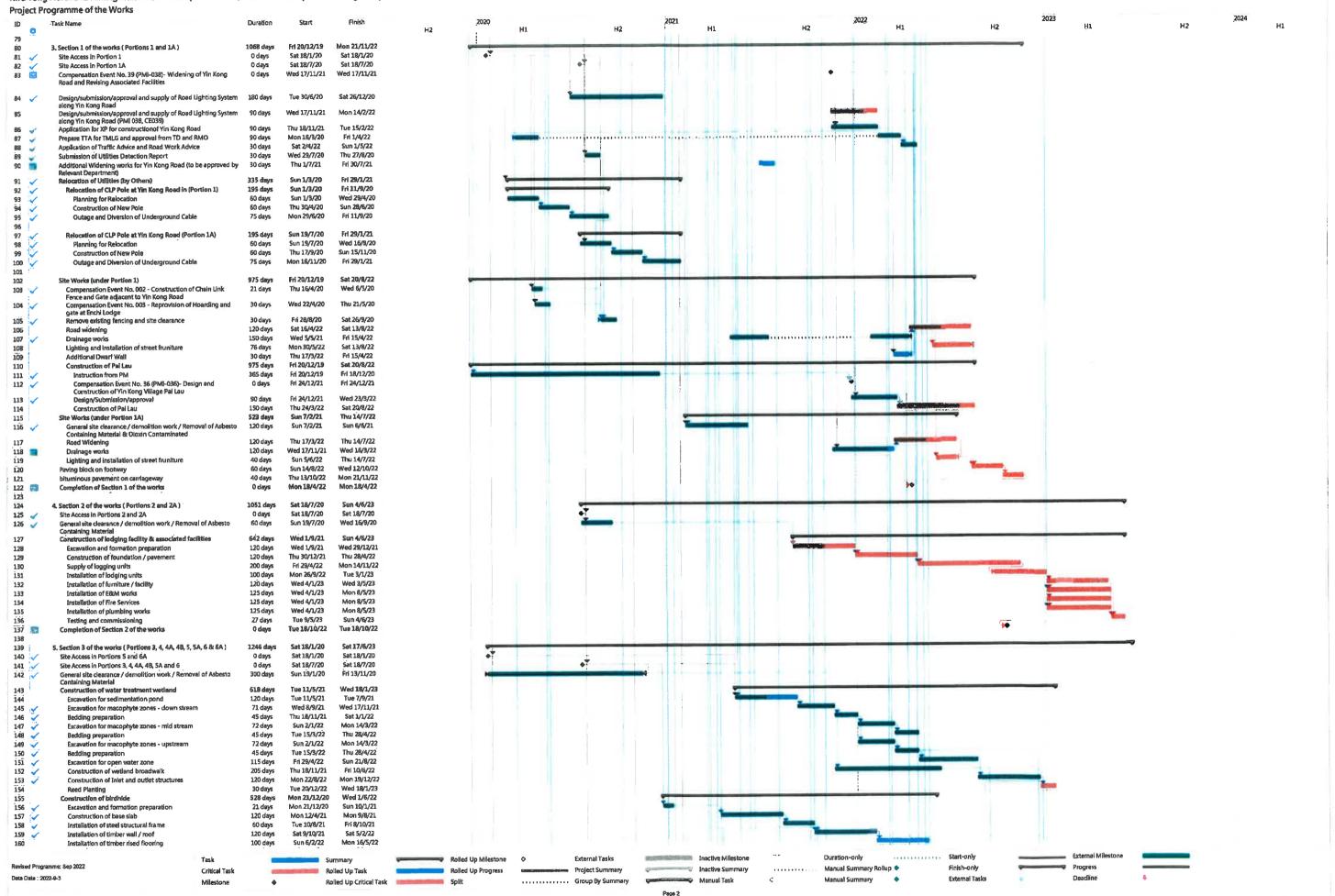
Deadline

Manual Summary

Manual Task

Contract No. ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park



Sang Hing - Kuly Joint Venture

Contract No. ND/2019/03 Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park Project Programme of the Works ID Task Name Duration Finish 2021 H2 Installation of ERM, Fire Services System 120 days Sat 9/10/21 Set 5/2/22 162 Testing & commissioning 90 days Fri 4/3/22 Wed 1/6/22 Sun 31/10/21 Fri 8/7/22 Construction of farmer's forum / open area 251 days 164 Construction of tea house pavilion 251 days Sun 31/10/21 Fri 8/7/22 165 🗸 Sun 31/10/21 Sat 20/11/21 Construction of base slab 21 days Sun 21/11/21 Sat 25/12/21 Construction of walls with columns 167 🗸 Installation of roof steel structure 45 days Sun 26/12/21 Tue 8/2/22 Thu 10/3/22 Installation of recycled timber strip for roof Wed 9/2/22 168 30 days Installation of recycled timber strip for walls Fri 11/3/22 Sat 9/4/22 170 Supply and installation of bench 30 days Fri 11/3/22 Sat 9/4/22 171 Installation of plumbing works / E&M works with testing & 90 days Fri 8/7/22 Sun 10/4/22 Construction of paving slab for open area Mon 9/5/22 172 Wed 9/2/22 Fri 8/7/22 173 Construction of entrance gantry signages 60 days Tue 10/5/22 Mon 14/11/22 Construction of Type 1 storage house 469 days Compensation Event No. 58 (PMI-059)-Type 1 Storage House 175 🗸 0 days Thu 21/10/21 Thu 21/10/21 176 Design of Fire Services (CE No. 058) 150 days Thu 21/10/21 Sat 19/3/22 177 🗸 Design of Piumbing Works (CE No. 058) & Approval by WSD 150 days Thu 21/10/21 Sat 19/3/22 Tue 3/8/21 Mon 23/8/21 178 Excavation and formation preparation 21 days Tue 24/8/21 Mon 20/9/21 Construction of base slab 28 days 179 🗸 180 Construction of walls and roof 40 days Tue 21/9/21 Sat 30/10/21 Sat 27/11/21 Installation of aluminium louvre / GMS door 28 days Sun 31/10/21 Installation of recycled timber strip / external finishing Sun 28/11/21 Tue 8/2/22 183 184 Installation of Plumbing Works (CE No. 058) 60 days Sun 20/3/22 Wed 18/5/22 Installation of E&M works & Fire Services with testing & 180 days Thu 19/5/22 Mon 14/11/22 truction of outdoor classroom shelter 185 455.2 days Mon 26/4/21 Mon 25/7/22 Excavation and formation preparation Wed 13/10/21 186 21 days Mon 26/4/21 Wed 13/10/21 Construction of base slab Construction of concrete columns Wed 24/11/21 Wed 76/1/22 189 💟 Installation of steel roof frame with corrugated sheet Wed 26/1/22 Fri 25/2/22 30 days installation of recycled timber strip roofing 191 Installation of ERIM works and Fire Services with testing & 90 days Tue 26/4/22 Mon 25/7/22 Construction of storage compositing facility Mon 15/2/21 Thu 30/12/21 192 🗸 319 days Excavation and formation preparat Mon 15/2/21 Mon 8/3/21 194 -Construction of base slab 54 days Tue 9/3/21 Sat 1/5/21 195 🧹 Construction of concrete columns 63 days Sun 2/5/21 Installation of steel roof frame with corrugated sheet Sun 4/7/21 Mon 2/8/21 197 🗸 Installation of recycled timber strip roofing 60 days Tue 3/8/21 Fri 1/10/21 Installation of E&M works & Fire Services with testing & 199 Construction of entry landing with drop bar 90 days Sat 2/10/21 Thu 30/12/21 200 Construction of walkway 210 days Sun 31/10/21 Sat 28/5/22 Tue 20/12/22 Sat 17/5/23 202 30 days Tue 20/12/22 Wed 18/1/23 203 204 Mutching provision 30 days Mon 20/3/23 Tue 18/4/23 Wed 19/4/23 Sat 17/6/23 205 Planting 60 days 206 Completion of Section 3 of the works 207 6. Section 3A of the works (Establishment works for Section 2 and 365 days Sun 18/6/23 Sun 16/6/24 208 209 Establishment works for landscape softworks 365 days Sun 18/6/23 Sun 16/6/24 Sun 17/9/23 Sun 17/9/23 210 Completion of Section 3A of the Works 0 days 167 days 7. Section 4 of the works (Portion 18) Thu 7/5/20 Wed 21/10/20 Thu 7/5/20 Thu 7/5/20 Site Access in Portion 18 0 days General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated 20 days Fri 8/5/20 Wed 27/5/20 215 General maintenance to exist no wetland 80 days Thu 28/5/20 Sat 15/8/20 8.5 days 216 sation Event No. 020 - Inclement Weather Conditions in August 2020 Compensation Event No. 021 - Inclement Weather Conditions in September 2020 217 Sat 10/10/20 14.5 days Sat 26/9/20 Compensation Event No. 028 - Inclement Weather Conditions in October 2020 3 days Sun 11/10/20 Compensation Event No. 026 - Provision of Root Barriers behind Gabion Walls of Irrigation Channel Construction of Irrigation Channel 219 🗸 8 days Wed 14/10/20 Wed 21/10/20 220 56 days Wed 19/8/20 Tue 13/10/20 Construction of Metal Wire Railing Mon 10/8/20 Tue 13/10/20 222 Wed 21/10/20 Completion of Section 4 of the works 0 days Wed 21/10/20 223 🗸 nsation Event No. 69 (PMI-055)- Additional Stairway at Tue 14/12/21 Tue 14/12/21 0 days 90 days 224 Additional Stariway at Portion 18 Sun 13/3/22 Tue 14/12/21 8, Section 5 of the works (Portion 14) Sun 18/10/20 Sat 16/1/21 227 Site Access in Portion 14 0 days Sun 18/10/20 Sun 18/10/20 228 General site clearance / demolition work / Removal of Asbesto 60 days Containing Material 229 General maintenance to exisiting wetland 45 days Mon 19/10/20 Wed 2/12/20 230 Boundary Structure - Metal Wire Railing 90 days Mon 19/10/20 Sat 16/1/21 Completion of Section 5 of the works Sat 16/1/21 Sat 16/1/21 232 Compensation Event No. 32 (PMI-032) - Soil Replacement Works in Pr 0 days Sat 16/10/21 Sat 16/10/21 10 days Mon 25/10/21 Sat 15/1/22 Sat 18/1/20 235 9. Section 6 of the works (Portions 8.8A.8B and 9.9A~9G) 728 days Site Access in Portions 8A, 9A, 9C, 9E, 9F, 9G Sat 18/1/20 237 Site Access in Portion 8 Sat 18/7/20 Sat 18/7/20 Site Access in Portions 8B, 9, 9B, 9D 0 days Sun 18/10/20 Sun 18/10/20

Rolled Up Milestone

Rolled Up Progress

Critical Task

Date Date : 2022-9-3

Rolled Up Task

External Tasks

..... Group By Summary

Project Summary

Inactive Milestone

Inactive Summary

Duration-only

Manual Summary

..... Manual Summary Rollup

Start-only

Finish-only

External Tasks

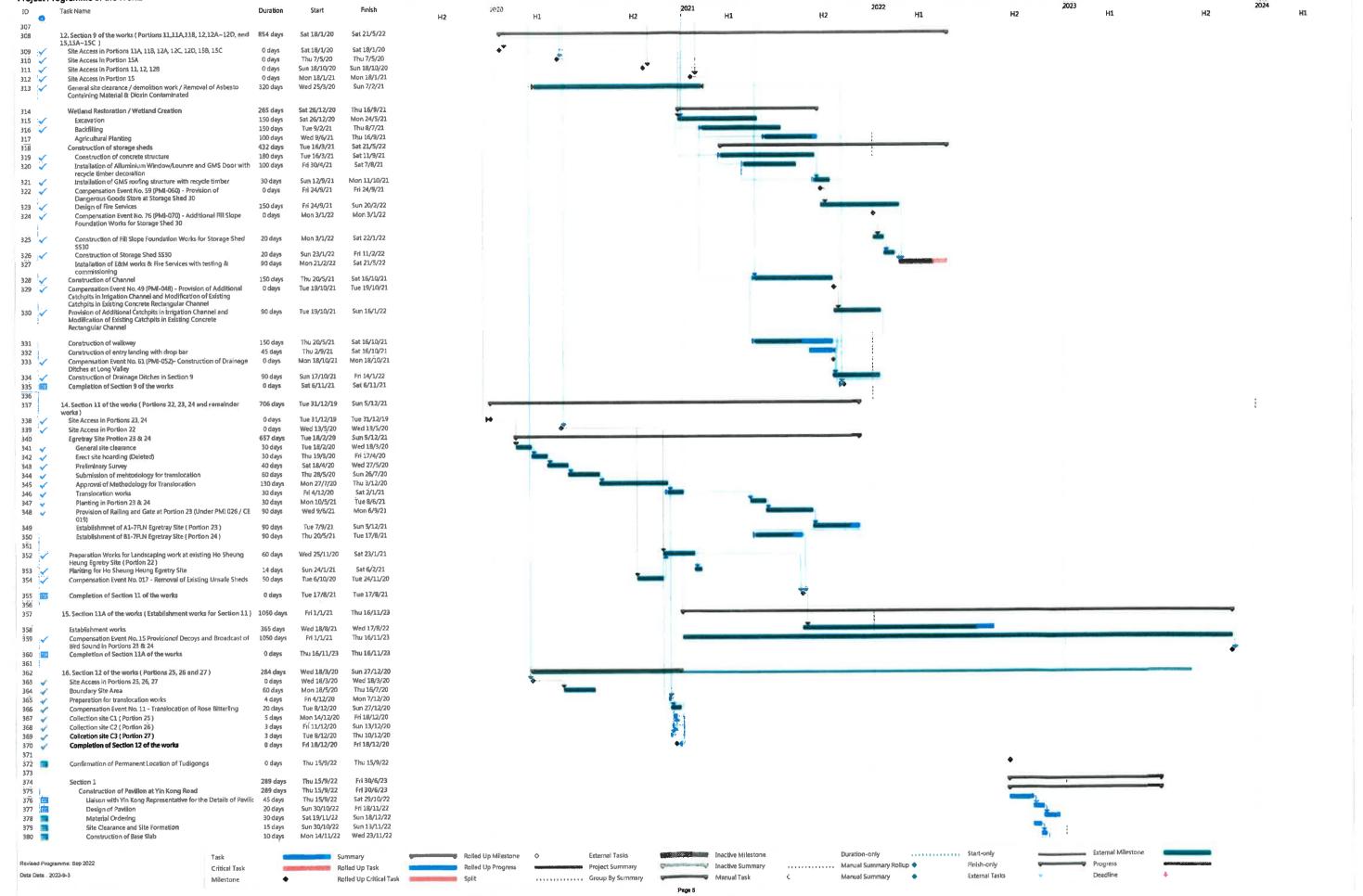
Progress

Deadline

Contract No. ND/2019/03

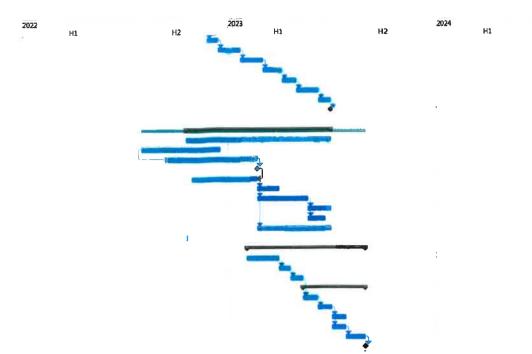
Sang Hing - Kuly Joint Venture

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park Project Programme of the Works



Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park Project Programme of the Works













2021

H2

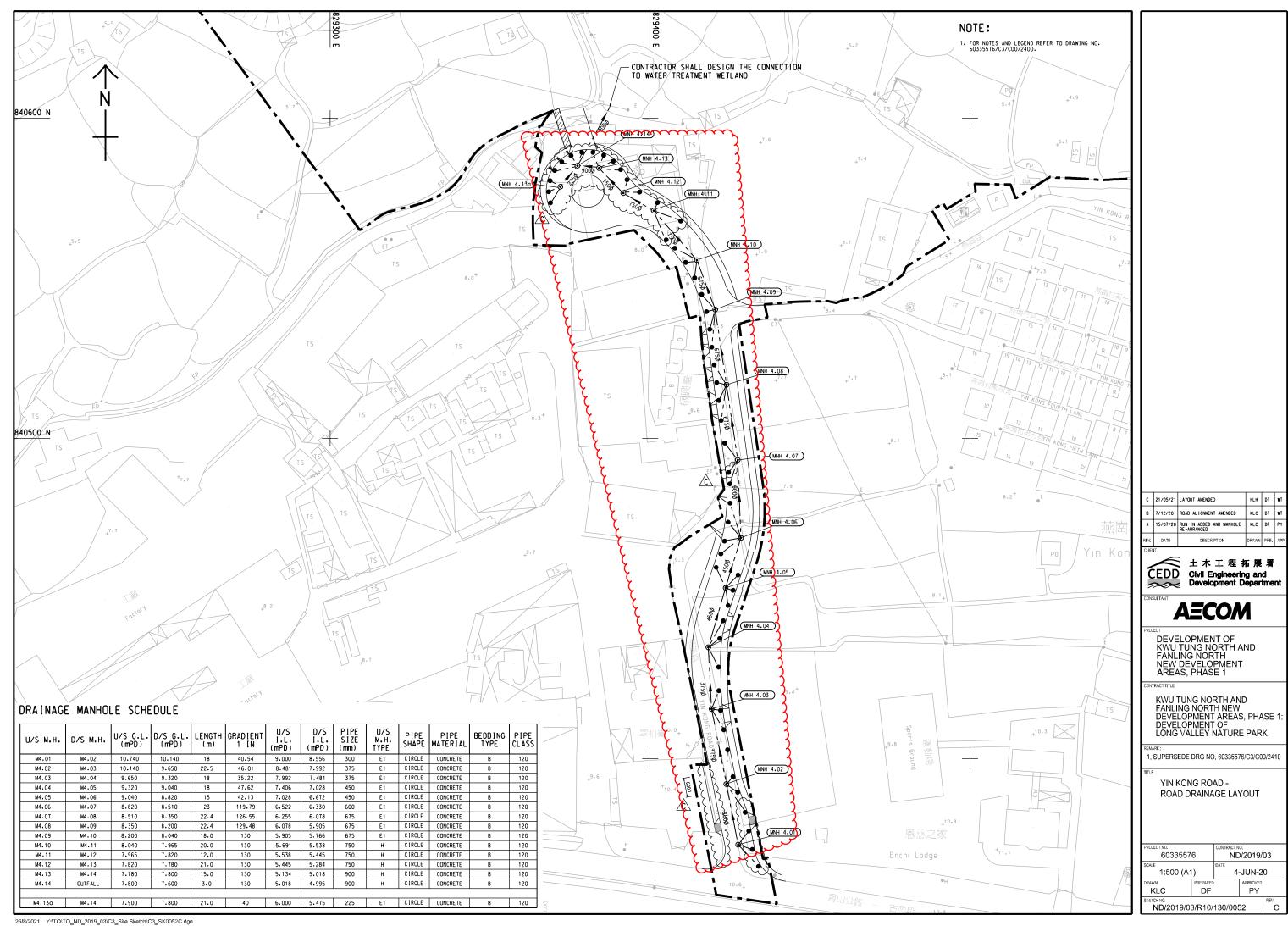
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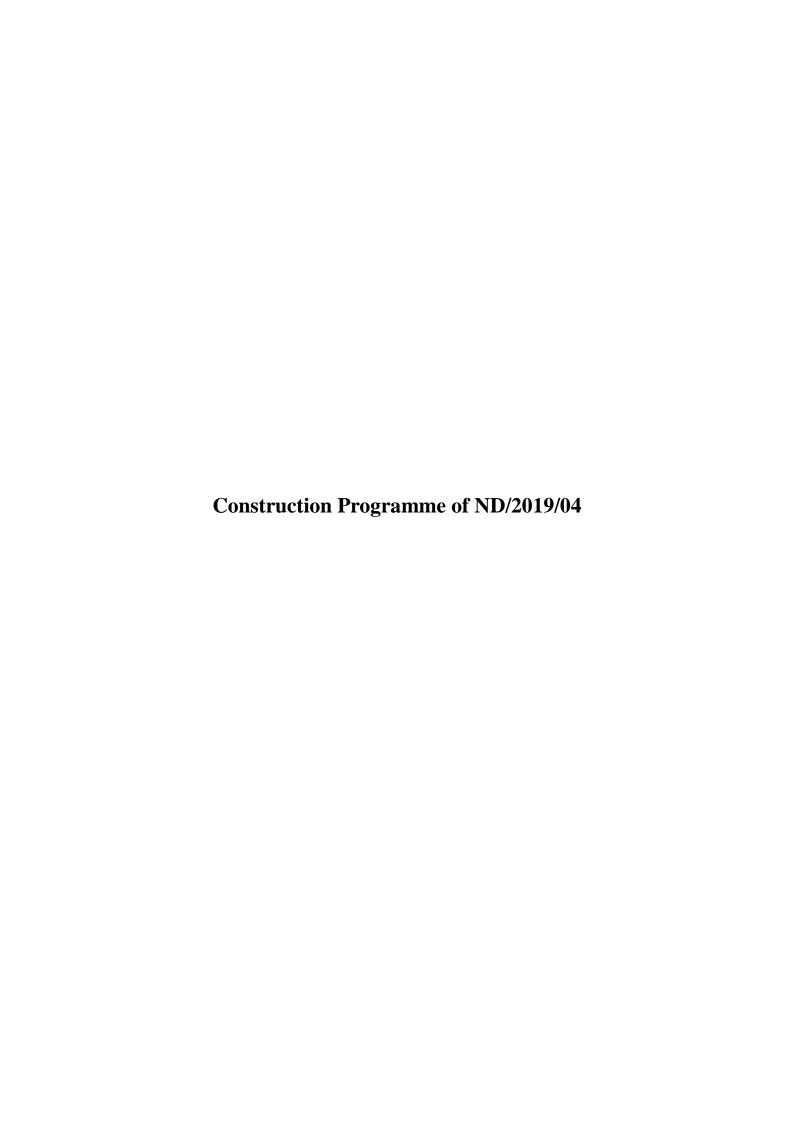






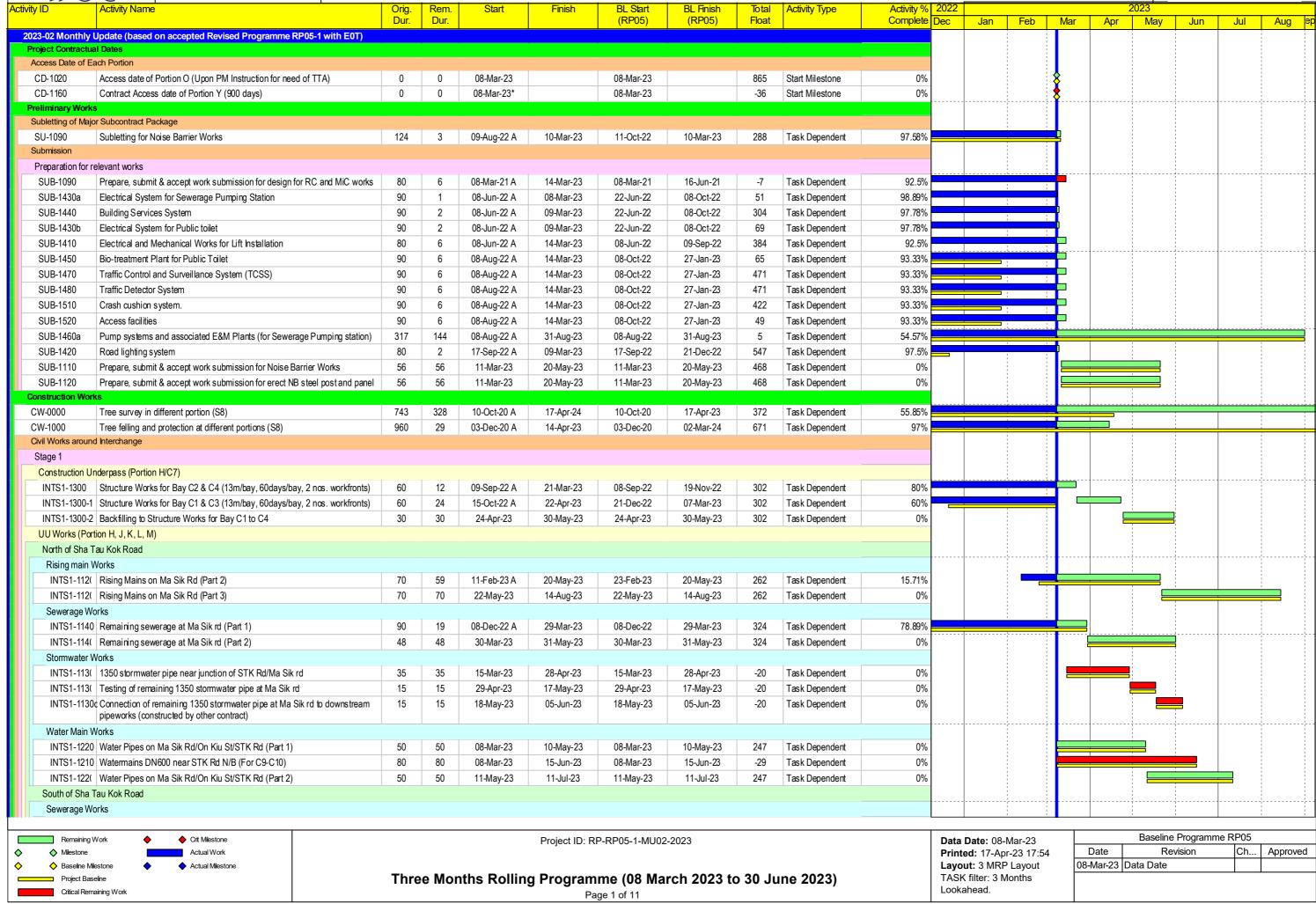


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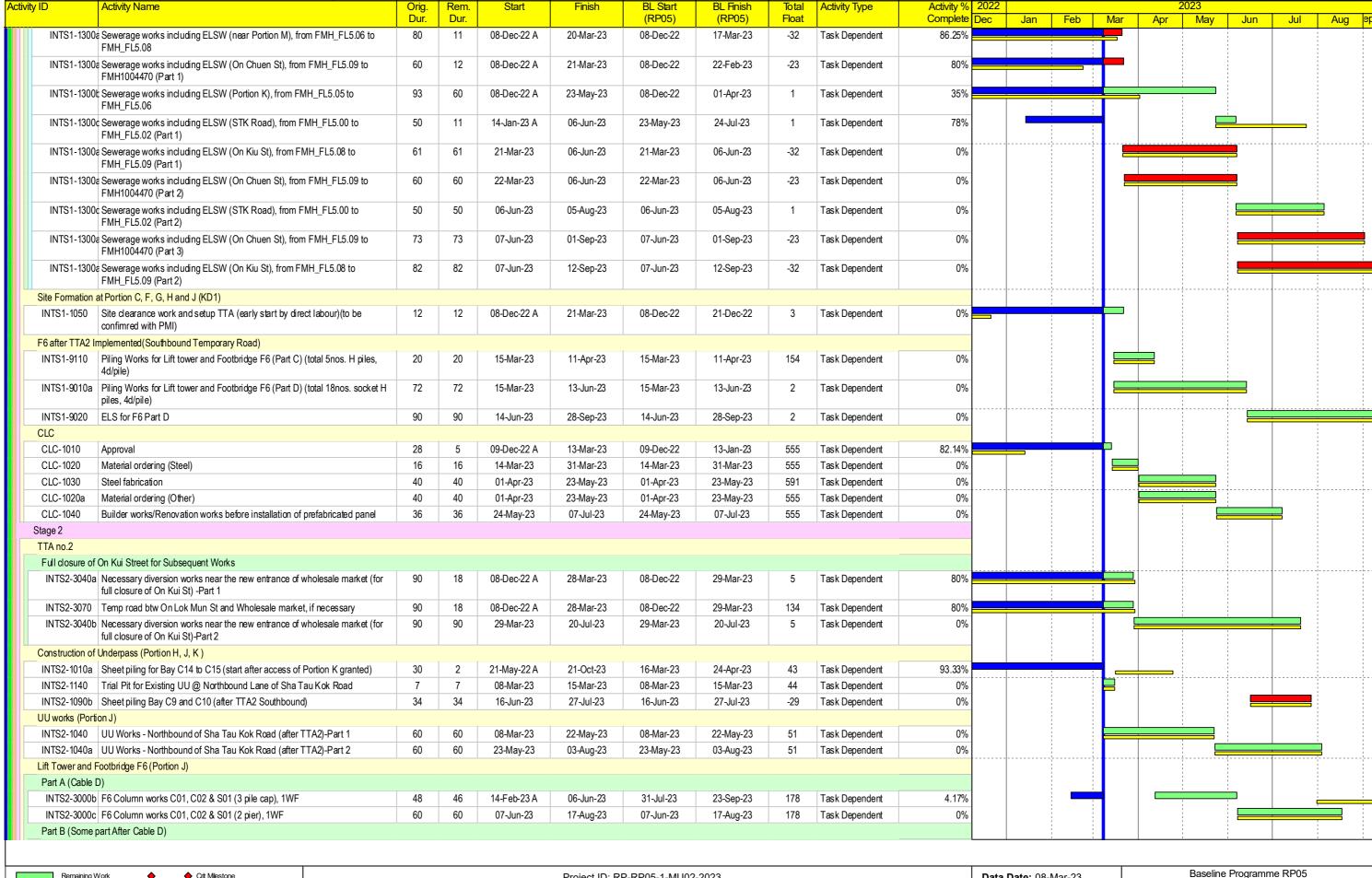














Actual Work

Actual Milestone

Project ID: RP-RP05-1-MU02-2023

Three Months Rolling Programme (08 March 2023 to 30 June 2023)
Page 2 of 11

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Printed: 17-Apr-23 17:54
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Lookahead.

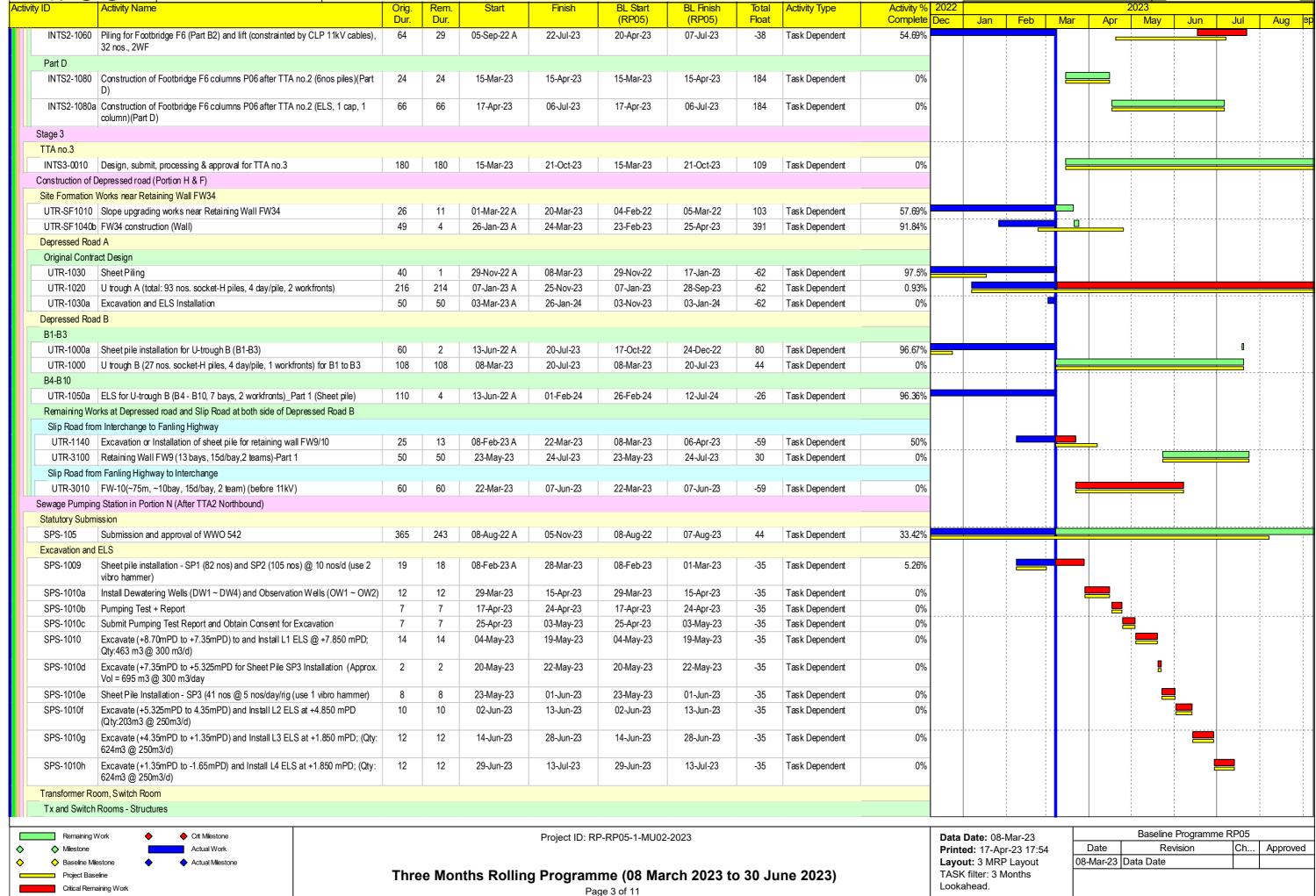
Baseline Programme RP05

Date Revision Ch... Approved

08-Mar-23 Data Date

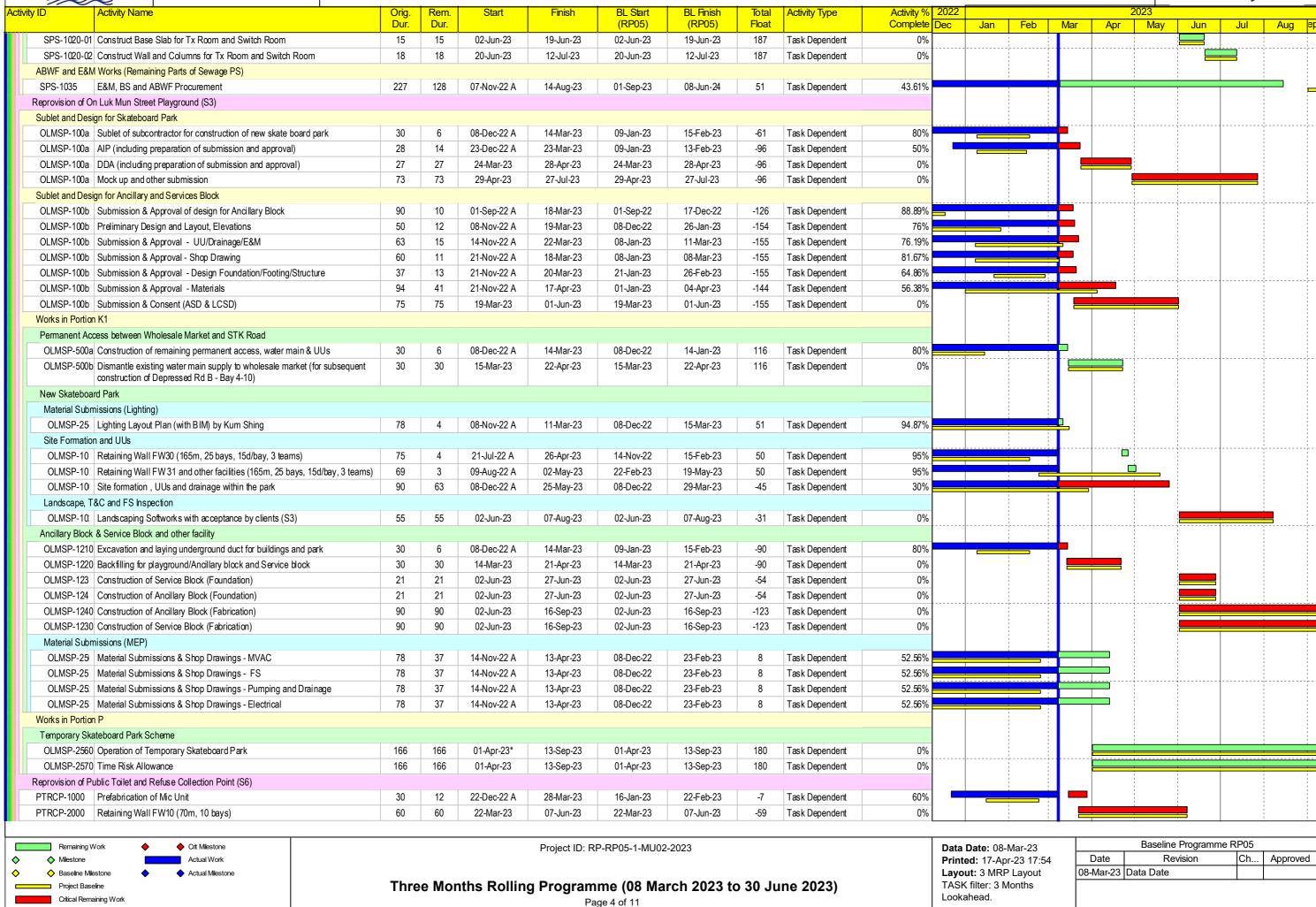






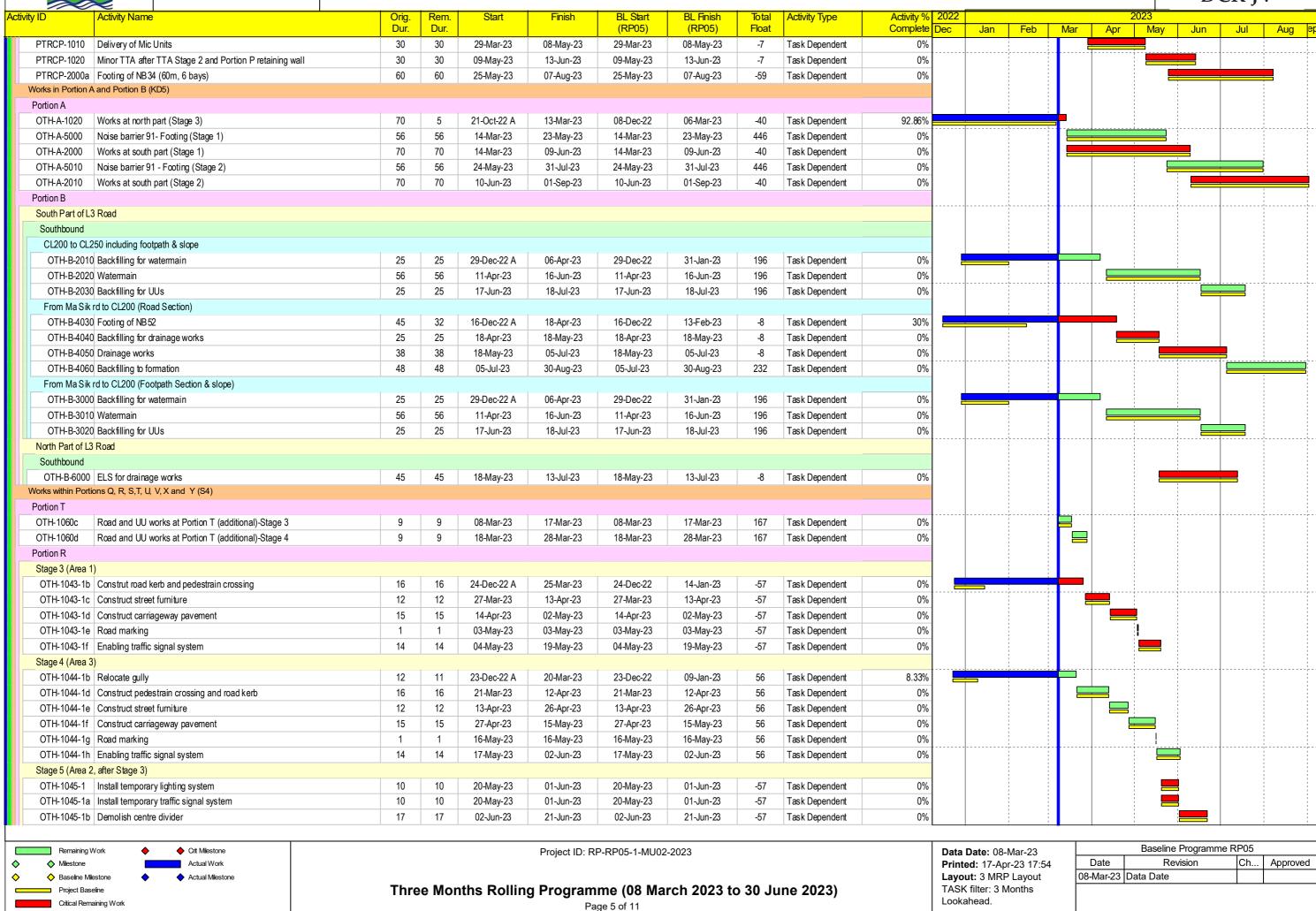














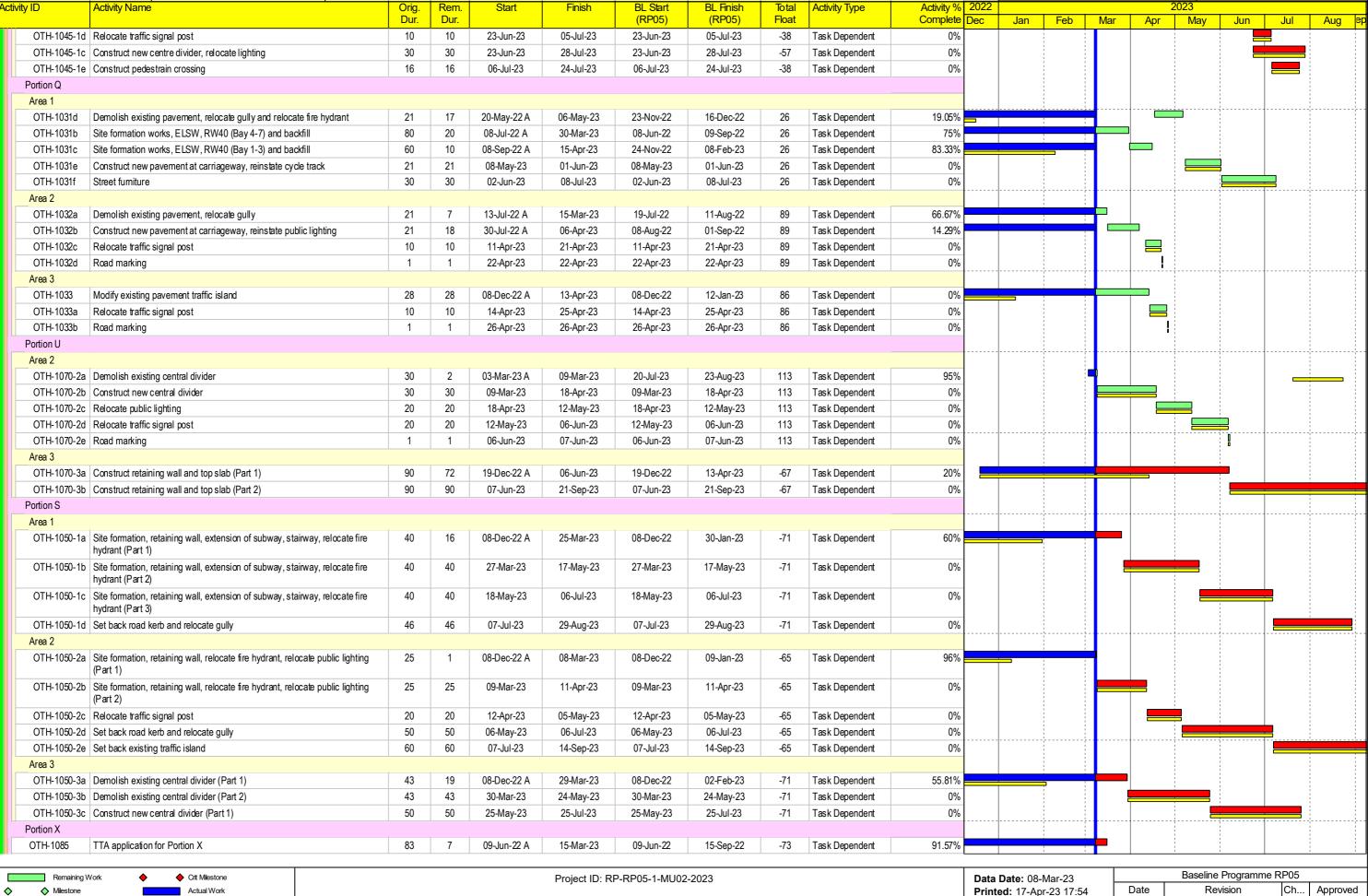
Actual Milestone

Project Baseline

Critical Remaining Work

Contract No: ND/2019/04 - Fanling Nortth New Development Area Phase 1, Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)





Three Months Rolling Programme (08 March 2023 to 30 June 2023)

Page 6 of 11

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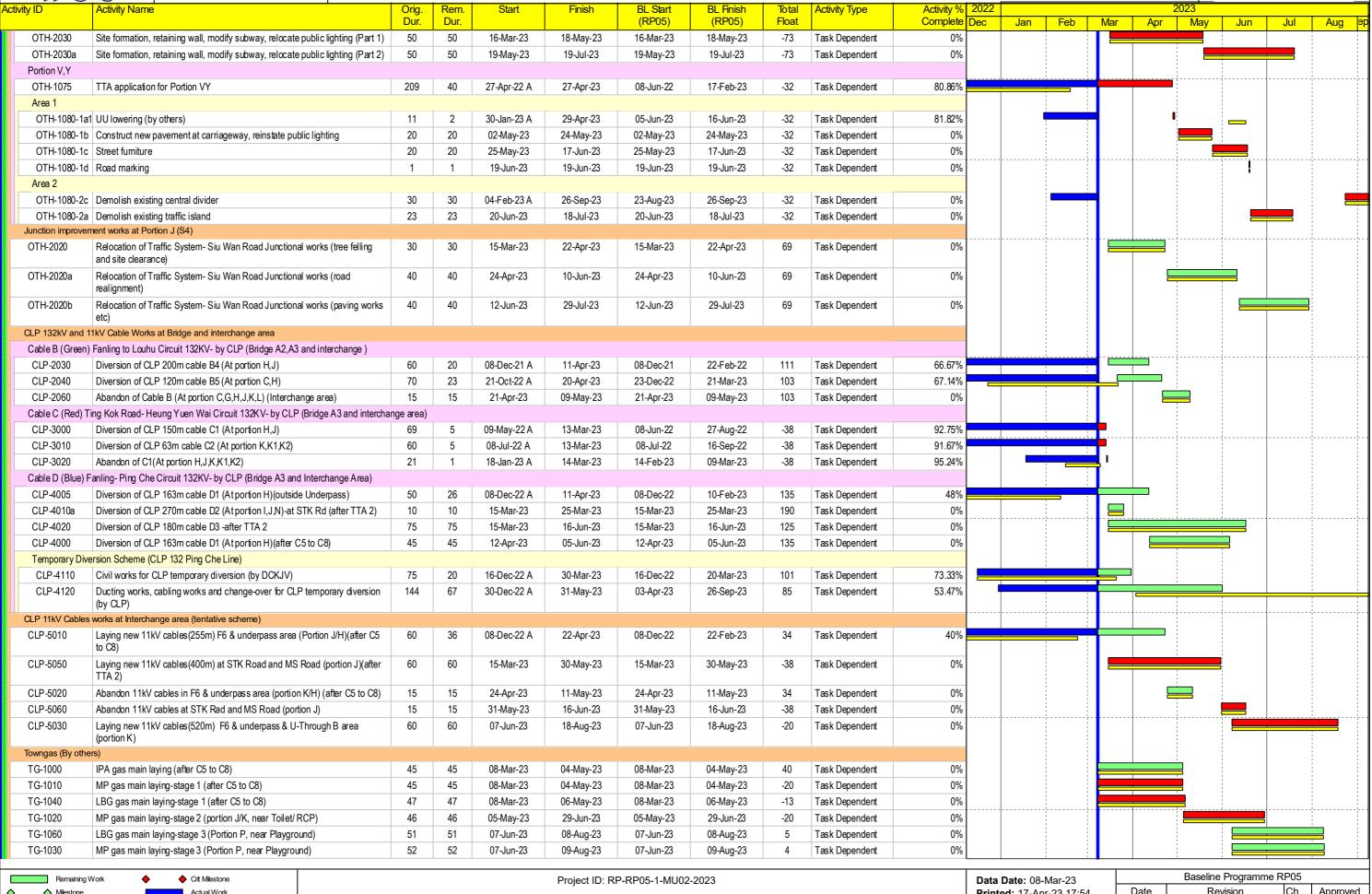
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Lookahead.

08-Mar-23 Data Date









Actual Wilestone

Actual Milestone

Three Months Rolling Programme (08 March 2023 to 30 June 2023)

Page 7 of 11

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08-Mar-23 Data Date

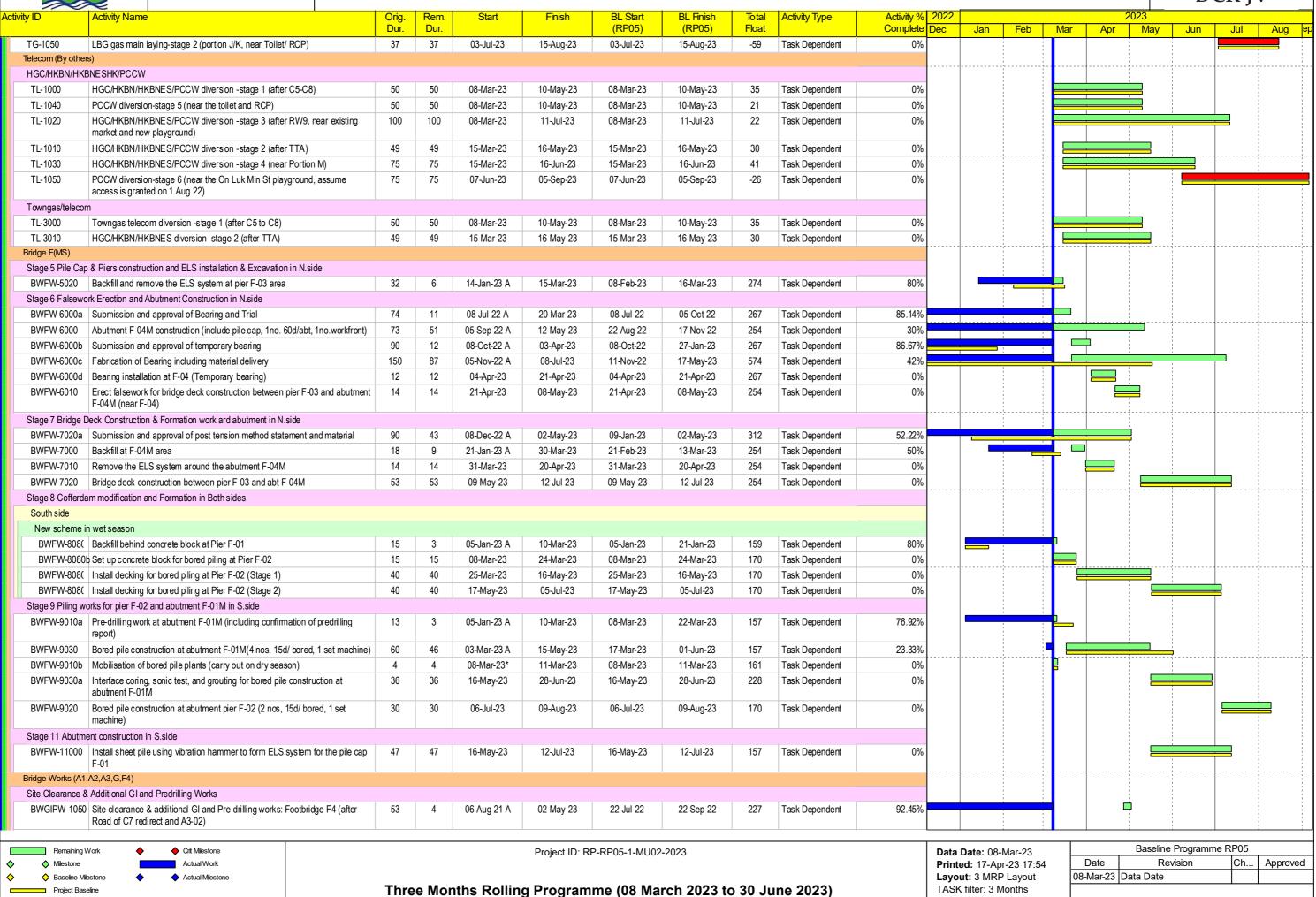


Project Baseline

Critical Remaining Work

Contract No: ND/2019/04 - Fanling Nortth New Development Area Phase 1, Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)



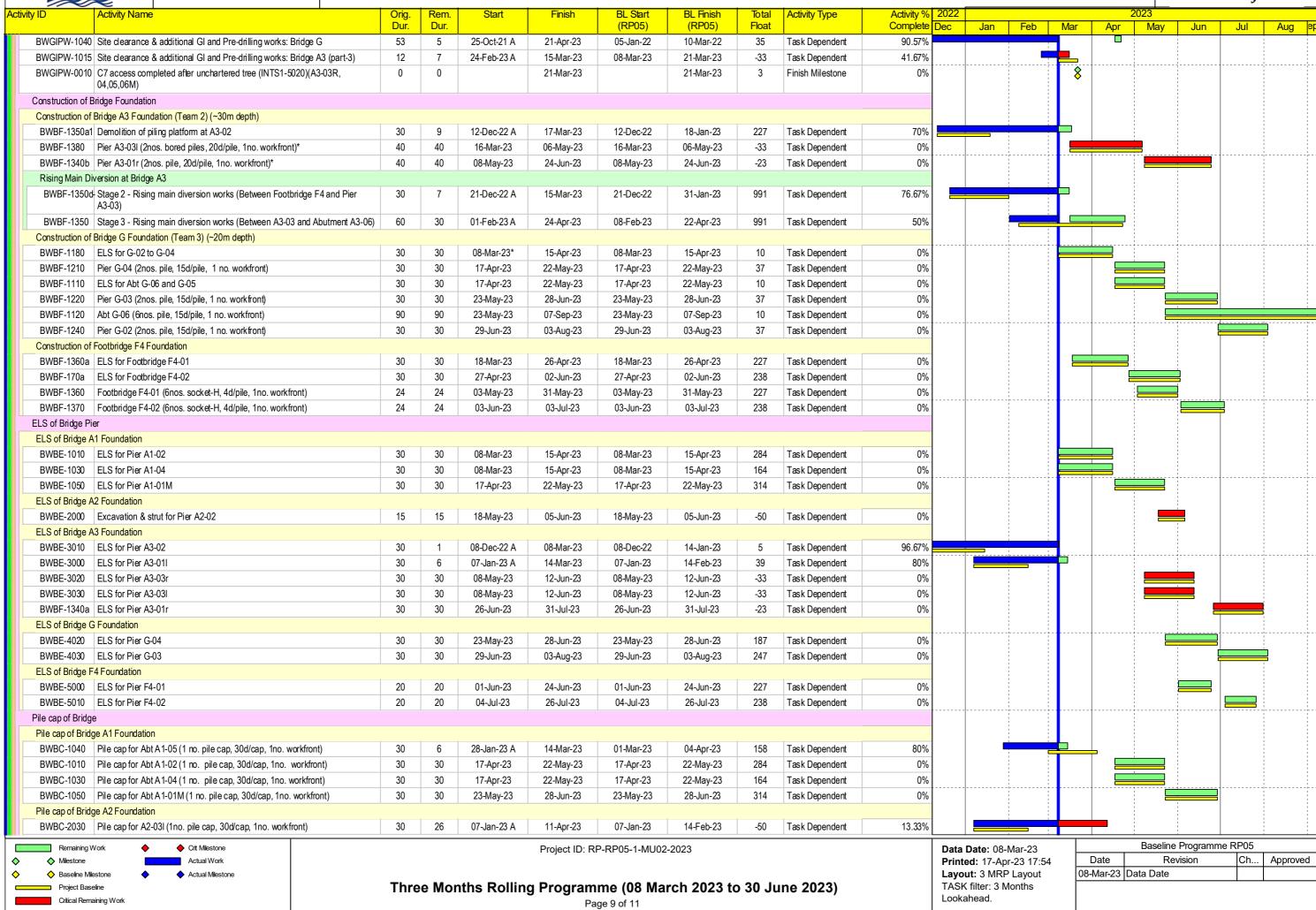


Page 8 of 11

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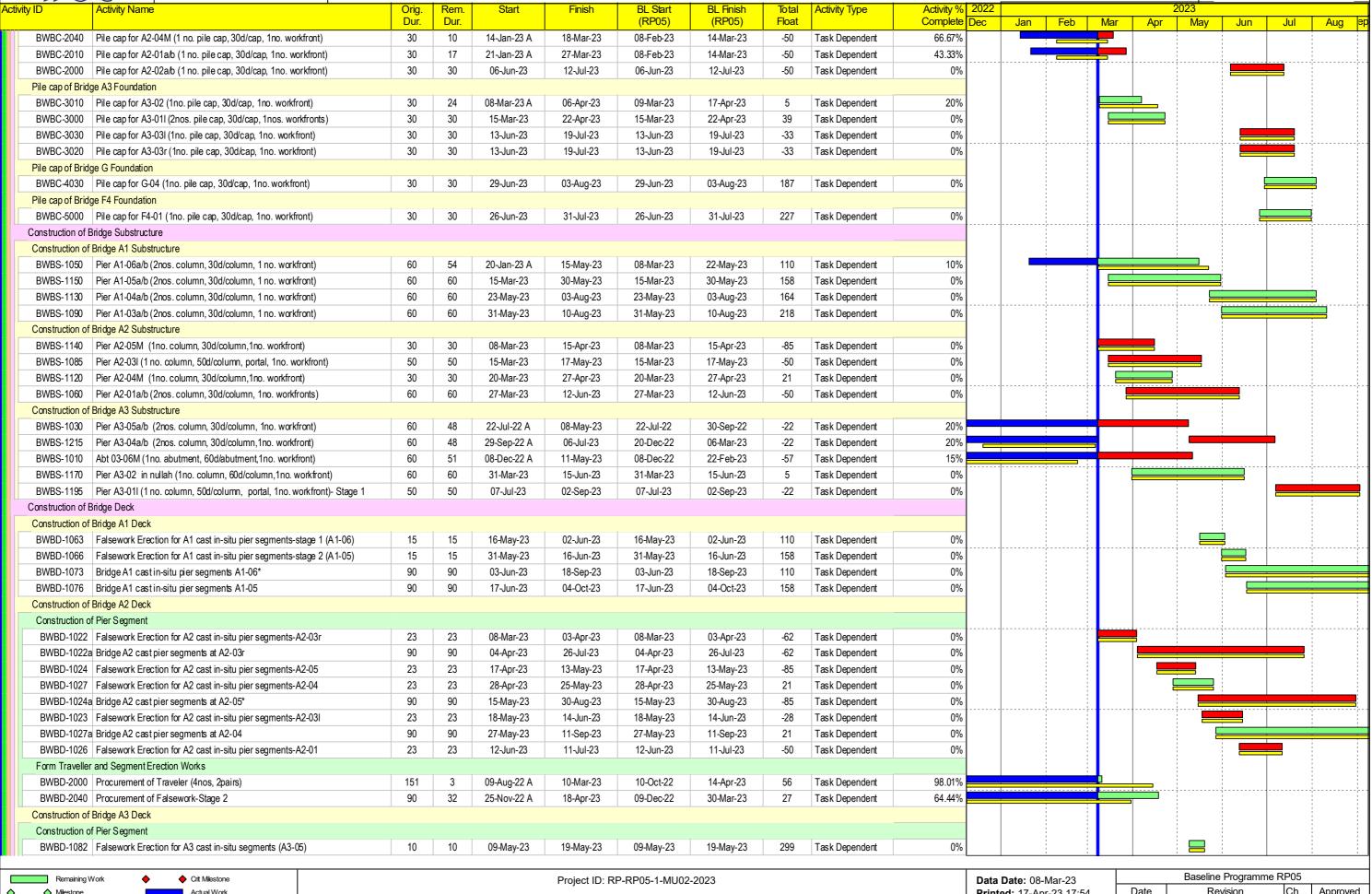


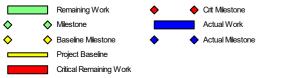












Three Months Rolling Programme (08 March 2023 to 30 June 2023)
Page 10 of 11

Printed: 17-Apr-23 17:54 Layout: 3 MRP Layout TASK filter: 3 Months Lookahead. Baseline Programme RP05

Date Revision Ch... Approved

08-Mar-23 Data Date





Activity I	D	Activity Name	Orig.	Rem.	Start	Finish	BL Start	BL Finish	Total	Activity Type	Activity % 2	022				2023			
			Dur.	Dur.			(RP05)	(RP05)	Float		Complete D	ec Jan	Feb	Mar	Apr	May	Jun	Jul	Aug ep
	BWBD-1083	Falsework Erection for A3 cast in-situ segments (A3-06)	10	10	12-May-23	23-May-23	12-May-23	23-May-23	-57	Task Dependent	0%						1		
	BWBD-1082a	Bridge A3 cast in-situ segments (A3-05)	90	90	20-May-23	05-Sep-23	20-May-23	05-Sep-23	299	Task Dependent	0%			[<u> </u>			
	BWBD-1083a	Bridge A3 cast in-situ segments (A3-06)*	90	90	24-May-23	08-Sep-23	24-May-23	08-Sep-23	-57	Task Dependent	0%								
	BWBD-1087	Falsework Erection for A3 cast in-situ segments (A3-02)	10	10	16-Jun-23	28-Jun-23	16-Jun-23	28-Jun-23	5	Task Dependent	0%								
	BWBD-1081	Falsework Erection for A3 cast in-situ segments (A3-04)	10	10	07-Jul-23	18-Jul-23	07-Jul-23	18-Jul-23	-12	Task Dependent	0%			:			1 1 1		
U-tr	rough 1-4												:				1		
U ⁻	T1-1000	U-trough 1 and near by road works and FW-18 (after Bored pile G-06)	80	80	23-May-23	26-Aug-23	23-May-23	26-Aug-23	10	Task Dependent	0%			I					



Project ID: RP-RP05-1-MU02-2023

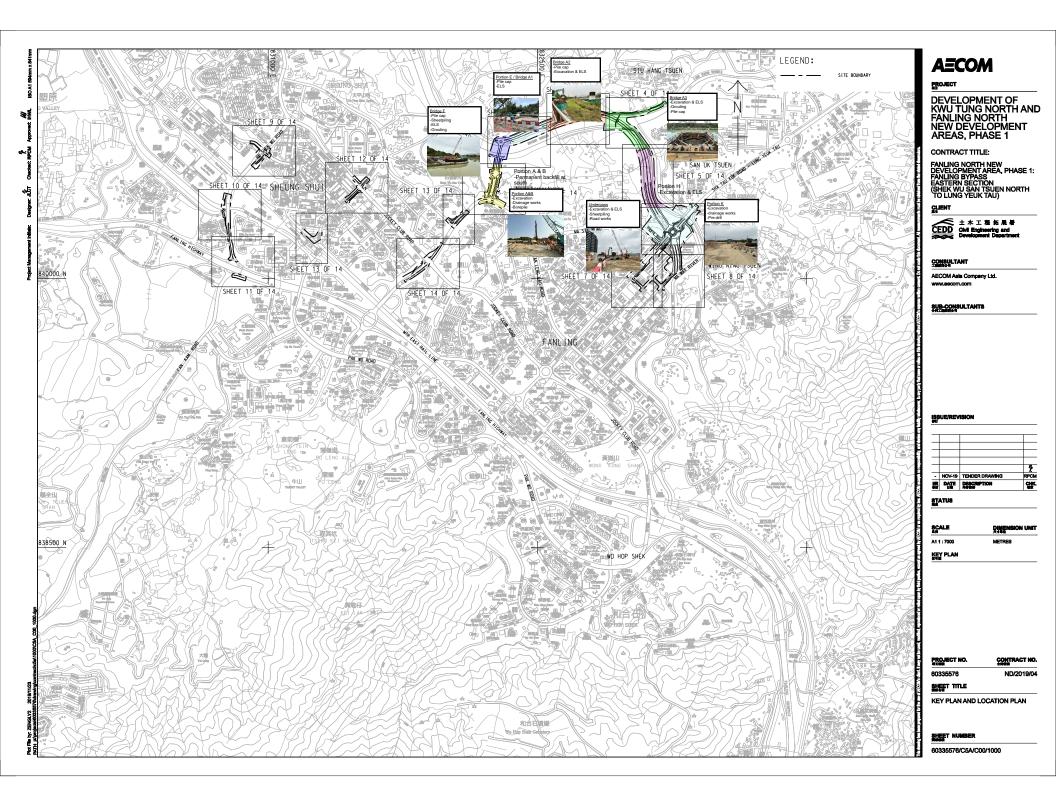
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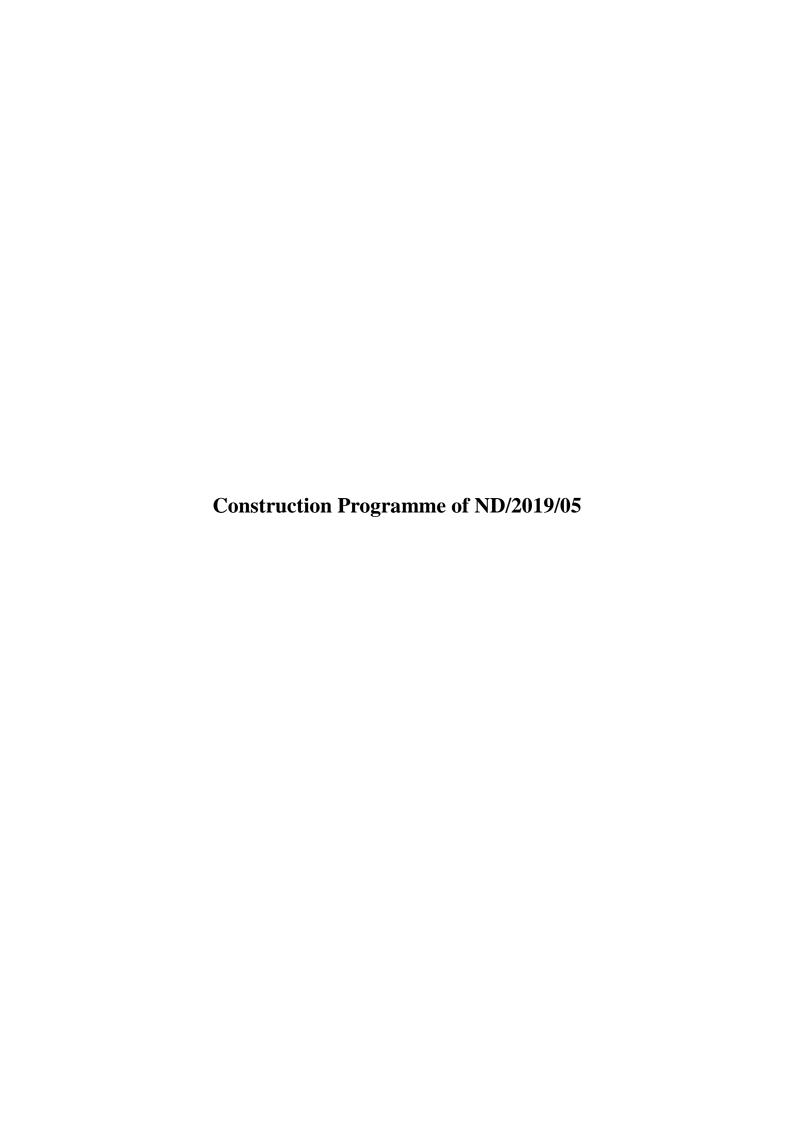
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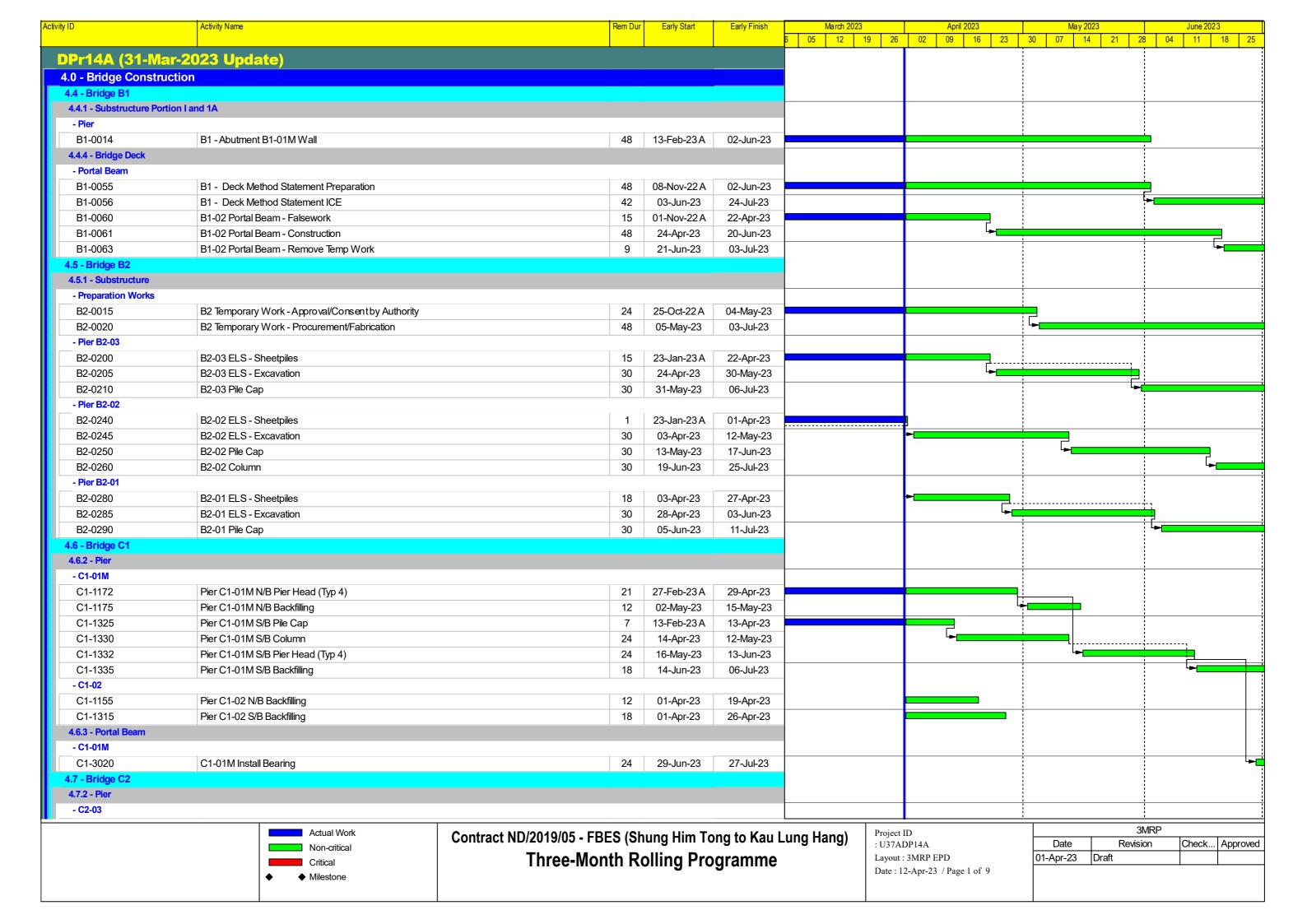
Baseline Programme RP05

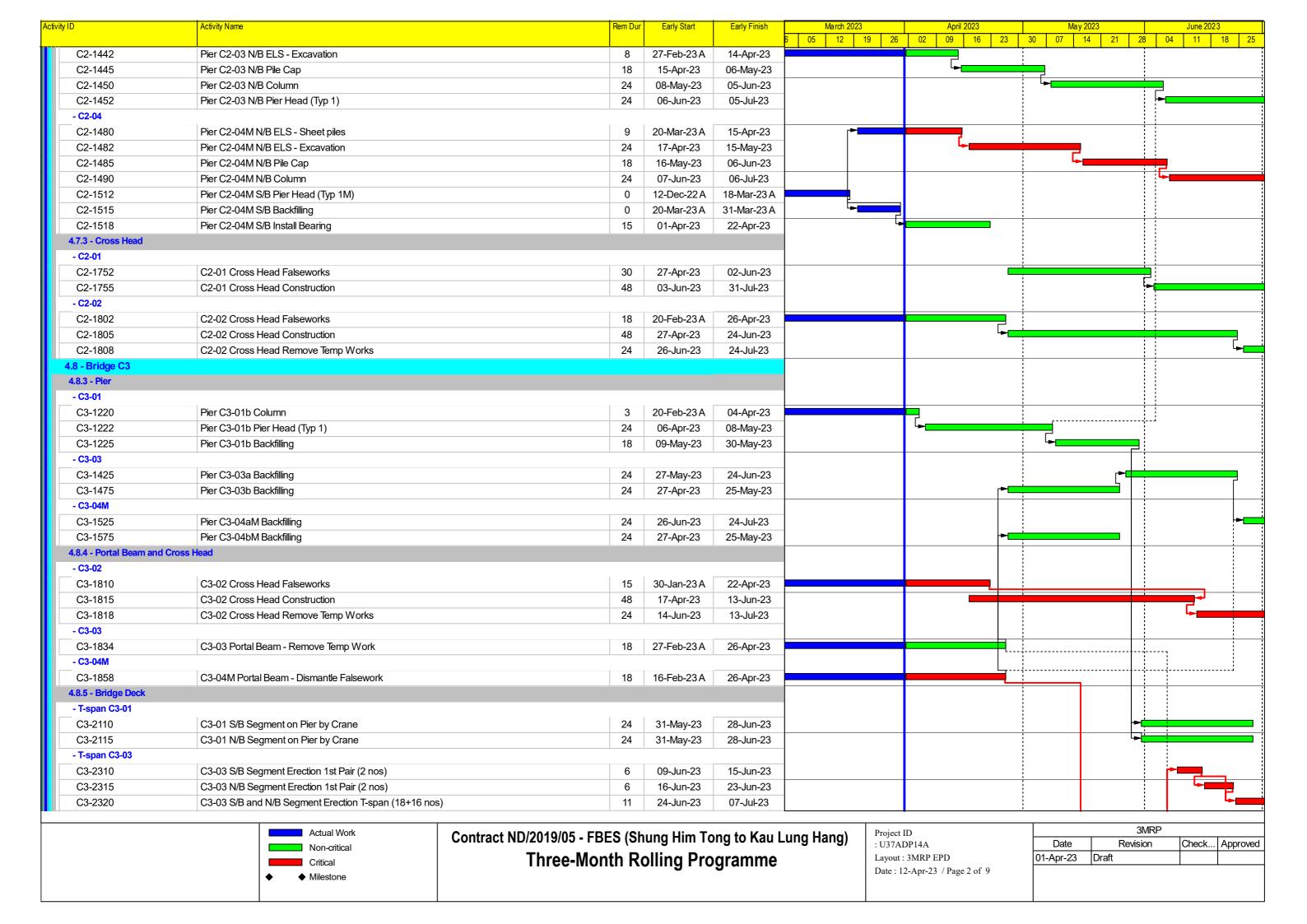
Date Revision Ch... Approved

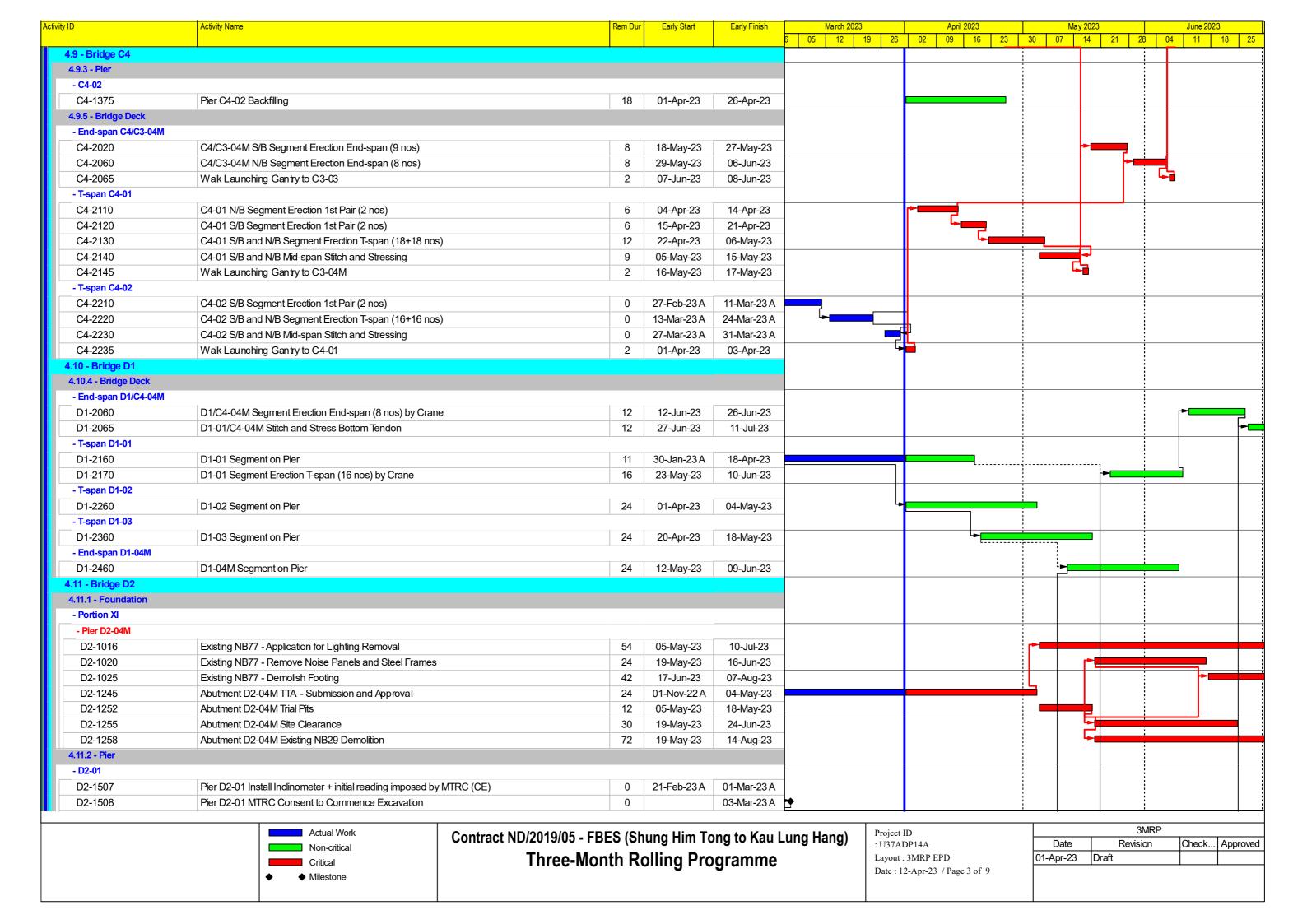
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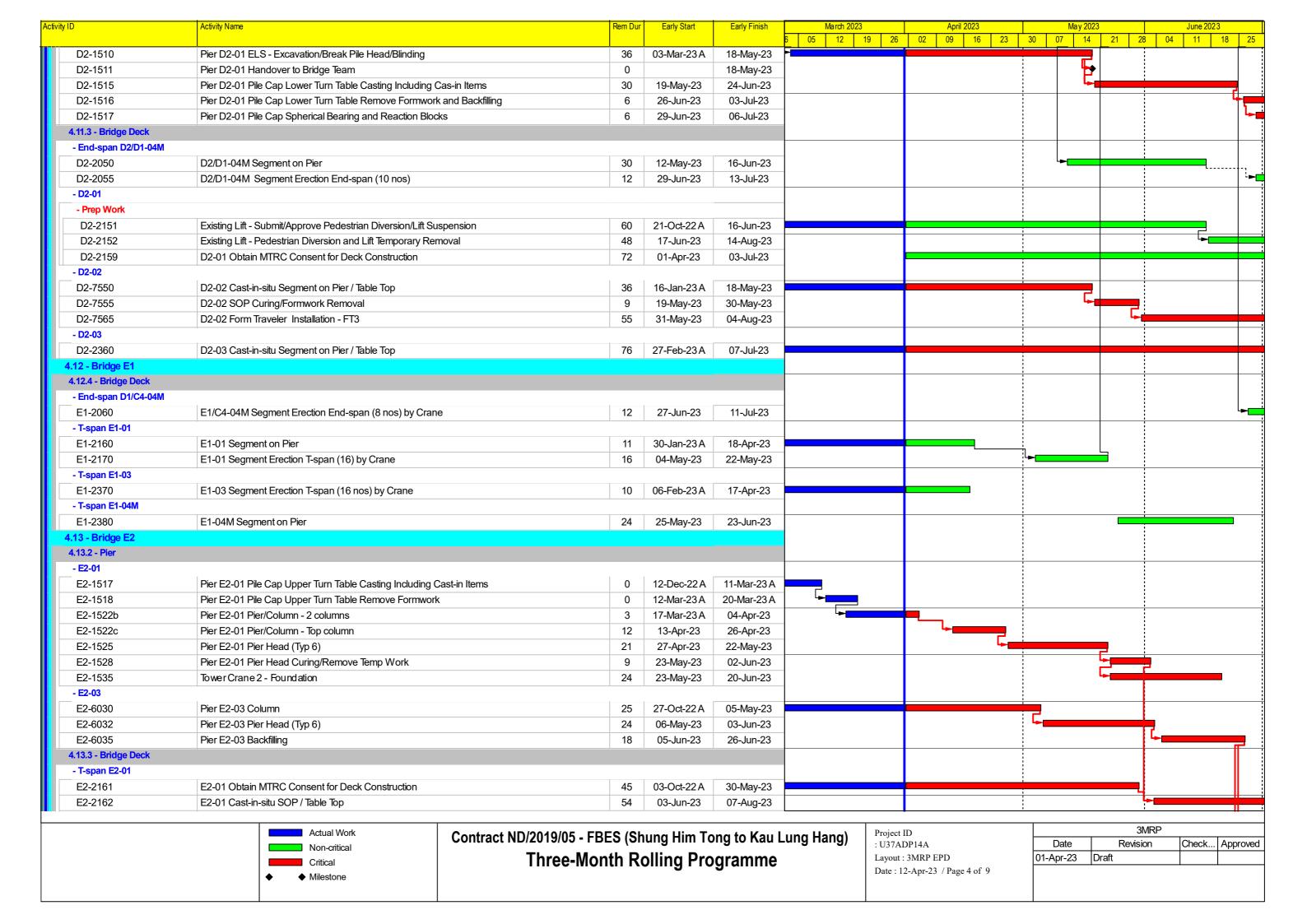


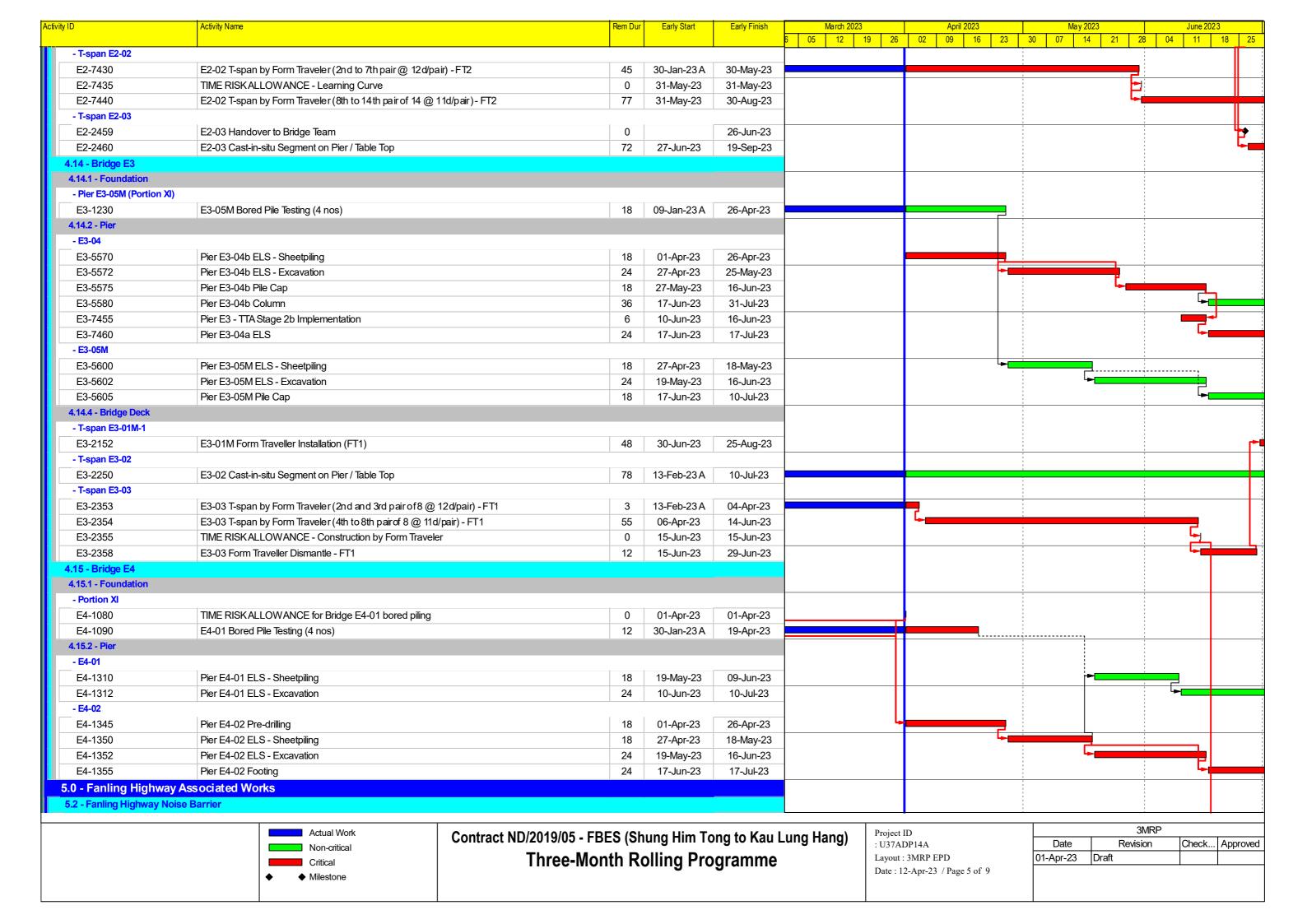


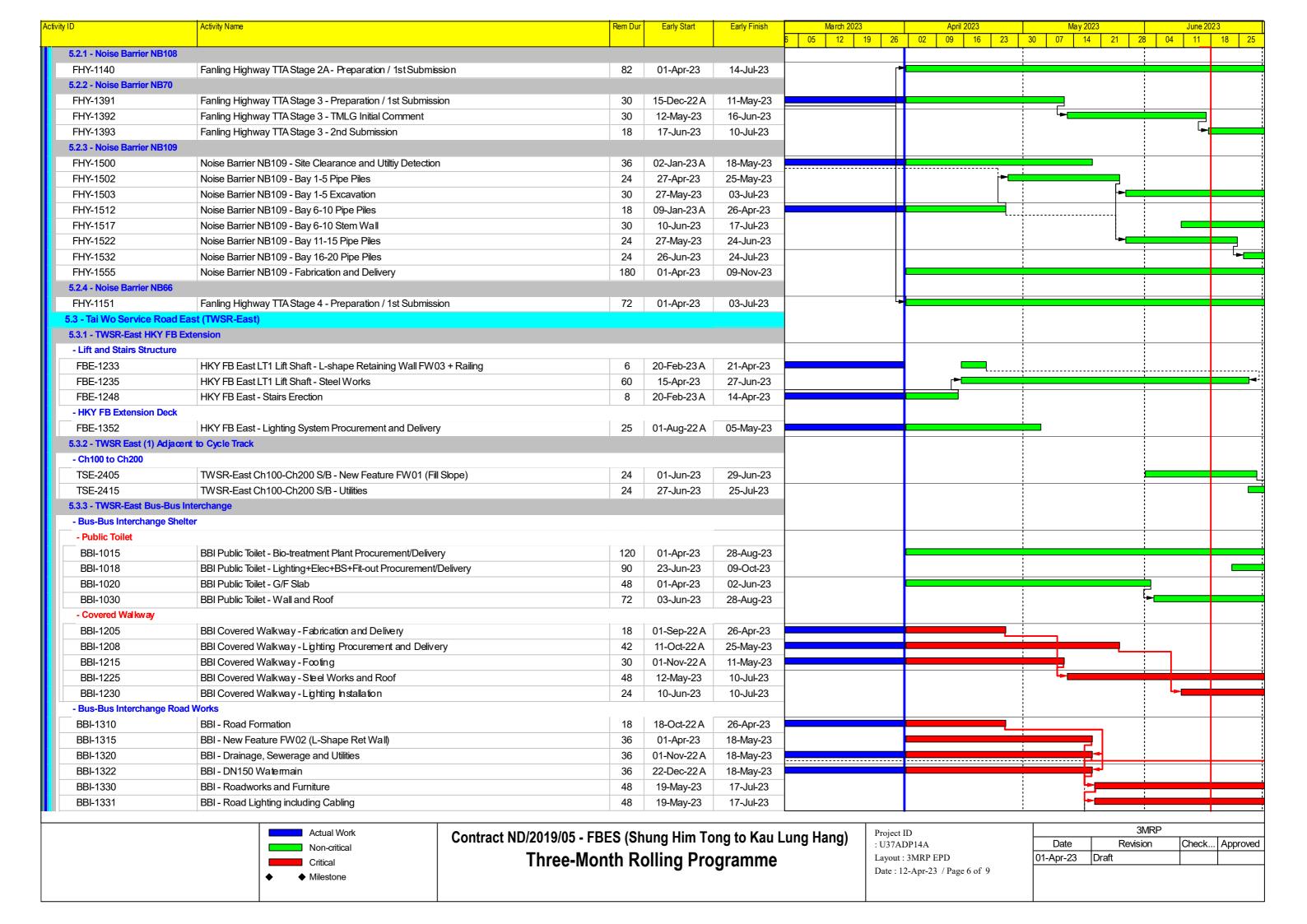


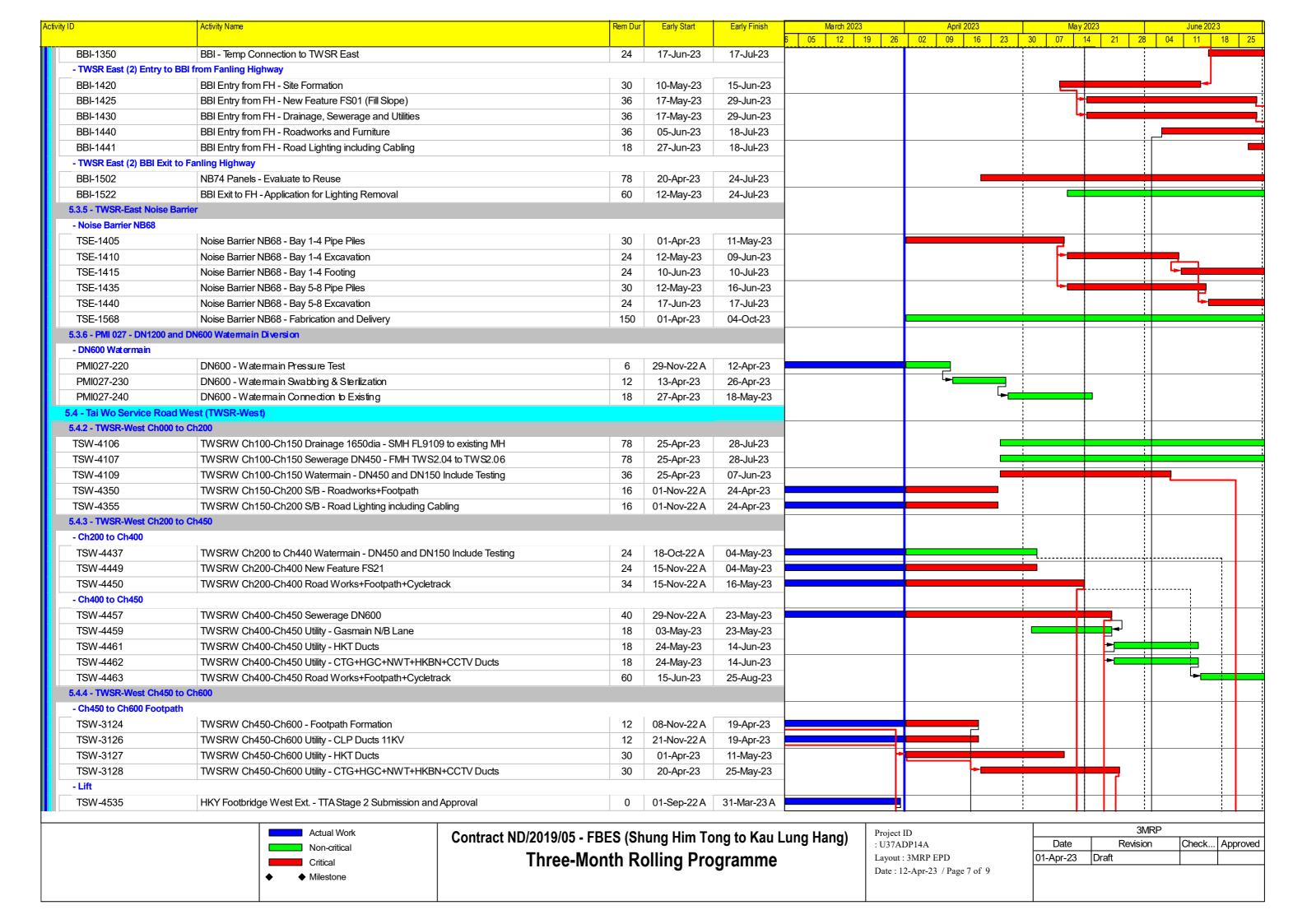


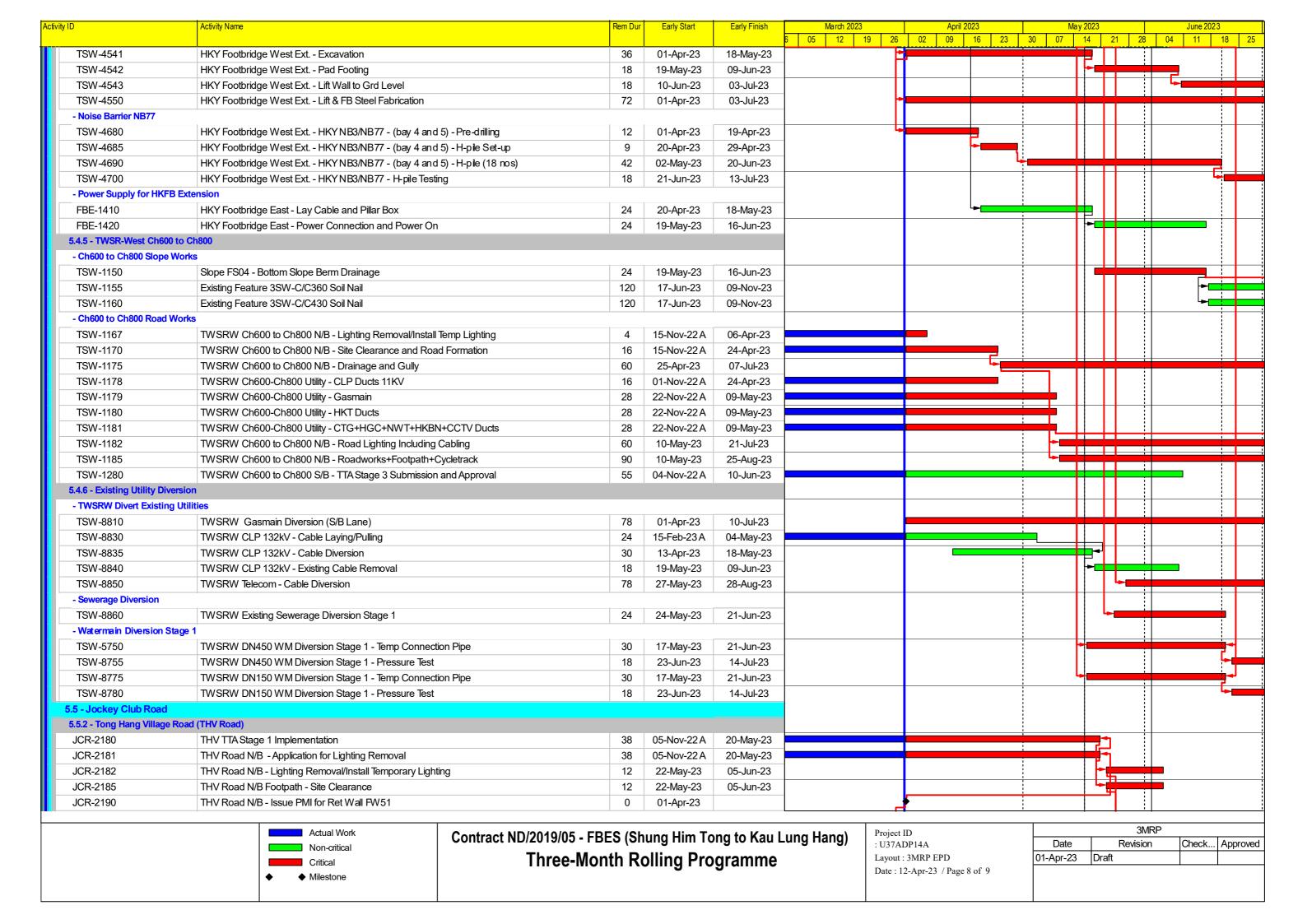














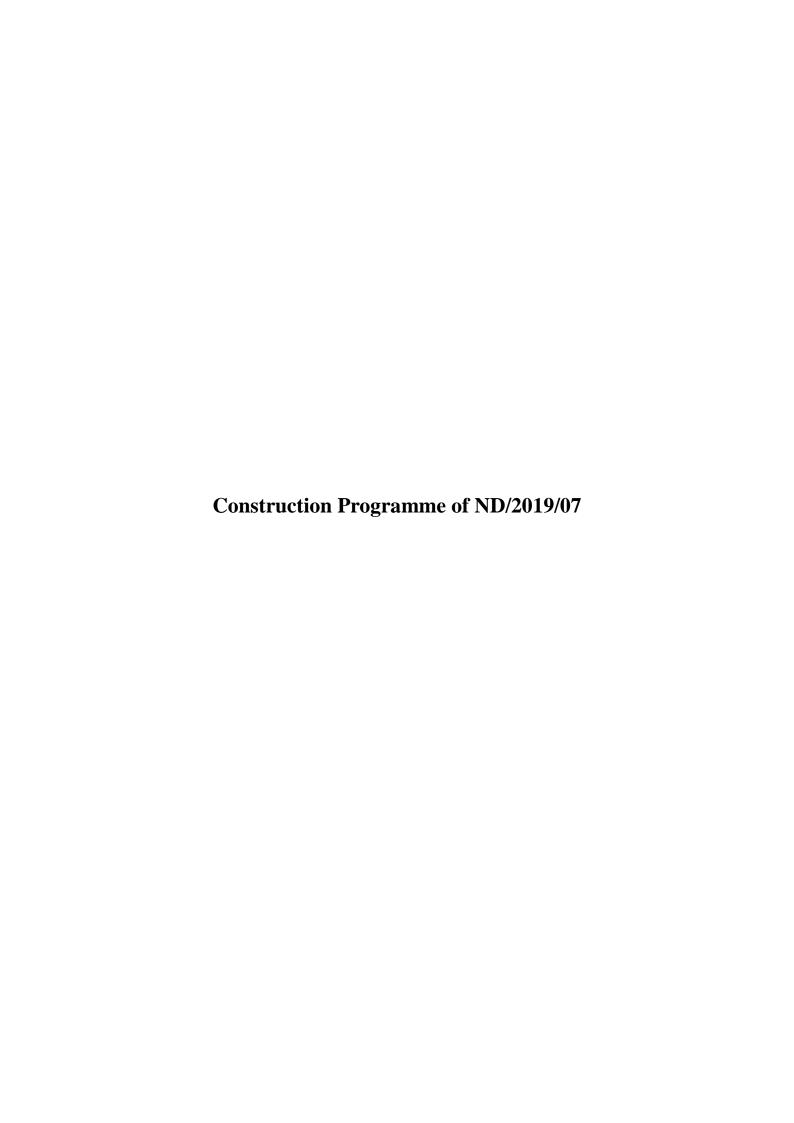
Actual Work
Non-critical
Critical

Milestone

Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)
Three-Month Rolling Programme

Project ID : U37ADP14A Layout : 3MRP EPD Date : 12-Apr-23 / Page 9 of 9

3MRP								
Date	Revision	Check	Approved					
01-Apr-23	Draft							



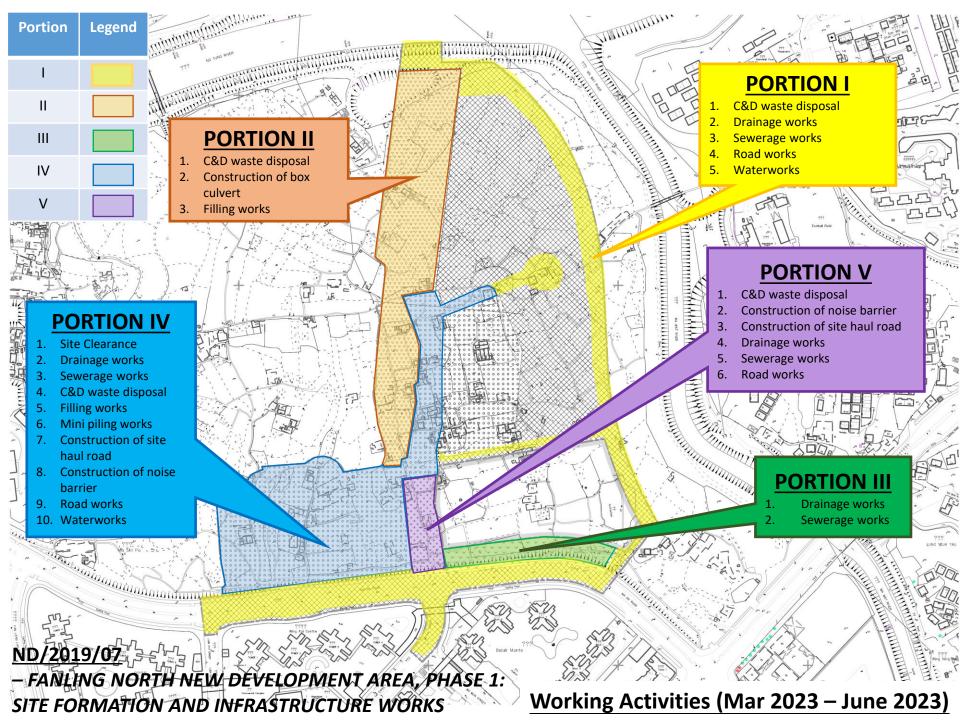
Contract No. ND/2019/07 Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works anling North New Development Area, Phase 1: Site Formation and Infrastructure Works 0 13-May-23 13-May-23 **Key Dates and Sectional Completion of the Works** Contractual Key Dates 0 13-May-23 13-May-23 KD1 - Completion of all works within Portion V of the Site necessary for the opening of partial Road L1 ◆ KD1 - Completion of all works within Portion ♥ of the Site necessary for the opening of partial Road L1 425 10-Aug-22 A 07-Nov-23 -23 Preliminaries, Contractor's Design, Method Statement Submission and Approval 150 01-Jan-23 A 30-May-23 General Submission PGS1260 TTA Scheme for UU along MSK Road 150 01-Jan-23 A 30-May-23 -103 TTA Scheme for UU along MSK Road Contractor's Design Submission and Approval 106 23-Nov-22 A 10-Jun-23 Design for irrigation system Design for irrigation system 08-Mar-23 02-Jun-23 PWD1035 03-Jun-23 10-Jun-23 Time risk allowance for Design for irrigation system Time risk allowance for Design for irrigation system PWD1040 Design for noise barrier panel 90 23-Nov-22 A 04-Apr-23 PWD1045 Time risk allowance for Design for noise barrier panel 7 05-Apr-23 12-Apr-23 Time risk allowance for Design for noise barrier panel Method statement for construction of NS560 sewerage by trenchless method Method statement for construction of NS560 sewerage by trenchless method 24 19-Aug-22 A 13-Mar-23 Tendering and Procurement for Major Subcontractor Place Order and Delivery of NB steel post TDS1170 Place Order and Delivery of NB steel posts 299 10-Aug-22 A 04-Jun-23 TDS1180 Place Order and Delivery of NB steel panel 364 09-Nov-22 A 07-Nov-23 80 28-Mar-22 A 31-Mar-23 Tree Works and Submission of the tree survey report and tree preservation and removal 80 28-Mar-22 A 31-Mar-23 Tree Works on Ma Sik Road TPRP and Tree transplanting works at the side of road (9nos) (before noise barrier construction) TPRP and Tree transplanting works at the side of road (9nos) (before noise barrier construction) 80 28-Mar-22 A 31-Mar-23 Section 1- Site Formation and Infrastructure Works in Area A 742 03-Jan-22 A 15-Jan-24 157 435 03-Jan-22 A 26-Jun-23 -12 Site Formation (Portion II- Area A 21900m2) Site Formation Works in South Part of Portion II 435 03-Jan-22 A 26-Jun-23 Site formation works part 2 (125,7m3) and Removal of temporary works, haul road and temporary accesse S1-SF1415 Site formation works part 2 (12577m3) and Removal of temporary works, haul road and temporary accesses 75 03-Jan-22 A 18-Mar-23 Site formation works part S1-SF1417 Site formation works part 3 (12577m3) and Removal of temporary works, haul road and temporary accesses 78 20-Mar-23 26-Jun-23 -125 Removal of existing feature 3SW-A/F85 Removal of existing feature 3SW-A/F85 15 24-Apr-23 11-May-23 Box Culvert BC3 and Outfall 10 33 24-Feb-23 A 19-Apr-23 Box Culvert BC3 (CH168 to CH216) Construction of the box culvert side wall and top slab Bay 18 S1-BC0880 Construction of the box culvert side wall and top slab Bay 18 20 24-Feb-23 A 09-Mar-23 S1-BC0890 Backfilling from Bay 17 to Bay 18 (2310m3) 31 10-Mar-23 19-Apr-23 Backfilling from Bay 17 to Bay 18 (2310m3) Box Culvert BC3 (CH216 to CH264) 92 08-Mar-23 30-Jun-23 Construction of the box culver side wall and top slab Bay 19 S1-BC1090 Construction of the box culvert side wall and top slab Bay 20 30 19-Apr-23 24-May-23 Construction of the box culvert side wall and top slab Bay 20 S1-BC1100 Construction of the box culvert side wall and top slab Bay 21 30 25-May-23 30-Jun-23 Excavation and construction of the box culvert base slab Bay 22 S1-BC1105 Excavation and construction of the box culvert base slab Bay 22 10 08-Mar-23 18-Mar-23 Box Culvert BC3 (CH264 to CH282.799) and Outfall 10 19 13-Jan-23 A 16-Dec-23 13-Jan-23 A 16-Dec-23 Drainage, Sewerage, Waterworks and Road Works Along Ma Sik Road 10 31-May-23 10-Jun-23 TTA - Closure of Ma Sik Road Eastbound Slow Lane between Wo Tai Street and Site Boundary 31-May-23 10-Jun-23 S1-CS1240 Implement TTA 10 31-May-23 10-Jun-23 Implement TTA Along Proposed Cycletrack and Footpath 302 04-Jan-23 A 15-Jan-24 157 04-Jan-23 A 22-Jul-23 132 04-Jan-23 A 21-Jun-23 Works in Portion I CT73 (Ch400 to Ch649) Irrigation system (CT73 Ch400 to Ch64 S1-CS1472 Irrigation system (CT73 Ch400 to Ch649 total 249m) 85 08-Mar-23 21-Jun-23 Fresh water main works (CT73 Ch400 to Ch649 total 249m) S1-CS1473 Fresh water main works (CT73 Ch400 to Ch649 total 249m) 85 04-Jan-23 A 15-Apr-23 Flushing water main works (CT73 Ch400 to Ch649 total 249m) S1-CS1474 Flushing water main works (CT73 Ch400 to Ch649 total 249m) 85 04-Jan-23 A 15-Apr-23 S1-CS1475 U-Channel along the Cycletrack(CT73 Ch400 to Ch649 total 249m) 85 08-Mar-23 21-Jun-23 U-Channel along the Cycletrack(CT73) Works in Portion I CT74 17-Apr-23 22-Jul-23 S1-CS1495 Flushing water main works (CT74 Ch100 to Ch281 total 181m) 17-Apr-23 22-Jul-23 85 09-Jan-23 A 20-Oct-23 Works in Portion II CT71 (Ch100 to Ch369,376) S1-CS1520 Drainage work (MNH FL5.29 to MNH FL5.26 229m) After box culvert back filling Bay1 to Bay22 85 09-Jan-23 A 20-Oct-23 Works in Portion III CT76 (Ch100 to Ch298.277) 255 21-Feb-23 A 15-Jan-24 S1-CS1790 CE149 - Sewerage DN600 - Construction of working pit at FMH_FL1.19 (Receiving Pit) CE149 - Sewerage DN600 - Construction of working pit at FMH_FL1.19 (Receiving Pit) CE149 - Sewerage DN600 - Construction of working pit at FMH_FL1.19A (Jacking Pit) S1-CS1800 CE149 - Sewerage DN600 - Construction of working pit at FMH_FL1.19A (Jacking Pit) S1-CS1810 CE149 - Sewerage DN600 - Setting up for trenchless works, construction of sewerage, dismantle TBM, constr 195 23-May-23 15-Jan-24 183 04-Feb-22 A 12-Aug-23 -125 Section 4- Site Formation and Infrastructure Works in Area D 40 11-Feb-22 A 02-Jun-23 80 04-Feb-22 A 12-Aug-23 Section 5- Site Formation and Infrastructure Works in Area E and Remainder of the Works 300 09-Mar-22 A 19-Sep-23 S5-RD1060 Fresh water main works (168m) 50 23-Feb-23 A 01-Jun-23 S5-RD1070 Flushing water main works (168m) 50 23-Feb-23 A 01-Jun-23 Road L1 in Portion V (P600 CH100 to CH194) 200 11-Oct-22 A 18-Aug-23 -121 S5-RD1345 Construction of drainage works (8nos Manholes 235m) 80 30-Nov-22 A 13-May-23 Construction of drainage works (8nos Manholes 235m) S5-RD1350 Construction of sewerage works (4nos Manholes) 46 11-Oct-22 A 06-Apr-23 Construction of sewerage works (4nos Manholes) S5-RD1360 Construction of irrigation system (184m) 15-May-23 18-Aug-23 S5-RD1370 Fresh water main works (184m) 80 15-May-23 18-Aug-23 -258 S5-RD1375 Flushing water main works (184m) 80 15-May-23 18-Aug-23 -223 S5-RD1585 CE149 - Sewerage DN600 - Setup for trenchless construction at FMH_FL1.16 (from FL1.16 to FL1.19) CE149 - Sewerage DN600 - Setup for trenchless construction at FMH FL1.16 (from FL1.16 to FL1.19) 30 28-Feb-23 A 13-Apr-23 S5-RD1590 CE149 - Sewerage DN600 - Construction of Sewerage (from FL1.16 to FL1.19) 32 14-Apr-23 22-May-23 CE149 - Sewerage DN600 - Construction of Sewerage (from FL1.16 to FL1.19) Road L1 in Portion IV (P600 CH194 to CH393, P700 CH100 to CH175) 285 09-Mar-22 A 05-Sep-23 S5-RD1180 Construction of drainage (17nos Manholes 630m) 85 09-Mar-22 A 21-Jun-23 Approved Three Month Rolling Programme (Data Date: 08-Mar-23) 中國路橋工程有阻責任公司 08-Mar-23 ZAN CLX Remaining Work Page : 1 of 2 Critical Remaining Work CHINA ROAD AND BRIDGE CORPORATION Milestone

Contract No. ND/2019/07 Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

ctivity ID	Activity Name	Original Duration	Start	Finish	Total	865	
S5-RD1182	Construction of sewerage (16nos Manholes)		04-Apr-22 A	40 May 22	Float	May Apr May Construction of sewerage (16nos Manholes)	Jul
				,	10	— Collisi uction of Severage (Totals Wallington)	1
S5-RD1200	Fresh water main works (489m)		23-Feb-23 A		44		
S5-RD1210	Flushing water main works (489m)	70	23-Feb-23 A	05-Sep-23	44		
Road L2		123	29-Nov-22 A	26-Jun-23	16		1
S5-RD1500	Construction of drainage works (13nos manholes 320m)	80	13-Dec-22 A	26-Jun-23	16	Construction	tion of drainage
S5-RD1502	Construction of sewerage works (3nos manholes)	50	29-Nov-22 A	31-May-23	37	Construction of sewerage works (3nos manholes)	
Noise Barrie	r NB62	235	14-Nov-22 A	15-Aug-23	50		I
S5-NB1060	Excavation and construction of base slabs and wall stems (Bay 1 - Bay 6)	70	14-Nov-22 A	02-Jun-23	-62	Excavation and construction of base slabs and wall stems (Bay 1 - Bay	(6)
S5-NB1080	Installation of noise barrier steel posts	60	05-Jun-23	15-Aug-23	50		
Noise Barrie	r NB63	283	11-Nov-22 A	19-Sep-23	6		
Noise Barrier I	IB63 (Bay 18 to Bay 21)	234	11-Nov-22 A	24-Jul-23	55		ı
S1-NB1265-2	Installation of Mini Piles (Bay 18 - Bay 21 18 nos) - grouting vertical piles + raking piles	36	11-Nov-22 A	25-Mar-23	-90	Installation of Mini Piles (Bay 18 - Bay 21 18 nos) - grouting vertical piles + raking piles	1
S1-NB1275	Excavation and construction of base slab (Bay 18 - Bay 21)	42	03-Jun-23	24-Jul-23	55		
Noise Barrier I	IB63 (Bay 13 to Bay 17)	111	13-Dec-22 A	15-Jun-23	-50		1
S1-NB1180-2	Installation of Mini Piles (Bay 13 - Bay 17 12nos) - grouting + remaining piles	48	13-Dec-22 A	15-Apr-23	-90	Installation of Mini Piles (Bay 13 - Bay 17 12nos) - grouting + remaining piles	
S1-NB1200	Installation of sheet piles (Bay 13 - Bay 17)	50	17-Apr-23	15-Jun-23	-50	Installation of sheet piles (Bay 13 - Bay	ıy 17)
Noise Barrier I	IB63 (Bay 7 to Bay 12)	64	01-Feb-23 A	03-Jun-23	-90		1
S1-NB1190	Installation of Mini Piles (Bay 7 - Bay 12 16nos) (CSD) (Original: 30nos H-pile, 45days)	64	01-Feb-23 A	03-Jun-23	-90	Installation of Mini Piles (Bay 7 - Bay 12 16nos) (CSD) (Original: 30no	ios H-pile, 45da
Noise Barrier I	IB63 (Bay 1 to Bay 6)	188	18-Jan-23 A	19-Sep-23	-90		
S1-NB1040	Pre-drilling works (12nos) (after TTA, diversion of existing footpath and tree felling & transplanting)	60	18-Jan-23 A	06-Apr-23	-45	Pre-drilling works (12nos) (after TTA, diversion of existing footpath and tree felling & transplanting)	
S1-NB1050	Installation of Mini Piles Bay 1 to Bay 6 (32 nos) (CSD) (after trees transplanted) (Original:36nos H-pile, 72days)	90	05-Jun-23	19-Sep-23	-90		
Section 6-	Completion of Preservation And Protection Of Existing Trees	1146	31-Aug-20 A	07-Dec-24	-97		l
S6-CS1000	Preservation and protection of trees	1146	31-Aug-20 A	07-Dec-24	-97		



Date	Revision	Checked	Approved
08-Mar-23	A	ZAN	CLX



APPENDIX B ACTION AND LIMIT LEVELS

Appendix B - Action and Limit Levels

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

Monitoring station	Action Level (ug/m³)	Limit Level (ug/m³)
FLN-DMS1	303	
FLN-DMS3	301	500
FLN-DMS5	279	500
KTN-DMS4(B)	297	

Table B-2 Action and Limit Levels for 24-hour TSP

Monitoring station	Action Level (ug/m³)	Limit Level (ug/m³)
FLN-DMS1	150	
FLN-DMS3	165	260
FLN-DMS5A	153	260
KTN-DMS4(B)	192	

Table B-3 Action and Limit Levels for Construction Noise

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

Noted:

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

(*) reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Table B-4.1 Action and Limit Levels for Water Quality Monitoring⁽¹⁾

Parameters	Action Level	Limit Level
DO in mg/L (depth average)#+	5 percentile of baseline data.	4 mg/L or 1 percentile of
		baseline data.
SS in mg/L (depth averaged)*&	95 percentile of baseline data	20 mg/L or 99 percentile of
	or 120% of upstream control	baseline data or 130% of
	station.	upstream control station.
Turbidity in NTU (depth averaged)*^	95 percentile of baseline data	99 percentile of baseline data
	or 120% of upstream control	or 130% of upstream control
	station.	station.
Unionized ammonia in mg/L	95 percentile of baseline data	0.021mg/L or 99 percentile of
(depth averaged)*~	or 120% of upstream control	baseline data or 130% of

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report

	station.	upstream control station.
Nitrate nitrogen in mg/L	95 percentile of baseline data	99 percentile of baseline data
(depth averaged)*^	or 120% of upstream control	or 130% of upstream control
	station.	station.
Orthophosphate in mg/L (depth	95 percentile of baseline data	99 percentile of baseline data
averaged)*^	or 120% of upstream control	or 130% of upstream control
	station.	station.

Remarks:

- # AL of DO is 5 percentile of baseline data or level at control station at same tide of the same day (whichever lower) and LL of DO is 4.0 mg/L or level at control station at same tide of the same day (whichever lower);
- + 1 percentile of baseline data were adopted for LL for DO as those levels were greater than 4 mg/L;
- * AL is 120% of control station's level at the same tide of the same day when depth average greater than 95 percentile of baseline data;
- ^ LL is 130% of control station's level at the same tide of the same day when depth average greater than 99 percentile of baseline data.
- \sim LL is 130% of control station's level at the same tide of the same day when depth average greater than 99 percentile of baseline data or 0.021mg/L.
- & LL is 130% of control station's level at the same tide of the same day when depth average greater than 99 percentile of baseline data or 20 mg/L.

Table B-4.2 Summary of Baseline Water Quality Monitoring Results (KTN NDA)⁽¹⁾

Monitoring Parameter							
Location	KTN-CS1						
Parameter	Max	Min	Average	5 Percentile	1 Percentile		
DO in mg/L	7.79	6.28	6.82	6.32	6.28		
	Max	Min	Average	95 Percentile	99 Percentile		
Turbidity in NTU	72.4	4.59	10.88	62.2	72.2		
Suspended Solid in mg/L	74	2	9	60	73		
Unionized ammonia in mg/L	0.0005	0.0001	0.0003	0.0004	0.0005		
Nitrate nitrogen in mg/L	0.52	0.09	0.27	0.50	0.52		
Orthophosphate in mg/L	0.19	0.01	0.10	0.17	0.19		

Monitoring Parameter							
Location	Location KTN-IS1						
Parameter	Max	Min	Average	5 Percentile	1 Percentile		
DO in mg/L	8.08	4.71	6.83	6.14	5.02		

95 99 Max Min Average Percentile Percentile Turbidity in NTU 38.98 44.56 4.57 8.63 44.56 Suspended Solid in mg/L 35 31 35 2 6 Unionized ammonia in mg/L 0.0006 0.0001 0.0004 0.0005 0.0006 Nitrate nitrogen in mg/L 0.57 0.09 0.29 0.54 0.57 Orthophosphate in mg/L 0.14 0.03 0.09 0.13 0.14

Note:

Table B-4.3 Action and Limit Levels for Additional Water Quality Monitoring

Parameters	Action Level	Limit Level
River Beas (SYR-I	(S1)	
DO in mg/L (depth average) [1]	SYR-IS1: <u>6.1</u> ^[2]	SYR-IS1: <u>6.0</u> ^[2]
SS in mg/L (depth	SYR-IS1: <u>75.6</u>	SYR-IS1: <u>83.1</u>
average) [1]	or 120% of upstream control station,	or 130% of upstream control station,
	whichever is higher ^[3]	whichever is higher ^[3]
Turbidity in NTU	SYR-IS1: <u>48.2</u>	SYR-IS1: <u>50.9</u>
(depth average) [1]	or 120% of upstream control station,	or 130% of upstream control station,
	whichever is higher ^[3]	whichever is higher ^[3]
Arsenic in µg/L	SYR-IS1: <u>5.4</u>	
(depth average) [2]	or 120% of upstream control station,	SYR-IS1: 50 μg/L ^[4]
	whichever is higher [3]	
River Indus and n	ear Siu Hang San Tsuen Stream (NT	R-IS1, SHST-IS2, MWR-IS3)
DO in mg/L	NTR-IS1: <u>5.8</u> ^[2]	NTR-IS1: <u>5.7</u> ^[2]
(depth average) [1]	SHST-IS2: <u>7.0</u> ^[2]	SHST-IS2: <u>6.8</u> ^[2]
	MWR-IS3: <u>8.6</u> ^[2]	MWR-IS3: <u>8.5</u> ^[2]
SS in mg/L (depth	NTR-IS1: <u>8.9</u>	NTR-IS1: <u>9.0</u>
average) [1]	SHST-IS2: <u>4.0</u>	SHST-IS2: <u>4.0</u>
	MWR-IS3: <u>14.0</u>	MWR-IS3: <u>14.4</u>
	or 120% of upstream control station,	or 130% of upstream control station,
	whichever is higher ^[3]	whichever is higher ^[3]
Turbidity in NTU	NTR-IS1: <u>6.0</u>	NTR-IS1: <u>6.1</u>
(depth average) [1]	SHST-IS2: <u>4.4</u>	SHST-IS2: <u>4.7</u>
	MWR-IS3: <u>10.1</u>	MWR-IS3: <u>11.1</u>
	or 120% of upstream control station,	or 130% of upstream control station,
Dama alaa	whichever is higher ^[3]	whichever is higher ^[3]

Remarks:

- [1] "Depth-averaged" is calculated by taking the arithmetic mean of reading of all three depths.
- [2] For DO, non-compliance occurs when monitoring results is lower than the limits.
- [3] For turbidity, SS and arsenic, non-compliance occurs when monitoring results is larger than the limits.
- [4] There is no local criterion for heavy metal. Limit Level of heavy metal is adopted from Category III Surface Water Quality Standards (GB3838-2002) (地表水環境質量標準), which applicable for Shenzhen River on mainland side.

⁽¹⁾ The Action and Limit Levels for Water Quality Monitoring and the Summary of Baseline Water Quality Monitoring Results are according to pre-construction ET's Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

Table B-5 Action and Limit Levels for Ambient Arsenic Monitoring

Parameter	Action Level	Limit Level
Ambient Arsenic Concentration	9.36ng/m³ - 80% of 11.7ng/m3 – the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented)	11.7ng/m³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

Table B-6 Action level in the event of LFG being detected

Table D-0	Action level in the event of LFG being detected				
Parameter	Monitoring Results	Actions			
O_2	<19% v/v	Increase underground ventilation to restore O ₂ to >19% v/v			
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase ventilation to restore O ₂ level to >19%			
CH ₄	>10% LEL	Prohibit hot works, increase ventilation to restore CH4 to <10% LEL			
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore CH ₄ to <10% LEL			
CO_2	>0.5% v/v	Increase ventilation to restore C O ₂ to <0.5% v/v			
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore CO_2 to $<0.5\%$			

Table B-7 Vibration Limit for Construction Vibration Monitoring

Type of Building	Guide Values of Maximum PPV* (mm/Sec)				
	Transient Vibration	Continuous Vibration			
Vibration-sensitive /	7.5	3.0			
dilapidated buildings#	7.5				
Declared monuments/	3.0				
Historical structures					

Table B-8.1 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause
of all waterbird	if	of all waterbird	and if caused
species relative to	cause identified as	species relative to	identified as related
numbers during	related to NDAs	numbers during	to NDAs project
Baseline Monitoring	project	Baseline Monitoring	instigate remedial
such that the Action	instigate remedial	such that the Limit	action. Review and
Level response is	action to remove or	Level response is	adjust LVNP
triggered.	reduce source of	triggered.	management

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report

			Monthly EM&A Report
	disturbance.		measures to improve
			conditions for
			affected species.
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause
of any one waterbird	if	of any one waterbird	and if caused
species occurring in	cause identified as	species occurring in	identified as related
significant numbers*	related to NDAs	significant numbers*	to NDAs project
during Baseline	project	during Baseline	instigate remedial
Monitoring such that	instigate remedial	Monitoring such that	action. Review and
the Action Level	action to remove or	the Limit Level	adjust LVNP
response is	reduce source of	response is	management
triggered.	disturbance.	triggered.	measures to improve
			conditions for
			affected species.
Operational Phase			
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause and
of all waterbird	if cause identified as	of all waterbird	if cause identified as
species relative to	related to NDAs	species relative to	related to NDAs
numbers during	review and adjust	numbers during	consider and
Baseline Monitoring	LVNP management	Baseline Monitoring	implement additional
such that the Action	measures to improve	such that the Limit	mitigation measures
Level response is	conditions for	Level response is	(e.g. additional
triggered.	affected species in	triggered.	screening and screen
	LVNP.		planting, adjustments
			to infrastructure
			design).
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause and
of any one waterbird	if cause identified as	of any one waterbird	if cause identified as
species occurring in	related to NDAs	species occurring in	related to NDAs
significant numbers*	review and adjust	significant numbers*	consider and
during Baseline	LVNP management	during Baseline	implement additional
Monitoring such that	measures to improve	Monitoring such that	mitigation measures
the Action Level	conditions for	the Limit Level	(e.g. additional
response is triggered.	affected species.	response is triggered.	screen planting,
	_		adjustments to
			infrastructure
			design).
	•	•	

^{*} Whether numbers are significant will depend on species and season and should be determined following collection and evaluation of Baseline survey data.

Table B-8.2 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

onse	Limit Level	Response
identified as I to Project ate remedial action aove or reduce	diversity such that Limit Level response is	Investigate cause and if caused identified as related to Project instigate remedial action.
	igate cause and if identified as I to Project	igate cause and if identified as diversity such that Limit Level response is triggered.

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report

Table B-8.3 Action and Limit Levels and Responses to Evidence of Declines in non-aquatic Fauna

Action Level	Response	Limit Level	Response
Construction Phase			
Reduction in species	Investigate cause and if	Reduction in taxa	Investigate cause and if
diversity such that Action	cause identified as	diversity such that Limit	caused identified as
Level response is	related to Project	Level response is	related to Project
triggered.	instigate remedial action	triggered.	instigate remedial action.
	to remove or reduce		_
	source of disturbance.		

^{*} Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

^{*} Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

APPENDIX C COPIES OF CALIBRATION CERTIFCATES



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.: 37675A Date of Issue: 2023-01-09 Date Received: 2023-01-06 Date Tested: 2023-01-06 Date Completed: 2023-01-09 Next Due Date: 2023-03-08

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)

1.114

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager

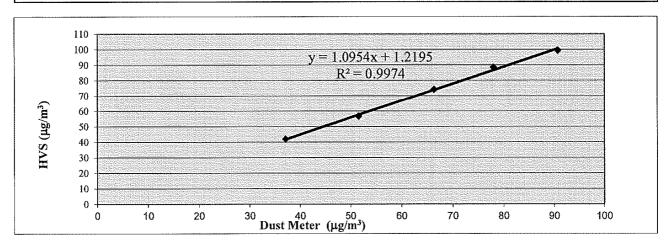
<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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:	6-Jan-23 6-Jan-23			
Location:	Wellab Office (Calibration Room)			

	Calibratio ₁	i of 1 hr TSP			
	Dust Meter		HVS		
Calibration Point	Mass Concentration (μg/m³)	M	fass concentration (μg/m³)		
	X-axis		Y-axis		
1	37		42		
2	52		57		
3	66		74		
4	78		88		
5	91		99		
Average	64.8		72.2		
By Linear Regression of Slope, mw =	of Y on X 1.0954	Intercept, bw =	1,2195		
Correlation coefficie			11		

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation 1	Factor
Particaulate Concentration by High Volume Sampler (µg/m³)	72.2
Particaulate Concentration by Dust Meter (μg/m³)	64.8
Measureing time, (min)	60
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.114



QC Reviewer:	LEE	MIN	Hzz	Signature:	hi	Date:	6/1/2023



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.:
 37894A

 Date of Issue:
 2023-03-06

 Date Received:
 2023-03-03

 Date Tested:
 2023-03-03

 Date Completed:
 2023-03-06

 Next Due Date:
 2023-05-05

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) 1.140

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager

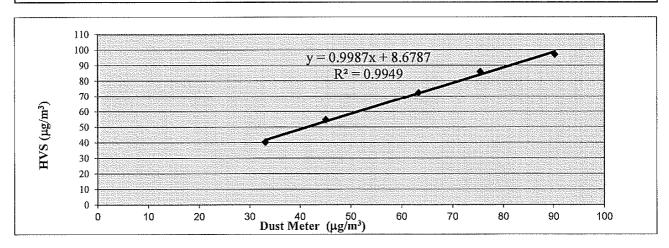
<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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:	3-Mar-23	3-Mar-23		
Location:	Wellab Office (Calibration Room)			

	Calibratio	on of 1 hr TSP			
	Dust Meter		HVS		
Calibration Point	Mass Concentration (μg/m³)		Mass concentration (μg/m³)		
	X-axis		Y-axis		
1	33		40		
2	45		55		
3	63		72		
4	76		86		
5	90		97		
Average	61.5		70.1		
By Linear Regression of Slope , mw = Correlation coefficie	0.9987	Intercept, bw =	8.6787		

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Fa			
Particaulate Concentration by High Volume Sampler (µg/m³)	70.1		
Particaulate Concentration by Dust Meter (µg/m³)	61.5		
Measureing time, (min)	60		
Set Correlation Factor, SCF			
SCF = [K=High Volume Sampler / Dust Meter, (μg/m³)]	1.140		



QC Reviewer:	LAR MAN	Mer	Signature:	hei	Date:	4/3/225



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.: 37858

Date of Issue: 2023-02-27

Date Received: 2023-02-25 Date Tested: 2023-02-25

Date Completed: 2023-02-27

Next Due Date: 2023-04-26 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. : X24476 Flow rate : 0.1 cfm

Zero Count Test : 0 count per 1 minute

Equipment No. : WA-01-05

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) 1.109

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager

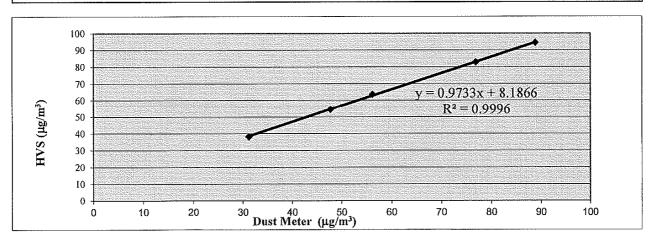
<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

Dust Meter	Dust Meter	High Volume Sampler WA-12-09		
Equipment No.:	WA-01-05			
Model No. :	AEROCET-831	TE-5170		
Serial No.	X24476	2203		
Calibration Date:	25-Feb-23	25-Feb-23		
Location:	Wellab Office (Calibration Room)			

	Calibra	tion of 1 hr TSP
	Dust Meter	HVS
Calibration Point	Mass Concentration (μg/m	Mass concentration (μg/m³)
	X-axis	Y-axis
1	31	38
2	48	55
3	56	64
4	77	83
5	89	95
Average	60.2	66.8
By Linear Regression Slope , mw =	of Y on X 0.9733	Intercept, bw = 8.1866
Correlation coefficie	ent* = 0.9998	

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

Particaulate Concentration by High Volume Sampler (μg/m³)	66.8		
Particaulate Concentration by Dust Meter (µg/m³)	60.2		
Measureing time, (min)	60		
Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, (μg/m³)]	1.109		



OC Reviewer:	138	MON	Her	Signature:	ker	Date:	26/2/2023



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.:
 37858A

 Date of Issue:
 2023-02-27

 Date Received:
 2023-02-25

 Date Tested:
 2023-02-25

 Date Completed:
 2023-02-27

 Next Due Date:
 2023-04-26

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:

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager

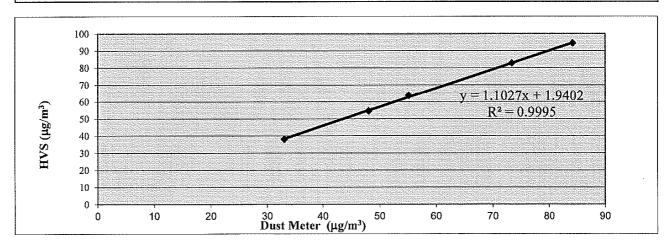
<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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:	25-Feb-23	25-Feb-23	
Location:	Wellab Office (Calibration Room)		

	Calibration	of 1 hr TSP
STREET OF STREET	Dust Meter	HVS
Calibration Point	Mass Concentration (μg/m³)	Mass concentration (μg/m³)
	X-axis	Y-axis
1	33	38
2	48	55
3	55	64
4	73	83
5	84	95
Average	58.8	66.8
By Linear Regression of Slope, mw = Correlation coefficie	1.1027	Intercept, bw = 1.9402

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

66.8		
58.8		
60		
1.136		
_		



QC Reviewer:	Lele	Mov	HEZ	Signature:	hei	Date:	26/2/2023



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 37894D
Date of Issue: 2023-03-06
Date Received: 2023-03-03
Date Tested: 2023-03-03
Date Completed: 2023-03-06
Next Due Date: 2023-05-05

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) 1.116

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager

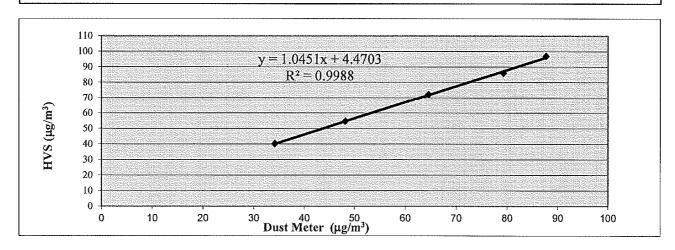
<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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:	3-Mar-23	3-Mar-23	
Location:	Wellab Office (Calibration Room)		

	Calibratio	ı of 1 hr TSP	
	Dust Meter		HVS
Calibration Point	Mass Concentration (μg/m³)	Mass cor	ncentration (μg/m ³)
	X-axis		Y-axis
1	34		40
2	48		55
3	65		72
4	79		86
5	88		97
Average	62.8		70.1
By Linear Regression of Slope, mw = Correlation coefficie	1.0451	Intercept, bw =	4.4703

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation	Factor
Particaulate Concentration by High Volume Sampler (µg/m³)	70.1
Particaulate Concentration by Dust Meter (µg/m³)	62.8
Measureing time, (min)	60
Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, (μg/m³)]	1.116



QC Reviewer:	UE	MAN	HEV	Signature:	her"	Date:	4/3/2023



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	37858B
Date of Issue:	2023-02-27
Date Received:	2023-02-25
Date Tested:	2023-02-25
Date Completed:	2023-02-27
Next Due Date:	2023-04-26

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) 1.156

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager

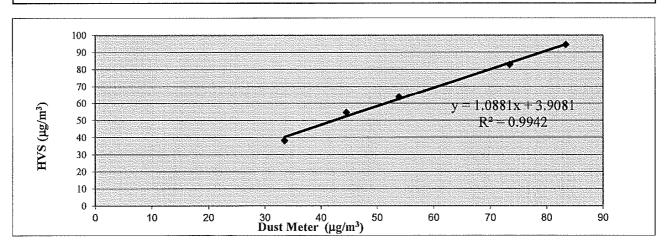
<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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:	25-Feb-23	25-Feb-23	
Location:	Wellab Office (Calibration Room)		

	Dust Meter	HVS
Calibration Point	Mass Concentration (μg/m³)	Mass concentration (μg/m³)
	X-axis	Y-axis
1	34	38
2	45	55
3	54	64
4	74	83
5	83	95
Average	57.8	66.8
By Linear Regression of Slope, mw = Correlation coefficie	of Y on X 1.0881 In	tercept, bw = 3.9081

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation F	actor		
Particaulate Concentration by High Volume Sampler (µg/m³)	66,8		
Particaulate Concentration by Dust Meter (µg/m³)	57.8		
Measureing time, (min)	60		
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.156		
SCF = [K=High Volume Sampler / Dust Weter, (µg/m)]	1.130		



QC Reviewer:	116	MAN	4162	Signature:	ke:	Date:	26/2/2023



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

 Test Report No.:
 37858C

 Date of Issue:
 2023-02-27

 Date Received:
 2023-02-25

 Date Tested:
 2023-02-25

 Date Completed:
 2023-02-27

Page:

Next Due Date:

1 of 1

2023-04-26

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) 1.104

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

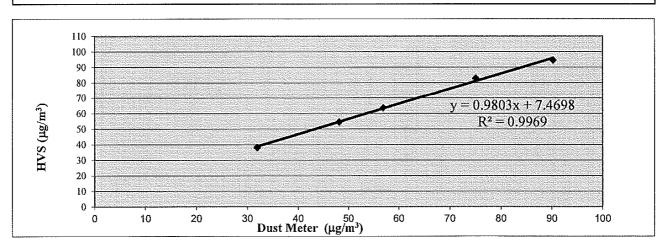
Dust Meter	Dust Meter	High Volume Sampler	
Equipment No.:	WA-01-09	WA-12-09	
Model No. :	AEROCET-831	TE-5170	
Serial No.	X23811	2203	
Calibration Date:	25-Feb-23	25-Feb-23	
Location:	Wellab Office (Calibration Room)		

	Calibration of 1 hr Dust Meter	HVS
Calibration Point	Mass Concentration (μg/m³)	Mass concentration (μg/m³)
	X-axis	Y-axis
1	32	38
2	48	55
3	57	64
4	75	83
5	90	95
Average	60.5	66.8

Correlation coefficient* = 0.9985

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation	Factor
Particaulate Concentration by High Volume Sampler (μg/m³)	66.8
Particaulate Concentration by Dust Meter (µg/m³)	60.5
Measureing time, (min)	60
Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.104



QC Reviewer: Mr Man Mzz Signature: ker Date: 26(2/2,23



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	37858D
Date of Issue:	2023-02-27
Date Received:	2023-02-25
Date Tested:	2023-02-25
Date Completed:	2023-02-27
Next Due Date:	2023-04-26

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 : 0.1 cfm

Flow rate
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)

1.099

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSÈ

General Manager

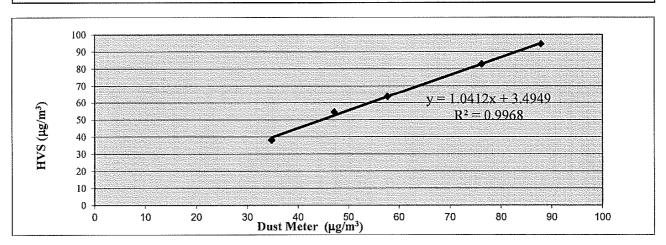
<u>TSP - Total Suspended Particulates (1 hr Dust Meter)</u> <u>Calibration Report</u>

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:	25-Feb-23 25-Feb-23		
Location:	Wellab Office (Calibration Room)		

	Calibr	eation of 1 hr TSP	
	Dust Meter		HVS
Calibration Point	Mass Concentration (μg/r	n³) M	lass concentration (μg/m³)
	X-axis		Y-axis
1	35		38
2	47		55
3	58		64
4	76		83
5	88		95
Average	60.8		66.8
By Linear Regression of Slope, mw = Correlation coefficie	1.0412	Intercept, bw =	3.4949

^{*}If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation F	
Particaulate Concentration by High Volume Sampler (µg/m³)	66.8
Particaulate Concentration by Dust Meter (µg/m³)	60.8
Measureing time, (min)	60
G-4-C	
Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, (µg/m³)]	1.099



QC Reviewer. College Property Text Signature. 100 Date. 21. 21. 27.	QC Reviewer:	LEE MAN UEV		he ·	Date:	76/2/2023	
---------------------------------------------------------------------	--------------	-------------	--	------	-------	-----------	--



						File No.	Cal./230106
Equipment No.:	WA-1	2-09		Serial No. 2203			
Model No.	TE-5	170		Cal. Date:	6-Jan-23		
Operator:	Н	<u>L</u>					
			Ambient Co	ndition			
Temperatu	ire, Ta (K)	293.2	Pressure, Pa	ı (mmHg)		769.1	
		Orific	e Transfer Stand	lard Informati	on	:	
Seria	l No.	2896	Slope, mc	0.0588	Intercept,		-0.01030
Last Calibr	ation Date:	20-Jan-22			$bc = [\Delta H \times (Pa/760)]$		
Next Calibr	ration Date:	20-Jan-23		$Qstd = \{[\Delta H$	$H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc		
			CONTRACTOR AND ASSESSMENT	3D.C. 1			
			Calibration of T	SP Sampler	The state of the s	TYVO	
Calibration	ΔH (orifice),	Orfice		Qstd (CFM)	ΔW (HVS), in. of	HVS [AW v (Pa/*	760) x (298/Ta)] ^{1/2}
Point	in. of water	[ΔH x (Pa/760) x	$(298/Ta)]^{1/2}$	X - axis	water		Y-axis
1	12.1	3.53		60.22	7.7		2.81
2	9.8	3.17		54.21	6.2		2.53
3	8.7	2,99		51.09	5.5		2.38
4	5.6	2.40		41.02	3.6		1.92
5	3.5	1.90		32,47	2,3		1.54
Slope , mw =	ression of Y on X 0.0458			Intercept, bw	0.0461	,	
	coefficient* =	0.9999 0, check and recalibrate.					
*11 Correlation C	Coefficient < 0.990	o, check and recamorate.					
			Set Point Cal	culation			
From the TSP F	ield Calibration C	urve, take Qstd = 43 CF					
From the Regres	ssion Equation, the	e "Y" value according to					
		0.4		D (5/0) (600	res > 1/2		
		mw x Qst	$\mathbf{d} + \mathbf{b} \mathbf{w} = [\Delta \mathbf{W} \ \mathbf{x} \ ($	Pa//60) x (298/	(Ta)]"-		
Therefor	re, Set Point; W =	$(mw \times Qstd + bw)^2 \times ($	760 / Pa) x (Ta/	298)=	3.95		
Remarks:							
Conducted by:	LEF MAN	HER i	Signature:	1		Date:	5/1/2073
Checked by:		1100	Signature:	<u> </u>		Date:	(1 1) nl
Checked by:	·(_	e cu-	oignaure.	-	· u ~	Date.	-6 (W)



Cal./230225

File No.

Equipment No.:	pment No.: WA-12-09			Serial No.	2203		
Model No.	TE-51	70		Cal. Date:	25-Feb-2	3	
Operator:	HL						
		· · · · · · · · · · · · · · · · · · ·	Ambient C	<u> </u>	·		
Temperatu	ire, Ta (K)	291.4	Pressure,	Pa (mmHg)		767.4	
		Orific	e Transfer Sta	ndard Informati	on		
Seria	l No.	0993	Slope, mc	0.0574	Intercept,		-0.04292
Last Calibr	ation Date:	16-Jan-23			$bc = [\Delta H \times (Pa/760)]$		
Next Calibi	ration Date:	16-Jan-24		$Qstd = \{ [\Delta H$	x (Pa/760) x (298/I	$[a]$ ^{1/2} -bc} /	me
						lare is in the con-	
	T	Orfice	Calibration of	TSP Sampler	in the state of th	HVS	
Calibration Point	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] ^{1/2}		Qstd (CFM) X - axis	ΔW (HVS), in. of water		a/760) x (298/Ta)] ^{1/2} Y-axis
1	11.6	3.46		61.00	7.9		2.86
2	9.2	3.08		54.41	6.4	2.57	
3	8.6	2.98		52.63	5.7	2.43	
4	5.7	2.43		42.98	3.8	1.98	
5	3.1	1.79		31.90	2.3		1.54
By Linear Reg Slope , mw =	ression of Y on X			Intercept, bw	= 0.0604		
Correlation (coefficient* =	0.9979					
*If Correlation (Coefficient < 0.990,	check and recalibrate.					
73. (2.2)			Set Point C	alaulatian			
	<u> </u>	ve, take Qstd = 43 CF		alculation			
		"Y" value according to					
Trom the reagre	boton siquation, are	_			4.00		
		mw x Qst	$\mathbf{d} + \mathbf{b} \mathbf{w} = [\Delta \mathbf{W}]$	x (Pa/760) x (298	/Ta)] ^{1/2}		
Therefo	we Set Point: W = ($mw \times Qstd + bw)^2 \times ($	760 / Pa) v (T	a / 298) ==	3.95		
Thereto	re, bet I omi, w	mir k Qsia · bir) k (700714)X(1	u, 270)	3,73		•
		12.1.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4					
Remarks:							

Conduct 11	111 May 1	la z	Ciomotowa	ka	÷ ().	Datas	26/2/2023
Charles by:	7	(1).	Signature:			Date:	18/ 2/121
Checked by	: Dr Ca	uu .	aignature:			Date:	US (1 (1 VV)



Equipment No :						File No	Cal./230303
Equipment No	WA-12-	-09		Serial No.	2203		
Model No.	TE-51	70		Cal. Date:	3-Mar-23		
Operator:	HL	**************************************					
			Ambient Co	ndition			
Temperature,	Ta (K)	294	Pressure, P	a (mmHg)		769.2	·········
		Orifi	ce Transfer Stan	dard Informati	ON.		
Serial N	[o.]	0993	Slope, mc 0.0574		Intercept,	bc	-0.04292
Last Calibratio		16-Jan-23			$bc = [\Delta H \times (Pa/760)]$		
Next Calibration		16-Jan-24			x (Pa/760) x (298/1		
			<u></u>				
· .		79 SANIHAMANA AND SANIHAMANA SANIHAMA	Calibration of T	SP Sampler			
Calibration		Orfice	2			HVS	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/760) 2	x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		760) x (298/Ta)] ^{1/2} Y-axis
1	11.4	4 3.42		60.28	7.2		2.72
2	9.0	3.04		53.65	6.0		2.48
3	8.2	2.90		51.24	5.6	2.40	
4	5.9 2		5	43.58	4.0		2.03
5	3.3	1.84	1	32.78	2,4		1.57
By Linear Regres. Slope , mw = Correlation coe *If Correlation Coe	0.0426 fficient* =	0.998: check and recalibrate		Intercept, bw =	0.1820		
	1		Set Point Cal	lculation			
From the TSP Field	d Calibration Cur	ve, take Qstd = 43 CF	FM				
From the Regressic	on Equation, the "	Y" value according to	o				
	Set Point; W = ($\mathbf{m}\mathbf{w} \times \mathbf{Q}\mathbf{s}$ $\mathbf{m}\mathbf{w} \times \mathbf{Q}\mathbf{s}\mathbf{t}\mathbf{d} + \mathbf{b}\mathbf{w}$) ² \times	$td + bw = [\Delta W x]$		Ta)] ^{1/2}		



	0993	Ambient Co Pressure, Pa (i			Due Date: Operator: _ Serial No	HL	
(12-20 X)	Orifice	Pressure, Pa (1			Serial No		
3)	Orifice	Pressure, Pa (1		111111111111111111111111111111111111111		3223	
	Orifice	Pressure, Pa (1			77(
	Orifice	Pressure, Pa (1			77(· · ·	
	Orifice		111111111111111111111111111111111111111),5	
	0993	Transfer Stans			,,,	, , , , , , , , , , , , , , , , , , ,	
		c 11ansiei Otani	dard Informati	on			
te: 16		Slope, mc	0.0574	Intercept,		-0.04292	
	-Jan-23		me x Qstd + b	$c = [\Delta H \times (Pa/76)]$	60) x (298/T	[a)] ^{1/2}	
ite: 16	-Jan-24		$Qstd = \{ [\Delta H] \}$	x (Pa/760) x (298	/Ta)] ^{1/2} -bc]	} / me	
•							
	i '' (Calibration of T	SP Sampler				
	Orfice				H	VS ·	
	[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
1.5	3.46		60.94	8.0		2.88	
0.4	3.29		57.99	6.9		2.68	
7.1	2.72		48.05	5.0		2.28	
5.4	2.37		42.00	3.7		1.96	
3.3	1.85		32.99	2.4		1.58	
0459 nt* =	0.9985		Intercept, bw	0.0553			
t < 0.990, check a	nd recalibrate.						
		Set Point Cal	lculation				
ration Curve, take	Qstd = 43 CFM						,
ation, the "Y" val	ie according to						
	mw x Qstd	$1 + \mathbf{b}\mathbf{w} = [\Delta \mathbf{W} \ \mathbf{x}]$	(Pa/760) x (298	/Ta)] ^{1/2}			
	2						
oint; $W = (mw x)$	Qstd + bw)* x (76	0/Pa)x(Ta/2	298)=	3.96			
			·				
						AAAAAAAAA	
		he	n		Date:	73/2/2023	<u> </u>
	orifice), f water 1.5 0.4 7.1 5.4 3.3 FY on X 0459 nt* = nt < 0.990, check a oration Curve, take ation, the "Y" value oint; W = (mw x oration the "Y" value)	The interval of the interval o	Calibration of T Orfice orifice), f water 1.5	Calibration of TSP Sampler	Calibration of TSP Sampler Orfice Orfice	Calibration of TSP Sampler Orfice Gallibration of Water Office Offic	Calibration of TSP Sampler



Station	FLN-DMS3 - Hou	se near Tong Hang				File No.	WMA20002/17/	0017
Date:	23-Feb-23				Next	Due Date:	22-Apr-23	
Model No.	TE-5170					Operator:	HL	
Equipment No.: _	WA-12-17					Serial No	3218	
14 7			Ambient (Condition				
Temperati	ıre, Ta (K)	290.4	Pressure, Pa			770		
Temperate	iic, 1a (ic)	270.4	1 1033410, 1 4	(mm.rg)				
			Drifice Transfer Sta	ndard Informat	ìon			
Seria	ıl No.	0993	Slope, mc	0.0574	Intercept,	bc	-0.04292	
Last Calibr	ation Date:	16-Jan-23			$bc = [\Delta H \times (Pa/7)]$			
Next Calib	ration Date: 16-Jan-24			Qstd = {[ΔH	x (Pa/760) x (298	3/Ta)] ^{1/2} -be]	/ mc	
1 1 1 1 1			Calibration of	TCD Campley				: .
	<u>: · · · ·</u>	Orfi		13r Sampler		нл	/S	
Calibration Point	ΔΗ (orifice), in. of water	1	(0) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in.	1	/760) x (298/Ta)] ^{1/2}	Y-axis
1	10.8		3.35	59,11	7.3		2.76	
2	8.8		3.03	53.43	6.0		2.50	
3	7.1		2.72	48.07	4.8		2.24	
4	5.4		2.37	42.02	3.9		2.01	
5	3.1		1.80	32.02	2.4		1.58	
Slope, mw =		···		Intercept, bw	0.1933	<u> </u>		
	coefficient* = _		9992	<u> </u>				
*If Correlation C	oefficient < 0.990,	check and recalibrate	Э,					
			Set Point C	Calculation				
From the TSP Fi	eld Calibration Cur	ve, take Qstd = 43 C						
From the Regress	sion Equation, the "	Y" value according	to					
		mw v	$Qstd + bw = [\Delta W]$	x (Pa/760) x (298	R/Ta)l ^{1/2}			
			(Quita	(2 11) (0 0) 11 (12 > 0	/)			
Therefo	re, Set Point; W = ($(mw \times Qstd + bw)^2$	x (760 / Pa) x (Ta	/ 298) =	4.03			
								
•.								
Remarks:								
-					ratio			
•			Λ./		·			
Conducted by:	LET MAN HE	Signature:	Ke	'n'	_	Date:	23/2/202	3
Checked by:		Signature:	X		-	Date:	75/2/2023	



RSP - Respirable Suspended Particulates Sampler (PM 10) Field Calibration Report

Station	KTN-DMS	KTN-DMS4A - Temporary Structure at Pak Shek Au File No. WMA20002/03/0016					WMA20002/03/0016
Date:	5-Jan-23				Ne	xt Due Date:	4-Mar-23
Model No.	TE-6070X					Operator:	HL
Equipment No.:	WA-11-03						3225
	T (77)			Ambient Condition			760
Temperature	e, 1a (K)		93	Pressure, Pa	(mmHg)		769
			Orifice T	ransfer Standard	Information		
Serial 1	No.:	28	396	Slope, mc	0.0588	Interce	ept, bc -0.01030
Last Calibrat			an-22	Next Calibra	A		20-Jan-23
			Cali	bration of RSP Sa	mpler		
Calibration			ORIF	ICE			HVS
Point	ΔH(orifice),	Del Hc ⁽¹⁾	Qstd (2)	Qa ⁽³⁾ (CFM)	Qa ⁽³⁾ (m ³ /min)		$[\Delta W \times (Ta + 30) / Pa]^{1/2}$
	in. of water		(CFM)	X -axis	X -axis	in. of water	Y-axis
1	8.6	8.85	50.81	49.37	1.40	7.7	1.80
2	7.2	7.41	46.51	45.19	1.28	6.3	1.63
3	5.6	5.76	41.04	39.88	1.13	5.2	1.48
4	4.6	4.73	37.21	36.16	1.02	4.2	1.33
5	2.9	2.98	29.58	28.74	0.81	2.6	1.05
By Linear Regr Slope, mw = Correlation co	0.03		0.998	Intercep	t, bw =	0.0	223
$(2) \text{Qstd} = \{[2]$	= ΔH x (Pa/760 ΔH x (Pa/760 d x (Ta / Pa) Coefficient < 6) x (298/Ta) x (760 / 298) (m3/min)	***************************************			
				Set Point Calculat	ion		
Set Point Flow I	Rate SFR			oct i unit cardia.			
SFR = 1.13 x		$\Gamma_{a}/298) =$		38.80			
		,				•	
Sampler Well - '	Type Manome	eter Set Poir	ıt, SSP				
SSP = [(mw					4.78		
Remarks:							
Conducted by:	EZE MON	Har	Signature:	he	· ()	_	Date: 5/1/2027
Checked by:	16 (ca d	<u>C</u> h-	Signature:		U~	-	Date: $\frac{3/1/w^2}{}$



File No. WMA20002/03/0017

Next Due Date: 2-May-23

RSP - Respirable Suspended Particulates Sampler (PM 10) Field Calibration Report

KTN-DMS4A - Temporary Structure at Pak Shek Au

Station

Date:

3-Mar-23

Model No.	TE-6070X					Operator:	HL
Equipment No.:	WA-11-03					Serial No.	3225
1				Production of the land and an arrangement of the standard for			
				Ambient Condition			
Temperatur	e, Ta (K)	29	4.4	Pressure, Pa	(mmHg)		770.5
0.11				ransfer Standard		Ţ.	
Serial I			993	Slope, mc	0.0574	Interc	
Last Calibra	tion Date:	16-3:	an-23	Next Calibra	tion Date:		16-Jan-24
			Cali	bration of RSP Sa	mnler		
			ORIF		mpei		HVS
Calibration Point	ΔH(orifice),	(1)	Qstd ⁽²⁾	Qa ⁽³⁾ (CFM)	Qa ⁽³⁾ (m ³ /min)	ΔW (HVS),	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$
roint	in. of water	Del Hc ⁽¹⁾	(CFM)	X -axis	X -axis	in. of water	Y-axis
1	9.1	9.34	53.95	52.57	1.49	7.8	1.81
2	7.1	7.29	47.74	46.52	1.32	6.2	1.62
3	6	6.16	43,95	42,82	1.21	5.3	1.49
4	4.7	4.82	38.98	37.99	1.07	4.2	1.33
5	2.1	2.16	26.30	25.63	0.73	2.3	0.98
By Linear Regi Slope, mw = Correlation co	0.03	08	0.999	Intercep	t, bw =	0.1	817
$(2) \text{Qstd} = \{ [4]$	= ΔH x (Pa/76 ΔH x (Pa/760 d x (Ta / Pa) : Coefficient < 0) x (298/Ta) x (760 / 298) (m3/min)				
		•					
				Set Point Calculat	ion		
Set Point Flow I SFR = 1.13 x		Ta/298) =		38.91			
Sampler Well - ' SSP = [(mw					4.52		
Remarks;		Marrie					
Conducted by: Checked by:	124 Mars 1 Lto 10a 0	the Ym	Signature: Signature:		rei j		Date: $\frac{3/\sqrt{2025}}{3/\sqrt{3}/105}$



RECALIBRATION **DUE DATE:**

January 20, 2023

alibration ertificate d

Calibration Certification Information

Cal. Date: January 20, 2022

Rootsmeter S/N: 438320

Ta: 293

Operator: Jim Tisch

Pa: 759.7

mm Hg

Calibration Model #:

TE-5025A

Calibrator S/N: 2896

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4610	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9190	7.9	5.00
4	7	8	1	0.8780	8.8	5.50
5	9	10	1	0.7250	12.7	8.00

	Data Tabulation					
Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$	·	Qa	√∆H(Ta/Pa)	
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)	
1.0124	0.6929	1.4260	0.9958	0.6816	0.8783	
1.0081	0.9731	2.0166	0.9916	0.9571	1.2420	
1.0061	1.0948	2.2546	0.9896	1.0768	1.3887	
1.0049	1.1445	2.3647	0.9884	1.1258	1.4564	
0.9997	1.3789	2.8519	0.9833	1.3563	1.7565	
	m=	2.07510		m=	1.29939	
QSTD	b=	-0.01030	QA	b=	-0.00634	
	r=	0.99995	- 4	r=	0.99995	

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

	Standard Conditions
Tstd:	298.15 °K
Pstd:	760 mm Hg
	Key
ΔH: calibrate	or manometer reading (in H2O)
	ter manometer reading (mm Hg)
	solute temperature (°K)
Pa: actual ba	rometric pressure (mm Hg)
b: intercept	
m: slope	

RECALIBRATION

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

Tisch Environmental, Inc. 145 South Miami Avenue Village of Cleves, OH 45002

www.tisch-env.com

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



RECALIBRATION **DUE DATE:**

January 16, 2024

Calibration Certification Information

Cal. Date: January 16, 2023 Rootsmeter 5/N: 438320

Ta: 293

°K

Operator: Jim Tisch

Pa: 749.0

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	1.3860	3.2	2.00
2	3	4	1	0.9880	6.4	4.00
3	5	6	1	0.8810	8.0	5.00
4	7	8	1	0.8410	8.8	5.50
5	9	10	1	0.6950	12.8	8.00

		Data Tabulat	ion		
Vstd	Qstd	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$		Qa	$\sqrt{\Delta H \left({ m Ta/Pa} ight)}$
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)
0.9981	0.7201	1.4159	0.9957	0.7184	0.8845
0.9938	1.0059	2.0024	0.9915	1.0035	1.2509
0.9917	1.1257	2.2388	0.9893	1.1230	1.3985
0.9906	1.1779	2.3480	0.9883	1.1751	1.4668
0.9853	1.4177	2.8318	0.9829	1.4143	1.7690
	m=	2.02881		m=	1.27041
QSTD	b=	-0.04292	QA [b=	-0.02681
-,	r=	0.99998		r=	0.99998

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

	Standard Conditions
Tstd:	298.15 °K
Pstd:	760 mm Hg
	Key
ΔH: calibrator	manometer reading (in H2O)
	er manometer reading (mm Hg)
Ta: actual abs	olute temperature (°K)
Pa: actual bar	ometric 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



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 37893B
Date of Issue: 2023-03-06
Date Received: 2023-03-03
Date Tested: 2023-03-03
Date Completed: 2023-03-06
Next Due Date: 2024-03-05

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No.

: BSWA : BSWA 308

Serial No.
Equipment No.

: 580005 : 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.



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	36405E
Date of Issue:	2022-03-07
Date Received:	2022-03-04
Date Tested:	2022-03-04
Date Completed:	2022-03-07
Next Due Date:	2023-03-06

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No.

: BSWA : 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.



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

 Test Report No.:
 37893E

 Date of Issue:
 2023-03-06

 Date Received:
 2023-03-03

 Date Tested:
 2023-03-03

 Date Completed:
 2023-03-06

 Next Due Date:
 2024-03-05

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No.

: BSWA : BSWA 308

Serial No. Equipment No.

: 580008 : 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.



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 36481

Date of Issue: 2022-03-14

Date Received:

2022-03-11

Date Tested:
Date Completed:

2022-03-11 2022-03-14

Next Due Date:

2023-03-13

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer

: BSWA

Model No.

: BSWA 308 : 580011

Serial No. Equipment No.

: WN-01-08

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.



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: Wellah Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	37894
Date of Issue:	2023-03-13
Date Received:	2023-03-10
Date Tested:	2023-03-10
Date Completed:	2023-03-13
Next Due Date:	2024-03-12

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer

: BSWA

Model No.

: BSWA 308 : 580011

Serial No. Equipment No.

: WN-01-08

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.



TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 37163
Date of Issue: 2022-10-02
Date Received: 2022-09-30

Date Tested:
Date Completed:

2022-10-02 2022-10-02

Next Due Date:

2022-10-02

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK

Model No.

: SV30A : 24803

Serial No. 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.



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 707

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.:	37018A
Date of Issue:	2022-08-22
Date Received:	2022-08-19
Date Tested:	2022-08-19
Date Completed:	2022-08-22
Next Due Date:	2023-08-21

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK

Model No.

: SV30A : 24791

Serial No. Equipment No.

: N-09-04

Test conditions:

Room Temperatre

: 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

Generai Manager



WELLAB LIMITED
Room 1714, Technology Park
18 On Lai Street, Shatin,
N.T., Hong Kong.
Tel: 2898 7388 Fax: 2898 7076

Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

APPLICANT:

Wellab Limited (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Test Report No.:
 38018

 Date of Issue:
 2023-03-24

 Date Received:
 2023-03-23

 Date Tested:
 2023-03-23 to

2023-03-24 2023-03-24

ATTN:

Miss Mei Ling Tang

Page:

Date Completed:

1 of 2

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-75
Manufacturer:	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J102347
- EXO Optical DO Sensor, Ti	599100-01	16J100964
- EXO conductivity/Temperature Sensor, Ti	599870	16H100201
- EXO Turbidity Sensor, Ti	599101-01	16J101156
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B100259

Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

Test Specifications:

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.) and Turbidity

Methodology:

According to manufacturer instruction manual, APHA 20e 4500-O C

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

Test Report No.: 38018

Date of Issue: 2023-03-24

Date Received: 2023-03-23

Date Tested: 2023-03-23 to 2023-03-24

Date Completed: 2023-03-24

Page:

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Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings (µS/cm)	Accetance Criteria	Comment
KCl stock solution	13200	12246-13534	Pass
(12890 μS/cm)			

Temperature performance checking

Reference thermometer-	Instrument Readings (°C)	Correction (°C)	Comment
E431 Readings (°C)			
20.0	20.002	-0.002	N/A

pH performance checking

	Instrument Readings	Accetance Criteria	Comment
	(pH unit)		
pH QC buffer 4.00	3.97	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.84	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.20	9.18 ± 0.10	Pass

D.O. performance checking

	Instrument Readings (mg/L)	Accetance Criteria	Comment
Zero DO soultion	0.09	<0.1mg/L	Pass

Winkler Titration value	Instrument Readings (mg/L)	Accetance Criteria	Comment
(mg/L)			
8.16	8.04	Difference between	Pass
		Titration value and	
		instrument reading	
		<0.2mg/L	

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	10.11	9.0-11.0	Pass
50 NTU	50.21	45.0-55.0	Pass
100 NTU	102.3	90.0-110.0	Pass

Depth performance checking

Water Depth	Instrument Readings (m)	Accetance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass



WELL AB LIMITED
Room 1714, 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)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Test Report No.: Date of Issue: 38018A 2023-03-24

Date Received:

2023-03-23

Date Tested:

2023-03-23 to

Date Completed:

2023-03-24 2023-03-24

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-83
Manufacturer:	YSI Incorporated	l, a Xylem brand
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	17A104735
- EXO Optical DO Sensor, Ti	599100-01	17B102220
- EXO conductivity/Temperature Sensor, Ti	599870	17B100808
- EXO Turbidity Sensor, Ti	599101-01	18C101823
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B103644

Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

Test Specifications:

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.) and Turbidity

Methodology:

According to manufacturer instruction manual, APHA 20e 4500-O C

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



WELLAB LIMITED Room 1714, Technology Park 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

Test Report No.: 38018A Date of Issue: 2023-03-24 Date Received: 2023-03-23 Date Tested: 2023-03-23 to 2023-03-24 2023-03-24 Date Completed:

Page:

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Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings (µS/cm)	Accetance Criteria	Comment
KCl stock solution	12800	12246-13534	Pass
(12890 μS/cm)			

Temperature performance checking

Reference thermometer-	Instrument Readings (°C)	Correction (°C)	Comment
E431 Readings (°C)			
20.0	20.003	-0.003	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance Criteria	Comment
pH QC buffer 4.00	4.01	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.81	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.22	9.18 ± 0.10	Pass

D.O. performance checking

	Instrument Readings (mg/L)	Accetance Criteria	Comment
Zero DO soultion	0.09	<0.1mg/L	Pass

Winkler Titration value	Instrument Readings (mg/L)	Accetance Criteria	Comment
(mg/L)			
8.16	8.11	Difference between	Pass
		Titration value and	
		instrument reading	
		<0.2mg/L	

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	9.59	9.0-11.0	Pass
50 NTU	51.63	45.0-55.0	Pass
100 NTU	103.2	90.0-110.0	Pass

Depth performance checking

Water Depth	Instrument Readings (m)	Accetance Criteria	Comment	
0.5 meter	0.50	0.45-0.55	Pass	



TEST REPORT

APPLICANT: Wellab Limited (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Test Report No.: 37645B Date of Issue: 2022-12-25 Date Received: 2022-12-24 Date Tested: 2022-12-24 to

2022-12-25

Date Completed:

2022-12-25

ATTN: Miss Mei Ling Tang Page: 1 of 2

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-108	
Manufacturer:	YSI Incorporated, a	SI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.	
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	17B100681	
- EXO Optical DO Sensor, Ti	599100-01	16J100992	
- EXO conductivity/Temperature Sensor, Ti	599870	17H103451	
- EXO Turbidity Sensor, Ti	599101-01	20J103612	
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B103616	

Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

Test Specifications:

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.)

and Turbidity

Methodology:

According to manufacturer instruction manual, APHA 20e 4500-O C

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

Test Report No.: 37645B

Date of Issue: 2022-12-25

Date Received: 2022-12-24

Date Tested: 2022-12-24 to 2022-12-25

Date Completed: 2022-12-25

Page:

2 of 2

Certificate of Calibration

Results:

Conductivity performance checking

700a	Instrument Readings (µS/cm)	Accetance Criteria	Comment
KCl stock solution	12300	12246-13534	Pass
(12890 μS/cm)			

Temperature performance checking

Reference thermometer- E431 Readings (°C)	Instrument Readings (°C)	Correction (°C)	Comment
20.0	20.001	-0.001	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance Criteria	Comment
pH QC buffer 4.00	3.99	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.91	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.24	9.18 <u>+</u> 0.10	Pass

D.O. performance checking

Police	Instrument Readings (mg/L)	Accetance Criteria	Comment
Zero DO soultion	0.05	<0.1mg/L	Pass

Winkler Titration value	Instrument Readings (mg/L)	Accetance Criteria	Comment
(mg/L)			
8.24	8.12	Difference between	Pass
		Titration value and	
		instrument reading	
		<0.2mg/L	

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	9.55	9.0-11.0	Pass
50 NTU	43.51	45.0-55.0	Pass
100 NTU	95.6	90.0-110.0	Pass

Depth performance checking

Water Depth	Instrument Readings (m)	Accetance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass



WELLAB LIMITED Room 1714, 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)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Test Report No.:	37645D
Date of Issue:	2022-12-25
Date Received:	2022-12-24
Date Tested:	2022-12-24 to
	2022-12-25
Date Completed:	2022-12-25

1 of 2

ATTN: Miss Mei Ling Tang

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Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-129
Manufacturer:	YSI Incorporated	l, a Xylem brand
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	17B101455
- EXO Optical DO Sensor, Ti	599100-01	17M101337
- EXO conductivity/Temperature Sensor, Ti	599870	17B100784
- EXO Turbidity Sensor, Ti	599101-01	16J101112
- EXO pH Sensor Assembly, Guarded, Ti	599701	16J100565

Certificate of Calibration

Test conditions:

Room Temperature : 17-22 degree Celsius

Relative Humidity : 40-70%

Test Specifications:

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.)

and Turbidity

Methodology:

According to manufacturer instruction manual, APHA 20e 4500-O C

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



WELLAB LIMITED Room 1714, Technology Park 18 On Lai Street, Shatin, N.T., Hong Kong.

Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

Test Report No.: 37645D
Date of Issue: 2022-12-25
Date Received: 2022-12-24
Date Tested: 2022-12-24 to 2022-12-25
Date Completed: 2022-12-25

Page: 2 of 2

Certificate of Calibration

Results:

Conductivity performance checking

M200	Instrument Readings (µS/cm)	Accetance Criteria	Comment
KCl stock solution	13100	12246-13534	Pass
(12890 μS/cm)			

Temperature performance checking

Reference thermometer-	Instrument Readings (°C)	Correction (°C)	Comment
E431 Readings (°C)			
20.0	20.002	-0.002	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance Criteria	Comment
pH QC buffer 4.00	4.00	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.94	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.25	9.18 <u>+</u> 0.10	Pass

D.O. performance checking

-	Instrument Readings (mg/L)	Accetance Criteria	Comment
Zero DO soultion	0.08	<0.1mg/L	Pass

Winkler Titration value	Instrument Readings (mg/L)	Accetance Criteria	Comment
(mg/L)			
8.24	8.15	Difference between	Pass
		Titration value and	
		instrument reading	
		<0.2mg/L	

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	9.63	9.0-11.0	Pass
50 NTU	47.44	45.0-55.0	Pass
100 NTU	95.2	90.0-110.0	Pass

Depth performance checking

Water Depth	Instrument Readings (m)	Accetance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass



Eurotron Instruments (UK) Ltd Unit 18 Austin Way, Daventry, Northants, NN11 8QY

T: 01327 871044 F: 01327 301255

CALIBRATION CERTIFICATE N.

EE13257

Job Reference

35844

Customer

Cadmus Distribution Group LT T/A Kesion Unit 34 . Waterhouse Business Centre

2 Cromer Way Chelmsford

CM1 2QE

Instrument Type:

EIUK

Instrument Model:

RASI 700 BIO

Instrument S/N:

330055

Calibration date:

06 Apr 2022

Due Date:

06 Apr 2023

Traceability:

All measuring equipment used for calibration purposes is traceable to National

or Internationally recognised standards.

Test Method:

Under controlled conditions and procedures, known physical, electrical

and gas mixture were applied to the instruments under test and the results

are reported in the table below

Due Date:

This is a recommendation only and does not imply any guaranteed performance

of the instrument over this period.

Standards:

S/N/ID N.

Certificate:N

O2 certified gas mixture

373466

040008266460

H2S/CO2/CH4 certified gas mixture

384603

Pressure Calibrator

2803358

040008461025

Temperature Calibrator

2702DE150201A

89402

84089

CALIBRATION RESULTS

Parameter	Unit	Applied	As received	Error	Pass/Fail	As left	Error	Pass/Fail
02	% Vol	20.90	20.90	0.0	Pass	20.90	0.0	Pass
02	% Vol	9.918	10.00	0.1	Pass	10,00	0.1	Pass
02	% Vol	0.0	0.00	0.0	Pass	0.00	0.0	Pass
CO2IR	%Vol	39.987	40.48	0.5	Pass	40.18	0.2	Pass
CH4	%Vol	59.980	60.25	0.3	Pass	60.25	0.3	Pass
Pressure	mbar	0.00	n/a	N/A	N/A	0.00	0.00	Pass
	mbar	50.00	n/a	N/A	N/A	49.97	-0.03	Pass
	mbar	75.00	n/a	N/A	N/A	74.99	-0.01	Pass
	mbar	90.00	n/a	N/A	N/A	90.04	0.04	Pass
	mbar	100.00	n/a	N/A	N/A	100.19	0.19	Pass
Temperature	°C	0.00	n/a	N/A	N/A	0.2	0.2	Pass
(T2)	°C	200.00	n/a	N/A	N/A	200.1	0.1	Pass
	°C	400.00	n/a	N/A	N/A	400.2	0.2	Pass
	°C	600.00	n/a	N/A	N/A	600.1	0.1	Pass
	°C	1,190.00	n/a	N/A	N/A	1190.4	0.4	Pass
Temperature	°C	0.00	n/a	N/A	N/A	0.2	0.2	Pass
(Air,T1)	°C	50.00	n/a	N/A	N/A	50.2	0.2	Pass

Printed Name: Anthony Kinninmonth / John Dorgan

Signature



FT Laboratories Ltd. 科達測檢試驗所有限公司

020000E1 D14D2E01



Calibration Report

Cambration	140.		92000031	- 01403301				
Laboratory		:	FT Labora	atories Ltd.				
Address		:	Lot No. D	D77 Section 15	52 S.Ass 1RP, Ng Chow South Road	d, Ping Che, Fanlin	g, New Territories	
Telephone		:	(852) 275	8 4861				
Facsimile		:	(852) 275	8 8962				
Customer		:	CRCC-P	aul Y. Joint Vei	nture			
Address		:	Unit A, 1	0/F., MG Tower	r, 133 Hoi Bun Road, Kwun Tong	, Kowloon.		
Item Calibra	ated		Name/Des	scription:	Vibration meter			
rem Canbre	ittu		Manufacti	•	Instantel			
			Meter's m		Micromate ISEE Std			
			Serial no.		UM17121			
				of sensor:	UM17121			
			Eqt. No.:	of sensor.	-			
Reference St	tandard /		:	C/ACC/1 (CN	IAS Cert No.: 2HB21001704-0001)		Accelerometer	
Major Meas				,	SCL Cert No.: RF210042)		Oscilloscope	
Equipment				,	CNAS Cert No.: 2HB21000253-000	1)	Function Generator	
24u.p.ment					R/DMM/2 (CNAS Cert No.: 2HB21000253-0002)		Multimeter	
				C/ES/1, C/AMP/3 Shaker and amplifier				
Calibration Method :			:	In-house procedure (CAL 091)				
Campitation Method				Calibration of Vibration meters by comparison with reference transducer.				
Date of item	received		:	14 Feb., 2023				
Date of Calil			:	16 Feb., 2023				
Location of		on .	:		aboratory of FT Laboratories Ltd.			
Calibration								
Temperature			:	20 ± 3 °C				
Relative Hun			:	30% to 80%				
To a Domila				The test result	s are detailed in the subsequent page	(6)		
Test Results			:	The test result	s are detailed in the subsequent page	(3).		
HOKLAS A	pproved S	Signat	ory :	,	Date un Victor (General Manager) n Nicolas (Senior Technical Engineer	e of Issue: 2	1 FEB 2023	
Notes:					ed against standards which are traceable t			
		(50)			(S) has accredited this laboratory under the			
					ities as listed in the HOKLAS directory of		ries. The results shown in	
					oratory in accordance with its terms of acc		Inite (C.I.) or researched	
					at the results shall be traceable to the Inte	rnational System of C	omes (5.1.) or recognised	
			ient standar ficate shall i		except in full, without the written approv	al of FT Laboratorie	s Ltd.	

Page 1 of 2



FT Laboratories Ltd. 科達測檢試驗所有限公司



Calibration Report

Calibration No.

92008051 - B14D3501

Results

(1) Frequency response at 10.0 mm/s (velocity measurement)

Frequency	Measured velocity			Error			
	in the fe	in the following direction			in the following direction		
(Hz)		(mm/s)			(mm/s)		
	Vert.	Tran.	Long.	Vert.	Tran.	Long.	
20	10.330	10.546	10.483	0.330	0.546	0.483	
60	10.173	10.764	10.701	0.173	0.764	0.701	
100	10.210	11.576	12.099	0.210	1.576	2.099	

Error for frequency response = Measured velocity (mm/s) minus 10.0 mm/s

(2) Level linearity at 60Hz (velocity measurement)

Reference level	Mea	Measured velocity			Error		
	in the f	in the following direction (mm/s)			in the following direction		
(mm/s)					(mm/s)		
,	Vert.	Tran.	Long.	Vert.	Tran.	Long.	
5.0	5.131	5.531	5.654	0.131	0.531	0.654	
10.0	10.173	10.764	10.701	0.173	0.764	0.701	
20.0	20.130	21.478	22.227	0.130	1.478	2.227	

Error for level linearity = Measured velocity (mm/s) minus Reference level (mm/s)

Remarks:

- (A) The expanded uncertainty of measurement relative to "measured values" with k=2, 10.7 % For frequency range 20 Hz to 100 Hz; 0.1 g to 0.8 g
- (B) Each reported result is the mean of three measurements on UUT (unit-under-test).
- (C) Before calibration, the UUT was allowed to stabilise in the laboratory environment for at least 1 hr.
- (D) The reported uncertainty is the expanded uncertainty U for a level of confidence of 95%, together with a coverage factor k. The combined standard uncertainty u_c can be calculated as u_c =U/k and its k value.
- (E) The values given in this Calibration Report only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.
- (F) The UUT was mounted in the vibration shaker using mounting jigs and cyanoacrylate adhesive or petro wax.
- (G) Applicable g value used, $1g = 9.80665 \text{ m/s}^2$, as per C/ACC/1 report no. SSD20071651.

<End of Report>

Calibrated by:

Yan Wing Man

Checked by:

CH Theung

Date:

16 Feb., 2023

Date:

7 FFN 2023



T Laboratories Ltd. 科達測檢試驗所有限公司 **Calibration Report**



Calibration No. 92008051 - B14D3601 FT Laboratories Ltd Laboratory Lot No. DD77 Section 1552 S.Ass 1RP, Ng Chow South Road, Ping Che, Fanling, New Territories Address (852) 2758 4861 Telephone (852) 2758 8962 **Facsimile** Customer CRCC-Paul Y. Joint Venture Address Unit A, 10/F., MG Tower, 133 Hoi Bun Road, Kwun Tong, Kowloon. Tiltmeter Sensor Unit under Description: test (UUT) Manufacturer: Sung Jin SJ-705 Model: Serial No.: 121871 Eqt No .: C/CAL/5 (CNAS Cert No.: CDP202104081) Reference Standard / Major Measurement Equipment In-house Procedure (CAL 112) Comparison of UUT reading against reference clinometer Calibration Method reading while mounted in an angle generator jig. Date of item received 14 Feb , 2023 Date of Calibration 14 Feb, 2023 Calibration Laboratory of FT Laboratories Ltd. Location of Calibration Calibration Conditions 20 ± 3 °C Temperature 30% to 80% Relative Humidity The test results are detailed in the subsequent page(s). **Test Results** 2 1 FEB 2023 Date of Issue: **HOKLAS** Approved Signatory: LAI Wing Chun, Victor (General Manager) CHAN Joseph Nicolas (Senior Technical Engineer)

Notes:

- The above equipment has been calibrated against standards which are traceable to internationally recognized standards.
- Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.
- Such terms of accreditation stipulate that the results shall be traceable to the International System of Units (S.I.) or recognised (3) measurement standards.
- This certificate shall not be reproduced, except in full, without the written approval of FT Laboratories Ltd.



T Laboratories Ltd. 科達測檢試驗所有限公司 **Calibration Report**



Calibration No.

92008051 - B14D3601

Results:

Reference angle	UUT reading '(see Note 1)	Error of reading '(see Note 2)	Expanded Uncertainty, U (°)	Coverage factor, l
Horizontal measur	rement			
5.009	4.943	-0.066	0.029	1.96
2.504	2.473	-0.032	0.029	1.96
1.001	0.986	-0.015	0.029	1.96
0.000	-0.007	-0.007	0.029	1.96
-1.002	-0.994	0.008	0.029	1.96
-2.504	-2.481	0.023	0.029	1.96
-5.008	-4.958	0.050	0.029	1.96
Vertical measuren	nent			
5.009	4.921	-0.088	0.029	1.96
2.504	2.448	-0.057	0.029	1.96
1.001	0.964	-0.038	0.029	1.96
0.000	-0.026	-0.026	0.029	1.96
-1.002	-1.018	-0.016	0.029	1.96
-2.504	-2.504	0.000	0.029	1.96
-5.008	-4.979	0.029	0.029	1.96

Note:

- (1) UUT reading = (the reading when (+) sign on the left the reading when (-) sign on the left) / 2
- Error of reading = UUT reading Reference angle

Remarks:

- The tiltmeter and readout system were calibrated together as a single measuring system (UUT). (A)
- Before calibration, the UUT and referece were allowed to stabilize in the laboratory for at least 30 mins while the UUT was (B) also switched on for at least 30 mins.
- The reported uncertainties are the expanded uncertainty U for a level of confidence of 95%, together with their coverage factor k. The combined standard uncertainties can be calculated as uc = U/k and their k values are given by t-distribution with its degrees of freedom veff.
- The values given in this Calibration Report only relate to the unit-under-test (UUT) and the values measured at the time of test. Any uncertainties quoted will not include allowances for the environment changes, variation and shock during transportation,

< End of Report >

Calibrated by: Yan Wing Man

Date: 14 Feb., 2023

Checked by: CH Choung
Date: 17 FEB 2023

Page 2 of 2 C112/004 Rev 0 (18-01-2021)

CALIBRATION CERTIFICATE

Calibration Item: Micromate System ISEE (Calibration with

Geophone UM17124)

Model No.:

721A2501

Serial No.:

UM17124

Calibration Date:

1 March 2023

Next Calibration Date:

1 March 2024

Method Used:

In-house Method B3-001

In-house Testing Procedure No.:

B3-001

Test References	Model	Serial No.
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

^{*}References are traceable to NIST or equivalent.

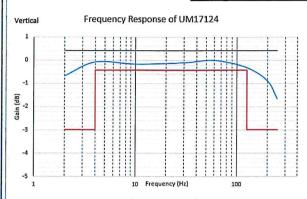
INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

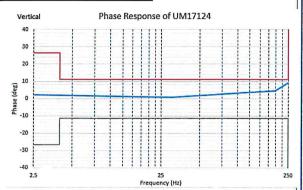
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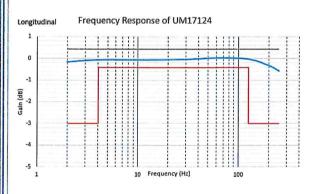
(Anson Kan)

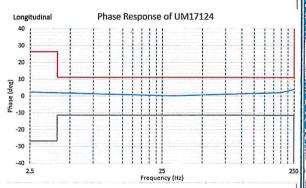
Date: 1 March 2023

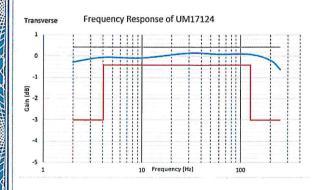
Frequency Responses of UM17124

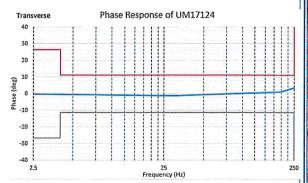












CALIBRATION CERTIFICATE

Calibration Item: TRIAXIAL GEOPHONE (Calibration with

main unit UM17124)

Part Number:

721A2901

Serial No.:

UM17124

Calibration Date:

1 March 2023

Next Calibration Date:

1 March 2024

Method Used:

In-house Method B3-001

In-house Testing Procedure No.:

B3-001

Test References	Model	Serial No.
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

^{*}References are traceable to NIST or equivalent.

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

(Anson Kan)

Date: 1 March 2023

APPENDIX D ENVIRONMENTAL MONITORING SCHEDULES

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Impact Air Quality and Noise Monitoring Schedule (March 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	•	·	1-Mar		3-Mar	4-Mar
			Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2			
				24hr RSP (Arsenic) KTN-DMS4A		
5-Mar	6-Mar	7-Mar	8-Mar	9-Mar	10-Mar	11-Mar
	<u>Ihr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> KTN-DMS4(B), FLN-DMS5A	<u>Ihr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2	<u>24hr RSP (Arsenic)</u> KTN-DMS4A		Ihr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP	
12-Mar	FLN-DMS1, FLN-DMS3 13-Mar	14-Mar	15-Mar	16-Mar	FLN-DMS1(#), FLN-DMS3 17-Mar	18-Mar
	<u>Ihr TSP* X3</u> FLN-DMS1, FLN-DMS3	24hr RSP (Arsenic) KTN-DMS4A		Ihr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1(#), FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	
19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar
	<u>24hr RSP (Arsenic)</u> KTN-DMS4A		Ihr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	24hr RSP (Arsenic) KTN-DMS4A	
26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	
		Ihr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	24hr RSP (Arsenic) KTN-DMS4A		

Remarks:

*Monitoring session would be conducted by portable TSP monitor. (#) 24 hr TSP monitoring at FLN-DMS1 on 10 & 16 March 2023 were cancelled due to power failure.

Environmental Permit(s)	Contract No.	Air Quality Stations	Noise Stations
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	1hr TSP and 24hr TSP KTN-DMS4(B) - Temporary Structure	+
EP-468/2013/A	ND/2019/03	near Fanling Highway (near Pak Shek Au)	
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	24hr RSP (Arsenic) KTN-DMS4A - Temporary Structure at	-
EP-468/2013/A	ND/2019/03	Pak Shek Au	
EP-467/2013/A EP-468/2013/A ⁽¹⁾	ND/2019/01		CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
EP-468/2013/A ⁽²⁾	ND/2019/01		CP-KTN-NMS3 -Fung Kong Garden
EP-469/2013 ⁽³⁾	ND/2019/02		CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery
EP-470/2013/A	ND/2019/01		CP-KTN-NMS5 - N/A
EP-473/2013/A ⁽⁴⁾	ND/2019/03	1hr TSP and 24hr TSP FLN-DMS1 - Scattered Village Houses North	
Er-4/3/2013/A	ND/2019/04	of Proposed Potential Ecopark	
EP-473/2013/A ⁽⁵⁾	ND/2019/05	1hr TSP and 24hr TSP FLN-DMS3 - House near Tong Hang	
EP-473/2013/A ⁽⁶⁾	ND/2019/03	Ihr TSP FLN-DMS5 - Noble Hill	
EP-4/3/2013/A	ND/2019/04	24hr TSP FLN-DMS5A - Good View New Village	ŀ
EP-473/2013/A ⁽⁷⁾	ND/2019/05		CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
ED 453 (2013 (4 (8)	ND/2019/04		
EP-473/2013/A ⁽⁸⁾	ND/2019/05		CP-FLN-NMS1 - Belair Monte
EP-475/2013/A	ND/2019/06		

Remarks:

- Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03
- 2. Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03
- Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m.
 The monitoring station is not applicable to ND/2019/02
- Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds500m. The
 monitoring station is not applicable to ND/2019/05
- 5. Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04
- 6. Since the distance between monitoring station FLN-DMS5 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05
- 7. Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 and ND/2019/04 under EP-
- 473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04.
- Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m.
 The monitoring station is not applicable to ND/2019/03.

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas **Impact Water Quality Monitoring Schedule (March 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Mar	2-Mar	3-Mar	4-Mar
			Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream	
5-Mar	6-Mar	7-Mar	8-Mar	9-Mar	10-Mar	11-Mar
	Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream	
12-Mar	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	18-Mar
	Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream	
19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar
	Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream	
26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	
	Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream	

Water Quality Monitoring Stations

River Beas: SYR-CS1 - Upstream of river, SYR-IS1 - Downstream of river
River Indus and near Siu Hang San Tsuen Stream: NTR-CS1 - Upstream of river, NTR-IS1 - Downstream of river, SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream,

MWR-IS3 - Water sensitive receiver at near Ma Wat River

Environmental Permit(s)	Contract No.	Water Quality Stations
EP-469/2013	ND/2019/02	River Beas SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	River Indus and near Siu Hang San Tsuen Stream NTR-CS1 - Upstream of river NTR-IS1 - Downstream of river SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream MWR-IS3 - Water sensitive receiver at near Ma Wat River

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Impact Ecological Monitoring Schedule (March 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sunday	Wonday	ruesday	1-Mar	2-Mar	3-Mar	4-Mar
			1-14121	Monitoring of Measures to Minimise	Monitoring of Measures to	4-iviai
				Disturbance to Water Birds in Ng Tung	Minimise Impacts on Ecological	
				River	Sensitive Habitats from	
				<u>T1 T2</u>	Disturbance and Pollution	
				High tide:	<u>T1, T6</u>	
				Start time: 15:00	<u>,</u>	
				Low tide:		
				Start time: 07:30		
				Monitoring of Measures to Minimise		
				Disturbance to Water Birds in Sheung		
				Yue River and Long Valley		
				T3 T5#		
				High tide:		
				Start time: 15:00		
				Low tide:		
				Start time: 07:30		
5-Mar	6-Mar	7-Mar	8-Mar	9-Mar	10-Mar	11-Mar
0 1/201	0 1/1111	, 11241	0 1/141	Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	11 11111
				Disturbance to Water Birds in Ng Tung	Disturbance to Water Birds in Sheung	
				River	Yue River and Long Valley	
				<u>T1 T2</u>	<u>T3 T5</u>	
				High tide:	High tide:	
				Start time: 10:00	Start time: 10:00	
				Low tide:	Low tide:	
				Start time: 15:00	Start time: 15:30	
12-Mar	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	18-Mar
		Monitoring of Measures to Minimise		Monitoring of Measures to Minimise		
		Disturbance to Water Birds in Sheung		Disturbance to Water Birds in Ng Tung		
		Yue River and Long Valley		River <u>T1 T2</u>		
		<u>T3 T5</u>		1112		
		High tide:		High tide:		
		Start time: 13:00		Start time: 13:00		
		Low tide:		Low tide:		
		Start time: 08:00		Start time: 08:00		
19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar
				Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	
				Disturbance to Water Birds in Ng Tung River	Disturbance to Water Birds in Sheung	
				T1 T2	Yue River and Long Valley T3 T5#	
				High tide:	High tide:	
				Start time: 10:00	Start time: 10:00	
				Low tide:	Low tide:	
27.74	27.14	20.14	20.14	Start time: 15:00	Start time: 16:00	
26-Mar	27-Mar Monitoring of Measures to	28-Mar	29-Mar Monitoring of Measures to Minimise	30-Mar	31-Mar	
	Minimise Impacts on Ecological	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung	Disturbance to Water Birds in Ng Tung			
	Sensitive Habitats from	Yue River and Long Valley	River			
	Disturbance and Pollution	T3 T5	<u>T1 T2</u>			
	<u>T3, T4, T5</u>	High tide:	High tide:			
	20, 27, 10	Start time: 13:00	Start time: 13:00			
		Low tide:	Low tide:			
		Start time: 08:00	Start time: 07:00			
				l .	L	

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Egretry Monitoring Schedule for March 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Mar	2-Mar	3-Mar	4-Mar
5-Mar	6-Mar	7-Mar	8-Mar	9-Mar	10-Mar	11-Mar
12-Mar	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	18-Mar
19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar
26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	
	Egretry Monitoring Ho Sheung Heung Egretry Site, Compensation Site A1-7 FLN and B1-7 FLN, Meanders of Split Colony					

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley	T1. Ng Tung River T2. Ng Tung River T3. Sheung Yue River T5. Long Valley
2	Monitoring of Measures to Minimise Impacts to Aquatic Fauna in Ma Tso Lung Stream and Siu Hang San Tsuen Stream	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10, MS_11, MS_12, MS_13, MS_14, MS_15
3	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	T1. Ma Tso Lung riparian zone and associated wetland habitats T1. Green belt areas E1-8,D1-8 and G1-3 in KTN NDA T1. AGR one C2-4 and C2-2 in KTN NDA T1. Areas north of Ng Tung River 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 T6. Areas in the western part of KTN

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Weekly Site Inspection Schedule for March 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Mar	2-Mar	3-Mar	4-Mar
			Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
5-Mar	6-Mar	7-Mar	8-Mar	9-Mar	10-Mar	11-Mar
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
12-Mar	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	18-Mar
		Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
19-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/03)		Site Inspection (ND/2019/04) Site Inspection (ND/2019/06) Site Inspection (ND/2019/01)	Site Inspection (ND/2019/07) Site Inspection (ND/2019/02)	
26-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Impact Air Quality and Noise Monitoring Schedule (April 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sunuay	Wonday	Tucsuay	Wednesday	Thursday	Tituay	1-Apr
						1-Арі
2-Apr	3-Apr	4-Apr	5-Apr		7-Apr	8-Apr
	1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2 24hr RSP (Arsenic) KTN-DMS4A		Ihr TSP* X3 FLN-DMS1, FLN-DMS3, KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A 24hr TSP FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A		
9-Apr	10-Apr	11-Apr 1hr TSP* X3	12-Apr	13-Apr	14-Apr	15-Apr
		KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2 24hr RSP (Arsenic) KTN-DMS4A			
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
	1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2 24hr RSP (Arsenic) KTN-DMS4A			1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A 24hr TSP FLN-DMS1, FLN-DMS3	
23-Apr	24-Apr	25-Apr	26-Apr		28-Apr	29-Apr
	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2 24hr RSP (Arsenic) KTN-DMS4A			1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A	
30-Apr						
	reseen circumstances (adverse weather, etc					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Remarks:

^{*}Monitoring session would be conducted by portable TSP monitor.

Environmental Permit(s)	Contract No.	Air Quality Stations	Noise Stations		
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	1hr TSP and 24hr TSP KTN-DMS4(B) - Temporary Structure	+		
EP-468/2013/A	ND/2019/03	near Fanling Highway (near Pak Shek Au)			
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	24hr RSP (Arsenic) KTN-DMS4A - Temporary Structure at	-		
EP-468/2013/A	ND/2019/03	Pak Shek Au			
EP-467/2013/A EP-468/2013/A ⁽¹⁾	ND/2019/01		CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung		
EP-468/2013/A ⁽²⁾	ND/2019/01		CP-KTN-NMS3 -Fung Kong Garden		
EP-469/2013 ⁽³⁾	ND/2019/02		CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunner		
EP-470/2013/A	ND/2019/01		CP-KTN-NMS5 - N/A		
EP-473/2013/A ⁽⁴⁾	ND/2019/03	1hr TSP and 24hr TSP FLN-DMS1 - Scattered Village Houses North			
Er-4/3/2013/A	ND/2019/04	of Proposed Potential Ecopark			
EP-473/2013/A ⁽⁵⁾	ND/2019/05	1hr TSP and 24hr TSP FLN-DMS3 - House near Tong Hang			
EP-473/2013/A ⁽⁶⁾	ND/2019/03	Ihr TSP FLN-DMS5 - Noble Hill			
EP-4/3/2013/A	ND/2019/04	24hr TSP FLN-DMS5A - Good View New Village	ŀ		
EP-473/2013/A ⁽⁷⁾	ND/2019/05		CP-FLN-NMS2 - Scattered Village Houses in Tong Hang		
ED 453 (2013 (4 (8)	ND/2019/04				
EP-473/2013/A ⁽⁸⁾	ND/2019/05		CP-FLN-NMS1 - Belair Monte		
EP-475/2013/A	ND/2019/06				

Remarks:

- Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03
- 2. Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03
- Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m.
 The monitoring station is not applicable to ND/2019/02
- Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds500m. The
 monitoring station is not applicable to ND/2019/05
- 5. Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04
- 6. Since the distance between monitoring station FLN-DMS5 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05
- 7. Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 and ND/2019/04 under EP-
- 473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04.
- Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m.
 The monitoring station is not applicable to ND/2019/03.

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Impact Water Quality Monitoring Schedule (April 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
•	·	•	•	·	•	1-Apr
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
	•	•		•	•	
	Water Quality Monitoring			Water Quality Monitoring		
	River Beas, River Indus and near			River Beas, River Indus and near		
	Siu Hang San Tsuen Stream			Siu Hang San Tsuen Stream		
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
•	•	•	•	•	•	•
		Water Onelity Manitorina		Water Ovality Manitorina		Water Onelity Manitoning
		Water Quality Monitoring River Beas, River Indus and near		Water Quality Monitoring River Beas, River Indus and near		Water Quality Monitoring River Beas, River Indus and near
		Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	River Beas, River Indus and near		River Beas, River Indus and near		River Beas, River Indus and near	
	Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream	
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	River Beas, River Indus and near		River Beas, River Indus and near		River Beas, River Indus and near	
	Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream	
30-Apr						

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Water Quality Monitoring Stations

River Beas: SYR-CS1 - Upstream of river, SYR-IS1 - Downstream of river

River Indus and near Siu Hang San Tsuen Stream: NTR-CS1 - Upstream of river, NTR-IS1 - Downstream of river, SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream,

MWR-IS3 - Water sensitive receiver at near Ma Wat River

Environmental Permit(s)	Contract No.	Water Quality Stations
EP-469/2013	ND/2019/02	River Beas SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	River Indus and near Siu Hang San Tsuen Stream NTR-CS1 - Upstream of river NTR-IS1 - Downstream of river SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream MWR-IS3 - Water sensitive receiver at near Ma Wat River

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Impact Ecological Monitoring Schedule (April 2023)

Cundon	Mor do	Tuesdan	Wadrasiass	Thursday	Esi do	Cotumban
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
2-Apr	3-Apr	Monitoring of Measures to Minimise	3-Арг	Monitoring of Measures to Minimise	7-Арі	о-дрі
		Disturbance to Water Birds in Ng Tung		Disturbance to Water Birds in Sheung		
		River		Yue River and Long Valley		
		<u>T1 T2</u>		<u>T3 T5</u>		
		High tide:		High tide:		
		Start time: 10:00		Start time: 09:00		
		Low tide:		Low tide:		
		Start time: 16:00		Start time: 14:00		
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
			Monitoring of Measures to Minimise	Monitoring of Measures to Minimise		
			Disturbance to Water Birds in Ng Tung	Disturbance to Water Birds in Sheung		
			River <u>T1 T2</u>	Yue River and Long Valley		
			1112	<u>T3 T5</u>		
			High tide:	High tide:		
			Start time: 11:00	Start time: 14:00		
			Low tide:	Low tide:		
16.1	15.	10.4	Start time: 08:00	Start time: 07:00	21.1	
16-Apr	17-Apr	18-Apr		20-Apr Monitoring of Measures to Minimise	21-Apr	22-Apr
	Monitoring of Measures to Minimise		Monitoring of Measures to	Disturbance to Water Birds in Ng Tung	Manitaria - ef Managara	
	Disturbance to Water Birds in Sheung Yue River and Long Valley		Minimise Impacts on Ecological Sensitive Habitats from	River	Monitoring of Measures to Minimise Impacts to Ma Tso Lung	
	T3 T5#		Disturbance and Pollution	<u>T1 T2</u>	and Siu Hang San Tsuen Stream	
	High tide:		<u>T1, T6</u>	High tide:	and Sid Hang San Tsuen Stream	
	Start time: 09:00		11, 10	Start time: 10:00	MS_01 - MS_15	
	Low tide:			Low tide:	MS_01 - MS_13	
	Start time: 14:00			Start time: 15:00		
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
25 1151	Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	Monitoring of Measures to	27.1151	20 1151	27 1101
	Disturbance to Water Birds in Ng Tung	Disturbance to Water Birds in Sheung	Minimise Impacts on Ecological			
	River	Yue River and Long Valley	Sensitive Habitats from			
	<u>T1 T2</u>	<u>T3 T5#</u>	Disturbance and Pollution			
	High tide:	High tide:	T3, T4, T5			
	Start time: 14:00	Start time: 14:00				
	Low tide:	Low tide:				
60.	Start time: 07:00	Start time: 07:00				
30-Apr						
	unforeseen circumstances (adverse					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc) #Night-time avifauna monitoring in Long Valley

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Egretry Monitoring Schedule for April 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sunday	Wonday	Tucsuay	wednesday	Thursday	Tilday	1-Apr
						1-7101
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
Z-Apr	3-Арі	4-Api	J-Api	0-Арг	/-Api	о-Арг
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
10.12	1, 11,	10.11	17.141	201191	21.10	22
22 4	24 A	25. A	26. A	27. A	29 A	20. 4
23-Apr	24-Apr Egretry Monitoring	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	Ho Sheung Heung Egretry Site,					
	Ho Sheung Heung Egretry Site, Compensation Site A1-7 FLN and					
	B1-7 FLN, Meanders of Split					
	Colony					
30-Apr						

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley	T1. Ng Tung River T2. Ng Tung River T3. Sheung Yue River T5. Long Valley
2	Monitoring of Measures to Minimise Impacts to Aquatic Fauna in Ma Tso Lung Stream and Siu Hang San Tsuen Stream	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10, MS_11, MS_12, MS_13, MS_14, MS_15
3	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	T1. Ma Tso Lung riparian zone and associated wetland habitats T1. Green belt areas E1-8,D1-8 and G1-3 in KTN NDA T1. AGR one C2-4 and C2-2 in KTN NDA T1. Areas north of Ng Tung River 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 T6. Areas in the western part of KTN

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Weekly Site Inspection Schedule for April 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sunday	Wionday	ruesday	Wednesday	Thursday	Tiday	1-Apr
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
	Site Inspection (ND/2019/02) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/07) Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)		Site Inspection (ND/2019/03)		
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
		Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	•
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
30-Apr						

The schedule may be changed due to unforeseen circumstances (adverse weather, etc.)

APPENDIX E
AIR QUALITY AND AMBIENT ARSENIC
MONITORING RESULTS AND
GRAPHICAL PRESENTATION

Appendix E - 1-hour TSP Monitoring Results

cation FLN-D opark	DMS1 - Scat	tered Village Ho	uses North of Proposed Potential
Date	Time	Weather	Particulate Concentration (μg/m³)
1-Mar-23	9:00	Sunny	106.5
1-Mar-23	10:00	Sunny	132.2
1-Mar-23	11:00	Sunny	143.3
7-Mar-23	9:00	Sunny	99.2
7-Mar-23	10:00	Sunny	115.2
7-Mar-23	11:00	Sunny	92.2
13-Mar-23	13:00	Cloudy	98.2
13-Mar-23	14:00	Cloudy	68.2
13-Mar-23	15:00	Cloudy	76.3
17-Mar-23	13:00	Sunny	137.3
17-Mar-23	14:00	Sunny	119.1
17-Mar-23	15:00	Sunny	102.4
20-Mar-23	13:00	Cloudy	77.5
20-Mar-23	14:00	Cloudy	80.4
20-Mar-23	15:00	Cloudy	73.3
29-Mar-23	13:00	Cloudy	73.3
29-Mar-23	14:00	Cloudy	85.0
29-Mar-23	15:00	Cloudy	88.8
_		Minimum	68.2
		Maximum	143.3
		Average	98.2

Date	Time	Weather	Particulate Concentration (μg/m³)
1-Mar-23	8:30	Sunny	116.0
1-Mar-23	9:30	Sunny	99.9
1-Mar-23	10:30	Sunny	97.7
7-Mar-23	13:00	Sunny	80.7
7-Mar-23	14:00	Sunny	88.4
7-Mar-23	15:00	Sunny	93.6
13-Mar-23	13:00	Cloudy	82.1
13-Mar-23	14:00	Cloudy	101.2
13-Mar-23	15:00	Cloudy	74.9
17-Mar-23	13:00	Sunny	131.6
17-Mar-23	14:00	Sunny	107.5
17-Mar-23	15:00	Sunny	118.7
23-Mar-23	13:00	Cloudy	72.9
23-Mar-23	14:00	Cloudy	68.9
23-Mar-23	15:00	Cloudy	84.3
29-Mar-23	13:00	Cloudy	80.0
29-Mar-23	14:00	Cloudy	88.8
29-Mar-23	15:00	Cloudy	85.6
		Minimum	68.9

WMA20002\1-hr TSP Results Wellab

Appendix E - 1-hour TSP Monitoring Results

Location FLN-D	ocation FLN-DMS5 - Noble Hill									
Date	Time	Weather	Particulate Concentration (μg/m³)							
6-Mar-23	13:00	Sunny	100.7							
6-Mar-23	14:00	Sunny	88.5							
6-Mar-23	15:00	Sunny	76.0							
10-Mar-23	13:00	Sunny	57.4							
10-Mar-23	14:00	Sunny	56.1							
10-Mar-23	15:00	Sunny	49.2							
16-Mar-23	9:00	Sunny	151.3							
16-Mar-23	10:00	Sunny	126.7							
16-Mar-23	11:00	Sunny	123.1							
22-Mar-23	9:00	Cloudy	52.8							
22-Mar-23	10:00	Cloudy	58.3							
22-Mar-23	11:00	Cloudy	43.1							
28-Mar-23	13:00	Cloudy	55.7							
28-Mar-23	14:00	Cloudy	63.8							
28-Mar-23	15:00	Cloudy	66.8							
		Minimum	43.1							
		Maximum	151.3							
		Average	78.0							

ocation KTN-DMS4(B) - Temporary Structure at Pak Shek Au								
Date	Time	Weather	Particulate Concentration (μg/m³)					
6-Mar-23	13:00	Sunny	121.9					
6-Mar-23	14:00	Sunny	79.7					
6-Mar-23	15:00	Sunny	88.3					
10-Mar-23	13:00	Sunny	76.4					
10-Mar-23	14:00	Sunny	94.5					
10-Mar-23	15:00	Sunny	106.8					
16-Mar-23	13:00	Sunny	192.4					
16-Mar-23	14:00	Sunny	173.9					
16-Mar-23	15:00	Sunny	201.0					
22-Mar-23	13:00	Cloudy	88.2					
22-Mar-23	14:00	Cloudy	83.1					
22-Mar-23	15:00	Cloudy	78.8					
28-Mar-23	13:00	Cloudy	40.1					
28-Mar-23	14:00	Cloudy	30.2					
28-Mar-23	15:00	Cloudy	43.8					
		Minimum	30.2					
		Maximum	201.0					
		Average	99.9					

WMA20002\1-hr TSP Results Wellab

Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark

Start Date	Weather	Air	Filter We	eight (g)	Particulate	Elapse	e Time	Sampling	Flow Rate	(m³/min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Temp. (K)	Initial	Final	weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m^3)	(µg/m ³)
6-Mar-23	Sunny	291.1	2.9493	3.1531	0.2038	7543.8	7567.8	24.0	1.22	1.22	1.22	1759.9	115.8
22-Mar-23	Cloudy	296.2	2.9814	3.0879	0.1065	7586.8	7610.8	24.0	1.21	1.20	1.20	1731.6	61.5
28-Mar-23	Cloudy	289.2	2.9244	3.0545	0.1301	7610.8	7634.8	24.0	1.22	1.22	1.22	1759.9	73.9
												Min	61.5
												Max	115.8
												Average	83.7

Location FLN-DMS3 - House near Tong Hang

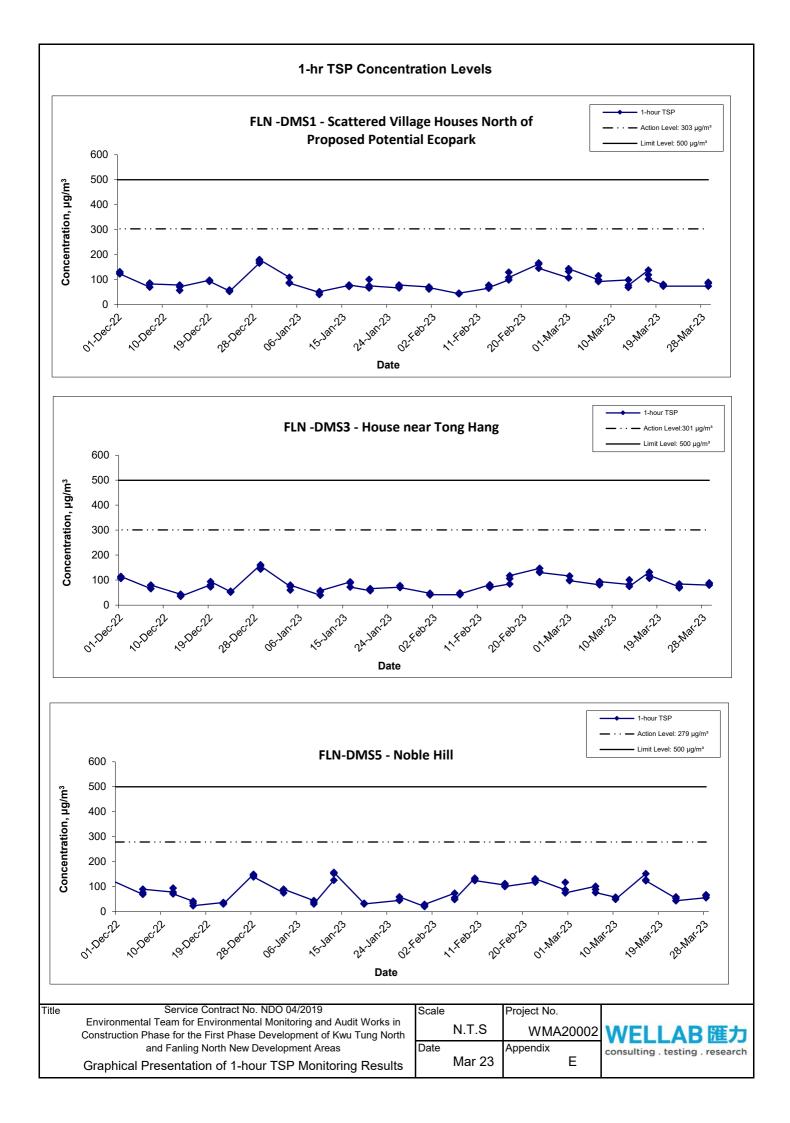
Start Date	Weather	Air	Filter W	eight (g)	Particulate	Elapse	e Time	Sampling	Flow Rate	(m³/min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Temp. (K)	Initial	Final	weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	(µg/m³)
6-Mar-23	Sunny	291.1	2.9452	3.0936	0.1484	8677.3	8701.3	24.0	1.21	1.21	1.21	1743.8	85.1
10-Mar-23	Cloudy	291.8	2.9779	3.1848	0.2069	8701.3	8725.3	24.0	1.21	1.20	1.21	1736.6	119.1
16-Mar-23	Cloudy	292.1	2.9204	3.1305	0.2101	8725.3	8749.3	24.0	1.21	1.20	1.20	1734.6	121.1
22-Mar-23	Cloudy	296.2	2.9532	3.0857	0.1325	8749.3	8773.3	24.0	1.19	1.19	1.19	1713.6	77.3
28-Mar-23	Cloudy	289.2	2.9180	2.9806	0.0626	8773.3	8797.3	24.0	1.21	1.21	1.21	1743.8	35.9
												Min	35.9
												Max	121.1
												Average	87.7

WMA20002\24-hr TSP Results Wellab

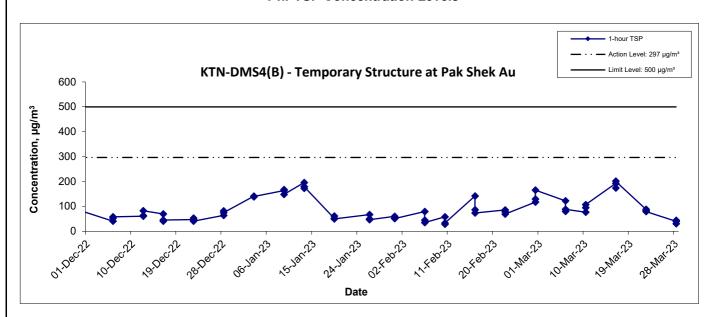
Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS5A - Good View New Village					
Date	Time	Weather	Particulate Concentration (μg/m³)		
6-Mar-23	9:00	Sunny	73.7		
10-Mar-23	9:30	Sunny	74.0		
16-Mar-23	9:00	Sunny	123.2		
22-Mar-23	11:00	Cloudy	61.0		
28-Mar-23	9:00	Cloudy	73.7		
		Minimum	61.0		
		Maximum	123.2		
		Average	81.1		

ocation KTN-DMS4(B) - Temporary Structure at Pak Shek Au					
Date	Time	Weather	Particulate Concentration (µg/m³)		
6-Mar-23	9:00	Sunny	83.6		
10-Mar-23	10:00	Sunny	83.7		
16-Mar-23	10:00	Sunny	130.9		
22-Mar-23	10:00	Cloudy	75.4		
28-Mar-23	9:00	Cloudy	69.1		
		Minimum	69.1		
		Maximum	130.9		
		Average	88.5		



1-hr TSP Concentration Levels



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
Graphical Presentation of 1-hour TSP Monitoring Results

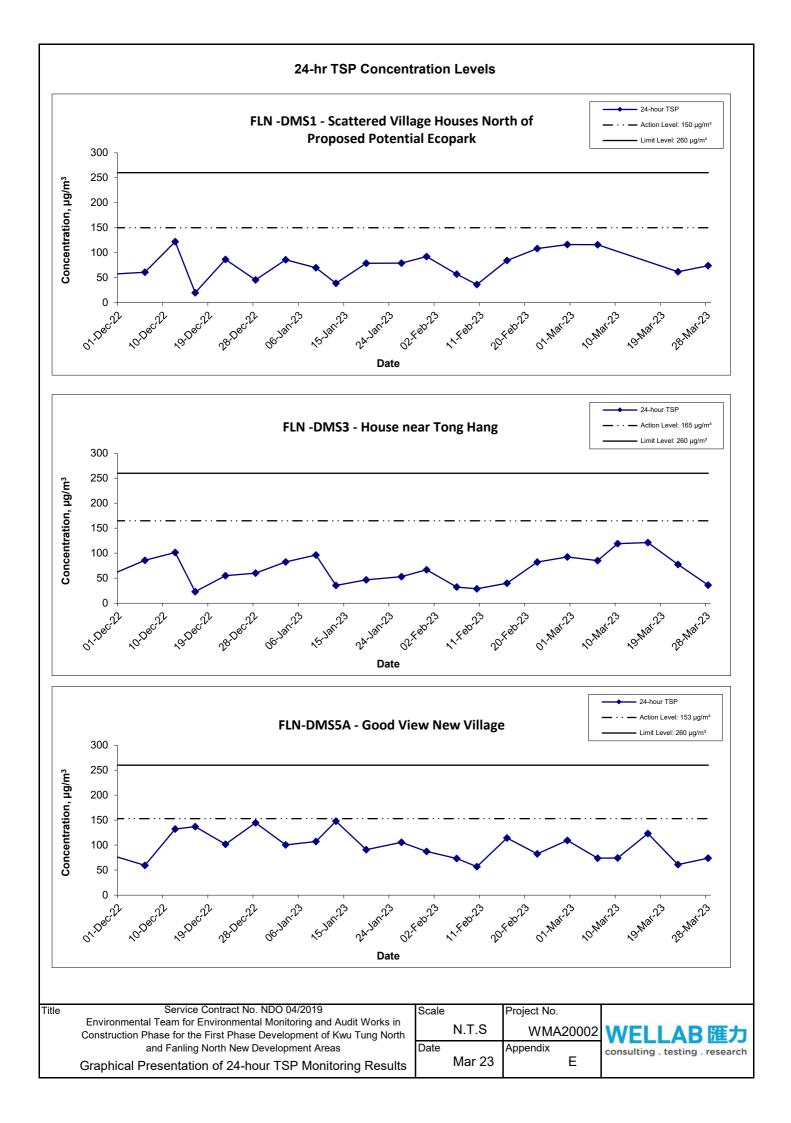
 Scale
 Project No.

 N.T.S
 WMA20002

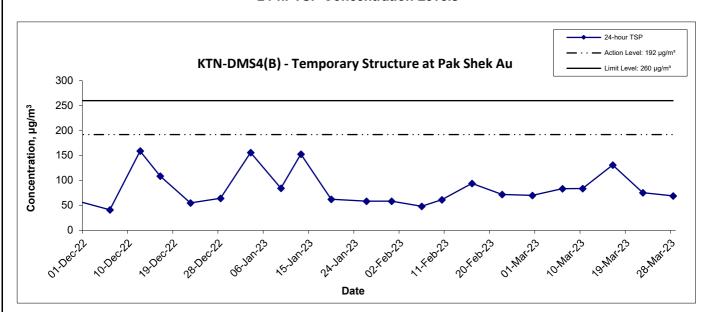
 Date
 Appendix

 Mar 23
 E





24-hr TSP Concentration Levels



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
Graphical Presentation of 24-hour TSP Monitoring Results

 Scale
 Project No.

 N.T.S
 WMA20002

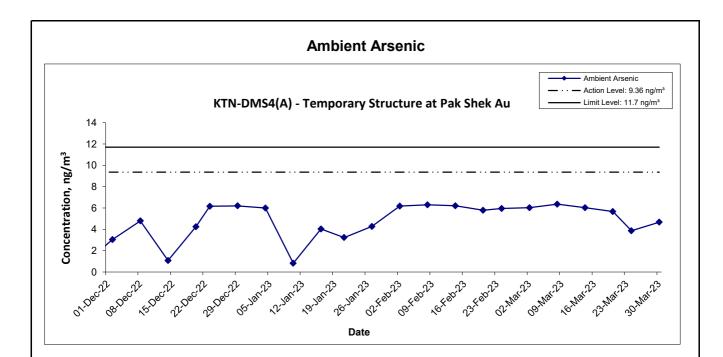
 Date
 Appendix

 Mar 23
 E



Appendix E - Ambient Arsenic Monitoring Results

Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au					
Date	Arsenic (µg)	Standard Volume, Vstd (m³)	Ambient Arsenic Concentration (ng/m³)		
2-Mar-23	9.5	1576.5	6.03		
8-Mar-23	10.0	1573.7	6.35		
14-Mar-23	9.5	1578.7	6.02		
20-Mar-23	9.0	1588.3	5.67		
24-Mar-23	6.2	1602.5	3.87		
30-Mar-23	7.4	1583.3	4.67		



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

Graphical Presentation of Ambient Arsenic Monitoring Results

Scale Project No.

N.T.S WMA20002

Date Appendix E





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 (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: 37855 Date of Issue: 2023-03-08

Date Received: 2023-03-03 Date Tested: 2023-03-03

Date Completed:

2023-03-08

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description: 1 sample as received from customer said to be quartz filter

Laboratory No. :

37855

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.

results.		
Sample ID	220411/046	
Sample No.	37855-1	
Arsenic (µg)	9.5	

Remarks: 1) <= less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



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 (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: QC37855 Date of Issue: 2023-03-08 Date Received: 2023-03-03 Date Tested:

Date Completed:

2023-03-03 2023-03-08

ATTN:

Ms Ivy Tam

Page:

1 of 2

QC report:

Method Blank

TILOURIUM INITIALIA		
Parameter	Method Blank	Acceptance
Arsenic (μg)	< 0.036	< 0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.03	N/A

Labouatowy control spika/ Mathad OC

Laboratory control spike Method QC				
Parameter	MQC	Acceptance		
Arsenic (%)	99	80-120		

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	97	90-110

Interference check solution A

Interference check solution A		
Parameter	ICS A	Acceptance
Arsenic (ug)	< 0.036	< 0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	103	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37855

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



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

 Report No.:
 QC37855

 Date of Issue:
 2023-03-08

 Date Received:
 2023-03-03

 Date Tested:
 2023-03-03

 Date Completed:
 2023-03-08

Page:

2 of 2

QC report:

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	96	75-125

Filter Duplicate

1 HOLD A PHONE				
Parameter	Filter Duplicate	Acceptance		
Arsenic (%)	2	RPD≤20%		

Serial dilution check

	ocimi (manon encer		
Í	Parameter	Serial dilution check	Acceptance
	Arsenic (%)	104	90-110

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37855



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.:	37895
Date of Issue:	2023-03-14
Date Received:	2023-03-09
Date Tested:	2023-03-09

ATTN:

Ms Ivy Tam

Page:

Date Completed:

1 of 1

2023-03-14

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

37895

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:

Ttobuxto.	
Sample ID	220411/047
Sample No.	37895-1
Arsenic (μg)	10

Remarks: 1) <= less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 QC37895

 Date of Issue:
 2023-03-14

 Date Received:
 2023-03-09

 Date Tested:
 2023-03-09

Page:

Date Completed:

1 of 2

2023-03-14

ATTN:

Ms Ivy Tam

QC report:

Method Blank

112000000000000000000000000000000000000		
Parameter	Method Blank	Acceptance
Arsenic (μg)	<0.036	< 0.036

Filter Lot Blank

I little Elot Milling		
Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

Laboratory control spike/ Method QC

Panolatora control shire, ratefula &c	, , , , , , , , , , , , , , , , , , , ,	
Parameter	MQC	Acceptance
Arsenic (%)	95	80-120

Calibration check

Callotation on von		
Parameter	CCV	Acceptance
Arsenic (%)	92	90-110

Interference check solution A

Interference check solution A		
Parameter	ICS A	Acceptance
Arsenic (ug)	< 0.036	< 0.036

Interference check solution AR

Titter for the check solution 212		
Parameter	ICS AB	Acceptance
Arsenic (%)	96	70-130

Remarks: 1) <= less than

2) N/A = Not applicable

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

 Report No.:
 QC37895

 Date of Issue:
 2023-03-14

 Date Received:
 2023-03-09

 Date Tested:
 2023-03-09

 Date Completed:
 2023-03-14

Page:

2 of 2

QC report:

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	73	75-125

Filter Duplicate

Filler Du	Micaic		
Paramete	er	Filter Duplicate	Acceptance
	(%)	3	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	94	90-110

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37895



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.:	37916
Date of Issue:	2023-03-20
Date Received:	2023-03-15
Date Tested:	2023-03-15
Date Completed:	2023-03-20

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

37916

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:

TANKSIA	equebrea es miserior	~~BJ.	
Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 μg

Results:

ixcauita.		
Sample ID	220411/048	
Sample No.	37916-1	
Arsenic (µg)	9.5	

Remarks: 1) <= less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 QC37916

 Date of Issue:
 2023-03-20

 Date Received:
 2023-03-15

 Date Tested:
 2023-03-15

 Date Completed:
 2023-03-20

ATTN:

Ms Ivy Tam

Page:

1 of 2

QC report:

Method Blank

THE CHOOL DIGHT		
Parameter	Method Blank	Acceptance
Arsenic (μg)	< 0.036	< 0.036

Filter Lot Blank

EHICI LOUDIANA		
Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

Laboratory control spike/ Method QC

Dabotatory control spike, freetion &c		
Parameter	MQC	Acceptance
Arsenic (%)	86	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	91	90-110

Interference check solution A

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) \leq = less than

2) N/A = Not applicable

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

 Report No.:
 QC37916

 Date of Issue:
 2023-03-20

 Date Received:
 2023-03-15

 Date Tested:
 2023-03-15

 Date Completed:
 2023-03-20

Page:

2 of 2

QC report:

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	93	75-125

Filter Duplicate

FIRE Duplicate		
Parameter	Filter Duplicate	Acceptance
Arsenic (%)	5	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 37916



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: 37929 Date of Issue: 2023-03-24

Date Received: 2023-03-21 Date Tested: 2023-03-21

Date Completed: 2023-03-24

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

37929

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:

ACSUIG.		
Sample ID	220411/049	
Sample No.	. 37929-1	
Arsenic (µg)	9	

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

²⁾ Results for the test material reported as received



TEST REPORT

APPLICANT: Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Page:

Report No.:

Date of Issue:

Date Tested:

Date Received:

Date Completed:

2023-03-21 2023-03-24 1 of 2

QC37929

2023-03-24

2023-03-21

ATTN:

Ms Ivy Tam

QC report:

M	ethod	Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	< 0.036	< 0.036

Filter Lot Blank

A ALTON ATOV ATOVIATE		
Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.03	N/A

Laboratory control spike/ Method QC

	Euroratory control spiker friction QC				
١	Parameter	MQC	Acceptance		
	Arsenic (%)	89	80-120		

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	91	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 37929

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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

Report No.: QC37929 Date of Issue: 2023-03-24 Date Received: 2023-03-21 Date Tested: 2023-03-21 Date Completed: 2023-03-24

Page:

2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	108	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	2	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	102	90-110

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37929



TEST REPORT

APPLICANT: Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: 37964

Date of Issue: 2023-03-31

Date Received: 2023-03-28

1 of 1

Date Tested: 2023-03-28 Date Completed: 2023-03-31

ATTN:

Ms Ivy Tam

1 sample as received from customer said to be quartz filter

Sample Description : 1 Laboratory No. : 3

: 37964

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

Page:

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	220411/050	
Sample No.	37964-1	
Arsenic (μg)	6.2	

Remarks: 1) < = less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: QC37964
Date of Issue: 2023-03-31
Date Received: 2023-03-28

Date Received: 2023-03-28
Date Tested: 2023-03-28
Date Completed: 2023-03-31

Page:

e: 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)	0.03	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	94	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	95	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 (%)	101	70-130

Remarks: 1) \leq = less than

- 2) N/A = Not applicable
- 3) This report is the summary of quality control data for report number 37964

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

 Report No.:
 QC37964

 Date of Issue:
 2023-03-31

 Date Received:
 2023-03-28

 Date Tested:
 2023-03-28

 Date Completed:
 2023-03-31

Page:

2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	91	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	3	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	97	90-110

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37964



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 38000

 Date of Issue:
 2023-04-06

 Date Received:
 2023-03-31

 Date Tested:
 2023-03-31

Date Completed:

2023-03-31 2023-04-06

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description

1 sample as received from customer said to be quartz filter

Laboratory No.

38000

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:

ixeauna.		
Sample ID	220411/051	
Sample No.	38000-1	
Arsenic (µg)	7.4	

Remarks: 1) <= less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: QC38000 Date of Issue: 2023-04-06 2023-03-31 Date Received: Date Tested: 2023-03-31

Page:

Date Completed:

1 of 2

2023-04-06

ATTN:

Ms Ivy Tam

QC report:

Method Blank

Triction 25thing		
Parameter	Method Blank	Acceptance
Arsenic (μg)	< 0.036	< 0.036

Filter Lat Rlank

FILLET LOT DISHK		
Parameter	Filter Lot Blank	Acceptance
Arsenic (ug)	0.03	N/A

Laboratory control spike/ Method OC

Laboratory control spike, Method QC					
Parameter	MQC	Acceptance			
Arsenic (%)	103	80-120			

Calibration check

Campi ation circux		
Parameter	CCV	Acceptance
Arsenic (%)	96	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (µg)	< 0.036	< 0.036

Interference check solution AB

Interior check solution 1225			
Parameter	ICS AB	Acceptance	
Arsenic (%)	111	70-130	

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38000 ********************************

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

ATRICK TSE

General Manager



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

Report No.: QC38000 Date of Issue: 2023-04-06 Date Received: 2023-03-31 2023-03-31 Date Tested: 2023-04-06 Date Completed:

Page:

2 of 2

QC report:

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	84	75-125

Eilter Dunlicate

ritter Duplicate		
Parameter	Filter Duplicate	Acceptance
Arsenic (%)	6	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	102	90-110

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38000

APPENDIX F NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - Noise Monitoring Results

Location CP-F	LIN-INIVIƏT - BE	eiair Wonte (Existing)				1
Date	Weather	Time	Un	Unit: dB (A) (5-min)			Baseline Leve
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		10:00	74.2	77.7	70.4		
		10:05	72.0	75.3	64.1		
1-Mar-23	Sunny	10:10	73.0	76.9	64.5	71.9	
1-IVIA1-23	Suring	10:15	71.3	75.2	62.3	71.5	
		10:20	68.7	72.0	63.0		
		10:25	70.0	74.1	63.4		_
		10:30	64.7	67.8	59.2		
		10:35	65.9	67.4	58.3		
7-Mar-23	Sunny	10:40	65.8	69.3	57.4	65.9	
1-1VIAI-23	Suring	10:45	66.7	69.7	57.0	05.9	
		10:50	66.0	69.4	59.8		
		10:55	65.8	68.1	58.4		
17-Mar-23	lar-23 Sunny	13:30	68.7	71.2	57.8		
		13:35	67.7	71.3	57.0		
		13:40	69.7	70.3	60.5	68.4	20.0
		13:45	66.0	69.7	60.0	00.4	69.9
		13:50	67.2	71.3	60.3		
		13:55	69.8	73.5	61.5		
		13:15	67.6	68.7	66.2		1
		13:20	67.2	68.0	66.2		
02 Mar 02	Claudy	13:25	68.0	68.8	66.1	67 F	
23-Mar-23	Cloudy	13:30	66.8	67.5	66.2	67.5	
		13:35	68.0	69.1	66.8		
		13:40	67.3	67.8	66.4		
		13:15	67.1	69.8	61.5		
		13:20	66.4	69.6	60.7		
00.1400	Olavata.	13:25	66.4	69.8	60.5	07.4	
29-Mar-23	Cloudy	13:30	66.9	69.7	61.4	67.1	
		13:35	67.3	70.6	62.0		
		13:40	68.2	71.1	62.4		

Location CP-FLN-NMS2 - Scattered Village House in Tong Hang (Existing)								
Date	Weather	Time	Un	Unit: dB (A) (5-min)			Baseline Level	
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}	
		08:35	67.6	68.4	66.8			
		08:40	67.2	68.0	66.1			
1-Mar-23	Sunny	08:45	66.9	67.7	66.0	66.9		
1-Wai-23	Suring	08:50	66.7	67.6	65.8	00.9		
		08:55	66.5	67.5	65.6			
		09:00	66.4	67.0	65.2			
		13:15	66.7	67.3	63.9		1	
		13:20	67.4	68.1	64.6			
7-Mar-23	Sunny	13:25	64.8	66.9	63.8	66.0		
1-1VIAI-23	Suring	13:30	64.6	66.5	63.7	00.0		
		13:35	66.2	68.3	64.1			
		13:40	65.5	66.4	63.8			
47 May 22	Sunny	14:45	66.4	67.0	65.8		1	
		14:50	66.4	67.2	65.6			
		14:55	66.1	66.6	65.4		66.5	
17-Mar-23		15:00	66.0	66.7	65.1	0.00	59.6	
		15:05	67.3	68.2	65.8			
		15:10	66.9	67.5	65.6			
		14:05	67.5	70.3	62.2		1	
		14:10	68.3	69.8	63.1			
00.14		14:15	67.7	70.8	63.3	00.0		
23-Mar-23	Cloudy	14:20	66.7	70.4	58.7	68.2		
		14:25	70.1	73.1	62.0			
		14:30	68.1	71.2	61.7			
	1	14:30	64.6	66.1	62.8		1	
		14:35	65.7		66.9 64.3			
00.1400	01	14:40	71.9	74.8	64.5	00.0		
29-Mar-23	Cloudy	14:45	69.5	71.8	65.5	69.2		
		14:50	69.5	71.4	65.5	1		
		14:55	70.1	73.5	63.7			

WMA20002 - Noise Results Wellab

Appendix F - Noise Monitoring Results

Location CP-K	TN-NMS2 - R	esidential Bu	uildings at M	a Tso Lung	(Existing)		
Date	Weather	Time	Un	it: dB (A) (5-n	nin)	Average	Baseline Level
			L eq	L ₁₀	L 90	L _{eq}	L _{eq}
		09:35	54.6	57.8	49.5		
		09:40	58.2	62.3	50.3		
10-Mar-23	Sunny	09:45	57.6	60.7	51.1	56.4	
10-iviai-23	Suring	09:50	53.3	56.1	49.8	30.4	
		09:55	55.0	57.6	49.7		
		10:00	57.3	60.9	50.0		
		09:10	61.9	62.8	47.4		1
		09:15	59.9	60.6	50.1		
16-Mar-23	3 Sunny	09:20	57.5	57.8	48.0	58.9	
10-IVIAI-23	Suring	09:25	52.7	54.3	47.0	56.9	
		09:30	58.3	59.7	49.5		
		09:35	58.2	59.9	50.7		58.6
		09:15	61.4	64.3	57.0		58.6
		09:20	62.8	66.7	56.3		
22-Mar-23	Cloudy	09:25	63.9	67.4	57.1	62.0	
22-Iviai-25	Cloudy	09:30	62.4	65.4	57.5	02.0	
		09:35	61.3	64.7	56.4		
		09:40	58.9	60.6	56.9		
		11:00	51.2	53.8	46.6		
		11:05	51.4	54.4	41.4		
28-Mar-23	Cloudy	11:10	54.4	55.4	41.5	51.7	
20-iviai-23	Cloudy	11:15	51.7	54.2	41.8	31. <i>1</i>	
		11:20	44.3	46.1	41.9		
		11:25	52.4	54.4	41.7		

Location CP-K	TN-NMS3 - F	ing Kong Ga	ırden (Existi	ng)			
Date	Weather	Time	Un	it: dB (A) (5-n	nin)	Average	Baseline Level
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		09:45	58.6	59.0	58.2		
		09:50	58.6	59.0	58.3		
10-Mar-23	Sunny	09:55	59.7	60.4	58.4	58.9	
10-IVIAI-23	Suring	10:00	58.6	58.9	58.3	56.9	
		10:05	58.9	59.3	58.4		
		10:10	58.9	59.2	58.5		
		09:25	58.7	59.2	58.0		
		09:30	59.1	59.5	58.7		
16-Mar-23	Sunny	09:35	59.0	59.5	58.6	59.0	
10-IVIAI-23	Suring	09:40	58.8	59.2	57.8	59.0	
		09:45	59.1	59.8	58.3		
		09:50	59.1	59.9	58.0		51.6
		11:00	56.9	57.5	56.3		51.0
		11:05	66.7	66.8	56.2		
22-Mar-23	Cloudy	11:10	56.4	57.0	55.7	60.7	
22-IVIAI-23	Cloudy	11:15	56.6	57.2	56.1	00.7	
		11:20	56.8	57.4	56.3		
		11:25	56.9	57.6	56.2		
		10:15	46.4	48.0	41.1		
		10:20	42.8	43.7	40.9		
28-Mar-23	Cloudy	10:25	42.7	44.0	41.5	44.5	
20-iviai-23	Cloudy	10:30	45.7	47.9	42.4	74.5	
		10:35	43.9	45.7	40.8		
		10:40	43.9	45.8	40.6		

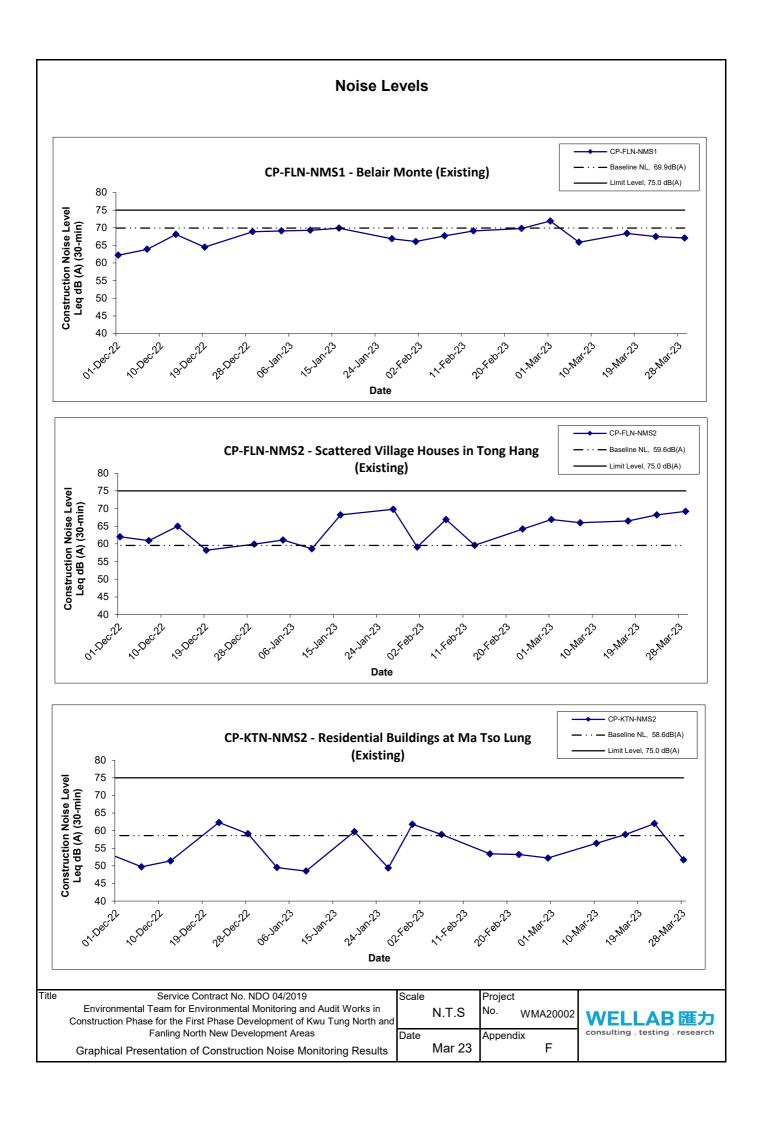
WMA20002 - Noise Results Wellab

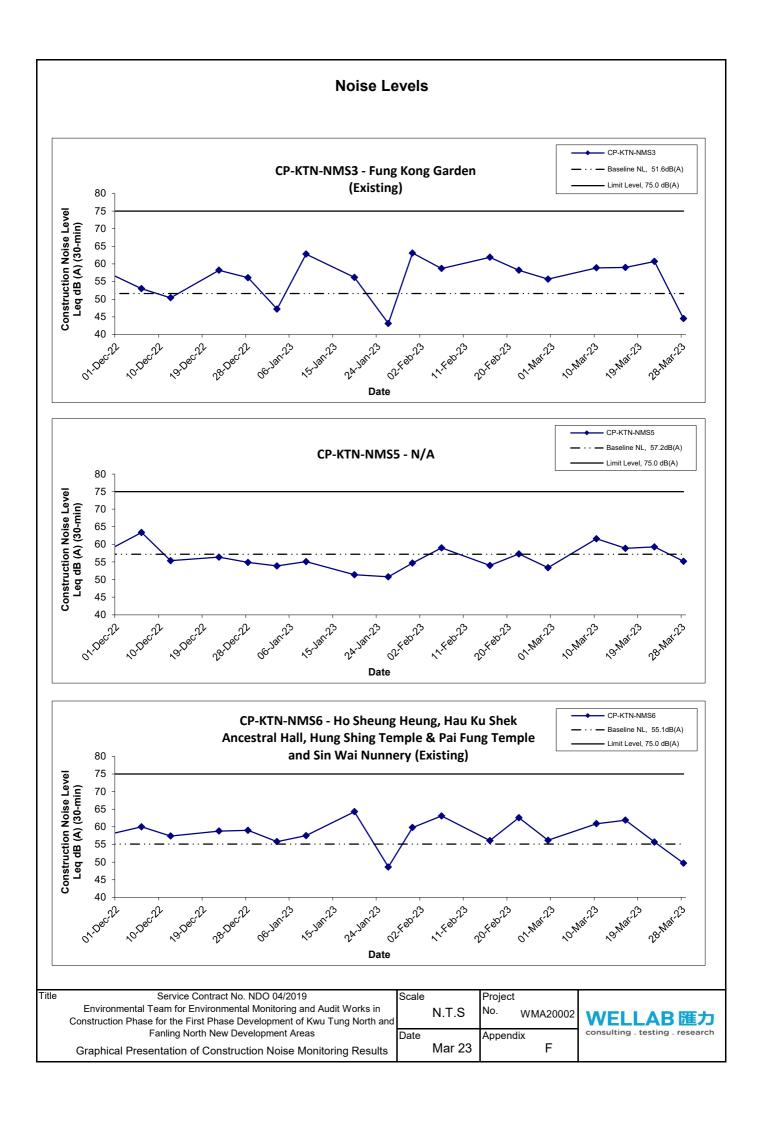
Appendix F - Noise Monitoring Results

Date	Weather	Time	Un	it: dB (A) (5-n	nin)	Average	Baseline Leve
Date	Wodanoi	111110	L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		11:25	60.0	62.2	56.7		
		11:30	57.9	60.2	55.8		
10-Mar-23	Sunny	11:35	59.5	61.7	55.1	61.6	
10-IVIAI-23	Suring	11:40	62.6	64.5	60.2	01.0	
		11:45	62.2	64.5	59.8		
		11:50	64.3	66.3	60.8		
		11:20	59.6	61.6	56.7		
		11:25	59.3	61.7	56.2		
16-Mar-23	Sunny	11:30	58.2	60.3	55.3	58.9	
10-IVIAI-23	Suring	11:35	59.3	61.9	56.2	56.9	
		11:40	58.6	60.9	56.0		
		11:45	58.3	60.3	55.9		57.2
		11:30	63.0	63.8	57.3		57.2
		11:35	57.7	58.2	57.1		
22-Mar-23	Cloudy	11:40	57.9	58.5	57.2	59.3	
22-Iviai-23	Cloudy	11:45	57.7	58.2	57.3	39.3	
		11:50	58.0	58.5	57.3		
		11:55	58.0	58.6	57.4		
		09:45	59.7	60.2	44.1		
		09:50	54.9	55.5	42.0		
28-Mar-23	Cloudy	09:55	55.6	58.0	42.6	55.2	
20-ivid1-23	Cloudy	10:00	49.6	50.6	41.7	33.2	
		10:05	49.5	53.5	43.3		
		10:10	53.5	58.7	42.3		

Date	Weather	Time	Uni	it: dB (A) (5-n	nin)	Average	Baseline Leve
24.0			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		10:30	60.9	63.4	55.7		
		10:35	60.5	60.7	55.9		
10-Mar-23	Suppy	10:40	64.4	70.0	56.3	60.9	
10-Mai-23	Sunny	10:45	59.2	60.2	57.4	60.9	
		10:50	59.0	59.9	57.5		
		10:55	58.4	59.2	57.5		
		10:30	58.6	60.7	54.9		
		10:35	65.7	58.6	56.7		
16-Mar-23	Sunny	10:40	62.7	65.5	56.1	61.9	
10-Mai-23	Suriny	10:45	59.5	61.3	57.3	01.9	
		10:50	60.2	63.5	56.7		
		10:55	60.3	61.4	56.6		55.4
		10:15	58.4	59.4	48.1		55.1
		10:20	55.5	55.8	48.5		
00 Mar 00	Classides	10:25	55.6	57.9	49.6	<i></i> 7	
22-Mar-23	Cloudy	10:30	53.4	55.3	48.7	55.7	
		10:35	54.9	57.1	48.6		
		10:40	54.6	55.5	49.2		
		09:00	53.9	56.9	45.8		
		09:05	48.9	50.5	45.8		
20 Mar 22	Claudy	09:10	46.9	48.0	45.5	40.7	
28-Mar-23	Cloudy	09:15	46.8	47.8	45.7	49.7	
		09:20	49.3	51.5	46.5		
		09:25	47.8	50.3	45.3		

WMA20002 - Noise Results Wellab





APPENDIX G WATER QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Location: SYR-CS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	p	H	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)	Arseni	ic (μg/L)
Date	Condition	Time	Sampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Mar-23	Sunny	11:43	Middle	0.1	20.5 20.5	20.5	8.0 8.0	8.0	0.1 0.1	0.1	71.4 71.3	71.4	6.4 6.4	6.4	7.7 7.5	7.6	9	8.5	7 6	6.5
3-Mar-23	Sunny	11:41	Middle	0.2	20.9 20.9	20.9	7.8 7.8	7.8	0.2 0.2	0.2	61.3 61.0	61.2	5.5 5.4	5.5	10.2 10.1	10.2	18 20	19.0	7 7	7.0
6-Mar-23	Sunny	12:01	Middle	0.2	21.9 21.9	21.9	7.9 7.9	7.9	0.3 0.3	0.3	64.4 64.3	64.4	5.6 5.6	5.6	19.7 19.8	19.8	20 25	22.5	9 10	9.5
8-Mar-23	Sunny	08:49	Middle	0.1	19.9 19.9	19.9	8.1 8.1	8.1	0.1 0.1	0.1	54.1 53.9	54.0	4.9 4.9	4.9	7.9 7.8	7.9	11 10	10.5	6 6	6.0
10-Mar-23	Sunny	13:52	Middle	0.2	24.1 24.1	24.1	7.6 7.6	7.6	0.1 0.1	0.1	89.6 89.6	89.6	7.5 7.5	7.5	12.0 11.8	11.9	20 17	18.5	6 6	6.0
13-Mar-23	Cloudy	10:30	Middle	0.2	21.4 21.5	21.5	7.7 7.7	7.7	0.2 0.2	0.2	60.1 59.8	60.0	5.3 5.3	5.3	8.5 8.4	8.5	8 8	8.0	7 7	7.0
15-Mar-23	Cloudy	11:41	Middle	0.1	23.0 23.0	23.0	7.2 7.2	7.2	0.2 0.2	0.2	74.5 74.4	74.5	6.4 6.4	6.4	6.8 6.6	6.7	12 11	11.5	8 8	8.0
17-Mar-23	Sunny	12:02	Middle	0.2	23.5 23.5	23.5	7.7 7.7	7.7	0.1 0.1	0.1	68.8 68.6	68.7	5.9 5.8	5.9	10.2 10.0	10.1	22 18	20.0	7 6	6.5
20-Mar-23	Sunny	11:09	Middle	0.2	22.3 22.3	22.3	7.1 7.1	7.1	0.2 0.2	0.2	71.0 70.7	70.9	6.2 6.1	6.2	31.0 30.2	30.6	29 30	29.5	18 18	18.0
22-Mar-23	Cloudy	12:20	Middle	0.2	23.8 23.8	23.8	7.8 7.8	7.8	0.3 0.3	0.3	65.7 65.6	65.7	5.6 5.5	5.6	15.0 14.9	15.0	35 29	32.0	9 9	9.0
24-Mar-23	Cloudy	12:37	Middle	0.2	23.5 23.5	23.5	7.6 7.6	7.6	0.1 0.1	0.1	43.0 42.7	42.9	3.7 3.6	3.7	14.5 14.5	14.5	5 6	5.5	11 11	11.0
27-Mar-23	Rainy	12:39	Middle	0.2	20.2 20.2	20.2	7.6 7.6	7.6	0.2 0.2	0.2	65.1 65.0	65.1	5.9 5.9	5.9	8.8 8.8	8.8	11 11	11.0	9 9	9.0
29-Mar-23	Cloudy	11:25	Middle	0.2	20.7 20.7	20.7	7.4 7.4	7.4	0.1 0.1	0.1	65.3 66.7	66.0	5.9 6.0	6.0	7.6 7.6	7.6	6 6	6.0	8 8	8.0
31-Mar-23	Cloudy	11:27	Middle	0.2	20.8 20.8	20.8	7.1 7.1	7.1	0.1 0.1	0.1	74.8 73.8	74.3	6.7 6.6	6.7	4.7 4.8	4.8	8 7	7.5	8 8	8.0

Location: SYR-IS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	р	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved Ox	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)	Arseni	c (μg/L)
Bate	Condition	Time	Gampling	Dopar (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Mar-23	Sunny	11:27	Middle	0.4	21.0 21.0	21.0	7.9 7.9	7.9	0.2 0.2	0.2	76.6 76.5	76.6	6.8 6.8	6.8	33.0 33.2	33.1	38 34	36.0	5 5	5.0
3-Mar-23	Sunny	11:56	Middle	0.1	21.6 21.6	21.6	7.8 7.8	7.8	0.2 0.2	0.2	70.4 70.1	70.3	6.2 6.2	6.2	22.3 22.2	22.3	21 21	21.0	5 5	5.0
6-Mar-23	Sunny	12:23	Middle	0.4	23.0 23.0	23.0	7.7 7.7	7.7	0.2 0.2	0.2	80.5 80.3	80.4	6.9 6.9	6.9	23.2 23.1	23.2	50 52	51.0	6 5	5.5
8-Mar-23	Sunny	09:44	Middle	0.2	21.1 21.1	21.1	8.2 8.2	8.2	0.2 0.2	0.2	70.4 70.4	70.4	6.3 6.3	6.3	43.6 42.6	43.1	43 36	39.5	7 7	7.0
10-Mar-23	Sunny	14:09	Middle	0.5	25.0 25.0	25.0	7.1 7.1	7.1	0.3 0.3	0.3	76.1 76.2	76.2	6.3 6.3	6.3	38.5 39.1	38.8	47 43	45.0	4 4	4.0
13-Mar-23	Cloudy	10:42	Middle	0.4	22.0 22.0	22.0	7.8 7.8	7.8	0.2 0.2	0.2	71.6 72.0	71.8	6.3 6.3	6.3	15.7 15.8	15.8	38 31	34.5	7 7	7.0
15-Mar-23	Cloudy	12:01	Middle	0.4	24.1 24.2	24.2	7.3 7.3	7.3	0.3 0.3	0.3	78.8 78.9	78.9	6.6 6.6	6.6	26.4 26.5	26.5	62 70	66.0	5 5	5.0
17-Mar-23	Sunny	12:14	Middle	0.4	25.1 25.1	25.1	7.5 7.5	7.5	0.3 0.3	0.3	83.0 83.5	83.3	6.8 6.9	6.9	20.3 20.5	20.4	47 43	45.0	6 6	6.0
20-Mar-23	Sunny	11:38	Middle	0.5	23.4 23.4	23.4	7.1 7.1	7.1	0.3 0.3	0.3	80.3 79.8	80.1	6.8 6.8	6.8	44.4 43.9	44.2	54 62	58.0	3 3	3.0
22-Mar-23	Cloudy	12:34	Middle	0.4	24.3 24.3	24.3	7.4 7.4	7.4	0.3 0.3	0.3	74.3 74.2	74.3	6.2 6.2	6.2	24.1 24.0	24.1	50 47	48.5	3 3	3.0
24-Mar-23	Cloudy	12:50	Middle	0.3	24.4 24.4	24.4	7.4 7.4	7.4	0.3 0.3	0.3	74.7 74.4	74.6	6.2 6.2	6.2	29.8 29.9	29.9	6 5	5.5	4 4	4.0
27-Mar-23	Rainy	12:53	Middle	0.4	21.2 21.2	21.2	7.6 7.6	7.6	0.2 0.2	0.2	72.6 72.9	72.8	6.4 6.5	6.5	30.6 30.8	30.7	24 25	24.5	4	4.0
29-Mar-23	Cloudy	11:44	Middle	0.4	22.0 22.0	22.0	7.1 7.1	7.1	0.3 0.3	0.3	71.6 71.6	71.6	6.3 6.3	6.3	24.0 24.0	24.0	40 35	37.5	5 5	5.0
31-Mar-23	Cloudy	11:45	Middle	0.4	22.0 22.0	22.0	7.1 7.1	7.1	0.3 0.3	0.3	73.8 74.9	74.4	6.4 6.5	6.5	22.7 22.7	22.7	41 41	41.0	5 5	5.0

Location: NTR-CS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptii (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Mar-23	Sunny	09:51	Middle	0.2	18.8 18.8	18.8	8.0 8.0	8.0	0.1 0.1	0.1	98.8 98.8	98.8	9.2 9.2	9.2	9.3 9.7	9.5	10 10	10.0
3-Mar-23	Sunny	12:26	Middle	0.2	21.9 21.9	21.9	7.9 7.8	7.9	0.1 0.1	0.1	109.6 109.9	109.8	9.6 9.6	9.6	6.0 5.9	6.0	6 6	6.0
6-Mar-23	Sunny	14:54	Middle	0.2	22.1 22.1	22.1	7.8 7.8	7.8	0.1 0.1	0.1	102.9 103.0	103.0	9.0 9.0	9.0	8.7 8.4	8.6	5 5	5.0
8-Mar-23	Sunny	10:52	Middle	0.2	20.4 20.5	20.5	7.6 7.6	7.6	0.1 0.1	0.1	104.5 104.6	104.6	9.4 9.4	9.4	13.4 13.5	13.5	13 14	13.5
10-Mar-23	Sunny	15:31	Middle	0.1	24.2 24.2	24.2	7.0 7.0	7.0	0.1 0.1	0.1	108.6 108.5	108.6	9.1 9.1	9.1	14.4 14.7	14.6	6 7	6.5
13-Mar-23	Cloudy	12:01	Middle	0.2	22.8 22.8	22.8	8.0 8.0	8.0	0.1 0.1	0.1	105.5 105.6	105.6	9.1 9.1	9.1	7.3 7.4	7.4	12 11	11.5
15-Mar-23	Cloudy	12:55	Middle	0.2	23.0 23.0	23.0	7.5 7.5	7.5	0.1 0.1	0.1	102.9 103.0	103.0	8.8 8.8	8.8	5.1 5.1	5.1	5 4	4.5
17-Mar-23	Sunny	13:09	Middle	0.2	24.6 24.6	24.6	8.5 8.4	8.5	0.1 0.1	0.1	102.8 103.1	103.0	8.6 8.6	8.6	6.9 6.8	6.9	10 9	9.5
20-Mar-23	Sunny	13:28	Middle	0.1	23.2 23.2	23.2	7.4 7.4	7.4	0.1 0.1	0.1	99.5 99.5	99.5	8.5 8.5	8.5	14.5 14.4	14.5	19 18	18.5
22-Mar-23	Cloudy	15:02	Middle	0.2	23.7 23.7	23.7	8.5 8.5	8.5	0.1 0.1	0.1	80.0 79.9	80.0	6.8 6.8	6.8	10.3 10.1	10.2	17 17	17.0
24-Mar-23	Cloudy	14:14	Middle	0.2	23.6 23.6	23.6	7.9 7.9	7.9	0.1 0.1	0.1	79.9 79.7	79.8	6.8 6.8	6.8	6.7 6.9	6.8	4 5	4.5
27-Mar-23	Rainy	15:19	Middle	0.2	20.3 20.2	20.3	8.2 8.2	8.2	0.2 0.2	0.2	83.5 83.0	83.3	7.6 7.5	7.6	14.8 14.3	14.6	8 8	8.0
29-Mar-23	Cloudy	16:31	Middle	0.2	21.9 21.9	21.9	7.5 7.5	7.5	0.1 0.1	0.1	83.2 82.8	83.0	7.3 7.3	7.3	7.9 7.8	7.9	9 8	8.5
31-Mar-23	Cloudy	13:03	Middle	0.2	21.9 21.9	21.9	7.2 7.2	7.2	0.1 0.1	0.1	79.8 79.6	79.7	7.0 7.0	7.0	6.9 6.9	6.9	23 23	23.0

Location: NTR-IS1

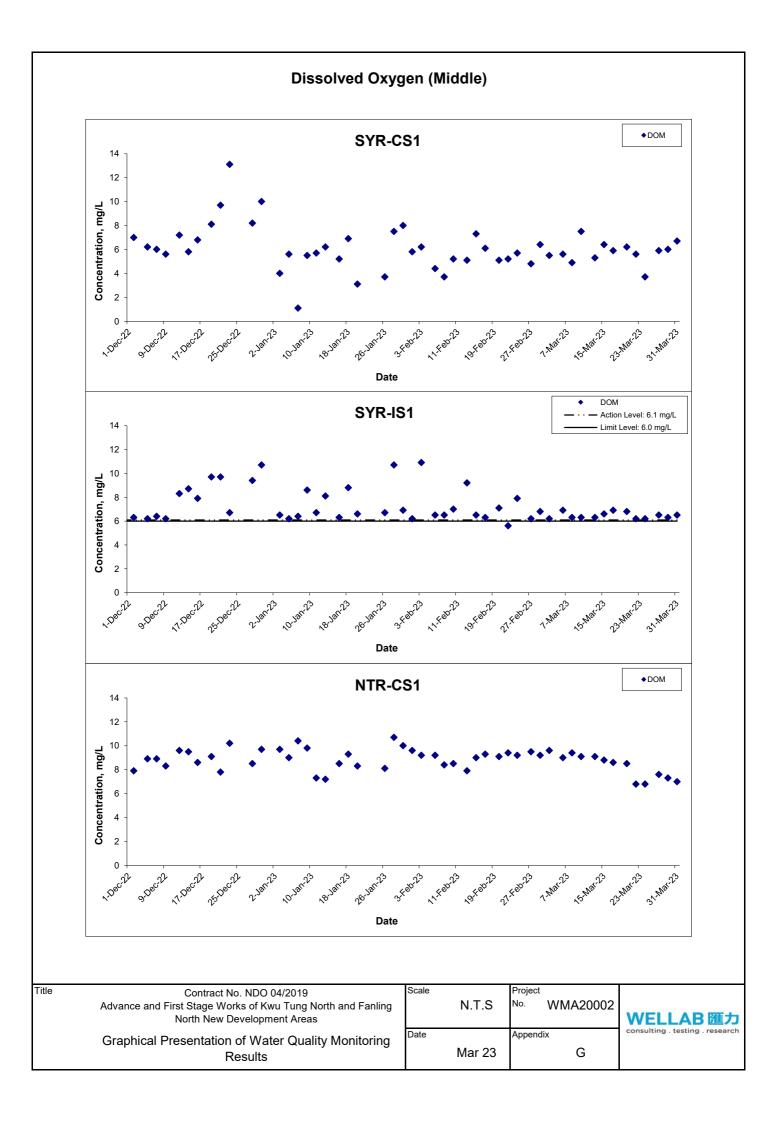
Date	Weather	Start	Sampling	Depth (m)	Temper	ature (°C)	ı	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptii (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Mar-23	Sunny	10:47	Middle	0.5	20.5 20.5	20.5	8.1 8.1	8.1	0.1 0.1	0.1	79.8 79.8	79.8	7.2 7.2	7.2	9.8 9.8	9.8	7 6	6.5
3-Mar-23	Sunny	13:18	Middle	0.1	21.2 21.2	21.2	7.9 7.9	7.9	0.1 0.1	0.1	91.3 91.1	91.2	8.1 8.1	8.1	6.0 6.2	6.1	7 7	7.0
6-Mar-23	Sunny	14:24	Middle	0.3	21.4 21.4	21.4	7.6 7.6	7.6	0.1 0.1	0.1	102.0 101.9	102.0	9.0 9.0	9.0	7.8 7.8	7.8	6 6	6.0
8-Mar-23	Sunny	10:12	Middle	0.5	20.8 20.8	20.8	8.1 8.1	8.1	0.1 0.1	0.1	93.0 92.8	92.9	8.3 8.3	8.3	13.6 13.5	13.6	15 13	14.0
10-Mar-23	Sunny	14:35	Middle	0.6	23.0 23.0	23.0	7.4 7.3	7.4	0.1 0.1	0.1	90.0 90.1	90.1	7.7 7.7	7.7	15.1 15.5	15.3	6 7	6.5
13-Mar-23	Cloudy	11:35	Middle	0.3	21.2 21.2	21.2	7.5 7.5	7.5	0.1 0.1	0.1	100.0 99.7	99.9	8.9 8.9	8.9	8.0 8.1	8.1	11 11	11.0
15-Mar-23	Cloudy	12:33	Middle	0.3	22.7 22.7	22.7	7.6 7.6	7.6	0.1 0.1	0.1	75.9 75.6	75.8	6.6 6.5	6.6	5.7 5.9	5.8	5 6	5.5
17-Mar-23	Sunny	12:51	Middle	0.3	23.6 23.6	23.6	7.7 7.7	7.7	0.1 0.1	0.1	79.8 79.5	79.7	6.8 6.7	6.8	7.4 7.2	7.3	10 11	10.5
20-Mar-23	Sunny	12:46	Middle	0.6	22.1 22.1	22.1	7.3 7.3	7.3	0.1 0.1	0.1	68.2 68.4	68.3	6.0 6.0	6.0	15.6 15.2	15.4	21 20	20.5
22-Mar-23	Cloudy	14:29	Middle	0.3	23.3 23.3	23.3	7.5 7.5	7.5	0.1 0.1	0.1	74.4 74.2	74.3	6.3 6.3	6.3	11.9 11.8	11.9	12 11	11.5
24-Mar-23	Cloudy	13:40	Middle	0.3	23.3 23.3	23.3	7.4 7.4	7.4	0.1 0.1	0.1	68.9 69.5	69.2	5.9 5.9	5.9	6.9 6.8	6.9	<2.5 <2.5	<2.5
27-Mar-23	Rainy	13:32	Middle	0.3	20.0 20.0	20.0	7.6 7.6	7.6	0.1 0.1	0.1	69.9 69.4	69.7	6.4 6.3	6.4	11.9 12.0	12.0	7 7	7.0
29-Mar-23	Cloudy	15:50	Middle	0.4	21.5 21.6	21.6	7.5 7.5	7.5	0.1 0.1	0.1	74.1 73.9	74.0	6.5 6.5	6.5	8.8 8.9	8.9	8 10	9.0
31-Mar-23	Cloudy	12:26	Middle	0.4	21.5 21.5	21.5	7.3 7.3	7.3	0.1 0.1	0.1	68.3 68.0	68.2	6.0 6.0	6.0	7.1 7.1	7.1	11 10	10.5

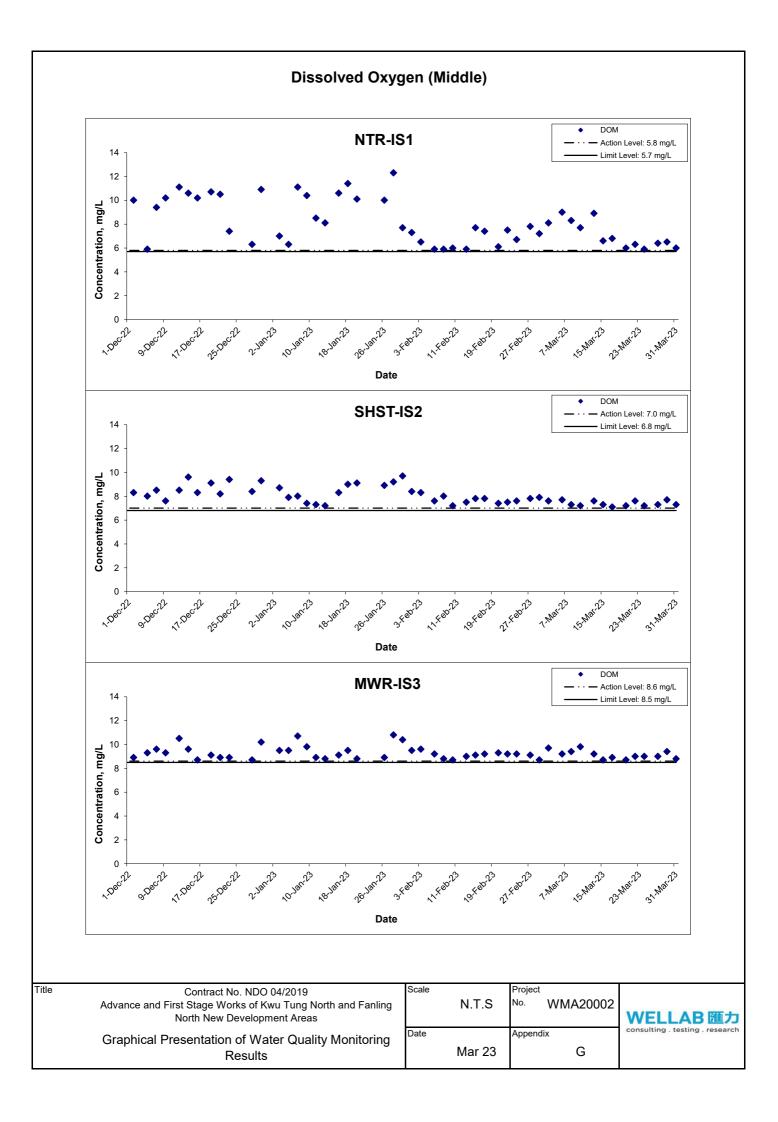
Location: SHST-IS2

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	F	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved Ox	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Gampling	Deptii (iii)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Mar-23	Sunny	10:55	Middle	0.2	17.9 17.9	17.9	8.0 7.9	8.0	0.1 0.1	0.1	83.4 83.4	83.4	7.9 7.9	7.9	9.5 9.7	9.6	8 10	9.0
3-Mar-23	Sunny	13:06	Middle	0.3	21.0 21.0	21.0	8.3 8.3	8.3	0.1 0.1	0.1	84.8 84.6	84.7	7.6 7.5	7.6	6.4 6.5	6.5	5 6	5.5
6-Mar-23	Sunny	14:00	Middle	0.3	21.8 21.9	21.9	8.1 8.1	8.1	0.1 0.1	0.1	87.8 87.6	87.7	7.7 7.7	7.7	6.2 6.2	6.2	6 5	5.5
8-Mar-23	Sunny	10:04	Middle	0.2	18.2 18.2	18.2	8.5 8.4	8.5	0.1 0.1	0.1	77.6 77.5	77.6	7.3 7.3	7.3	5.7 5.7	5.7	7 7	7.0
10-Mar-23	Sunny	14:48	Middle	0.1	22.2 22.2	22.2	7.5 7.5	7.5	0.1 0.1	0.1	82.9 82.8	82.9	7.2 7.2	7.2	6.8 6.9	6.9	4 3	3.5
13-Mar-23	Cloudy	11:11	Middle	0.3	21.1 21.1	21.1	7.8 7.8	7.8	0.1 0.1	0.1	85.3 85.0	85.2	7.6 7.6	7.6	4.7 4.6	4.7	5 6	5.5
15-Mar-23	Cloudy	12:21	Middle	0.2	22.4 22.4	22.4	7.8 7.8	7.8	0.1 0.1	0.1	83.0 84.0	83.5	7.2 7.3	7.3	4.2 4.2	4.2	3 4	3.5
17-Mar-23	Sunny	12:37	Middle	0.3	22.8 22.8	22.8	7.9 7.9	7.9	0.1 0.1	0.1	82.5 82.3	82.4	7.1 7.1	7.1	5.6 5.7	5.7	8 9	8.5
20-Mar-23	Sunny	12:53	Middle	0.1	21.6 21.6	21.6	7.3 7.3	7.3	0.1 0.1	0.1	81.8 81.2	81.5	7.2 7.2	7.2	10.3 10.0	10.2	9 8	8.5
22-Mar-23	Cloudy	14:17	Middle	0.2	22.8 22.9	22.9	7.9 7.9	7.9	0.1 0.1	0.1	87.9 87.8	87.9	7.6 7.6	7.6	10.8 10.8	10.8	7 8	7.5
24-Mar-23	Cloudy	13:23	Middle	0.3	22.4 22.4	22.4	7.8 7.7	7.8	0.1 0.1	0.1	83.1 82.5	82.8	7.2 7.2	7.2	6.3 6.1	6.2	4 5	4.5
27-Mar-23	Rainy	13:14	Middle	0.3	19.7 19.7	19.7	7.6 7.6	7.6	0.1 0.1	0.1	80.0 80.2	80.1	7.3 7.3	7.3	9.7 9.7	9.7	3 4	3.5
29-Mar-23	Cloudy	15:13	Middle	0.2	21.3 21.3	21.3	8.1 8.0	8.1	0.1 0.1	0.1	87.2 87.1	87.2	7.7 7.7	7.7	6.5 6.5	6.5	8 8	8.0
31-Mar-23	Cloudy	12:14	Middle	0.3	21.0 21.0	21.0	7.6 7.6	7.6	0.1 0.1	0.1	81.3 81.1	81.2	7.3 7.2	7.3	4.3 4.3	4.3	17 18	17.5

Location: MWR-IS3

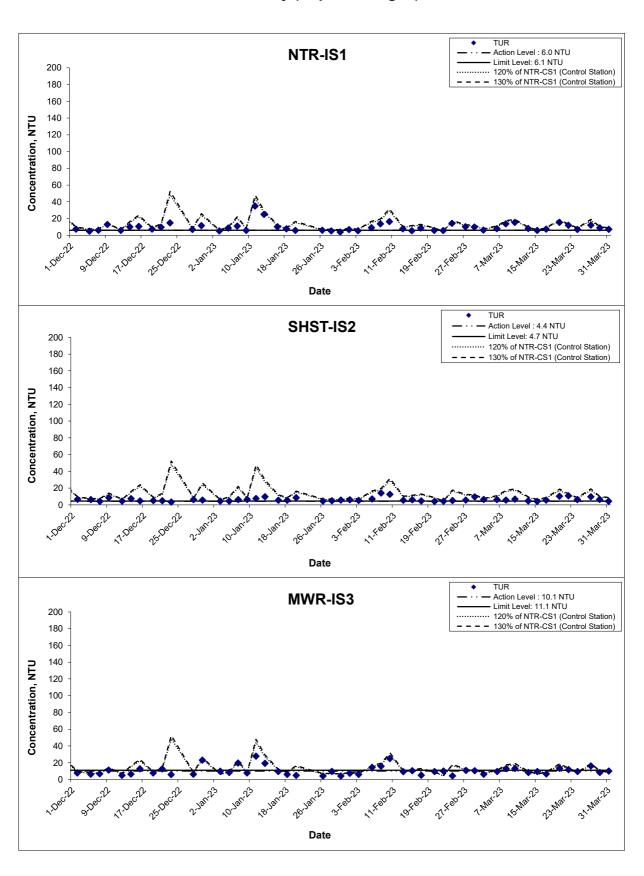
Date	Weather	Start	Sampling	Depth (m)	Temper	ature (°C)	ı	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Depth (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Mar-23	Sunny	09:34	Middle	0.2	18.6 18.6	18.6	8.2 8.3	8.3	0.1 0.1	0.1	92.8 93.0	92.9	8.7 8.7	8.7	10.3 10.3	10.3	13 13	13.0
3-Mar-23	Sunny	12:41	Middle	0.2	21.6 21.6	21.6	8.1 8.1	8.1	0.1 0.1	0.1	110.0 110.3	110.2	9.7 9.7	9.7	6.1 6.0	6.1	6 6	6.0
6-Mar-23	Sunny	15:13	Middle	0.2	22.7 22.7	22.7	8.0 8.0	8.0	0.1 0.1	0.1	106.7 106.7	106.7	9.2 9.2	9.2	9.3 9.4	9.4	10 10	10.0
8-Mar-23	Sunny	10:44	Middle	0.2	20.7 20.7	20.7	8.1 8.1	8.1	0.1 0.1	0.1	105.0 105.3	105.2	9.4 9.4	9.4	12.9 12.7	12.8	11 10	10.5
10-Mar-23	Sunny	15:19	Middle	0.2	25.0 25.0	25.0	7.5 7.5	7.5	0.2 0.2	0.2	119.0 119.0	119.0	9.8 9.8	9.8	13.0 13.1	13.1	10 12	11.0
13-Mar-23	Cloudy	12:21	Middle	0.2	22.3 22.3	22.3	7.4 7.4	7.4	0.1 0.1	0.1	105.3 105.4	105.4	9.2 9.2	9.2	8.2 8.3	8.3	10 12	11.0
15-Mar-23	Cloudy	13:17	Middle	0.2	24.7 24.7	24.7	7.7 7.7	7.7	0.1 0.1	0.1	104.5 104.6	104.6	8.7 8.7	8.7	9.2 9.3	9.3	13 12	12.5
17-Mar-23	Sunny	13:21	Middle	0.2	25.7 25.7	25.7	8.5 8.5	8.5	0.2 0.2	0.2	109.1 109.6	109.4	8.9 8.9	8.9	6.4 6.5	6.5	10 10	10.0
20-Mar-23	Sunny	13:15	Middle	0.2	23.7 23.7	23.7	7.6 7.6	7.6	0.2 0.2	0.2	102.5 102.5	102.5	8.7 8.7	8.7	13.3 13.1	13.2	16 18	17.0
22-Mar-23	Cloudy	15:21	Middle	0.2	23.5 23.5	23.5	8.7 8.7	8.7	0.2 0.2	0.2	106.5 106.4	106.5	9.0 9.0	9.0	11.7 11.6	11.7	15 18	16.5
24-Mar-23	Cloudy	14:32	Middle	0.2	23.5 23.5	23.5	8.2 8.1	8.2	0.3 0.3	0.3	105.9 105.4	105.7	9.0 8.9	9.0	9.2 9.3	9.3	6 7	6.5
27-Mar-23	Rainy	15:30	Middle	0.2	20.4 20.4	20.4	8.4 8.4	8.4	0.1 0.1	0.1	99.7 98.1	98.9	9.0 8.9	9.0	15.9 16.0	16.0	3 4	3.5
29-Mar-23	Cloudy	16:50	Middle	0.2	22.1 22.1	22.1	7.7 7.7	7.7	0.2 0.2	0.2	102.7 111.5	107.1	9.0 9.7	9.4	8.3 8.2	8.3	12 14	13.0
31-Mar-23	Cloudy	13:20	Middle	0.2	22.1 22.1	22.1	7.7 7.7	7.7	0.1 0.1	0.1	99.7 100.6	100.2	8.7 8.8	8.8	9.9 9.8	9.9	13 15	14.0





Turbidity (Depth-averaged) ◆TUR SYR-CS1 200 180 160 140 Concentration, NTU 120 100 80 60 40 20 0 Date TUR Action Level : 48.2 NTU SYR-IS1 Limit Level: 50.9 NTU 200 120% of SYR-CS1 (Control Station) 130% of SYR-CS1 (Control Station) 180 160 140 Concentration, NTU 120 100 80 60 40 0 Date ◆TUR NTR-CS1 200 180 160 140 Concentration, NTU 120 100 80 60 40 20 0 Date Title Contract No. NDO 04/2019 Scale Project No. WMA20002 N.T.S Advance and First Stage Works of Kwu Tung North and Fanling WELLAB 匯力 consulting . testing . research North New Development Areas Date Appendix **Graphical Presentation of Water Quality Monitoring** Mar 23 G Results

Turbidity (Depth-averaged)



Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas	Scale N.T.S	Project No. WMA20002	WELLAB匯力
	Graphical Presentation of Water Quality Monitoring Results	Date Mar 23	Appendix G	consulting . testing . research

Suspended Solids (Depth-averaged) SYR-CS1 200 180 160 140 Concentration, mg/L 120 100 80 60 40 20 0 Date SS Action Level : 75.6 mg/L Limit Level: 83.1 mg/L SYR-IS1 200 120% of SYR-CS1 (Control Station) 130% of SYR-CS1 (Control Station) 180 160 140 Concentration, mg/L 120 100 80 60 40 0 Date ♦ SS NTR-CS1 200 180 160 140 Concentration, mg/L 120 100 80 60 40 20 0 Date Title Contract No. NDO 04/2019 Scale Project No. WMA20002 N.T.S Advance and First Stage Works of Kwu Tung North and Fanling WELLAB 匯力 consulting . testing . research North New Development Areas Date Appendix **Graphical Presentation of Water Quality Monitoring** Mar 23 G Results

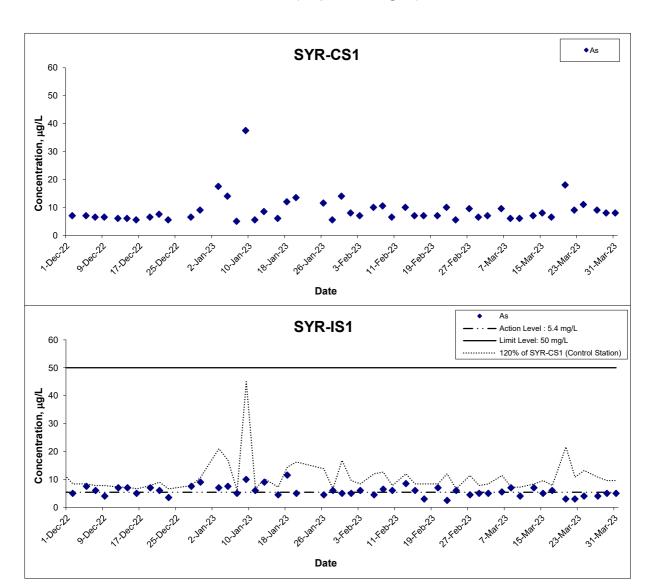
Suspended Solids (Depth-averaged) SS Action Level : 8.9 mg/L NTR-IS1 Limit Level: 9.0 mg/L 120% of NTR-CS1 (Control Station) 200 - - - 130% of NTR-CS1 (Control Station) 180 160 140 Concentration, mg/L 120 100 80 60 40 20 0 Date SS SHST-IS2 Action Level : 4.0 mg/L Limit Level: 4.0 mg/L 200 120% of NTR-CS1 (Control Station) - - - 130% of NTR-CS1 (Control Station) 180 160 140 Concentration, mg/L 120 100 80 60 40 0 Date SS **MWR-IS3** Action Level: 14.0 mg/L Limit Level: 14.4 mg/L 200 ···· 120% of NTR-CS1 (Control Station) - 130% of NTR-CS1 (Control Station) 180 160 140 Concentration, mg/l 120 100 80 60 40 20 0 Date Remarks: The graphical point at zero concentration is presented as below the reporting limit. Title Contract No. NDO 04/2019 Scale Project No. N.T.S WMA20002 Advance and First Stage Works of Kwu Tung North and Fanling WELLAB 匯力 consulting . testing . research North New Development Areas Date Appendix **Graphical Presentation of Water Quality Monitoring**

G

Mar 23

Results

Arsenic (Depth-averaged)



Title Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas

Graphical Presentation of Water Quality Monitoring Results

Scale N.T.S Project No. WMA20002

Date Appendix G



APPENDIX H LABORATORY TESTING REPORTS FOR LABORATORY ANALYSIS



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Date Completed:

2023-03-07 2023-03-01 2023-03-01 2023-03-07

ATTN:

Mr. Marco Ma

Page:

Report No.:

Date of Issue:

Date Tested:

Date Received:

1 of 1

37808

Sample Description:

4 liquid samples as received from client said to be water

Laboratory No. :

37808

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

A december and Einst Oters W.

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No. :

WMA20002/230301

Sampling Date :

2023-03-01

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37808-2	37808-3	37808-5	37808-6
Total Suspended Solids dried at 103-105°C (mg/L)	9	8	38	34
Arsenic (µg/L)	7	6	5	5

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 37808A Date of Issue: 2023-03-07 Date Received: 2023-03-01 Date Tested: 2023-03-01

ATTN:

Mr. Marco Ma

Page:

Date Completed:

l of l

2023-03-07

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

37808A

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No. :

WMA20002/230301

Sampling Date : 2023-03-01

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
	at 103-105°C		

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37808-8	37808-9	37808-11	37808-12
Total Suspended Solids dried at 103-105°C (mg/L)	10	10	7	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37808-14	37808-15	37808-17	37808-18
Total Suspended Solids dried at 103-105°C (mg/L)	8	10	13	13

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

37813 Report No.: 2023-03-08 Date of Issue: 2023-03-03 Date Received: Date Tested: 2023-03-03 2023-03-08 Date Completed:

1 of 1

ATTN:

Mr. Marco Ma

4 liquid samples as received from client said to be water Sample Description :

Laboratory No. 37813

WMA20002 Project No.

Contract No. NDO 04/2019 Project Name :

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

WMA20002/230303 Custody No.

2023-03-03 Sampling Date

Tests Requested & Methodology:

	equested & Methodology.	Ref. Method	Limit of reporting
Item	Parameters		
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Dogulte.

Results: Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37813-2	37813-3	37813-5	37813-6
Total Suspended Solids dried at 103-	18	20	21	21
105°C (mg/L) Arsenic (μg/L)	7	7	5	5

Remarks: $1) \le 1$ less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

ATTN:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

37813A Report No.: 2023-03-08 Date of Issue:

Page:

2023-03-03 Date Received: Date Tested: 2023-03-03 2023-03-08 Date Completed:

1 of 1

Mr. Marco Ma

8 liquid samples as received from client said to be water Sample Description

37813A Laboratory No. WMA20002 Project No.

Contract No. NDO 04/2019 Project Name : Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

WMA20002/230303 Custody No.

2023-03-03 Sampling Date

Tests Requested & Methodology:

Tests R	equested & Methodology:		Limit of reporting
Item	Parameters	Ref. Method	2.5 mg/L
1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
	at 103-105°C		

Results:

Results:	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample ID Sample No.	37813-8	37813-9	37813-11	37813-12
Total Suspended Solids dried at 103-	6	6	7	7
105°C (mg/L)		<u> </u>		

GL.ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample ID Sample No.	37813-14	37813-15	37813-17	37813-18
Total Suspended Solids dried at 103-	5	6	6	6
105°C (mg/L)		<u> </u>		i

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 37832 2023-03-09 Date of Issue: 2023-03-06 Date Received: 2023-03-06 Date Tested: 2023-03-09 Date Completed:

ATTN:

Mr. Marco Ma

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1 of 1

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

37832

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230306

Sampling Date

2023-03-06

Tests Requested & Methodology:

í		Parameters	Ref. Method	Limit of reporting
ļ	Item	Total Suspended Solids dried		2.5 mg/L
1	l		ATTIM Trod 25 to D	
		at 103-095°C	In-house method SOP022 (ICP-AES)	I μg/L
	2	Arsenic	and SOP076 (ICP-MS)	1 178.2
			and SOP0/0 (ICI-W3)	<u></u>

Results.

Results:	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample ID Sample No.	37832-2	37832-3	37832-5	37832-6
Total Suspended Solids dried at 103-	20	25	50	52
095°C (mg/L) Arsenic (μg/L)	9	10	6	5

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37832A

 Date of Issue:
 2023-03-09

 Date Received:
 2023-03-06

 Date Tested:
 2023-03-06

1 of 1

Date Tested: 2023-03-06 Date Completed: 2023-03-09

Page:

ATTN:

Mr. Marco Ma

Sample Description : 8 liquid samples as received from client said to be water

Laboratory No. : 37832A Project No. : WMA20002

Project Name : Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No. : WMA20002/230306

Sampling Date: 2023-03-06

Tests Requested & Methodology:

Tests ix	equested & Methodology.	, was the same that the same t	Limit of reporting
Item	Parameters	Ref. Method	
	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
	at 103-095°C		

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37832-8	37832-9	37832-11	37832-12
Total Suspended Solids dried at 103-	5	5	6	6
095°C (mg/L)		<u> </u>		

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37832-14	37832-15	37832-17	37832-18
Total Suspended Solids dried at 103-	6	5	10	10
095°C (mg/L)		<u> </u>		L

Remarks: $1) \le 1$ less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: 37837 2023-03-14 Date of Issue: 2023-03-08 Date Received: 2023-03-08 Date Tested: 2023-03-14 Date Completed:

1 of 1

ATTN:

Mr. Marco Ma

4 liquid samples as received from client said to be water

Sample Description : Laboratory No.

37837

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

Custody No. :

WMA20002/230308

Sampling Date

2023-03-08

Tests Requested & Methodology:

r		equested & Methodology.	Ref. Method	Limit of reporting
-	Item	Parameters		2.5 mg/L
Ì	1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
		at 103-145°C		1 /1
	2		In-house method SOP022 (ICP-AES)	1 μg/L
	-		and SOP076 (ICP-MS)	

Results:

Results:	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample ID Sample No.	37837-2	37837-3	37837-5	37837-6
Total Suspended Solids dried at 103-	11	10	43	36
145°C (mg/L) Arsenic (μg/L)	6	6	7	7

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

37837A Report No.: 2023-03-14 Date of Issue: Date Received: 2023-03-08 2023-03-08 Date Tested: 2023-03-14 Date Completed:

1 of 1

ATTN:

Mr. Marco Ma

8 liquid samples as received from client said to be water

Sample Description 37837A Laboratory No.

WMA20002 Project No. Contract No. NDO 04/2019 Project Name :

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

WMA20002/230308 Custody No. : 2023-03-08 Sampling Date :

Tests Requested & Methodology:

T	ests Re	equested & Methodology:		Limit of reporting
	tem	Parameters	Ref. Method	2.5 mg/L
-	1	Total Suspended Solids dried	APHA 17ed 2540 D	2.3 mg/L
		at 103-145°C		

Results:	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample ID Sample No.	37837-8	37837-9	37837-11	37837-12
Total Suspended Solids dried at 103-	13	14	15	13
145°C (mg/L)	<u> </u>	<u> </u>	<u> </u>	

	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample ID Sample No.	37837-14	37837-15	37837-17	37837-18
Total Suspended Solids dried at 103-	7	7	11	10
145°C (mg/L)			<u> </u>	

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

37843 Report No.: 2023-03-16 Date of Issue: Date Received: 2023-03-10 2023-03-10 Date Tested: 2023-03-16 Date Completed:

1 of 1

ATTN:

Mr. Marco Ma

4 liquid samples as received from client said to be water

Sample Description : Laboratory No.

37843

Project No. :

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

Custody No. :

WMA20002/230310

Sampling Date

2023-03-10

Tests Requested & Methodology:

Tests R	equested & Methodology.	D.C.M.III	Limit of reporting
Item	1 Farameters	Ref. Method	2.5 mg/L
1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
	at 103-165°C	at - 4 CODOO2 (ICD AES)	1 μg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 MB/ 2
ļ .		<u> </u>	

		OLID TOI	SYR-IS1-b
SYR-CS1-a	SYR-CS1-b	SYR-IST-a	S1K-131-0
37843-2	37843-3	37843-5	37843-6
20	17	47	43
6	6	4	4
	37843-2	37843-2 37843-3	37843-2 37843-3 37843-5

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

37843A Report No.: Date of Issue: 2023-03-16 2023-03-10 Date Received: 2023-03-10 Date Tested: 2023-03-16 Date Completed:

1 of 1

ATTN:

Mr. Marco Ma

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

37843A

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

Custody No.

WMA20002/230310

Sampling Date

2023-03-10

Itam	Parameters Total Suspended Solids dried	Ref. Method APHA 17ed 2540 D	Limit of reporting 2.5 mg/L
	at 103-165°C		

Results:	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample ID Sample No.	37843-8	37843-9	37843-11	37843-12
Total Suspended Solids dried at 103-	6	7	6	7
165°C (mg/L)	<u></u>			

	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample ID	37843-14	37843-15	37843-17	37843-18
Sample No.		37013 10		12
Total Suspended Solids dried at 103-	4	3	10	12
165°C (mg/L)		<u> </u>		<u> </u>

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

37874 Report No.: 2023-03-17 Date of Issue: 2023-03-13 Date Received: 2023-03-13 Date Tested: 2023-03-17 Date Completed:

1 of 1

ATTN:

Mr. Marco Ma

4 liquid samples as received from client said to be water

Sample Description Laboratory No.

37874

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

Custody No.

WMA20002/230313

Sampling Date

2023-03-13

Tests Requested & Methodology:

Tests R	equested & Methodology:		Limit of reporting
Item	Parameters	Ref. Method	2.5 mg/L
1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
*	at 103-175°C		1 /1
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L
1		<u> </u>	

Results:

CVD_CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
	37874-3	37874-5	37874-6
8	8	38	31
7	7	7	7
	SYR-CS1-a 37874-2 8	37874-2 37874-3	37874-2 37874-3 37874-5

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

37874A Report No.: Date of Issue: 2023-03-17 2023-03-13 Date Received: Date Tested: 2023-03-13 2023-03-17

ATTN:

Mr. Marco Ma

Page:

Date Completed:

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

37874A

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230313

Sampling Date

2023-03-13

Tests Requested & Methodology:

	r com ru	equested of mirrors,		- 1 1 0
ſ	Item	Parameters	Ref. Method	Limit of reporting
		Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
1		at 103-175°C		·
ļ		at 103-173 C		

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37874-8	37874-9	37874-11	37874-12
Total Suspended Solids dried at 103-175°C (mg/L)	12	11	11	11

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37874-14	37874-15	37874-17	37874-18
Total Suspended Solids dried at 103-175°C (mg/L)	5	6	10	12

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street,

Shatin, N.T.

37879 Report No.: 2023-03-21 Date of Issue: 2023-03-15 Date Received: 2023-03-15 Date Tested: 2023-03-21 Date Completed:

Page:

1 of 1

ATTN:

Mr. Marco Ma

4 liquid samples as received from client said to be water

Sample Description : Laboratory No.

37879

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230315

Sampling Date

2023-03-15

Tests Requested & Methodology:

ř		equested & Methodology.	Ref. Method	Limit of reporting
ļ	Item	Parameters		2,5 mg/L
Ì	1	Total Suspended Solids dried	APHA 17ed 2540 D	2,5 mg L
		at 103-215°C		
	2	Arsenic	In-house method SOP022 (ICP-AES)	1 μg/L
	4	, risome	and SOP076 (ICP-MS)	

Results:

Comple ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample ID Sample No.	37879-2	37879-3	37879-5	37879-6
Total Suspended Solids dried at 103-	12	11	62	70
215°C (mg/L) Arsenic (µg/L)	8	8	5	5

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37879A

 Date of Issue:
 2023-03-21

 Date Received:
 2023-03-15

 Date Tested:
 2023-03-15

 Date Completed:
 2023-03-21

ATTN:

Mr. Marco Ma

Page:

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

37879A

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No. :

WMA20002/230315

Sampling Date :

2023-03-15

Tests Requested & Methodology:

1	Item Parameters		Ref. Method	Limit of reporting	
		Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L	
		at 103-215°C			

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37879-8	37879-9	37879-11	37879-12
Total Suspended Solids dried at 103-215°C (mg/L)	5	4	5	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37879-14	37879-15	37879-17	37879-18
Total Suspended Solids dried at 103-215°C (mg/L)	3	4	13	12

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37883

 Date of Issue:
 2023-03-23

 Date Received:
 2023-03-17

 Date Tested:
 2023-03-17

 Date Completed:
 2023-03-23

1 of 1

ATTN:

Mr. Marco Ma

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

37883

Project No. :

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

Custody No.

WMA20002/230317

Sampling Date

2023-03-17

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-235°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	l μg/L

Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37883-2	37883-3	37883-5	37883-6
Total Suspended Solids dried at 103-235°C (mg/L)	22	18	47	43
Arsenic (µg/L)	7	6	6	6

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37883A

 Date of Issue:
 2023-03-23

 Date Received:
 2023-03-17

 Date Tested:
 2023-03-17

 Date Completed:
 2023-03-23

ATTN:

Mr. Marco Ma

Page:

1 of 1

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

37883A

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230317

Sampling Date

2023-03-17

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
	at 103-235°C		

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37883-8	37883-9	37883-11	37883-12
Total Suspended Solids dried at 103-235°C (mg/L)	10	9	10	11

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37883-14	37883-15	37883-17	37883-18
Total Suspended Solids dried at 103-235°C (mg/L)	8	9	10	10

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37901

 Date of Issue:
 2023-03-24

 Date Received:
 2023-03-20

 Date Tested:
 2023-03-20

Page:

Date Completed:

l of l

2023-03-24

ATTN:

Mr. Marco Ma

Sample Description: 4 liquid samples as received from client said to be water

Laboratory No. : 37901

Project No.: WMA20002

Project Name : Co

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No. : WMA

WMA20002/230320

Sampling Date : 2023-03-20

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-245°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37901-2	37901-3	37901-5	37901-6
Total Suspended Solids dried at 103-245°C (mg/L)	29	30	54	62
Arsenic (µg/L)	18	18	3	3

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37901A

 Date of Issue:
 2023-03-24

 Date Received:
 2023-03-20

 Date Tested:
 2023-03-20

 Date Completed:
 2023-03-24

ATTN:

Mr. Marco Ma

Page:

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No. :

37901A

Project No. :

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No. :

WMA20002/230320

Sampling Date

2023-03-20

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
	at 103-245°C		

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37901-8	37901-9	37901-11	37901-12
Total Suspended Solids dried at 103-245°C (mg/L)	19	18	21	20

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37901-14	37901-15	37901-17	37901-18
Total Suspended Solids dried at 103-245°C (mg/L)	9	8	16	18

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37905

 Date of Issue:
 2023-03-28

 Date Received:
 2023-03-22

 Date Tested:
 2023-03-22

 Date Completed:
 2023-03-28

ATTN:

Mr. Marco Ma

Page:

1 of 1

Sample Description :

4 liquid samples as received from client said to be water

Laboratory No.

37905

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230322

Sampling Date

2023-03-22

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-285°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	l μg/L

Results:

Results:	OVER CICI	OVD COLL	CVD ICL o	SYR-IS1-b
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	31K-131-0
Sample No.	37905-2	37905-3	37905-5	37905-6
Total Suspended Solids dried at 103-285°C (mg/L)	35	29	50	47
Arsenic (µg/L)	9	9	3	3

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Date Tested:

2023-03-28 2023-03-22 2023-03-22

37905A

Date Completed:

Report No.:

Date of Issue:

Date Received:

2023-03-28

ATTN:

Mr. Marco Ma

Page:

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Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

37905A

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230322

Sampling Date

2023-03-22

Tests Requested & Methodology:

	Parameters	Ref. Method	Limit of reporting
I I	Total Suspended Solids dried at 103-285°C	APHA 17ed 2540 D	2.5 mg/L

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37905-8	37905-9	37905-11	37905-12
Total Suspended Solids dried at 103-285°C (mg/L)	17	17	12	11

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37905-14	37905-15	37905-17	37905-18
Total Suspended Solids dried at 103-285°C (mg/L)	7	8	15	18

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37909

 Date of Issue:
 2023-03-30

 Date Received:
 2023-03-24

 Date Tested:
 2023-03-24

 Date Completed:
 2023-03-30

ATTN:

Mr. Marco Ma

oage:

1 of 1

Sample Description

4 liquid samples as received from client said to be water

Laboratory No. :

37909

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230324

Sampling Date

2023-03-24

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-305°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37909-2	37909-3	37909-5	37909-6
Total Suspended Solids dried at 103-305°C (mg/L)	5	6	6	5
Arsenic (μg/L)	11	11	4	4

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 37909A Date of Issue: 2023-03-30 Date Received: 2023-03-24 Date Tested: 2023-03-24 2023-03-30 Date Completed:

ATTN:

Mr. Marco Ma

Page:

1 of 1

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

37909A

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230324

Sampling Date

2023-03-24

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-305°C	APHA 17ed 2540 D	2.5 mg/L

Results.

ixesuits.				
Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37909-8	37909-9	37909-11	37909-12
Total Suspended Solids dried at 103-305°C (mg/L)	4	5	<2.5	<2.5

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37909-14	37909-15	37909-17	37909-18
Total Suspended Solids dried at 103-305°C (mg/L)	4	5	6	7

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

TRICK TSE

General Manager



TEST REPORT

Wellab Limited (EM&A Department) APPLICANT:

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 37935 Date of Issue: 2023-03-31 2023-03-27 Date Received: Date Tested: 2023-03-27 Date Completed: 2023-03-31 1 of 1

ATTN:

Mr. Marco Ma

4 liquid samples as received from client said to be water

Sample Description Laboratory No.

37935

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

Custody No.

WMA20002/230327

Sampling Date

2023-03-27

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-315°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Results

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37935-2	37935-3	37935-5	37935-6
Total Suspended Solids dried at 103-315°C (mg/L)	11	11	24	25
Arsenic (µg/L)	9	9	4	4

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	37935A
Date of Issue:	2023-03-31
Date Received:	2023-03-27
Date Tested:	2023-03-27
Date Completed:	2023-03-31

1 of 1

ATTN:

Mr. Marco Ma

8 liquid samples as received from client said to be water

Sample Description : 8 liquid samp Laboratory No. : 37935A Project No. : WMA20002

Project Name : Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas WMA20002/230327

Sampling Date : 2023-03-27

Tests Requested & Methodology:

Custody No.

I COLD IN	cquested to methodology.		
Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-315°C	APHA 17ed 2540 D	2.5 mg/L

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37935-8	37935-9	37935-11	37935-12
Total Suspended Solids dried at 103-315°C (mg/L)	8	8	7	7

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37935-14	37935-15	37935-17	37935-18
Total Suspended Solids dried at 103-315°C (mg/L)	3	4	3	4

Remarks: 1) <= less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37940

 Date of Issue:
 2023-04-04

 Date Received:
 2023-03-29

 Date Tested:
 2023-03-29

 Date Completed:
 2023-04-04

ATTN:

Mr. Marco Ma

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1 of 1

Sample Description :

4 liquid samples as received from client said to be water

Laboratory No.

37940

Project No.

WMA20002

Project Name

: Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230329

Sampling Date

2023-03-29

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 104-045°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	l μg/L

Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37940-2	37940-3	37940-5	37940-6
Total Suspended Solids dried at 104-045°C (mg/L)	6	6	40	35
Arsenic (µg/L)	8	8	5	5

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37940A

 Date of Issue:
 2023-04-04

 Date Received:
 2023-03-29

 Date Tested:
 2023-03-29

 Date Completed:
 2023-04-04

ATTN:

Mr. Marco Ma

Page:

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Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

37940A

Project No.

WMA20002

Project Name :

: Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230329

Sampling Date

2023-03-29

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
	at 104-045°C		

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37940-8	37940-9	37940-11	37940-12
Total Suspended Solids dried at 104-045°C (mg/L)	9	8	8	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37940-14	37940-15	37940-17	37940-18
Total Suspended Solids dried at 104-045°C (mg/L)	8	8	12	14

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: 37945

Date of Issue: 2023-04-04 Date Received: 2023-03-31

Date Received: 2023-03-31
Date Tested: 2023-03-31

Date Completed: 2023-04-04

1 of 1

ATTN:

Mr. Marco Ma

Page:

Sample Description

4 liquid samples as received from client said to be water

Laboratory No. :

37945

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

ojeci Name – Contract No. 1

Advance and First Stage Works of Kwu Tung North and Fanling North New

Development Areas

Custody No.

WMA20002/230331

Sampling Date

2023-03-31

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
I	Total Suspended Solids dried at 104-045°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37945-2	37945-3	37945-5	37945-6
Total Suspended Solids dried at 104-045°C (mg/L)	8	7	41	41
Arsenic (μg/L)	8	8	5	5

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 37945A

 Date of Issue:
 2023-04-04

 Date Received:
 2023-03-31

 Date Tested:
 2023-03-31

 Date Completed:
 2023-04-04

1 of 1

ATTN:

Mr. Marco Ma

Sample Description: 8 liquid samples as received from client said to be water

Laboratory No. : 37945A
Project No. : WMA20002

Project Name : Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New

Page:

Development Areas

Custody No. : WMA20002/230331

Sampling Date : 2023-03-31

Tests Requested & Methodology:

	Item	Parameters	Ref. Method	Limit of reporting
Γ	1	Total Suspended Solids dried	APHA 17ed 2540 D	2.5 mg/L
		at 104-045°C		

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37945-8	37945-9	37945-11	37945-12
Total Suspended Solids dried at 104-045°C (mg/L)	23	23	11	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37945-14	37945-15	37945-17	37945-18
Total Suspended Solids dried at 104-045°C (mg/L)	17	18	13	15

Remarks: $1) \le 1$ less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

APPENDIX I QUALITY CONTROL REPORTS FOR SS AND ARSENIC LABORATORY ANALYSIS



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T. Report No.:
Date of Issue:

QC37808 2023-03-07

Date Received:
Date Tested:

2023-03-01 2023-03-01

Date Completed:

2023-03-07

ATTN:

Mr. Marco Ma

Page:

1 of 1

QC report

Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	< 0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	83	108	80-120
Arsenic (%)	98	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	99	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	1	RPD≤5%
Arsenic (%)	10	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37808.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRCIK TSE

General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: QC37813 Date of Issue: 2023-03-08 Date Received: 2023-03-03 Date Tested: 2023-03-03 2023-03-08 Date Completed:

ATTN:

Mr. Marco Ma

Page: 1 of 1

QC report Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (μg/L)	<0.2	N/A	<0.2

Method OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	108	103	80-120
Arsenic (%)	101	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	100	N/A	80-120

Sample Dunligate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	2	RPD≤5%
Arsenic (%)	3	N/A	RPD≤20%

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37813.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street,

Shatin, N.T.

	CONTRACTOR
Report No.:	QC37832
Date of Issue:	2023-03-09
Date Received:	2023-03-06
Date Tested:	2023-03-06
Date Completed	2023-03-09

ATTN:

Mr. Marco Ma

Page:

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QC report Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (μg/L)	<0.2	N/A	<0.2

Method OC

11241104 & 0			
Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	98	101	80-120
Arsenic (%)	88	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	88	N/A	80-120

Sample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	2	RPD≤5%
Arsenic (%)	1	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37832.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: OC37837 Date of Issue: 2023-03-14 Date Received: 2023-03-08 Date Tested: 2023-03-08 2023-03-14 Date Completed:

ATTN:

Mr. Marco Ma

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QC report

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Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	108	106	80-120
Arsenic (%)	96	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	102	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	1	RPD≤5%
Arsenic (%)	9	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37837.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 QC37843

 Date of Issue:
 2023-03-16

 Date Received:
 2023-03-10

 Date Tested:
 2023-03-16

 Date Completed:
 2023-03-16

ATTN:

Mr. Marco Ma

Page: 1 of 1

QC report Method Blank

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Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (μg/L)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	104	105	80-120
Arsenic (%)	86	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	90	N/A	80-120

Sample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	2	RPD≤5%
Arsenic (%)	5	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37843.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

	The second of th
Report No.:	QC37874
Date of Issue:	2023-03-17
Date Received:	2023-03-13
Date Tested:	2023-03-13
Date Completed:	2023-03-17

ATTN:

Mr. Marco Ma

Page:

1 of 1

QC report Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (μg/L)	<0.2	N/A	<0.2

Method OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	114	110	80-120
Arsenic (%)	94	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	84	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	l	RPD≤5%
Arsenic (%)	5	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37874.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 QC37879

 Date of Issue:
 2023-03-21

 Date Received:
 2023-03-15

 Date Tested:
 2023-03-15

 Date Completed:
 2023-03-21

ATTN:

Mr. Marco Ma

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QC report

Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	< 0.5	< 0.5
Arsenic (μg/L)	<0.2	N/A	< 0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	106	107	80-120
Arsenic (%)	91	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	87	N/A	80-120

Sample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	2	RPD≤5%
Arsenic (%)	2	N/A	RPD≤20%

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37879.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC37883
Date of Issue:	2023-03-23
Date Received:	2023-03-17
Date Tested:	2023-03-17
Date Completed:	2023-03-23

ATTN:

Mr. Marco Ma

Page:

1 of 1

QC report Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	< 0.5	<0.5	<0.5
Arsenic (μg/L)	<0.2	N/A	<0.2

Method OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	107	101	80-120
Arsenic (%)	96	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	91	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	2	RPD≤5%
Arsenic (%)	3	N/A	RPD≤20%

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37883.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 QC37901

 Date of Issue:
 2023-03-24

 Date Received:
 2023-03-20

 Date Tested:
 2023-03-20

 Date Completed:
 2023-03-24

ATTN:

Mr. Marco Ma

Page:

1 of 1

QC report

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Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	< 0.5	<0.5	<0.5
Arsenic (μg/L)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	105	101	80-120
Arsenic (%)	84	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	105	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	1	RPD≤5%
Arsenic (%)	4	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37901.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: QC37905 Date of Issue: 2023-03-28 Date Received: 2023-03-22 2023-03-22 Date Tested: Date Completed: 2023-03-28

ATTN:

Mr. Marco Ma

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QC report Method Blank

MICHIOU DIAIR		· · · · · · · · · · · · · · · · · · ·	
Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	< 0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	104	98	80-120
Arsenic (%)	92	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	95	N/A	80-120

Cample Dunkagta

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	1	RPD≤5%
Arsenic (%)	3	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37905.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRCIK TSE

General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.:	QC37909
Date of Issue:	2023-03-30

2023-03-24 Date Received: 2023-03-24 Date Tested:

2023-03-30 Date Completed: 1 of 1

Page:

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Mr. Marco Ma

QC report Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (μg/L)	<0.2	N/A	<0.2

Method OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	93	103	80-120
Arsenic (%)	100	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	88	N/A	80-120

C----la Desplicata

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	3	RPD≤5%
Arsenic (%)	2	N/A	RPD≤20%

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37909.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 QC37935

 Date of Issue:
 2023-03-31

 Date Received:
 2023-03-27

 Date Tested:
 2023-03-27

 Date Completed:
 2023-03-31

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Mr. Marco Ma

Page:

1 of 1

QC report

Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	102	98	80-120
Arsenic (%)	94	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	97	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	RPD≤5%
Arsenic (%)	12	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37935.

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For and On Behalf of WELLAB Ltd.



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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)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: QC37940 2023-04-04 Date of Issue: Date Received: 2023-03-29 Date Tested: 2023-03-29 2023-04-04 Date Completed:

ATTN:

Mr. Marco Ma

Page:

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Methon Diank			
Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	< 0.5	< 0.5	< 0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	110	113	80-120
Arsenic (%)	100	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	114	N/A	80-120

Sample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	3	RPD≤5%
Arsenic (%)	9	N/A	RPD≤20%

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37940.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: QC37945 2023-04-04 Date of Issue:

Date Received: Date Tested:

2023-03-31 2023-03-31

Date Completed: Page:

2023-04-04 1 of 1

ATTN:

Mr. Marco Ma

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Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method QC MQC1 Parameter 103 Total Suspended Solids (%)

Acceptance MQC2 80-120 100 80-120 N/A 89

Arsenic (%) Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	. 86	N/A	80-120

Cample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	4	RPD≤5%
Arsenic (%)	2	N/A	RPD≤20%
/130mc (/0)			

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37945.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRCIK TSE

General Manager

APPENDIX J LANDFILL GAS MONITORING RESULTS



Contract No. ND/2019/01

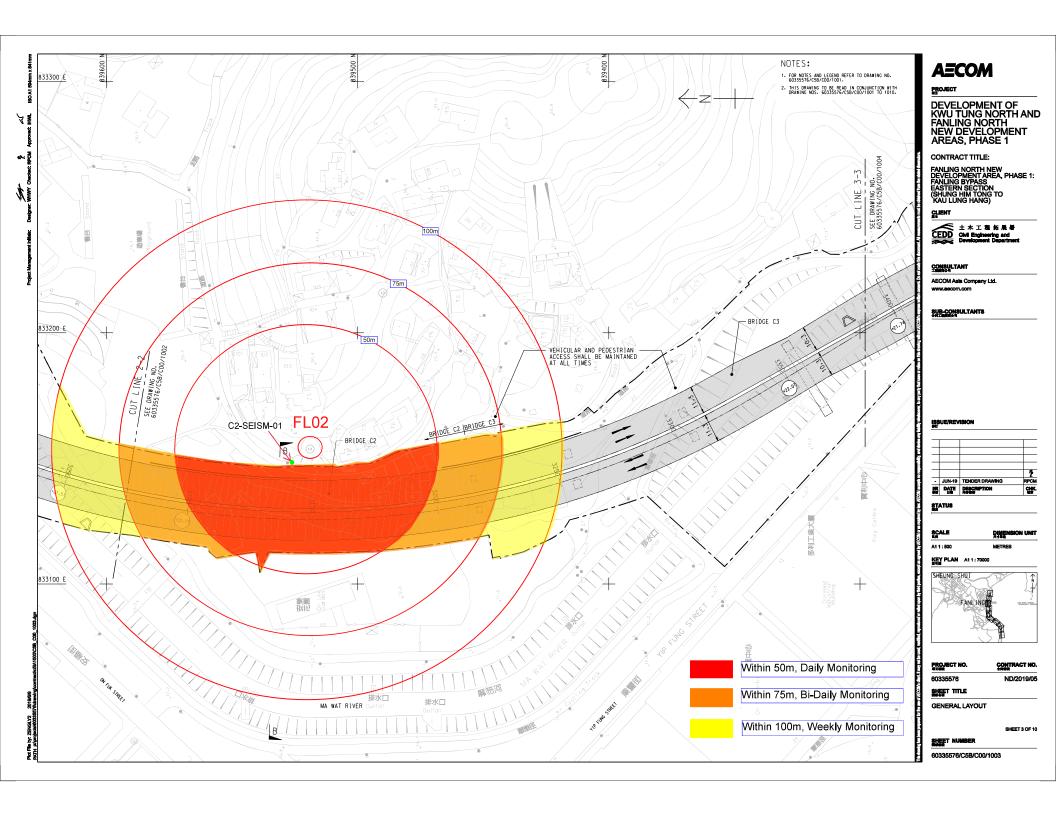
Development of Kwu Tung North & Fanling North New Development Area, Phase 1: Kwu Tung North New Development Area, Phase 1: Site formation & Infrastucture works

堆填區附近區域(Consultation Zone)每月氣體監察記錄

			氧氣 O2	甲烷 CH4	二氧化碳 CO2
日期及時間	位置	氣體及安全標 準	>19%	<10% LEL	<0.5%
01-03-2023 9:41	CZ PT 1		20.89	0.00	0.02
01-03-2023 9:45	CZ container 1		20.62	0.00	0.03
01-03-2023 9:47	CZ container 2		20.63	0.00	0.03
01-03-2023 9:49	CZ container 3		20.61	0.00	0.03
01-03-2023 9:51	CZ container 4		20.61	0.00	0.03
01-03-2023 9:43	CZ container 5		20.71	0.00	0.02

Prepared by: Y L Chan (Safety Officer) Date: 01-03-2023

APPENDIX K BUILT HERITAGE MONITORING RESULTS



Summary of vibration readings at FL02

(C2-SEISM-01)

Table 2.3: Vibration Limit from PNAP APP-137 & PS 34.01(2)

TYPE OF BUILDING bration-sensitive /	GUIDE VALUES OF MA	XIMUM PPV* (MM/SEC)
TYPE OF BUILDING	TRANSIENT VIBRATION	CONTINUOUS VIBRATION
Vibration-sensitive / dilapidated buildings#	7.5	3.0



Date	Max. PPV recorded (mm/s)	Serial no. of device (Micromate/ Supergraph)
15 Mar 2023	0.081	UM17121
16 Mar 2023	0.127	UM17121
17 Mar 2023	0.139	UM17124
18 Mar 2023	0.100	UM17121
20 Mar 2023	0.174	UM17124
21 Mar 2023	0.100	UM17121
22 Mar 2023	0.080	UM17121
23 Mar 2023	0.135	UM17124
24 Mar 2023	0.078	UM17121
25 Mar 2023	0.129	UM17124
27 Mar 2023	0.057	UM17124
28 Mar 2023	0.099	UM17121
29 Mar 2023	0.076	UM17121
30 Mar 2023	0.065	UM17124
31 Mar 2023	0.083	UM17121

APPENDIX L ECOLOGICAL MONITORING RESULTS

Appendix L1a. Avifauna Species Recorded for Water Birds Monitoring, 2 March 2023, High Tide

							D	ate			,	2/3/2023	
						Wea	ather	Conditio	on			Sunny	
						Tidal Condition					High		
						Ti	ide Le	evel (m)				1.75	
Common Name	Species Name	Chinese Name		Conservation Status			Star	t Time				1500	
		Name	Status	Status					Ab	undance			
									Tran	sect Wal	lk		
										T5			
			T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight		
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV				1		5				
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	2			1			3	2
Barn Swallow	Hirundo rustica	家燕	PM, Sv		2								3
Black Kite	Milvus migrans	黑鳶	R, WV										3
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		3	4						3	9
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC	1								
Black-faced Bunting	Emberiza spodocephala	灰頭鵐	WV, PM						3				
Black-winged Kite	Elanus caeruleus	黑翅鳶	OV	LC, (VU)									1
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				47		103			8
Buff-bellied Pipit	Anthus rubescens	黃腹鷚	UPM, WV						3				
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		3	1							
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	2	2	6	6					1
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU	1	1	2						
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC				2		1			1
Common Kestrel	Falco tinnunculus	紅隼	CaM, WV	Cap. 586									1
Common Kingfisher	Alcedo atthis	普通翠鳥	R				1						

							D	ate				2/3/2023	
						Wea	ather	Condition	on			Sunny	
						Ti	dal C	ondition	1			High	
						T	ide L	evel (m)				1.75	
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status			Star	t Time				1500	
		Name	Status	Status					At	undance	è		
									Tran	sect Wa	lk		
											T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Common Moorhen	Gallinula chloropus	黑水雞	R					2					
Common Myna	Acridotheres tristis	家八哥	UR										8
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM			1							
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM					1					
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R			2							
Crested Serpent Eagle	Spilornis cheela	蛇鵰	UR	Cap.586, (VU)									2
Crested Myna	Acridotheres cristatellus	八哥	R			1	3						37
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV		1				1				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)				15					
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV		1		2		3				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			2							
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	3								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	3	2	1	1					2
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)								1	
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV			2	2						
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC					1				
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC		2	5						5

					Date 2/3					2/3/2023			
						Wea	ather	Conditio	on			Sunny	
					Tidal Condition					High			
						Ti	ide Le	evel (m)				1.75	
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status			Star	t Time				1500	
		Name	Status	Status					Ab	undance	;		
									Tran	sect Wa	lk		
											T5		
			T1	T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight	
House Swift	Apus nipalensis	小白腰雨燕	SpM, R			2							5
Large Hawk-Cuckoo	Hierococcyx sparverioides	大鷹鵑	Sv									1	
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						6				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		12	21						2
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC			2		5				
Long-tailed Shrike	Lanius schach	棕背伯勞	R			1			1				
Marsh Sandpiper	Tringa stagnatilis	澤鷸	PM, WV	RC				1					
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		3				7				
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV			1			4				
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R			1	1						
Peregrine Falcon	Falco peregrinus	遊隼	SR, WV	Cap.586, LC									1
Pied Avocet	Recurvirostra avosetta	反嘴鷸	WV	RC						2			
Plain Prinia	Prinia inornata	純色鷦鶯	R			1			2				
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV									1	
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC					4				
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		8	4	3						
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						1				

							D	ate			2	2/3/2023	
						Wea	ather	Conditio	on			Sunny	
						Ti	dal C	ondition	l			High	
						Ti	de Le	evel (m)				1.75	
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status			Star	Time				1500	
		Name	Status	Status					Ab	undance			
									Tran	sect Wal	lk		
					T.1	T-0	T 2				1.75 1500 nce Walk T5 H P Heard Flig		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Rock Dove	Columba livia	原鴿	R			23			13				3
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R		10				7				100
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		2	2			10				7
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R		4	2							
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R		2				1				
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)					1				
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1	3			15				2
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC			1	9	1	4			2
Yellow-breasted Bunting	Emberiza aureola	黃胸鵐		CR, RC					1				
Zitting Cisticola	Cisticola juncidis	棕扇尾鶯	PM, WV	LC					1				
	Total No. of Spec	eies			18	23	14	9	24	4	0	5	22
Т	otal No. of Conservation I	nterest Species	S		5	5	7	7	6	4	0	1	11

					I	Date			2	2/3/2023	
				W	Veather	Condition	on			Sunny	
					Tidal (Condition	l			High	
Common Name Species Name					Tide I	evel (m)				1.75	
	Species Name	Chinese Name	Conservation Status		Sta	rt Time				1500	
		2 (6,1116					Ab	undance			
							Tran	sect Wal	lk		
				T1 T	2 Т2				T5		
				T1 T2	2 T3	WAL	DAL	SWH	P	Heard	Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant;; UR – Uncommon resident; CWV - Common Winter Visitor; OV - Occasional visitor

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

CR: Critically Endangered 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

Appendix L1b. Avifauna Species Recorded for Water Birds Monitoring, 2 March 2023, Low Tide

Appendix L1b. Avifauna Spo	ecies Recorded for Water B	iras Monitorin	ig, 2 March 2	2023, Low Tid	e					1			
							D	ate			2.	/3/2023	
						We	ather	Condition	on		,	Sunny	
						Ti	dal C	ondition	1			Low	
						T	ide L	evel (m)				0.83	
Common Name	Species Name	Chinese		Conservation			Star	t Time				0730	
	•	Name	Status	Status					Al	bundanc	e		
									Tra	nsect Wa	ılk		
											T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV		1			WILL	3	5 7711	1	Treara	I light
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	2						2	
Black Kite	Milvus migrans	黑鳶	R, WV			1							
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv		1								
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		1	1							
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						80			
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		1		1					1	
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	2	1	2		1	6		1	
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU			1						
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			1			3			
Common Kestrel	Falco tinnunculus	紅隼	CaM, WV	Cap. 586									1
Common Moorhen	Gallinula chloropus	黑水雞	R							1			
Common Myna	Acridotheres tristis	家八哥	UR		2	1							
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		1								
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R			2			1				
Crested Myna	Acridotheres cristatellus	八哥	R		3								

							D	ate			2	2/3/2023	
						Wea	ather	Condition	on			Sunny	
						Ti	dal C	ondition	l			Low	
						Ti	ide L	evel (m)				0.83	
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status			Star	t Time				0730	
		Ivanic	Status	Status					A	bundanc	e		
									Tra	nsect W	alk		
											T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV		1				1				
Dusky Warbler	Phylloscopus fuscatus	褐柳鶯	PM, WV		1								
Eastern Buzzard	Buteo japonicus	普通鵟	WV	Cap.586									1
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		2			25				9
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV						9				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			5							
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC					1				
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	2								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	3	4	1						
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV				1						
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC		1	1						
House Swift	Apus nipalensis	小白腰雨燕	SpM, R		2								
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						1				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	1	7	10		4				
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC			3			10			
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		1	9			5				

							D	ate			2.	/3/2023	
						Wea	ather	Conditio	n			Sunny	
						Ti	dal C	ondition	l			Low	
						T	ide L	evel (m)				0.83	
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status			Star	t Time				0730	
		Name	Status	Status					Al	bundanc	e		
									Trai	nsect Wa	alk		
											T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV		3	3							4
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R						2			1	
Pallas's Leaf Warbler	Phylloscopus proregulus	黃腰柳鶯	WV		3				8				
Pied Avocet	Recurvirostra avosetta	反嘴鷸	WV	RC						4			
Plain Prinia	Prinia inornata	純色鷦鶯	R		1				1				
Red-billed Blue Magpie	Urocissa erythrorhyncha	紅咀藍鵲	R			1							
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC					3				
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		5	2							
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						9				
Rock Dove	Columba livia	原鴿	R			1							
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R										35
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R			4			2				
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R		3	4							
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		2	1	1		14				
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					1					2
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC			1	1	1	3			
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R						1				

							D	ate			2/	/3/2023	
						Wea	ather	Conditio	n		(Sunny	
						Ti	dal C	ondition	l			Low	
						Ti	ide L	evel (m)				0.83	
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status			Star	t Time				0730	
		1 (unit	Status	Status					Al	oundanc	e		
									Trai	nsect Wa	alk		
					T1	T2	T3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Yellow-browed Warbler	Phylloscopus inornatus	黃眉柳鶯	WV, SpM			1							
	Total No. of Spec	eies			22	20	11	2	20	7	0	4	6
7	Total No. of Conservation In	nterest Species			4	5	8	1	6	6	0	1	3

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident;

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)

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

Appendix L1c. Avifauna Species Recorded for Water Birds Monitoring, 9 & 10 March 2023, High Tide

							Da	ate		9/3/202	23 (T1	& T2), 10/3/ & T5)	/2023 (T3
						Wea	ther	Conditio	n		Su	nny, Sunny	
						Tie	dal C	ondition				High	
			Hong Kong	Conservation		Ti	de Le	evel (m)			1	.59, 1.55	
Common Name	Species Name	Chinese Name	Status Status	Status			Start	Time			10	000, 1000	
									Al	bundance)		
									Tra	nsect Wa	lk		
					Т1	T2	T3				T5		
					T1	12	13	WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	Psittacula eupatria	亞歷山大鸚鵡	RR	NT, Cap. 586									1
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV						7				
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	2	1						1
Barn Swallow	Hirundo rustica	家燕	PM, Sv										3
Black Kite	Milvus migrans	黑鳶	R, WV		1		2						
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		1	3							5
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				46	4	108			2
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		1	1			2				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	5	2	4	5				1
Cinereous Tit	Parus cinereus	蒼背山雀	R		3								
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU		1							
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			4		3	1			
Common Kingfisher	Alcedo atthis	普通翠鳥	R										
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM			1	2						
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM										2

							D	ate		9/3/20	23 (T1	& T2), 10/. & T5)	3/2023 (T3
						Wea	ther	Conditio	on		Sui	nny, Sunny	
						Ti	dal C	ondition	Į.			High	
			Hong Kong	Conservation		Ti	de L	evel (m)			1	.59, 1.55	
Common Name	Species Name	Chinese Name	Status	Status			Star	Time			10	000, 1000	
									Al	bundanc	e		
									Tra	nsect Wa	alk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Crested Myna	Acridotheres cristatellus	八哥	R						2				
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV				1						
Dusky Warbler	Phylloscopus fuscatus	褐柳鶯	PM, WV						1				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		2	1	21					
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV			1		1	6				1
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			3							
Eurasian Spoonbill	Platalea leucorodia	白琵鷺	UWV	Cap.586, NT									2
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	2								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2	2	3			1			7
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)		1							1
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC		1	3						1
Grey Wagtail	Motacilla cinerea	灰鶺鴒	WV				1						
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC					2				
House Swift	Apus nipalensis	小白腰雨燕	SpM, R				10						
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						5				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		4	20						3
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC				16					

							Da	ate		9/3/202	23 (T1	& T2), 10/3 & T5)	/2023 (T3
						Wea	ather	Conditio	n		Su	nny, Sunny	
						Ti	dal C	ondition				High	
			Hong Kong	Conservation		Ti	de Le	evel (m)			1	.59, 1.55	
Common Name	Species Name	Chinese Name	Status	Status			Start	Time			10	000, 1000	
									Ał	oundance	•		
									Tran	nsect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Marsh Sandpiper	Tringa stagnatilis	澤鷸	PM, WV	RC					3				
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		4	5	4		6			1	
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV		1	2	7						
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R			1							
Oriental Pratincole	Glareola maldivarum	普通燕鴴	PM	LC					4				
Pallas's Leaf Warbler	Phylloscopus proregulus	黃腰柳鶯	WV		1	2							
Plain Prinia	Prinia inornata	純色鷦鶯	R		2							1	
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC					5				
Red-rumped Swallow	Cecropis daurica	金腰燕	UPM		6								
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		3	12	1						
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						3				
Rock Dove	Columba livia	原鴿	R			12							14
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R						41				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		1	5	4		1				3
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R			3							
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			2	1	8	8	2			
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R						5				1

							Da	ate		9/3/202		& T2), 10/3/2 & T5)	2023 (T3
						Wea	ther (Conditio	n		Sun	ny, Sunny	
						Tio	dal C	ondition				High	
			Hong Kong	Conservation		Ti	de Le	evel (m)			1.	59, 1.55	
Common Name	Species Name	Chinese Name		Status			Start	Time			10	00, 1000	
									Ab	undance)		
									Tran	sect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			2						
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC			2	5	2	3			
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R		1	1						1	
	Total No. of Speci	ies			16	23	19	7	20	5	0	3	15
	Total No. of Conservation In	terest Species			3	7	8	5	8	4	0	0	8

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; UR – Uncommon resident; SWV – CWV - Common Winter Visitor;

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)

VU: Vulnerable in IUCN Red List Status

EN: Endangered in IUCN Red List Status

(EN): Endangered in China Red Data Book 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

Appendix L1d. Avifauna Species Recorded for Water Birds Monitoring, 9 & 10 March 2023, Low Tide

							Da	ate		9/3/20		& T2), 10 3 & T5)	/3/2023
						Wea	ather	Conditio	n		Fine	, Overcast	
						Ti	dal C	ondition				Low	
		Chinese	Hong Kong	Conservation		Ti	de Le	evel (m)			1.	.36, 1.4	
Common Name	Species Name	Name	Status Status	Status			Start	Time			150	00, 1530	
									Abu	ındance			
									Trans	ect Wall	k		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	Psittacula eupatria	亞歷山大鸚 鵡	RR	NT, Cap. 586	4								1
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV						3				
Asian Koel	Eudynamys scolopacea	噪鵑	R		4	5	1					3	1
Barn Swallow	Hirundo rustica	家燕	PM, Sv			3							5
Besra	Accipiter virgatus	松雀鷹	R, CPM	Cap.586									1
Black Kite	Milvus migrans	黑鳶	R, WV		1								1
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		4	5		2	1			3	10
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC		1							
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC			2	21	3	86			11
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		3								
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	2							
Cinereous Tit	Parus cinereus	蒼背山雀	R			1							
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU	1		6						
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			1						
Common Kestrel	Falco tinnunculus	紅隼	CaM, WV	Cap. 586									1

							D	ate		9/3/2	•	& T2), 10 & T5)	0/3/2023
						Wea	ather	Conditio	on		Fine,	Overcast	
						Ti	dal C	ondition	l		I	LOW	
		Chinese	Hong Kong	Conservation		Ti	ide L	evel (m)			1.3	6, 1.4	
Common Name	Species Name	Name	Status	Status			Star	t Time			1500	0, 1530	
									Abu	ndance			
									Trans	ect Wal	k		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Common Kingfisher	Alcedo atthis	普通翠鳥	R		1		1		2				
Common Myna	Acridotheres tristis	家八哥	UR						8				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				2			1			
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM						4				
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R										
Crested Myna	Acridotheres cristatellus	八哥	R		2		6	8					2
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV				1						
Dusky Warbler	Phylloscopus fuscatus	褐柳鶯	PM, WV						1				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		1		2					3
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV			1			3				6
Eurasian Spoonbill	Platalea leucorodia	白琵鷺	UWV	Cap.586, NT						3			
Eurasian Teal	Anas crecca	綠翅鴨	WV	RC							3		
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			2							
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	2	1							
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	1	2	1		1	1			
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)	1				1			2	
Greater Painted-snipe	Rostratula benghalensis	彩鷸	R	LC				1					

							D	ate		9/3/20	•	& T2), 10)/3/2023	
						We	ather	Conditio	on	Fine, Overcast				
						Ti	dal C	ondition	l]	Low		
		Chinese	Hong Kong	Conservation		T	ide Le	evel (m)			1.3	36, 1.4		
Common Name	Species Name	Name	Status Status	Status			Star	t Time			150	0, 1530		
									Abu	ndance				
									Trans	ect Wal	k			
					T1	T2	Т3				T5			
					11	12	13	WAL	DAL	SWH	P	Heard	Flight	
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV				1	2						
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC		1	2			1				
Grey Wagtail	Motacilla cinerea	灰鶺鴒	WV			1								
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC					1					
House Swift	Apus nipalensis	小白腰雨燕	SpM, R										11	
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						2					
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		1	37	2						
Little Grebe	Tachybaptus ruficollis	小鷿鷉	R	LC						2				
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC					6					
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1					
Marsh Sandpiper	Tringa stagnatilis	澤鷸	PM, WV	RC						1				
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		4	7			13					
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV				2							
Oriental Magpie	Pica serica	喜鵲	R										1	
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R			1								
Oriental Turtle dove	Streptopelia orientalis	山斑鳩	WV, PM						1					
Plain Prinia	Prinia inornata	純色鷦鶯	R						3			1		

							D	ate		9/3/2	•	& T2), 10 & T5))/3/2023	
							ather	Condition	on	Fine, Overcast				
						Ti	dal C	ondition	1	Low				
		Chinese	Hong Kong	Conservation		T	ide Le	evel (m)	ı		1.3	6, 1.4		
Common Name	Species Name	Name	Status Status	Status			Star	t Time			1500	0, 1530		
									Abı	ındance				
									Trans	sect Wal	k			
					T1	T2	Т3				T5			
					11	12	13	WAL	DAL	SWH	P	Heard	Flight	
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV									1		
Pied Avocet	Recurvirostra avosetta	反嘴鷸	WV	RC						2				
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)									2	
Red-billed Starling	Spodiopsar sericeus	絲光椋鳥	WV	GC									50	
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC					9					
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		3	3			1					
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						1				1	
Rock Dove	Columba livia	原鴿	R			21			19					
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R						2				110	
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		2	8	6		16				6	
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R			1								
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		3	2	1		26				1	
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R				1		3	2		1	2	
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			1							
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC			1	11	1		1			
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R		4							1		
	Total No. of Species					21	18	8	26	9	2	7	19	

Common Name Species Name					Date					9/3/2023 (T1 & T2), 10/3/20 (T3 & T5)					
						Wea	ather	Conditio	n		(T3 & T5) Fine, Overcast Low 1.36, 1.4 1500, 1530 nce Walk T5				
					Tidal Condition					Low					
		Chinese	nese Hong Kong Conservation Tide Level (m)						1.36, 1.4						
	Species Name		-		Start Time						1500	, 1530			
	Name Status Start Time		Abundance												
									Transe	ect Walk	ζ				
					T1	T2 T3					T5				
					11	12	13	WAL	DAL	SWH	P	Heard	Flight		
7	Total No. of Conservation Interest Species					7	8	5	7	7	2	1	7		

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SpM – Spring migrant; UR – Uncommon resident; CWV - Common Winter Visitor

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)

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

Appendix L1e. Avifauna Species Recorded for Water Birds Monitoring, 16 & 14 March 2023, High Tide

							D	ate		16/3/20		& T2), 14/3. & T5)	/2023 (T3		
						We	ather	Condition	on		Sunny, Overcast				
						Ti	dal C	ondition	l		High				
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.	81, 2.33			
Common Name	Species Name	Name	Status	Status			Star	t Time			130	00, 1300			
									Al	bundance	e				
									Tra	nsect Wa	ılk				
					T1	T2	T3				T5				
					11	12	13	WAL	DAL	SWH	P	Heard	Flight		
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV						2				1		
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	1	1					7	1		
Barn Swallow	Hirundo rustica	家燕	PM, Sv				3						10		
Black Kite	Milvus migrans	黑鳶	R, WV										1		
Black-faced Bunting	Emberiza spodocephala	灰頭鵐	WV, PM		1										
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		2										
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				27		115					
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	5	4	3	1	1			5		
Cinereous Tit	Parus cinereus	蒼背山雀	R		1				1						
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU		1	2								
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC						3			1		
Common Kingfisher	Alcedo atthis	普通翠鳥	R										3		
Common Moorhen	Gallinula chloropus	黑水雞	R					1							
Common Myna	Acridotheres tristis	家八哥	UR						3	3					
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				4			1					

							D	ate		16/3/2		& T2), 14/ & T5)	3/2023 (T3		
						Wea	ather	Condition	on		Sunny, Overcast				
					Tidal Condition					High					
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.	81, 2.33			
Common Name	Species Name	Name	Status Status	Status			Star	t Time			13	00, 1300			
									Al	oundanc	e				
									Tra	nsect Wa	alk				
					T1	T2	Т3				T5				
					11	12	13	WAL	DAL	SWH	P	Heard	Flight		
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R		1				1						
Crested Myna	Acridotheres cristatellus	八哥	R		1		2		10				4		
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV				1		1						
Dusky Warbler	Phylloscopus fuscatus	褐柳鶯	PM, WV			1									
Eastern Buzzard	Buteo japonicus	普通鵟	WV	Cap.586									1		
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		3	7	5	2						
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV				1		15	1			4		
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	4										
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	1	3	2	1		2					
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV				4								
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			2								
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	1	5	41	3		1			2		
Little Grebe	Tachybaptus ruficollis	小鷿鷉	R	LC							2				
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC				4		3			4		
Long-tailed Shrike	Lanius schach	棕背伯勞	R						2						
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		5	5	1								
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV		1		6								

							D	ate		16/3/2		& T2), 14/ & T5)	3/2023 (T3		
						We	ather	Condition	on		Sunny, Overcast				
						Ti	dal C	ondition	Į	High					
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.	81, 2.33			
Common Name	Species Name	Name	Status	Status			Star	t Time			13	00, 1300			
									Al	bundanc	e				
								h	Tra	nsect W	alk				
					T1	1 T2	Т3			•	T5				
					11	12	13	WAL	DAL	SWH	P	Heard	Flight		
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R		1				1						
Oriental Pratincole	Glareola maldivarum	普通燕鴴	PM	LC					6				1		
Plain Prinia	Prinia inornata	純色鷦鶯	R		1				2			2	1		
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV									1			
Peregrine Falcon	Falco peregrinus	遊隼	SR, WV	Cap.586, LC									1		
Red-billed Starling	Spodiopsar sericeus	絲光椋鳥	WV	GC			2								
Red-rumped Swallow	Cecropis daurica	金腰燕	UPM		12										
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC					2						
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		4	4									
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						2				1		
Rock Dove	Columba livia	原鴿	R		2				16						
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R						4				70		
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		4		6		20						
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R		1										
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			1	2		1	2			6		
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					1		3			2		
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			1		_						

							D	ate		16/3/20		& T2), 14/3/ & T5)	/2023 (T3		
						We	ather	Conditio	on		Sunny	, Overcast			
					Tidal Condition						High				
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.81, 2.33				
Common Name	Species Name	Name	Status Status	Status	Start Time						130	00, 1300			
									Trai	ansect Walk					
					T1	T2	Т3			T5					
					11	12	13	WAL	DAL	SWH	P	Heard	Flight		
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC				5	1	5					
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R						2			3			
	Total No. of Species						19	9	21	12	1	4	19		
	Total No. of Conservation Interest Species							7	5	7	1	0	7		

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SpM – Spring migrant; UR – Uncommon resident; CWV - Common Winter Visitor; OV – Occasional Visitor

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)

(EN): Endangered in China Red Data Book Status

VU: Vulnerable 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

Appendix L1f. Avifauna Species Recorded for Water Birds Monitoring, 16 & 14 March 2023, Low Tide

							D	ate		16/3/	•	1 & T2), 3 & T5)	14/3/2023	
						We	ather	Condition	on	Sunny, Fine				
						Ti	dal C	ondition	1			Low		
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.	44, 1.08		
Common Name	Species Name	Name	Status	Status			Star	t Time			08	00, 0800		
									Ab	undance				
									Tran	sect Wal	lk			
					T1	T2	Т3				T5			
					11	12	13	WAL	DAL	SWH	P	Heard	Flight	
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV		1		1		2					
Alexandrine Parakeet	Psittacula eupatria	亞歷山大鸚 鵡	RR	NT, Cap. 586	4								4	
Asian Koel	Eudynamys scolopacea	噪鵑	R		1	1	1					4	1	
Barn Swallow	Hirundo rustica	家燕	PM, Sv		7				3				16	
Black Kite	Milvus migrans	黑鳶	R, WV			1							1	
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		3	4	1			2			2	
Black-faced Bunting	Emberiza spodocephala	灰頭鵐	WV, PM		1				1					
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				24		89			11	
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				4		2					
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	5	6	2	2				1	
Cinereous Tit	Parus cinereus	蒼背山雀	R		1	2			1					
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU	1	1	2							
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			1			1				
Common Myna	Acridotheres tristis	家八哥	UR						2					
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM			2	2			1				

							D	ate		16/3/		1 & T2), 1 3 & T5)	14/3/2023
						We	ather	Condition	on		Su	nny, Fine	
						Ti	idal C	Condition	1			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.	44, 1.08	
Common Name	Species Name	Name	Status	Status			Star	t Time			08	00, 0800	
									Ab	undance	;		
									Tran	sect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM										3
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R		2	1			2				
Crested Myna	Acridotheres cristatellus	八哥	R		1		2						5
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV				1						
Dusky Warbler	Phylloscopus fuscatus	褐柳鶯	PM, WV						1				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		3			9				
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV					11	6				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R						45				
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	1								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	3	3	2			1			1
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)								1	
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV				1						
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			2						1
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC					1				
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						2				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		6	22	1					
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC						4			

							D	ate		16/3/		1 & T2), 1 3 & T5)	14/3/2023
						We	ather	Conditi	on		Su	nny, Fine	
						T	idal C	Condition	1			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m))		1.	44, 1.08	
Common Name	Species Name	Name	Status	Status			Star	t Time			08	00,0800	
									Ab	undance			
							.	h-	Tran	sect Wa	lk		
					T1	T2	T3				T5		_
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				
Marsh Sandpiper	Tringa stagnatilis	澤鷸	PM, WV	RC						1			
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R				4		6			2	
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV			1			2				
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R				1						
Pallas's Leaf Warbler	Phylloscopus proregulus	黃腰柳鶯	WV						4				
Plain Prinia	Prinia inornata	純色鷦鶯	R						2				
Pied Avocet	Recurvirostra avosetta	反嘴鷸	WV	RC						1			
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC					4				
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		2	8	2		2				
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						3				
Rock Dove	Columba livia	原鴿	R		2	2			12				
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R										45
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		2 2 8					2			
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			1	1			3			3
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R				1	3				3	2
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			1						

							D	ate		16/3/		& T2), 1-8 & T5)	4/3/2023
						We	ather	Condition	on		Sun	ny, Fine	
						Ti	dal C	ondition	l			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.4	4, 1.08	
Common Name	Species Name	Name	Status	Status		Start Time Abo					080	0,0800	
										undance			
									Tran	sect Wal	lk		
					T1 T2 T3					T5			
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Wood Sandpiper	Tringa glareola	林鷸 PM, WV LC					1	11		2			6
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R						1			3	1
	Total No. of Species							6	25	10	0	5	17
	Total No. of Conservation	Interest Speci	es		5	5	8	4	4	7	0	1	6

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; OV

- Occasional visitor

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)

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened 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

Appendix L1g. Avifauna Species Recorded for Water Birds Monitoring, 23 & 24 March 2023, High Tide

							D	ate		23/3/		11 & T2), 2 23 & T5)	24/3/2023
						Wea	ather	Condition	on		Driz	zle, Sunn	y
						Ti	dal C	ondition	1			High	
		Chinese	Hong Kong	Conservation		Ti	ide L	evel (m)			1.	89, 1.82	
Common Name	Species Name	Name	Status	Status			Star	t Time			10	00, 1000	
									Ab	oundance)		
									Tran	nsect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV						2				
Alexandrine Parakeet	Psittacula eupatria	亞歷山大鸚 鵡	RR	NT, Cap. 586	1								
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	3							
Barn Swallow	Hirundo rustica	家燕	PM, Sv		2	2							2
Black Kite	Milvus migrans	黑鳶	R, WV			1							1
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		8	4	2		1				4
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC			2	44		50			2
Buff-bellied Pipit	Anthus rubescens	黃腹鷚	UPM, WV						2				
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		1								
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)		9	4	3	2				2
Cinereous Tit	Parus cinereus	蒼背山雀	R		2								
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC	3					1			
Common Kingfisher	Alcedo atthis	普通翠鳥	R		1								
Common Moorhen	Gallinula chloropus	黑水雞	R							1			
Common Myna	Acridotheres tristis	家八哥	UR						2				

							D	ate		23/3/		T1 & T2), Ω T3 & T5)	24/3/2023
						Wea	ather	Condition	on		Driz	zzle, Sunn	y
						Ti	dal C	ondition	ı			High	
		Chinese	Hong Kong	Conservation		Ti	ide L	evel (m)			1	.89, 1.82	
Common Name	Species Name	Name	Status Status	Status			Star	t Time			10	000, 1000	
									Ab	undance	;		
									Tran	sect Wa	lk		
					TT 1	TTO.	TT2				T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		1		2						
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM					4	3				
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R		1								
Crested Myna	Acridotheres cristatellus	八哥	R		5								4
Dusky Warbler	Phylloscopus fuscatus	褐柳鶯	PM, WV						1				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		3			1				13
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV			1	1		1				4
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			2							
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	2								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	1	3	2		1				
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)		1						1	1
Greater Painted-snipe	Rostratula benghalensis	彩鷸	R	LC				1					
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV			1	2						
House Swift	Apus nipalensis	小白腰雨燕	SpM, R										15
Large-billed Crow	Corvus macrorhynchus	大嘴烏鴉	R			2							
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		8	41						
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC									1

							D	ate		23/3/		Γ1 & T2), 1 Γ3 & T5)	24/3/2023
						Wea	ather	Condition	on		Driz	zzle, Sunn	y
						Ti	dal C	ondition	1			High	
		Chinese	Hong Kong	Conservation		Ti	ide Le	evel (m))		1	.89, 1.82	
Common Name	Species Name	Name	Status	Status			Star	t Time			10	000, 1000	
									Ab	undance	;		
									Tran	sect Wa	lk		
						a					T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				
Marsh Sandpiper	Tringa stagnatilis	澤鷸	PM, WV	RC						1			
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		6				12				
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV		1								6
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R		2	1	1						1
Oriental Pratincole	Glareola maldivarum	普通燕鴴	PM	LC					4				6
Pallas's Leaf Warbler	Phylloscopus proregulus	黄腰柳鶯	WV						3				
Plain Prinia	Prinia inornata	純色鷦鶯	R		2				2			1	2
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC									5
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		4	5	2						
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						2				
Rock Dove	Columba livia	原鴿	R			4			5				5
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R										40
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		5	5			12				3
White Wagtail	Motacilla alba	白鶺鴒	PM, WV				1		3				7
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R			1	1	1	4			6	2
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)		2	1						
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC						9			

							D	ate		23/3/2		& T2), 2 3 & T5)	24/3/2023
						Wea	ather	Conditio	n		Drizz	le, Sunny	1
						Ti	dal C	ondition]	High	
		Chinese	Hong Kong	Conservation	Tide Level (m) Start Time				1.8	9, 1.82			
Common Name	Species Name	Name	Status Status	Status	Start Time Ab						100	0, 1000	
									undance				
									Trans	sect Wal	k		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R		1								
	Total No. of Species						14	5	20	5	0	3	21
	Total No. of Conservation	Interest Speci	ies		3	6	5	3	4	4	0	1	7

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; OV - Occasional visitor

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)

VÛ: Vulnerable in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=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

Appendix L1h. Avifauna Species Recorded for Water Birds Monitoring, 23 & 24 March 2023, Low Tide

							D	ate		23/3/2		& T2), 24	4/3/2023
						We	ather	Conditio	on		Overcas	st, Overca	ıst
						Ti	dal C	ondition	1]	Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.4	9, 1.37	
Common Name	Species Name	Name	Status	Status			Star	t Time			150	0, 1600	
									Abı	ındance			
							L	L	Trans	ect Wall	ζ.		
					T1	T2	T3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	Psittacula eupatria	亞歷山大鸚鵡	RR	NT, Cap. 586									11
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV						2				
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	3	1					4	1
Barn Swallow	Hirundo rustica	家燕	PM, Sv				1						
Black Kite	Milvus migrans	黑鳶	R, WV			1							1
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		8	6	1		19			2	3
Black-winged Kite	Elanus caeruleus	黑翅鳶	OV	LC, (VU)									1
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC			5	41	6	76			
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		1								
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)		2	3		4				1
Cinereous Tit	Parus cinereus	蒼背山雀	R				1						
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU			4						2
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			7	1		1			1
Common Kingfisher	Alcedo atthis	普通翠鳥	R			2	1						
Common Moorhen	Gallinula chloropus	黑水雞	R						1				

							D	ate		23/3/2		1 & T2), 2 3 & T5)	4/3/2023
						We	ather	Condition	on		Overca	ist, Overca	ıst
						Ti	dal C	ondition	ı			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m))		1.4	49, 1.37	
Common Name	Species Name	Name	Status	Status			Star	t Time			150	00, 1600	
									Abu	ındance			
									Trans	sect Wal	k		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Common Myna	Acridotheres tristis	家八哥	UR						4				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM			1	1						
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM					1	4	7			4
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R			1	3						
Crested Myna	Acridotheres cristatellus	八哥	R			1	2		9				
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV			2	1						
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV			1			19	1			
Eurasian Teal	Anas crecca	綠翅鴨	WV	RC						3			4
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			19							
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	1	1				2			
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)	1				1			1	
Greater Painted-snipe	Rostratula benghalensis	彩鷸	R	LC				5					
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV				3						
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			1			3			
House Swift	Apus nipalensis	小白腰雨燕	SpM, R										1
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						4				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		14	18	1		1			4

							D	ate		23/3/2		& T2), 2 & T5)	4/3/2023
						We	ather	Conditio	on		Overcas	t, Overca	ıst
						Ti	dal C	ondition	l		I	_ow	
		Chinese	Hong Kong	Conservation		Ti	ide L	evel (m)			1.4	9, 1.37	
Common Name	Species Name	Name	Status	Status			Star	t Time			150	0, 1600	
									Abu	ndance			
						L			Trans	ect Wall	ζ.		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Little Grebe 7	Tachybaptus ruficollis	小鷿鷉	R	LC						3			
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC				3	2				
Marsh Sandpiper 7	Tringa stagnatilis	澤鷸	PM, WV	RC				1					
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		2	4	8		20				
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV		2	2							
Oriental Magpie	Pica serica	喜鵲	R				1						
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R		2	2	2						
Oriental Pratincole	Glareola maldivarum	普通燕鴴	PM	LC				10					
Peregrine Falcon	Falco peregrinus	遊隼	SR, WV	Cap.586, LC									1
Plain Prinia	Prinia inornata	純色鷦鶯	R		3	1			1			1	
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)			1						
Red-rumped Swallow	Cecropis daurica	金腰燕	UPM										1
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC				13					
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		2	4			1				
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						3				1
Rock Dove	Columba livia	原鴿	R		1	14			22				
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R						5				48

							D	ate		23/3/2		& T2), 2 & T5)	24/3/2023
						We	ather	Conditio	on		Overcas	st, Overca	ast
						Ti	dal C	ondition	1		I	Low	
		Chinese	Hong Vong	Conservation		Ti	ide Le	evel (m)			1.4	9, 1.37	
Common Name	Species Name	Name	Hong Kong Status	Status			Star	Time			150	0, 1600	
									Abu	ndance			
									Trans	ect Wall	ζ.		
					T1 T2 T3 T5								
					WAL DAL					SWH	P	Heard	Flight
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		1	4	3		14				4
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R		2								
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			1	1		1	1			4
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R				1	5	13				
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)	1		3						
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC	26 3					31			
Yellow-bellied Prinia	ellow-bellied Prinia Prinia flaviventris 黄腹鷦鶯 R					1		_	1			1	
	Total No. of Species							6	21	9	2	5	6
	Total No. of Conservation	Interest Speci	es		4	4	3	5	5	9	2	1	3

					Date	23/3/2023 (T1 & T2), 24/3/2023 (T3 & T5)
					Weather Condition	Overcast, Overcast
					Tidal Condition	Low
		Chinese	Hong Kong	Conservation	Tide Level (m)	1.49, 1.37
Common Name	Species Name	Name	Status	Status	Start Time	1500, 1600
					Abu	ndance
					Transe	ect Walk
					T1 T2 T3	T5
					T1 T2 T3 WAL DAL	SWH P Heard Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; USV - Uncommon Summer visitor; SpM – Spring migrant; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor.

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)

VU: Vulnerable 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

Appendix L1i. Avifauna Species Recorded for Water Birds Monitoring, 29 & 28 March 2023, High Tide

							D	ate		29/3/2	023 (T1 o	& T2), 28 & T5)	3/3/2023
						We	ather	Conditio	n		Fine, (Overcast	
						Ti	dal C	ondition			Н	igh	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			2.12	2, 2.29	
Common Name	Species Name	Name	Status	Status			Star	t Time			1500	, 1300	
									Abu	ndance			
									Trans	ect Walk	ζ		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV			1							
Asian Koel	Eudynamys scolopacea	噪鵑	R		1	3	1					4	
Barn Swallow	Hirundo rustica	家燕	PM, Sv			8	4						41
Black Kite	Milvus migrans	黑鳶	R, WV		3	3							
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R			2	3	1	6				3
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				66		71			13
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R			1							
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)		2	2	1	4	4			2
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU	3	1							
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			1	2		2			2
Common Kingfisher	Alcedo atthis	普通翠鳥	R		1	1			1				
Common Moorhen	Gallinula chloropus	黑水雞	R							2			
Common Myna	Acridotheres tristis	家八哥	UR		1				2				3
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				2	2	1				
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM					3					4

							D	ate		29/3/2		1 & T2), 2 3 & T5)	8/3/2023
						We	ather	Train	on		Fine	, Overcast	
						Ti	dal C	onditio	1			High	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m))		2.	12, 2.29	
Common Name	Species Name	Name	Status	Status			Star	t Time			150	00, 1300	
									Abu	ındance			
									Trans	sect Wal	k		
					T1	T2	Т2				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R			1							
Crested Myna	Acridotheres cristatellus	八哥	R		3		5		18				5
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)									1
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV					45	4	1			16
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	1								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2	3	3			1			
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)					1				
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV				2		1	2			
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			2						1
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC				1					
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						15				10
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	1	10	3		1	2			1
Little Grebe	Tachybaptus ruficollis	小鷿鷉	R	LC						3			
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC				3					
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				1
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		11	6			2				
Northern Shoveler	Spatula clypeata	琵嘴鴨	WV	RC						1			

							D	ate		29/3/2		& T2), 2 3 & T5)	8/3/2023
						We	ather	Condition	on		Fine,	Overcast	
						Ti	dal C	onditior	1			High	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			2.1	2, 2.29	
Common Name	Species Name	Name	Status	Status			Star	t Time			150	00, 1300	
									Abu	ındance			
									Trans	ect Wal	k		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV			4			4				
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R		1								
Oriental Pratincole	Glareola maldivarum	普通燕鴴	PM	LC				3					13
Pacific Swift	Apus pacificus	白腰雨燕	SpM, SM	(LC)									1
Plain Prinia	Prinia inornata	純色鷦鶯	R			2		3					
Red-billed Blue Magpie	Urocissa erythrorhyncha	紅咀藍鵲	R		2		1						
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC				4	7				
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		5	6							
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM					1	2				
Rock Dove	Columba livia	原鴿	R				1		18				
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R			4							
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R			3	2	1	4				2
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1	1	1	10	1				1
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					1	6				2
White-shouldered Starling	Sturnia sinensis	灰背椋鳥	M, WV, Sv	LC					39				
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)	1	1	3						
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC				43		4			18

					Date					29/3/2	29/3/2023 (T1 & T2), 28/3/2023 (T3 & T5)			
								Conditio	n		Fine, Overcast			
						Ti	dal C	ondition	-	High				
		Chinese Hong Kong Conservation					Tide Level (m)				2.12, 2.29			
Common Name	Species Name Species Name Chinese Hong Kong Conservation Status Statu					Start Time 1500, 1300 Abundance								
									Abu	ndance				
					Tra				Transe	sect Walk				
					T1 T2		1 T2 T3				T5			
					11	12	13	WAL	DAL	SWH	P	Heard	Flight	
	Total No. of Species					20	16	17	21	11	0	1	20	
	Total No. of Conservation Interest Species					5	6	7	5	8	0	0	9	

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; USV - Uncommon Summer visitor; SpM – Spring migrant; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor.

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

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Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

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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

Appendix L1j. Avifauna Species Recorded for Water Birds Monitoring, 29 & 28 March 2023, Low Tide

							D	ate		29/3/2	•	& T2), 28 & T5)	8/3/2023
						We	ather	Conditio	n		Overcas	t, Overca	st
						Ti	dal C	ondition			I	LOW	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.32	2, 1.16	
Common Name	Species Name	Name	Status	Status			Star	t Time			0800	0,0700	
									Abu	ındance			
									Trans	ect Wall	ζ.		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV						1				
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	2			2			2	
Barn Swallow	Hirundo rustica	家燕	PM, Sv		4	3	5						4
Black Kite	Milvus migrans	黑鳶	R, WV		2	1							
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		1	4	5		9				
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				63	1	76			4
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	1	1		2	4			1
Cinereous Tit	Parus cinereus	蒼背山雀	R		3				1				
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC				2		2			
Common Kestrel	Falco tinnunculus	紅隼	CaM, WV	Cap. 586					1				
Common Myna	Acridotheres tristis	家八哥	UR						2				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM			1	1		1				1
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM										2
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R		1								
Crested Myna	Acridotheres cristatellus	八哥	R			2			4				1

							D	ate		29/3/2		& T2), 2 3 & T5)	8/3/2023
						We	ather				Overca	st, Overca	ıst
						Ti	dal C	ondition	1			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.3	32, 1.16	
Common Name	Species Name	Name	Status	Status			Star	t Time			080	00, 0700	
									Abu	ındance			
									Trans	ect Wal	k		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)				5					
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV			1			20				1
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R			3							
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC	1								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)		2	3						4
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)					2			1	
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV			1	1						
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC	1		1						
House Swift	Apus nipalensis	小白腰雨燕	SpM, R		40		4						31
Large-billed Crow	Corvus macrorhynchus	大嘴烏鴉	R			1							
Little Bunting	Emberiza pusilla	小鵐	CPM, WV						6				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		8	10		1				2
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	LC									1
Marsh Sandpiper	Tringa stagnatilis	澤鷸	PM, WV	RC						1			
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R		3	7	3		9			3	
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV			1							
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R			1			1				

							D	ate		29/3/2		& T2), 28 & T5)	8/3/2023
						Wea	ather	Conditio	on		Overcas	t, Overca	.st
						Ti	dal C	ondition	l		L	ow	
		Chinese	Hong Kong	Conservation		Ti	ide L	evel (m)			1.32	2, 1.16	
Common Name	Species Name	Name	Status	Status			Star	t Time			0800, 0700		
									Abu	ndance			
									Trans	ect Wall	ζ		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Oriental Pratincole	Glareola maldivarum	普通燕鴴	PM	LC					5				
Plain Prinia	Prinia inornata	純色鷦鶯	R		2					3			
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC	4								
Red-whiskered Bulbul	Pycnonotus jocosus	紅耳鵯	R		7	8							
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM						1				1
Rock Dove	Columba livia	原鴿	R			5			8				
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R					20					100
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		1	5	3		6				
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R		1								
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1 1 2					1	3		
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R		1 1					2	2		
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC	1 29 4			4	6			17	
Yellow-bellied Prinia Prinia flaviventris 黃腹鷦鶯 R					1							1	
	Total No. of Species					20	13	7	23	5	0	7	16
	Total No. of Conservation Interest Species					3	5	5	7	5	0	1	6

					Date	29/3/2023 (T1 & T2), 28/3/2023 (T3 & T5)
				Weather Condition		Overcast, Overcast
					Tidal Condition	Low
Common Name		Chinese	Hong Kong	Conservation	Tide Level (m)	1.32, 1.16
	Species Name	Name	Status		Start Time	0800, 0700
					Abu	ndance
					Transe	ect Walk
					T1 T2 T2	T5
					T1 T2 T3 WAL DAL	SWH P Heard Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; USV - Uncommon Summer visitor; SpM – Spring migrant; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor.

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)

VU: Vulnerable 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

Appendix L1k. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 2 March 2023, T5

					Date: 2/3	3/2023				
			Hong Kong	Conservation	Start Tin	ne: 18:30				
Common Name	Species Name	Chinese Name	Status	Status	Abundar	nce				
					WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopacea	噪鵑	R						1	
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R						30	2
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC	22		54			8
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)		3	3			5
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			1			
Common Kingfisher	Alcedo atthis	普通翠鳥	R							1
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM							4
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)						19
Eurasian Teal	Anas crecca	綠翅鴨	WV	RC			12			
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC		1				
House Swift	Apus nipalensis	小白腰雨燕	SpM, R							24
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)			1			21
Little Grebe	Tachybaptus ruficollis	小鷿鷉	R	LC				2		
Peregrine Falcon	Falco peregrinus	遊隼	SR, WV	Cap.586, LC						1
Pied Avocet	Recurvirostra avosetta	反嘴鷸	WV	RC			4			
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)						1
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R						6	
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC	8	4				
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R						1	
Total No. of Species	otal No. of Species						6	1	4	10
Total No. of Conservation	n Interest Species		2	3	6	1	0	6		

Note

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; CaM - Common autumn migrant;; SpM – Spring migrant; UR – Uncommon resident; CWV - Common Winter Visitor

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)

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 L1l. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 24 March 2023, T5

					Date: 24	/3/2023							
			Hong Kong	Conservation	Start Tin	ne: 18:30							
Common Name	Species Name	Chinese Name	Status	Status	Abundance								
					WAL	DAL	SWH	P	Heard	Flight			
Asian Koel	Eudynamys scolopacea	噪鵑	R						2				
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R			1			3				
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC			3						
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC			30						
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)						2			
Crested Myna	Acridotheres cristatellus	八哥	R			10							
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		29							
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			3			4			
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC		1							
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		32							
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R			18			1				
Rock Dove	Columba livia	原鴿	R							1			
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R			2			9				
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC			9						
Total No. of Species	Cotal No. of Species					7	4	0	4	3			
Total No. of Conservation	otal No. of Conservation Interest Species					3	4	0	0	2			

Note:

 $R-Resident;\ WV-Winter\ visitor;\ PM-Passage\ migrant;\ CPM-Common\ Passage\ Migrant;\ UPM-Uncommon\ passage\ migrant;\ CaM-Common\ autumn\ migrant;\ USV-Uncommon\ Summer\ visitor;\ SpM-Spring\ migrant;;\ CWV-Common\ Winter\ Visitor.$

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)

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 L1m, Waterbirds Recorded in March 2023

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	LC	T5: In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Black-faced Spoonbill	Platalea minor	黑臉琵鷺	EN, (EN), PGC	T5: In flight	Common winter visitor. Found in Deep Bay area.
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	RC	T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant. Found in Deep Bay area, Long Valley, Kam Tin.
Chinese Pond Heron	Ardeola bacchus	池鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in Hong Kong.
Common Greenshank	Tringa nebularia	青腳鷸	RC	T2: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Abundant winter visitor and migrant. Found in Deep Bay area.
Common Kingfisher	Alcedo atthis	普通翠鳥		T2: River bank, In flight T3: River bank, In flight T5: In flight	Common passage migrant and winter visitor. Widely distributed in wetland habitat throughout Hong Kong.
Common Moorhen	Gallinula chloropus	黑水雞		T5: Dry Agricultural Land, Shallow Water Habitat	Common winter visitor, resident and migrant. Found in Deep Bay area, Shuen Wan, Starling Inlet.
Common Sandpiper	Actitis hypoleucos	磯鷸		T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Dry Agricultural Land, Shallow Water Habitat, In flight.	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Common Snipe	Gallinago gallinago	扇尾沙錐		T5: Wet Agricultural Land, , Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Found in Long Valley, Chau Tau, Sai Kung.
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	(LC)	T2: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Resident and common passage migrant. Widely distributed in Hong Kong.
Eurasian Spoonbill	Platalea leucorodia	白琵鷺	Cap.586, NT	T5: Shallow Water Habitat, In flight	Uncommon winter visitor. Found in Deep Bay area.
Eurasian Teal	Anas crecca	綠翅鴨	RC	T5: Shallow Water Habitat, Pond, In flight	Common winter visitor. Found in Deep Bay area, Shuen Wan, Tai Lam Chung Reservoir, Victoria Harbour, Urban Park.
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	PRC	T1: In flight T2: In flight	Common winter visitor. Widely distributed in coastal areas throughout Hong Kong.
Great Egret	Ardea alba	大白鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Greater Painted- snipe	Rostratula benghalensis	彩鷸	LC	T5: Wet Agricultural Land	Locally common resident. Found in Ha Tsuen, Lok Ma Chau, Kam Tin, Long Valley, Hong Kong Wetland Park.
Green Sandpiper	Tringa ochropus	白腰草鷸		T2: River bank T3: River bank, River bed T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight.	Uncommon passage migrant and winter visitor. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Shek Kong, Ho Chung.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Grey Heron	Ardea cinerea	蒼鷺	PRC	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Shallow Water Habitat, In flight	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape D'Aguilar.
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	LC	T5: Wet Agricultural Land, Dry Agricultural Land	Locally common winter visitor and migrant. Found in Kam tin, Tsim Bei Tsui, Lo Wu, Tai Long Wan, Shuen Wan, Castle Peak, Chek Lap Kok.
Little Egret	Egretta garzetta	小白鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, Pond, In flight	Common resident. Widely distributed in coastal area throughout Hong Kong.
Little Grebe	Tachybaptus ruficollis	小鷿鷉	LC	T1: River T5: Shallow Water Habitat, Pond	Common resident. Found in Deep Bay area.
Little Ringed Plover	Charadrius dubius	金眶鴴	(LC)	T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common winter visitor and passage migrant. Widely distributed in freshwater areas throughout Hong Kong.
Marsh Sandpiper	Tringa stagnatilis	澤鷸	RC	T5: Wet Agricultural Land, Shallow Water Habitat, Pond	Abundant winter visitor and migrant. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Sai Kung.
Northern Shoveler	Spatula clypeata	琵嘴鴨	RC	T5: Shallow Water Habitat	Abundant winter visitor. Found in Deep Bay area.
Oriental Pratincole	Glareola maldivarum	普通燕鴴	LC	T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Passage migrant. Found in Mai Po, Tsim Bei Tsui.
Pied Avocet	Recurvirostra avosetta	反嘴鷸	RC	T5: Dry Agricultural Land, Shallow Water Habitat, Pond, In flight	Abundant winter visitor. Found in Deep Bay area.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Pied Kingfisher	Ceryle rudis	斑魚狗	(LC)	T3: In flight T5: In flight	Uncommon resident. Widely distributed in lakes and ponds throughout Hong Kong.
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥		T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	(LC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Dry Agricultural Land, Shallow Water Habitat	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	Tringa glareola	林鷸	LC	T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor

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)

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

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

*Source: Hong Kong Biodiversity Database, AFCD (https://www.afcd.gov.hk/English/conservation/hkbiodiversity/database/search.php)

Appendix L1n. Birds Recorded in March 2023

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Alexandrine Parakeet	Psittacula eupatria	亞歷山大鸚鵡	RR	NT, Cap. 586
Amur Stonechat	Saxicola stejnegeri	黑喉石䳭	WV	
Asian Koel	Eudynamys scolopacea	噪鵑	R	
Barn Swallow	Hirundo rustica	家燕	PM, Sv	
Besra	Accipiter virgatus	松雀鷹	R, CPM	Cap.586
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv	
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R	
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC
Black-faced Bunting	Emberiza spodocephala	灰頭鵐	WV, PM	
Black-winged Kite	Elanus caeruleus	黑翅鳶	OV	LC, (VU)
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC
Buff-bellied Pipit	Anthus rubescens	黄腹鷚	UPM, WV	
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R	
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)
Cinereous Tit	Parus cinereus	蒼背山雀	R	
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC
Common Kestrel	Falco tinnunculus	紅隼	CaM, WV	Cap. 586
Common Kingfisher	Alcedo atthis	普通翠鳥	R	
Common Moorhen	Gallinula chloropus	黑水雞	R	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Common Myna	Acridotheres tristis	家八哥	UR	
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM	
Common Snipe	Gallinago gallinago	扇尾沙錐	WV, PM	
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R	
Crested Myna	Acridotheres cristatellus	八哥	R	
Crested Serpent Eagle	Spilornis cheela	蛇鵰	UR	Cap.586, (VU)
Daurian Redstart	Phoenicurus auroreus	北紅尾鴝	WV	
Dusky Warbler	Phylloscopus fuscatus	褐柳鶯	PM, WV	
Eastern Buzzard	Buteo japonicus	普通鵟	WV	Cap.586
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV	
Eurasian Spoonbill	Platalea leucorodia	白琵鷺	UWV	Cap.586, NT
Eurasian Teal	Anas crecca	綠翅鴨	WV	RC
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R	
Great Cormorant	Phalacrocorax carbo	普通鸕鶿	CWV	PRC
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)
Greater Painted-snipe	Rostratula benghalensis	彩鷸	R	LC
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV	
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC
Grey Wagtail	Motacilla cinerea	灰鶺鴒	WV	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Grey-headed Lapwing	Vanellus cinereus	灰頭麥雞	WV, PM	LC
House Swift	Apus nipalensis	小白腰雨燕	SpM, R	
Large Hawk-Cuckoo	Hierococcyx sparverioides	大鷹鵑	Sv	
Large-billed Crow	Corvus macrorhynchus	大嘴烏鴉	R	
Little Bunting	Emberiza pusilla	小鵐	CPM, WV	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)
Little Grebe	Tachybaptus ruficollis	小鷿鷉	R	LC
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	(LC)
Long-tailed Shrike	Lanius schach	棕背伯勞	R	
Marsh Sandpiper	Tringa stagnatilis	澤鷸	PM, WV	RC
Masked Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R	
Northern Shoveler	Spatula clypeata	琵嘴鴨	WV	RC
Olive-backed Pipit	Anthus hodgsoni	樹鷚	WV	
Oriental Magpie	Pica serica	喜鵲	R	
Oriental Magpie-Robin	Copsychus saularis	鵲鴝	R	
Oriental Pratincole	Glareola maldivarum	普通燕鴴	PM	LC
Oriental Turtle dove	Streptopelia orientalis	山斑鳩	WV, PM	
Pacific Swift	Apus pacificus	白腰雨燕	SpM, SM	(LC)
Pallas's Leaf Warbler	Phylloscopus proregulus	黄腰柳鶯	WV	
Peregrine Falcon	Falco peregrinus	遊隼	SR, WV	Cap.586, LC
Pied Avocet	Recurvirostra avosetta	反嘴鷸	WV	RC

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)
Plain Prinia	Prinia inornata	純色鷦鶯	R	
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV	
Red-billed Blue Magpie	Urocissa erythrorhyncha	紅咀藍鵲	R	
Red-billed Starling	Spodiopsar sericeus	絲光椋鳥	WV	GC
Red-rumped Swallow	Cecropis daurica	金腰燕	UPM	
Red-throated Pipit	Anthus cervinus	紅喉鷚	CPM, WV	RC
Red-whiskered bulbul	Pycnonotus jocosus	紅耳鵯	R	
Richard's Pipit	Anthus richardi	理氏鷚	WV, PM	
Rock Dove	Columba livia	原鴿	R	
Scaly-breasted Munia	Lonchura punctulata	斑文鳥	R	
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R	
Swinhoe's White-eye	Zosterops simplex	暗綠繡眼鳥	R	
White Wagtail	Motacilla alba	白鶺鴒	PM, WV	
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R	
White-shouldered Starling	Sturnia sinensis	灰背椋鳥	M, WV, Sv	LC
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)
Wood Sandpiper	Tringa glareola	林鷸	PM, WV	LC
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R	
Yellow-breasted Bunting	Emberiza aureola	黄胸鵐	PM	(EN), RC
Yellow-browed Warbler	Phylloscopus inornatus	黄眉柳鶯	WV, SpM	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Zitting Cisticola	Cisticola juncidis	棕扇尾鶯	PM, WV	LC

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrantUR – Uncommon resident; SPM - Scarce Passage Migrant; SpM – Spring Migrant; SWV – Scarce winter visitor;

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

VU: Vulnerable on IUCN Red List of Threatened Species.

(VU): Vulnerable in China Red Data Book Status

(EN): Endangered in China Red Data Book 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

Appendix L2. Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring, 3 & 27 March 2023

				S/	Date: 3/3 /2	2023 (T1,6)	, 27/3 /2022	2 (T3,4,5)		
C N	C · N	CI. N	Conservation	Occurrence	Relative Abundance					
Common Name	Species Name	Chinese Name	Status	Status	Transect W	alk				
					T1	Т3	T4	T5	Т6	
Domestic Dog	Canis lupus familiaris	野狗		Introduced			+++		+	
Japanese Pipistrelle	Pipistrellus abramus	東亞家蝠	Cap. 170	Native	+++	+++	+		++	
Short-nosed Fruit Bat	Cynopterus sphinx	短吻果蝠	Cap. 170, NT	Native	++					
Total No. of species					2	1	2	0	2	
Total No. of Conser	Total No. of Conservation Interest Species					1	1	0	1	

Note:

Cap. 170: Species under protection of Wild Animals Protection Ordinance (Cap. 170)

NT: Near Threatened in the Red List of China's Vertebrates

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)

- +: species recorded within transect routes
- ++: species commonly recorded within transect routes
- +++: dominant species within transect routes

Local Restrictedness Column has been removed as said information is no longer available.

Appendix L3. Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring, 3 & 27 March 2023

					Date: 3/3	Date: 3/3 /2023 (T1,6) , 27/3 /2022 (T3,4,5)					
		Chinese	Conservation	Occurrence	Relative	Relative Abundance					
Common Name	Species Name	Name	Status	Status	Transect	Walk					
					T1	T3	T4	T5	T6		
Amphibian	Amphibian										
Asian Common Toad	Bufo melanostictus	黑眶蟾蜍	-	Native	+++			++			
Gunther's Frog	Hylarana guentheri	沼蛙	-	Native	+++			+			
Ornate Pigmy Frog	Microhyla fissipes	飾紋姬蛙	-	Native	++						
Paddy Frog	Fejervarya limnocharis	澤蛙	-	Native	+						
Reptile											
Bowring's Gecko	Hemidactylus bowringii	原尾蜥虎	-	Native	+						
Reeve's Smooth Skink	Scincella reevesii	南滑蜥	-	Native	+						
Total No. of species	Total No. of species						0	2	0		
Total No. of Conservation	on Interest Species				0	0	0	0	0		

Note:

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)

- +: species recorded within transect routes
- ++: species commonly recorded within transect routes
- +++: dominant species within transect routes

Appendix L4. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 3 & 27 March 2023

					Date: 3/3	/2023 (T1,6	(), 27/3 /202	22 (T3,4,5)		
Common Name	Caralia Nama	Chinese Name	Conservation	Occurrence	Relative Abundance					
Common Name	Species Name	Chinese Name	Status	Status*	Transect Walk					
					T1	Т3	T4	T5	Т6	
Angled Castor	Ariadne ariadne	波蛺蝶	-	-	+					
Chinese Peacock	Papilio bianor	碧鳳蝶	-	-	+					
Common Bluebottle	Graphium sarpedon	青鳳蝶	-	-	+					
Common Five-ring	Ypthima baldus	矍眼蝶	-	-	+				+	
Common Grass Yellow	Eurema hecabe	寬邊黃粉蝶	-	-				+		
Common Jester	Symbrenthia lilaea	散紋盛蛺蝶	-	-	+					
Common Mormon	Papilio polytes	玉帶鳳蝶	-	-	+++				+	
Common Sailer	Neptis hylas	中環蛺蝶	-	-	++				+	
Dark Brand Bush Brown	Mycalesis mineus	小眉眼蝶	-	-	++					
Great Mormon	Papilio memnon	美鳳蝶	-	-	++					
Green Flash	Artipe eryx	綠灰蝶	-	-	++					
Indian Cabbage White	Pieris canidia	東方菜粉蝶	-	-			+			
Pale Grass Blue	Pseudozizeeria maha	酢漿灰蝶	-	-	+++		+			
Paris Peacock	Papilio paris	巴黎翠鳳蝶	-	-	++				+	
Plum Judy	Abisara echerius	蛇目褐蜆蝶	-	-	+				+	
Purple Sapphire	Heliophorus epicles	斜斑彩灰蝶	-	-	+				+	
Red Helen	Papilio Helenus	玉斑鳳蝶	-	-	+					
Red-base Jezebel	Delias pasithoe	報喜斑粉蝶	-	-	+++					
Small White	Pieris rapae	菜粉蝶	-	-	++		+	+	+++	

Common Name		Chinese Name	Conservation Status	Occurrence Status*	Date: 3/3 /2023 (T1,6), 27/3 /2022 (T3,4,5)					
	Species Name				Relative Abundance					
	Species Name				Transect V	Valk				
					T1	T3	T4	T5	T6	
South China Bush Brown	Mycalesis mineus	平頂眉眼蝶	-	-	+					
Three-spot Grass Yellow	Eurema blanda	檗黃粉蝶	-	-	+					
Transparent 6-line Blue	Nacaduba kurava	古樓娜灰蝶	-	-					+	
Total No. of species						0	3	2	8	
Total No. of Conservation	Total No. of Conservation Interest Species					0	0	1	0	

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)

*Very limited data are available for the occurrence status (being native to Hong Kong) of butterflies

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

LC: Local Concern (Fellowes et al., 2002)

Appendix L5. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring, 3 & 27 March 2023

					Date: 3/3	/2023 (T1,6)	, 27/3 /202	2 (T3,4,5)		
Common Nama	Species Name	Chinese Name	Conservation Status	Occurrence	Relative Abundance					
Common Name	Species Name		Conservation Status	Stauts	Transect V	Valk				
					T1	Т3	T4	T5 T6	T6	
Common Bluetail	Ischnura senegalensis	褐斑異痣蟌	-	Native	+					
Common Red Skimmer	Orthetrum pruinosum	赤褐灰蜻	-	Native	+					
Orange-backed Threadtail	Prodasineura croconota	朱背微橋原蟌	-	Native	+					
Ruby Darter	Rhodothemis rufa	紅胭蜻	LC	Native	+					
Wandering Glider	Pantala flavescens	黄蜻	-	Native	+					
Total No. of species	Fotal No. of species					0	0	0	0	
Total No. of Conserv	ation Interest Species				1	0	0	0	0	

Note:

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

LC: Local Concern (Fellowes et al., 2002)

APPENDIX M WEATHER CONDITION

APPENDIX M – GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 March 23	19.7	71	0
2 March 23	19.8	70	0
3 March 23	18.6	56	0
4 March 23	19.6	65	0
5 March 23	19.7	57	0
6 March 23	20	50	0
7 March 23	20.1	56	0
8 March 23	21.6	77	0
9 March 23	22.5	75	0
10 March 23	22.4	68	0
11 March 23	22.1	67	0
12 March 23	22.6	71	0.1
13 March 23	20.1	64	Trace
14 March 23	19.7	73	0
15 March 23	21	77	0

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report – March 2023

Date	Mean Air Temperature (°C)	Mean Relative	Precipitation
		Humidity (%)	(mm)
16 March 23	22	72	Trace
17 March 23	21.7	83	0.5
18 March 23	22.3	80	0
19 March 23	20.6	86	0.6
20 March 23	21.8	88	0.3
21 March 23	23.7	85	Trace
22 March 23	24.7	83	Trace
23 March 23	25	81	0
24 March 23	25.6	80	0
25 March 23	23.4	89	53.5
26 March 23	20.8	91	5.9
27 March 23	18.6	86	6.3
28 March 23	18.7	84	Trace
29 March 23	19.9	86	0.9
30 March 23	20.8	89	0.3
31 March 23	20.3	92	1.9

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

^{**}Trace means rainfall less than 0.05 mm.

APPENDIX N EVENT ACTION PLANS

Appendix N:

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

	ACTION						
EVENT	ET	IEC	ER	CONTRACTOR			
ACTION LEVE	ACTION LEVEL						
1. Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC,ER and Contractor; Repeat measurement to confirm finding; and Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check Contractor's working method; and Review and advise the ET and ER on the effectiveness of the proposed remedial measures. 	1. Notify Contractor.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Rectify any unacceptable practice and implement remedial measures; and 3. Amend working methods agreed with ER if appropriate.			
2. Exceedance for two or more consecutive samples	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC,ER and Contractor; Advise the ER and Contractor on the effectiveness of the proposed remedial measures; Repeat measurements 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET and ER on the effectiveness of the proposed remedial measures; and Supervise 	 Confirm receipt of notification of failure in writing; Notify Contractor; and Supervise and ensure remedial measures properly implemented. 	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 3. Implement the			

				7 - F
	to confirm findings;	Implementation of		agreed proposals;
	5. Increase monitoring	remedial measures.		and
	frequency to daily;			4. Amend proposal if
	6. Discuss with IEC,			appropriate.
	ER and Contractor on			
	remedial actions			
	required;			
	7. If exceedance			
	continues, arrange			
	meeting with IEC and			
	ER; and			
	8. If exceedance stops,			
	cease additional			
	monitoring.			
LIMIT LEVEI			T	
1.Exceedance	Identify source,	1. Check monitoring	1. Confirm receipt of	1. Identify source,
for one	investigate the causes	data submitted by	notification of failure	investigate the causes
sample	of exceedance and	ET;	in writing;	of exceedance and
	propose remedial	2. Check	2. Notify Contractor;	propose remedial
	measures;	Contractor's	and	measures;
	2. Inform ER, Contractor,	working method;	3. Supervise and ensure	2. Take immediate actio
	IEC and EPD;	3. Discuss with ET,	remedial measures	to avoid
	3. Repeat measurement to	ER and Contractor	properly	further exceedance;
	confirm finding;	on possible	implemented.	3. Submit proposals for
	4. Increase monitoring	remedial		remedial actions to E
	frequency to daily;	measures;		with a copy to ET
	5. Assess effectiveness of	4. Advise the ER and		and IEC within 3
	Contractor's remedial	ET on the		working days of
	actions and keep IEC,	effectiveness of		notification;
	EPD and ER informed	the proposed		4. Implement the agreed
	of the results.	remedial		proposals; and
		measures;		5. Amend proposal if
		5. Supervise		appropriate.
		implementation of		
		implementation of		

		measures.		
2.Exceedance	1. Notify IEC, ER,	1. Check monitoring	1. Confirm receipt of	1. Identify source,
for two or	Contractor and EPD;	data submitted by	notification of failure	investigate the causes
more	2. Identify source;	ET;	in writing;	of exceedance and
consecutive	3. Repeat measurement to	2. Check	2. Notify Contractor;	propose remedial
samples	confirm findings;	Contractor's	3. In consultation with	measures;
	4. Increase monitoring	working method;	the ET and IEC,	2. Take immediate action
	frequency to daily;	3. Discuss amongst	agree with the	to avoid
	5. Carry out analysis of	ER, ET, and	Contractor on the	further exceedance;
	Contractor's working	Contractor on the	remedial measures to	3. Submit proposals for
	procedures to	potential remedial	be implemented;	remedial actions to ER
	determine possible	actions;	4. Supervise and ensure	with a copy to ET
	mitigation to be	4. Review	remedial measures	and IEC within 3
	implemented;	Contractor's	properly	working days of
	6. Arrange meeting with	remedial actions	implemented; and	notification;
	IEC, Contractor and	whenever	5. If exceedance	4. Implement the agreed
	ER to discuss the	necessary to	continues, consider	proposals;
	remedial actions to be	assure their	what portion of the	5. Resubmit proposals if
	taken;	effectiveness and	work is responsible	problem still not under
	7. Assess effectiveness of	advise the ER	and instruct the	control;
	Contractor's remedial	accordingly; and	Contractor to stop	6. Stop the relevant
	actions and keep IEC,	5. Supervise the	that portion of work	portion of works as
	EPD and ER informed	implementation of	until the exceedance	determined by the ER
	of the results;	remedial	is abated.	until the exceedance is
	8. If exceedance stops,	measures.		abated.
	cease additional			
	monitoring.			

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

EVENT	ACTION						
	ET	IEC	ER	CONTRACTOR			
Action Level	 Notify IEC, ER and Contractor; Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss jointly with the Contractor and formulate remedial measures; Increase monitoring frequency to check 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 Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to ER and copy to the IEC and ET; 2. Implement noise mitigation proposals.			
Limit Level	 Identify source; Inform IEC, ER and Contractor; Repeat measurements to confirm findings; Increase the monitoring frequency; Carry out analysis of Contractor's working procedures with the ER and Contractor to determine possible mitigation to be implemented; Inform IEC, ER and Contractor the causes and actions taken for the exceedances; 	1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions; 2. Review the Contractor's remedial actions 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 analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to the ER and copy to the ET and IEC 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			

EVENT	ACTION				
	ET	IEC	ER	CONTRACTOR	
	7. Assess effectiveness of		Contractor to stop that	determined by the	
	Contractor's remedial		portion of work until	ER until	
	actions and keep IEC		the exceedance is	the exceedance is	
	informed of the results;		abated.	abated.	
	8. If exceedance stops, cease				
	additional monitoring.				

Table N-3: Event / Action Plan for Water Quality

EVENT		ACTION						
	ET		IEC		ER		CO	NTRACTOR
Action level being exceeded by one sampling day	 2. 3. 4. 6. 	Conduct addition site investigation on the same day; Inform IEC, Contractor and ER; Check monitoring data, all plant, equipment, Contractor's working methods and other relative information; Review proposals on remedial measures submitted by Contractor; Discuss remedial measures with IEC and Contractor and ER; and Review submit proposal and ensure the effectiveness of the implemented mitigation measures.	 2. 	Discuss with ET, ER and Contractor on the implemented mitigation measures; Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and Review submit proposal and advise the ET and ER on the Effectiveness of the implemented mitigation measures.	 2. 4. 	Review proposals on remedial measures submitted by Contractor; Discuss with IEC, ET and Contractor on the Implemented mitigation measures; Make agreement on the remedial measures to be implemented; and Supervise the implementation of agreed remedial measures.	 2. 3. 5. 7. 	Identify source(s) of impact; Inform the ER and confirm notification of the noncompliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ER, ET and IEC and submit proposal of remedial measures to ER and IEC; and Implement the agreed mitigation measures.
Action level being exceeded by more than one consecutive sampling days	 2. 3. 	Conduct addition site investigation on the same day; Inform IEC, Contractor and ER; Check monitoring data, all plant, equipment,	2.	Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by	 2. 	Discuss with ET, IEC and Contractor on the proposed mitigation measures; Make agreement on the remedial measures to be	 2. 	Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing;

EVENT	ENT ACTION				
	ET	IEC	ER	CONTRACTOR	
	Contractor's working methods and other relative information; 4. Discuss remedial measures with IEC, contractor and ER; and 5. Review submit proposal and ensure the agreed remedial measures are implemented	the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures	practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed mitigation measures.	
Limit level being exceeded by one sampling day	 Conduct addition site investigation on the same day; Inform IEC, Contractor and ER; Rectify unacceptable practice; Check monitoring data, all plant, equipment, Contractor's working methods and other relative information; Consider changes of working methods; Discuss mitigation measures with IEC, ER and Contractor; Review the submit 	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the implemented remedial measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; and 4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of	

EVENT	ACTION						
	ET	IEC	ER	CONTRACTOR			
Limit level being exceeded by more than one consecutive sampling days	proposal and ensure the agreed remedial measures are implemented; 1. Conduct addition site investigation on the same day; 2. Inform IEC, contractor and ER; 3. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information; 4. Discuss mitigation measures with IEC, ER and Contractor; and 5. Review the submit proposal and ensure the agreed remedial measures are implemented.			notification; and 6. Implement the agreed remedial measures. 1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance in writing; 3. Rectify Unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures.			
			necessary, the Contractor to slow down or to stop all or part of the dredging activities until no exceedance of Limit level.	7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.			

Table N-4: Actions in the event of LFG being detected

Parameter	Monitoring Results	Actions
O_2	<19% v/v	Increase underground ventilation to restore O ₂ to >19% v/v
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase
		ventilation to restore O ₂ level to >19%
CH ₄	>10% LEL	Prohibit hot works, increase ventilation to restore CH4 to <10% LEL
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore
		CH ₄ to <10% LEL
CO ₂	>0.5% v/v	Increase ventilation to restore C O ₂ to <0.5% v/v
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore
		CO ₂ to <0.5%

Note: Depending on the results of the measurements, actions required will vary and should be set down by the Safety Officer or another appropriately qualified person. As a minimum these should encompass those actions specified in the above table.

Table N-5: Event / Action Plan for Ambient Arsenic Monitoring

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

	actions required; 7. If exceedance continues, arrange meeting with IEC			
	and ER; and 8. If exceedance stops, cease additional monitoring.	,		
LIMIT LEVEL		'	,	
1.Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor, IEC and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET, ER and Contractor on possible remedial measures; Advise the ER and ET on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. 	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	 Identify source, investigate the causes of exceedance and propose remedial measures; Take immediate action to avoid further exceedance; Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; Implement the agreed proposals; and Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	 Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; Carry out analysis of Contractor's working 	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;

procedures to determine	their effectiveness	remedial	3. Implement the agreed
possible mitigation to be	and advise the ER	measures to be	proposals;
implemented;	accordingly;	implemented;	4. Resubmit proposals if
6. Arrange meeting with	3. Supervise the	4. Supervise and	problem still not under
IEC, Contractor and ER	implementation of	ensure remedial	control;
to discuss the remedial	remedial measures	measures properly	5. Stop the relevant
actions to be taken;		implemented; and	portion of works as
7. Assess effectiveness of		5. If exceedance	determined by the ER
Contractor's remedial		continues,	until the exceedance is
actions and keep IEC,		consider what	abated.
EPD and ER informed		portion of the	
of the results;		work is	
8. If exceedance stops,		responsible and	
cease additional		instruct the	
monitoring.		Contractor to stop	
		that portion of	
		work until	
		the exceedanceis	
		abated.	

Table N-6.1 Action and Limit Levels and Responses for Avifauna Monitoring and General Site Inspection in the LVNP during Construction Phase.

EXTENIO		RESPONSE					
EVENT	ET	IEC	Contractor	Project Proponent			
AVIFAUNA MOI	NITORING						
Action Level	1.Check monitoring	1.Check monitoring	1.Confirm receipt of	Check the monitoring			
exceeded.	data and repeat data	data, analysis and	notification of the	results and findings			
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;			
	findings;		Level in writing; and				
		2.Review the		2. Discuss the need for			
	2.Review relevant	remedial measure(s)	2. Propose and	increased site			
	ecological data to	proposed by the	implement the	inspection/audit			
	check if the	Contractor and	remedial measures(s)	frequency proposed			
	exceedance is due to	advise the PP	to mitigate the	by ET with IEC and			
	natural variation or is	accordingly; and	impact(s) identified.	the Contractor; and			
	construction works						
	related;	3.Conduct necessary		3. Supervise the			
		site inspections/		instigated further			
	3.Identify potential	audits to ensure all		mitigation measure(s			
	source(s) of impact;	remedial measures					
		are properly					
	4.Immediately inform	implemented by the					
	IEC, Contractor and	Contractor, as					
	PP.	agreed with the PP					
		and feedback the					
	5.Discuss with the	audit results to the					
	Contractor on the	PP.					
	remedial measure(s)						
	to mitigate the						
	impact(s) identified;						
	and						
	6.Conduct necessary						
	site						
	inspections/audits to						
	ensure all remedial						

	measures are properly implemented by the Contractor, as agreed with the PP.			
Limit Level exceeded.	Check monitoring data and repeat data analysis to confirm findings;	1.Check monitoring data, analysis and investigation by ET;	Confirm receipt of notification of the exceedance of Limit Level in writing;	1.Check the monitoring results and findings from ET and IEC;
	2. Identify potential source(s) of impact;	2.Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);	2. Discuss with the PP, IEC, and ET on the need of further	2.Discuss the need for increased site inspection and audit frequency proposed by ET with
	3. Immediately inform IEC, Contractor and PP.	3.Review the effectiveness of the further mitigation	mitigation measure(s), then propose and implement the further mitigation measure(s);	IEC and the Contractor; 3.Discuss and confirm the further mitigation
	4. Discuss with the Contractor on the remedial measure(s) to mitigate the	measure(s) proposed and implemented by Contractor and advise the PP accordingly;	and 3. Propose and implement the	measure(s) required with the ET, IEC, and Contractor; and
	impact(s) identified; 5. Discuss with the PP, IEC, and Contractor	4.Review the remedial measure(s) proposed by the Contractor and	remedial measures(s) to mitigate the impact(s) identified.	4.Supervise the instigated further mitigation measure(s).
	on the need for further mitigation measure(s); and	advise the PP accordingly; and 5.Conduct necessary site		
	6. Conduct necessary site inspections/audits to ensure all remedial measures are properly	inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and		

				T
	implemented by the	feedback the audit		
	Contractor, as agreed	results to the PP.		
	with the PP.			
General Site Inspe	ection			
Action Level	1. Investigate if the	1.Check the	1. Confirm receipt of	1. Check the
exceeded.	activity identified is	investigation and	notification of the	investigation and
	related to the	findings of the ET;	exceedance of Action	findings of the ET and
	construction works;		Level in writing; and	IEC;
		2.Review the remedial		
	2. Immediately inform	measure(s) proposed	2. Propose and	2. Discuss the need for
	IEC, Contractor and	by the Contractor and	implement the	increased site
	PP.	advise the PP	remedial measures(s)	inspection/audit
		accordingly; and	to mitigate the	frequency proposed
	3. Discuss with the		impact(s) of the	by ET with IEC and
	Contractor on the	3.Conduct necessary	activity identified.	the Contractor; and
	remedial measure(s)	site inspections/	•	
	to mitigate the	audits to ensure all		3. Supervise the
	impact(s) identified;	remedial measures are		instigated further
	and	properly implemented		mitigation measure(s).
		by the Contractor, as		8(*)
	4. Conduct necessary	agreed with the PP		
	site	and feedback the audit		
	inspections/audits to	results to the PP.		
	ensure all remedial	results to the FF.		
	measures are			
	properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			
Limit Level	1. Investigate if the	1. Check the	1. Confirm receipt of	Check the monitoring
exceeded	activity identified is	investigation and	notification of the	results and findings
	related to the	findings or the ET;	exceedance of Limit	from ET and IEC;
	construction works;		Level in writing;	
	Constitution works,	2. Discuss with the PP,	ze ez m mung,	2. Discuss the need for
		Zistuss with the II,		

2. Immediately inform		ET, and Contractor on	2. Discuss with the PP,		increased site
IEC, Contractor and		the need for further	IEC, and ET on the		inspection and audit
PP.		mitigation	need of further		frequency proposed
		measure(s);	mitigation measure(s),		by ET with IEC and
3. Discuss with the		(,,	then propose and		the Contractor;
Contractor on the	3	Review the	implement the further		,
remedial measure(s)	٥.	effectiveness of the	mitigation measure(s);	3	Discuss and confirm
to mitigate the		further mitigation	and	٥.	the further mitigation
impact(s) identified;		measure(s) proposed	anu		measure(s) required
impact(s) identified,			3. Propose and		
4 D: 'd d DD		and implemented by			with the ET, IEC, and
4. Discuss with the PP,		Contractor and advise	implement the		Contractor; and
IEC, and Contractor		the PP accordingly;	remedial measures(s)		
on the need for			to mitigate the	4.	Supervise the
further mitigation	4.	Review the remedial	impact(s) identified.		instigated further
measure(s); and		measure(s) proposed			mitigation measure(s).
		by the Contractor and			
5. Conduct necessary		advise the PP			
site inspections/		accordingly; and			
audits to ensure all					
remedial measures	5.	Conduct necessary			
are properly		site inspections/audits			
implemented by the		to ensure all remedial			
Contractor, as agreed		measures are properly			
with the PP.		implemented by the			
		Contractor, as agreed			
		with the PP and			
		feedback the audit			
		results to the PP.			
		results to the II.			

Table N-6.2 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers

ENZENZE	RESPONSE					
EVENT	ET	IEC	Contractor	Project Proponent		
Construction Phase						
Action Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	Check the monitoring		

exceeded.	data and repeat data	analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;
	findings;		Level in writing; and	
		2.Review the remedial		2. Discuss the need for
	2.Review relevant	measure(s) proposed by	2. Propose and	increased site
	ecological data to	the Contractor and	implement the	inspection/audit
	check if the	advise the PP	remedial measures(s)	frequency proposed
	exceedance is due to	accordingly; and	to mitigate the	by ET with IEC and
	natural variation or is		impact(s) identified.	the Contractor; and
	construction works	3.Conduct necessary site		
	related;	inspections/ audits to		3. Supervise the
		ensure all remedial		instigated further
	3.Identify potential	measures are properly		mitigation measure(s).
	source(s) of impact;	implemented by the		
		Contractor, as agreed		
	4.Immediately inform	with the PP and		
	IEC, Contractor and	feedback the audit		
	PP.	results to the PP.		
	5.Discuss with the			
	Contractor on the			
	remedial measure(s)			
	to mitigate the			
	impact(s) identified;			
	and			
	6.Conduct necessary			
	site			
	inspections/audits to			
	ensure all remedial			
	measures are			
	properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			

Limit Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	1.Check the monitoring
Exceeded.	data and repeat data	analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Limit	from ET and IEC;
	findings;		Level in writing;	
		2.Discuss with the PP,		2.Discuss the need for
	2. Identify potential	ET, and Contractor on	2. Discuss with the PP,	increased site inspection
	source(s) of impact;	the need for further	IEC, and ET on the	and audit frequency
		mitigation measure(s);	need of further	proposed by ET with
	3. Immediately inform		mitigation measure(s),	IEC and the Contractor;
	IEC, Contractor and	3.Review the	then propose and	
	PP.	effectiveness of the	implement the further	3.Discuss and confirm the
		further mitigation	mitigation measure(s);	further mitigation
	4. Discuss with the	measure(s) proposed	and	measure(s) required
	Contractor on the	and implemented by		with the ET, IEC, and
	remedial measure(s)	Contractor and advise	3. Propose and	Contractor; and
	to mitigate the	the PP accordingly;	implement the	
	impact(s) identified;		remedial measures(s)	4.Supervise the instigated
		4.Review the remedial	to mitigate the	further mitigation
	5. Discuss with the PP,	measure(s) proposed by	impact(s) identified.	measure(s).
	IEC, and Contractor	the Contractor and		
	on the need for	advise the PP		
	further mitigation	accordingly; and		
	measure(s); and			
		5.Conduct necessary site		
	6. Conduct necessary	inspections/audits to		
	site	ensure all remedial		
	inspections/audits to	measures are properly		
	ensure all remedial	implemented by the		
	measures are	Contractor, as agreed		
	properly	with the PP and		
	implemented by the	feedback the audit		
	Contractor, as agreed	results to the PP.		
	with the PP.			
Operational Phase			<u> </u>	<u> </u>
Action Level	1. Check monitoring	1.Check monitoring	1. Confirm receipt of	1. Check the monitoring

exceeded.	data and repeat data	data, analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;
	findings;		Level in writing; and	
		2.Review the		2. Discuss the need for
	2. Review relevant	remedial measure(s)	2. Propose and	increased site
	ecological data to	proposed by the	implement the	inspection/audit
	check if the	Contractor and	remedial measures(s)	frequency proposed
	exceedance is due to	advise the PP	to mitigate the	by ET with IEC and
	natural variation or is	accordingly; and	impact(s) identified.	the Contractor; and
	construction works			
	related;	3.Conduct necessary		3. Supervise the
		site inspections/		instigated further
	3. Identify potential	audits to ensure all		mitigation measure(s).
	source(s) of impact;	remedial measures		
		are properly		
	4. Immediately inform	implemented by the		
	IEC, Contractor and	Contractor, as		
	PP.	agreed with the PP		
		and feedback the		
	5. Discuss with the	audit results to the		
	Contractor on the	PP.		
	remedial measure(s)			
	to mitigate the			
	impact(s) identified;			
	and			
	6. Conduct necessary			
	site			
	inspections/audits to			
	ensure all remedial			
	measures are			
	properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			

Limit Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	1. Check the monitoring
exceeded.	data and repeat data	analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Limit	from ET and IEC;
	findings;		Level in writing;	
		2.Discuss with the PP,		2. Discuss the need for
	2. Identify potential	ET, and Contractor on	2. Discuss with the PP,	increased site
	source(s) of impact;	the need for further	IEC, and ET on the	inspection and audit
		mitigation measure(s);	need of further	frequency proposed
	3. Immediately inform		mitigation measure(s),	by ET with IEC and
	IEC, Contractor and	3.Review the	then propose and	the Contractor;
	PP.	effectiveness of the	implement the further	
		further mitigation	mitigation measure(s);	3. Discuss and confirm
	4. Discuss with the	measure(s) proposed	and	the further mitigation
	Contractor on the	and implemented by		measure(s) required
	remedial measure(s)	Contractor and advise	3. Propose and	with the ET, IEC, and
	to mitigate the	the PP accordingly;	implement the	Contractor; and
	impact(s) identified;		remedial measures(s)	
		4.Review the remedial	to mitigate the	4. Supervise the
	5. Discuss with the PP,	measure(s) proposed by	impact(s) identified.	instigated further
	IEC, and Contractor	the Contractor and		mitigation measure(s).
	on the need for	advise the PP		
	further mitigation	accordingly; and		
	measure(s); and			
		5.Conduct necessary site		
	6. Conduct necessary	inspections/audits to		
	site	ensure all remedial		
	inspections/audits to	measures are properly		
	ensure all remedial	implemented by the		
	measures are	Contractor, as agreed		
	properly	with the PP and		
	implemented by the	feedback the audit		
	Contractor, as agreed	results to the PP.		
	with the PP.			

	RESPONSE					
EVENT	ET	IEC	Contractor	Project Proponent		
Construction Phase	2					
Action Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	Check the monitoring		
exceeded.	data and repeat data	analysis and	notification of the	results and findings		
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;		
	findings;		Level in writing; and			
		2.Review the remedial		2. Discuss the need for		
	2. Review relevant	measure(s) proposed by	2. Propose and	increased site		
	ecological data to	the Contractor and	implement the	inspection/audit		
	check if the	advise the PP	remedial measures(s)	frequency proposed		
	exceedance is due to	accordingly; and	to mitigate the	by ET with IEC and		
	natural variation or is		impact(s) identified.	the Contractor; and		
	construction works	3.Conduct necessary site				
	related;	inspections/ audits to		3. Supervise the		
		ensure all remedial		instigated further		
	3. Identify potential	measures are properly		mitigation measure(s).		
	source(s) of impact;	implemented by the				
		Contractor, as agreed				
	4. Immediately inform	with the PP and				
	IEC, Contractor and	feedback the audit				
	PP.	results to the PP.				
	5. Discuss with the					
	Contractor on the					
	remedial measure(s)					
	to mitigate the					
	impact(s) identified;					
	and					
	6. Conduct necessary					
	site					
	inspections/audits to					
	ensure all remedial					
	measures are					
	properly					

	implemented by the Contractor, as agreed with the PP.			
Limit Level exceeded.	1. Check monitoring data and repeat data analysis to confirm findings; 2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related; 3. Identify potential source(s) of impact; 4. Immediately inform IEC, Contractor and PP. 5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; 6. Discuss with the PP, IEC, and Contractor	1. Check monitoring data, analysis and investigation by ET; 2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); 3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; 4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 5. Conduct necessary site inspections/audits to ensure all remedial measures are properly	1. Confirm receipt of notification of the exceedance of Limit Level in writing; 2. 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 3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and 4. Supervise the instigated further mitigation measure(s).
	on the need for further mitigation measure(s); and	implemented by the Contractor, as agreed with the PP and feedback the audit		

	7 Conduct	magnife- 4- 41 DD		
	7. Conduct necessary	results to the PP.		
	site			
	inspections/audits to			
	ensure all remedial			
	measures are			
	properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			
Operational Phase				
Action Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	1. Check the monitoring
exceeded.	data and repeat data	analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;
	findings;		Level in writing; and	
		2.Review the remedial		2. Discuss the need for
	2. Review relevant	measure(s) proposed by	2. Propose and	increased site
	ecological data to	the Contractor and	implement the	inspection/audit
	check if the	advise the PP	remedial measures(s)	frequency proposed
	exceedance is due to	accordingly; and	to mitigate the	by ET with IEC and
	natural variation or is		impact(s) identified.	the Contractor; and
	construction works	3.Conduct necessary site		
	related;	inspections/ audits to		3. Supervise the
		ensure all remedial		instigated further
	3. Identify potential	measures are properly		mitigation measure(s).
	source(s) of impact;	implemented by the		
		Contractor, as agreed		
	4. Immediately inform	with the PP and		
	IEC, Contractor and	feedback the audit		
	PP.	results to the PP.		
	5. Discuss with the			
	Contractor on the			
	remedial measure(s)			
	to mitigate the			
	impact(s) identified;			

	T		-
	and		
	6. Conduct necessary		
	site inspections/audits		
	to ensure all remedial		
	measures are properly		
	implemented by the		
	Contractor, as agreed		
	with the PP.		
Limit Level	1. Check monitoring	Check monitoring	Check the monitoring
exceeded.	data and repeat data	data, analysis and notification of the	results and findings
	analysis to confirm	investigation by ET; exceedance of Limit	
	findings;	Level in writing;	,
	imanigs,	2. Discuss with the PP,	2. Discuss the need for
	2. Review relevant	ET, and Contractor on 2. Discuss with the PP.	
	ecological data to	the need for further IEC, and ET on the	inspection and audit
	check if the	, in the second	_
			frequency proposed
	exceedance is due to	measure(s); mitigation measure(s)	
	natural variation or is	then propose and	the Contractor;
	construction works	3. Review the implement the further	
	related;	effectiveness of the mitigation measure(
		further mitigation and	the further mitigation
	3. Identify potential	measure(s) proposed	measure(s) required
	source(s) of impact;	and implemented by 3. Propose and	with the ET, IEC, and
		Contractor and advise implement the	Contractor; and
	4. Immediately inform	the PP accordingly; remedial measures(s)
	IEC, Contractor and	to mitigate the	4. Supervise the
	PP.	4. Review the remedial impact(s) identified.	instigated further
		measure(s) proposed	mitigation measure(s).
	5. Discuss with the	by the Contractor and	
	Contractor on the	advise the PP	
	remedial measure(s)	accordingly; and	
	to mitigate the		

T	
impact(s) identified;	5. Conduct necessary
	site inspections/audits
6. Discuss with the PP,	to ensure all remedial
IEC, and Contractor	measures are properly
on the need for	implemented by the
further mitigation	Contractor, as agreed
measure(s); and	with the PP and
	feedback the audit
7. Conduct necessary	results to the PP.
site	
inspections/audits to	
ensure all remedial	
measures are	
properly	
implemented by the	
Contractor, as agreed	
with the PP.	
with the 11.	

Table N-6.4 Action and Limit Levels and Responses to Evidence of Declines in the Seasonal Non-aquatic Fauna (Herptofauna, Butterfly and Odonates) in Ecologically Sensitive Habitats

DATENIE	RESPONSE				
EVENT	ET	IEC	Contractor	Project Proponent	
Construction Phase					
Action Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	1. Check the monitoring	
exceeded.	data and repeat data	analysis and	notification of the	results and findings	
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;	
	findings;		Level in writing; and		
		2.Review the remedial		2. Discuss the need for	
	2. Review relevant	measure(s) proposed	2. Propose and	increased site	
	ecological data to	by the Contractor and	implement the	inspection/audit	
	check if the	advise the PP	remedial measures(s)	frequency proposed by	
	exceedance is due to	accordingly; and	to mitigate the	ET with IEC and the	
	natural variation or is		impact(s) identified.	Contractor; and	

	construction works	2 Conduct magazany sita		
		3.Conduct necessary site		
	related;	inspections/ audits to		3. Supervise the
		ensure all remedial		instigated further
	3. Identify potential	measures are properly		mitigation measure(s).
	source(s) of impact;	implemented by the		
		Contractor, as agreed		
	4. Immediately inform	with the PP and		
	IEC, Contractor and	feedback the audit		
	PP.	results to the PP.		
	5. Discuss with the			
	Contractor on the			
	remedial measure(s)			
	to mitigate the			
	impact(s) identified;			
	and			
	6. Conduct necessary			
	site			
	inspections/audits to			
	ensure all remedial			
	measures are			
	properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			
Limit Level	Check monitoring	1.Check monitoring data,	Confirm receipt of	Check the monitoring
			notification of the	
exceeded.	data and repeat data	analysis and		results and findings
	analysis to confirm	investigation by ET;	exceedance of Limit	from ET and IEC;
	findings;	25	Level in writing;	
		2.Discuss with the PP,	a p	2. Discuss the need for
	2. Review relevant	ET, and Contractor on	2. Discuss with the PP,	increased site
	ecological data to	the need for further	IEC, and ET on the	inspection and audit
	check if the	mitigation measure(s);	need of further	frequency proposed by
	exceedance is due to		mitigation measure(s),	ET with IEC and the

	natural variation or	3.Review the	then propose and	Contractor;
	is construction	effectiveness of the	implement the further	
	works related;	further mitigation	mitigation measure(s);	3. Discuss and confirm
		measure(s) proposed	and	the further mitigation
	3. Identify potential	and implemented by		measure(s) required
	source(s) of impact;	Contractor and advise	3. Propose and	with the ET, IEC, and
		the PP accordingly;	implement the	Contractor; and
	4. Immediately inform		remedial measures(s)	
	IEC, Contractor and	4.Review the remedial	to mitigate the	4. Supervise the
	PP.	measure(s) proposed by	impact(s) identified.	instigated further
		the Contractor and		mitigation measure(s).
	5. Discuss with the	advise the PP		
	Contractor on the	accordingly; and		
	remedial measure(s)			
	to mitigate the	5.Conduct necessary site		
	impact(s) identified;	inspections/audits to		
		ensure all remedial		
	6. Discuss with the PP,	measures are properly		
	IEC, and Contractor	implemented by the		
	on the need for	Contractor, as agreed		
	further mitigation	with the PP and		
	measure(s); and	feedback the audit		
		results to the PP.		
	7. Conduct			
	necessary site			
	inspections/audit			
	s to ensure all			
	remedial			
	measures are			
	properly			
	implemented by			
	the Contractor, as			
	agreed with the			
	PP.			
Operational Phase				

Action Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	1. Check the monitoring
exceeded.	data and repeat data	analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;
	findings;		Level in writing; and	
		2.Review the remedial		2. Discuss the need for
	2. Review relevant	measure(s) proposed	2. Propose and	increased site
	ecological data to	by the Contractor and	implement the	inspection/audit
	check if the	advise the PP	remedial measures(s)	frequency proposed by
	exceedance is due to	accordingly; and	to mitigate the	ET with IEC and the
	natural variation or		impact(s) identified.	Contractor; and
	is construction	3.Conduct necessary site		
	works related;	inspections/ audits to		3. Supervise the
		ensure all remedial		instigated further
	3. Identify potential	measures are properly		mitigation measure(s).
	source(s) of impact;	implemented by the		
		Contractor, as agreed		
	4. Immediately inform	with the PP and		
	IEC, Contractor and	feedback the audit		
	PP.	results to the PP.		
	5. Discuss with the			
	Contractor on the			
	remedial measure(s)			
	to mitigate the			
	impact(s) identified;			
	and			
	6. Conduct necessary			
	site			
	inspections/audits to			
	ensure all remedial			
	measures are			
	properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			

	1		
Limit Level	1. Check monitoring	1. Check monitoring 1. Confirm receipt of	1. Check the monitoring
exceeded.	data and repeat data	data, analysis and notification of the	results and findings
	analysis to confirm	investigation by ET; exceedance of Limit	from ET and IEC;
	findings;	Level in writing;	
		2. Discuss with the PP,	2. Discuss the need for
	2. Review relevant	ET, and Contractor on 2. Discuss with the PP,	increased site
	ecological data to	the need for further IEC, and ET on the	inspection and audit
	check if the	mitigation need of further	frequency proposed
	exceedance is due to	measure(s); mitigation measure(s),	by ET with IEC and
	natural variation or is	then propose and	the Contractor;
	construction works	3. Review the implement the further	
	related;	effectiveness of the mitigation measure(s);	3. Discuss and confirm
		further mitigation and	the further mitigation
	3. Identify potential	measure(s) proposed	measure(s) required
	source(s) of impact;	and implemented by 3. Propose and	with the ET, IEC, and
		Contractor and advise implement the	Contractor; and
	4. Immediately inform	the PP accordingly; remedial measures(s)	
	IEC, Contractor and	to mitigate the	4. Supervise the
	PP.	4. Review the remedial impact(s) identified.	instigated further
		measure(s) proposed	mitigation measure(s).
	5. Discuss with the	by the Contractor and	
	Contractor on the	advise the PP	
	remedial measure(s)	accordingly; and	
	to mitigate the		
	impact(s) identified;	5. Conduct necessary	
	,	site inspections/audits	
	6. Discuss with the PP,	to ensure all remedial	
	IEC, and Contractor	measures are properly	
	on the need for	implemented by the	
	further mitigation	Contractor, as agreed	
	measure(s); and	with the PP and	
		feedback the audit	
	7. Conduct necessary	results to the PP.	
	conduct necessary		

site		
inspections/audits to		
ensure all remedial		
measures are		
properly		
implemented by the		
Contractor, as agreed		
with the PP.		

Table N-6.5 Action and Limit Levels and Responses to Evidence of Declines in the Non-seasonal Non-aquatic Fauna (Mammals) in Ecologically Sensitive Habitats

	RESPONSE			
EVENT	ET	IEC	Contractor	Project Proponent
Construction Phase				
Action Level	1. Check monitoring data	1. Check monitoring	1. Confirm receipt of	1. Check the monitoring
exceeded.	and repeat data	data, analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;
	findings;		Level in writing; and	
		2. Review the		2. Discuss the need for
	2. Review relevant	remedial measure(s)	2. Propose and	increased site
	ecological data to	proposed by the	implement the	inspection/audit
	check if the	Contractor and	remedial measures(s)	frequency proposed by
	exceedance is due to	advise the PP	to mitigate the	ET with IEC and the
	natural variation or is	accordingly; and	impact(s) identified.	Contractor; and
	construction works			
	related;	3. Conduct necessary		3. Supervise the
		site inspections/		instigated further
	3. Identify potential	audits to ensure all		mitigation measure(s).
	source(s) of impact;	remedial measures		
		are properly		
	4. Immediately inform	implemented by the		
	IEC, Contractor and	Contractor, as agreed		
	PP.	with the PP and		
		feedback the audit		

	5. Discuss with the	results to the PP.		
	Contractor on the			
	remedial measure(s) to			
	mitigate the impact(s)			
	identified; and			
	6. Conduct necessary site			
	inspections/audits to			
	ensure all remedial			
	measures are properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			
Limit Level	1. Check monitoring	1. Check monitoring	1. Confirm receipt of	1. Check the monitoring
exceeded.	data and repeat data	data, analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Limit	from ET and IEC;
	findings;		Level in writing;	
		2. Discuss with the PP,		2. Discuss the need for
	2. Review relevant	ET, and Contractor	2. Discuss with the PP,	increased site
	ecological data to	on the need for	IEC, and ET on the	inspection and audit
	check if the	further mitigation	need of further	frequency proposed by
	exceedance is due	measure(s);	mitigation measure(s),	ET with IEC and the
	to natural		then propose and	Contractor;
	variation or is	3. Review the	implement the further	
	construction	effectiveness of the	mitigation measure(s);	3. Discuss and confirm
	works related;	further mitigation	and	the further mitigation
		measure(s) proposed		measure(s) required
	3. Identify potential	and implemented by	3. Propose and	with the ET, IEC, and
	source(s) of	Contractor and advise	implement the	Contractor; and
	impact;	the PP accordingly;	remedial measures(s)	
	_		to mitigate the	4. Supervise the
	4. Immediately	4. Review the remedial	impact(s) identified.	instigated further
	inform IEC,	measure(s) proposed	• • • • • • • • • • • • • • • • • • • •	mitigation measure(s).
	Contractor and	by the Contractor and		
	PP.	advise the PP		
	= = :			

		1. 1		
		accordingly; and		
	5. Discuss with the			
	Contractor on the	5. Conduct necessary		
	remedial	site inspections/audits		
	measure(s) to	to ensure all remedial		
	mitigate the	measures are properly		
	impact(s)	implemented by the		
	identified;	Contractor, as agreed		
		with the PP and		
	6. Discuss with the	feedback the audit		
	PP, IEC, and	results to the PP.		
	Contractor on the			
	need for further			
	mitigation			
	measure(s); and			
	7. Conduct			
	necessary site			
	inspections/audits			
	to ensure all			
	remedial			
	measures are			
	properly			
	implemented by			
	the Contractor, as			
	agreed with the			
	PP.			
Operational Phase		I	1	I .
Action Level	1. Check monitoring	1.Check monitoring data,	1. Confirm receipt of	1.Check the monitoring
exceeded.	data and repeat data	analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Action	from ET and IEC;
	findings;		Level in writing; and	
		2.Review the remedial		2. Discuss the need for
	2. Review relevant	measure(s) proposed by	2. Propose and	increased site
	ecological data to	the Contractor and	implement the	inspection/audit

	check if the	advise the PP	remedial measures(s)	frequency proposed by
	exceedance is due to	accordingly; and	to mitigate the	ET with IEC and the
	natural variation or is		impact(s) identified.	Contractor; and
	construction works	3.Conduct necessary site		
	related;	inspections/ audits to		3. Supervise the
		ensure all remedial		instigated further
	3. Identify potential	measures are properly		mitigation measure(s).
	source(s) of impact;	implemented by the		
		Contractor, as agreed		
	4. Immediately inform	with the PP and		
	IEC, Contractor and	feedback the audit		
	PP.	results to the PP.		
	5. Discuss with the			
	Contractor on the			
	remedial measure(s)			
	to mitigate the			
	impact(s) identified;			
	and			
	6. Conduct necessary			
	site			
	inspections/audits to			
	ensure all remedial			
	measures are			
	properly			
	implemented by the			
	Contractor, as agreed			
	with the PP.			
	with the PP.			
T T	1.01.1	1 (1 1 :: :	1.0.5	1.01 1.1
Limit Level	1. Check monitoring	1. Check monitoring	1. Confirm receipt of	1. Check the monitoring
exceeded.	data and repeat data	data, analysis and	notification of the	results and findings
	analysis to confirm	investigation by ET;	exceedance of Limit	from ET and IEC;
	findings;		Level in writing;	

				<u> </u>	<u> </u>
		2.	Discuss with the PP,		2. Discuss the need for
	2. Review relevant		ET, and Contractor	2. Discuss with the PP,	increased site
	ecological data to		on the need for	IEC, and ET on the	inspection and audit
	check if the		further mitigation	need of further	frequency proposed by
	exceedance is due to		measure(s);	mitigation measure(s),	ET with IEC and the
	natural variation or is			then propose and	Contractor;
	construction works	3.	Review the	implement the further	
	related;		effectiveness of the	mitigation measure(s);	3. Discuss and confirm
			further mitigation	and	the further mitigation
3	3. Identify potential		measure(s) proposed		measure(s) required
	source(s) of impact;		and implemented by	3. Propose and	with the ET, IEC, and
			Contractor and advise	implement the	Contractor; and
	4. Immediately inform		the PP accordingly;	remedial measures(s)	
	IEC, Contractor and			to mitigate the	4. Supervise the
	PP.	4.	Review the remedial	impact(s) identified.	instigated further
			measure(s) proposed		mitigation measure(s).
	5. Discuss with the		by the Contractor and		
	Contractor on the		advise the PP		
	remedial measure(s)		accordingly; and		
	to mitigate the				
	impact(s) identified;	5.	Conduct necessary		
			site inspections/audits		
	6. Discuss with the PP,		to ensure all remedial		
	IEC, and Contractor		measures are properly		
	on the need for		implemented by the		
	further mitigation		Contractor, as agreed		
	measure(s); and		with the PP and		
			feedback the audit		
	7. Conduct necessary		results to the PP.		
	site				
	inspections/audits to				
	ensure all remedial				
	measures are				
	properly				
	implemented by the				
	Contractor, as agreed				

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs Monthly EM&A Report

with the PP.		

APPENDIX O SUMMARY OF EXCEEDANCE

Appendix O: Exceedance Report

(A) Exceedance Report for Air Quality

Environmental Monitoring	Parameter	No. of no related Ex	n-project xceedance	No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
	1-hr TSP	0	0	0	0
Air Quality	24-hr TSP	0	0	0	0
	24-hr RSP (Ambient Arsenic)	0	0	0	0

(B) Exceedance Report for Construction Noise

Environmental	Monitoring Parameter Action Lin			No. of Exceedance related to the Construction Activities of this Contract	
Monitoring			Limit Level	Action Level	Limit Level
Noise	$L_{eq(30 \text{ min.})} dB(A)$	0	0	0	0

(C) Exceedance Report for Water Quality

Environmental Monitoring Parameter		_	roject related dance	No. of Exceedance related to the Construction Activities of this Contract		
	112011110111115		Limit Level	Action Level	Limit Level	
Water Quality	DO	0	0	0	0	
	Turbidity	0	0	0	0	
	SS	0	0	0	0	
	Arsenic	0	0	0	0	

(D) Exceedance Report for Landfill Gas

Environmental Monitoring	Parameter		No. of Exceedance related to the Construction Activities of this Contract		
Monitoring		Action Level	Limit Level	Action Level	Limit Level
Landfill Gas	O ₂ (% v/v) CH ₄ (% LEL) CO ₂ (%v/v)	0	0	0	0

(E) Exceedance Report for Built Heritage Monitoring

Environmental Manitaring	Parameter		No. of Exceedance related to the Construction Activities of this Contract		
Monitoring		Action Level	Limit Level	Action Level	Limit Level
Cultural Heritage	Built Heritage Monitoring	0	0	0	0

APPENDIX P SITE AUDIT SUMMARY

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Checklist Reference Number	230307	
Date	7 March 2023 (Tuesday)	
Time	09:30 - 11:00	

Ref. No.	Non-Compliance	Related Item No
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	S
	No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	,
	I. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	J. Ecology	
	No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:230228), no environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	//-	7 March 2023
Checked by	Dr. Priscilla Choy	MI	7 March 2023

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Checklist Reference Number	230314
Date	14 March 2023 (Tuesday)
Time	09:30 – 11:00

Ref. No.	Non-Compliance	Relate Item N
-	None identified	-
Ref. No.	Remarks/Observations	Relate Item N
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	J. Ecology	
	No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	 Follow-up on previous audit section (Ref. No.:230307), no environmental deficiency was observed during site inspection. 	

	Name	Signature	Date
Recorded by	Marco Ma	D-	16 March 2023
Checked by	Dr. Priscilla Choy	NIL	16 March 2023

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Checklist Reference Number	230323	
Date	23 March 2023 (Thursday)	
Time	14:00 – 15:30	

Ref. No.	Non-Compliance	Related Item No
-	None identified	-
Ref. No.	Remarks/Observations	Related
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	J. Ecology	
	No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:230314), no environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	1/h	28 March 2023
Checked by	Dr. Priscilla Choy	7	28 March 2023

ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Checklist Reference Number	230328
Date	28 March 2023 (Tuesday)
Time	9:30 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
· · · · · · · · · · · · · · · · · · ·	F. Land Contamination	
	No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	J. Ecology	
	No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:230323), no environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Him Ng	11	30 March 2023
Checked by	Dr. Priscilla Choy	T	30 March 2023
		ļ	

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Checklist Reference Number	230301
Date	1 March 2023 (Wednesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
(=)	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230301-R01	Drainage should be cleared and maintained properly.	D 6
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	 Follow-up on previous audit section (Ref. No.:230220), item 230220-R01 was remarked as 230301-R01. Follow-up action is needed to be review. Item 230220-R02 was observed improved/rectified by the contractor during site inspection. 	

	Name	Signature	Date
Recorded by	Marco Ma		1 March 2023
Checked by	Dr. Priscilla Choy	/ WIL	1 March 2023

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Checklist Reference Number	230308	
Date	8 March 2023 (Wednesday)	
Time	09:30 - 10:30	

		Related
Ref. No.	Non-Compliance	Item No
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	Follow-up on previous audit section (Ref. No.:230301), item 230301-R01 was observed improved/rectified by the contractor during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	//m	9 March 2023
Checked by	Dr. Priscilla Choy	Prit	9 March 2023

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Checklist Reference Number	230315	
Date	15 March 2023 (Wednesday)	
Time	09:30-10:30	

		Related
Ref. No.	Non-Compliance	Item No.
	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	T T
	 Follow-up on previous audit section (Ref. No.:230308), no major environmental deficiency was identified during site inspection. 	

	Name	Signature	Date
Recorded by	Marco Ma	Br	16 March 2023
Checked by	Dr. Priscilla Choy	1/WIL	16 March 2023

ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Weekly Site Inspection Record Summary

Checklist Reference Number	230324	
Date	24 March 2023 (Friday)	
Time	14:00 – 15:30	

Ref. No.	Non-Compliance	Related
10.	None identified	Item No.
	None identified	Related
Ref. No.	Remarks/Observations	Item No.
101.110.	B. Air Quality	Item No.
230324-R01	To enhance dust suppression measures by watering regularly.	B 1
	To simulate and suppression measures by watering regularly.	БТ
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	 Follow-up on previous audit section (Ref. No.:230315), no major environmental deficiency was identified during site inspection. 	

	Name	Signature	Date
Recorded by	Marco Ma		28 March 2023
Checked by	Dr. Priscilla Choy	7. 7	28 March 2023

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ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui

Checklist Reference Number	230329	
Date	29 March 2023 (Wednesday)	
Time	09:30-10:30	

D 4 N	N 6 1	Related
Ref. No.	Non-Compliance	Item No
-	None identified	-
Dof No	Domester/Observe Cons	Related
Ref. No.	Remarks/Observations	Item No
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:230324), all environmental deficiency was observed improved/rectified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	(fra	30 March 2023
Checked by	Dr. Priscilla Choy	NI.	30 March 2023

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	230303
Date	3 March 2023 (Friday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
230303-O01	• Dusty debris was observed in Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	В 9
230303-R01	Provide NRMM label for regulated machine.	B 24
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
230303-R02	Provide drip tray for chemical/feul containers.	E 14
	F. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:230221). No major environmental deficiency was observed during the site inspection.	

Recorded by Him Ng	Date	Signature	Name	
	3 March 2023	Jit	Him Ng	Recorded by
Checked by Dr. Priscilla Choy	3 March 2023		Dr. Priscilla Choy	Checked by

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	230310
Date	10 March 2023 (Friday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
230310-O01	• Dusty debris was observed in Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	В 9
230310-R01	Provide NRMM label for regulated machine.	B 24
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:230303). Item no. 230303-O01 and 230303-R01 were remarked as 230310-O01 and 230310-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Him Ng	Air	10 March 2023
Checked by	Dr. Priscilla Choy		10 March 2023

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	230317	
Date	17 March 2023 (Friday)	
Time	10:00-11:00	

Ref. No.	Non-Compliance	Related Item No.
Ref. No.	None identified Remarks/Observations	
	B. Air Quality	
230317-R01	Provide impervious sheeting for dusty stockpile.	B 2
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
230317-R02	Provide drip tray for chemical/fuel containers.	E 14
	F. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:230310). Item no. 230310-O01 and 230310-R01 improved by Contractor.	

	Name	Signature	Date
Recorded by	Him Ng	11	17 March 2023
Checked by	Dr. Priscilla Choy	WI	17 March 2023

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	230321	
Date	21 March 2023 (Tuesday)	
Time	14:00-15:00	

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
D. C.N.	P 1 (0)	Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
230321-R01	Provide impervious sheeting for dusty stockpile.	B 2
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
230321-R02	Provide drip tray for chemical/fuel containers.	E 14
	F. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	W.
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:230317). Item no. 230317-R01 and	
	230317-R02 were remarked as 230321-R01 and 230321-R02. Follow-up action is needed to be review.	

Name	Signature	Date
Marco Ma	Ch-	22 March 2023
Dr. Priscilla Choy		22 March 2023
	Marco Ma	Marco Ma

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	230331
Date	31 March 2023 (Friday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
230331-001	Dusty debris was observed in Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	В 9
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230331-R02	Clear the wheel-washing bay regularly.	D 12 iv.
	E. Waste / Chemical Management	
230331-R01	Provide drip tray for chemical/fuel containers.	E 14
	F. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:230321). Item no. 230321-R01 was improved by Contractor. Item no. 230321-R02 were remarked as 230331-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Him Ng	Air	31 March 2023
Checked by	Dr. Priscilla Choy		31 March 2023

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	230302
Date	2 March 2023 (Thursday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230302-R01	Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8
	E. Waste / Chemical Management	
230302-R02	Provide drip tray for chemical/fuel containers.	E 14
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 230224), Item no.230224-R03 and 230224-R04 were rectified by Contractor. Item no. 230224-R01 and 230224-R02 was remarked as 230302-R01 and 230302-R02. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Him Ng	JH .	3 March 2023
Checked by	Dr. Priscilla Choy	W.Z.	3 March 2023

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	230309
Date	9 March 2023 (Thursday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.	
-	None identified	-	
Ref. No.	Remarks/Observations		
	B. Air Quality		
	No environmental deficiency was identified during site inspection.		
	C. Noise		
	No environmental deficiency was identified during site inspection.		
	D. Water Quality		
230309-R01	Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8	
	E. Waste / Chemical Management		
230309-R02	Provide drip tray for chemical/fuel containers.	E 14	
	F. Cultural Heritage		
	No environmental deficiency was identified during site inspection.		
	G. Landscape and Visual		
	No environmental deficiency was identified during site inspection.		
	H. Ecology		
	No environmental deficiency was identified during site inspection.		
	I. Permits/Licences		
	No environmental deficiency was identified during site inspection.		
	J. Others		
	Follow-up on previous audit section (Ref. No.: 230302), Item no. 230302-R01 and 230302-R02 were remarked as 230309-R01 and 230309-R02. Follow-up action is needed to be		
	review.		

	Name	Signature	Date
Recorded by	Him Ng	H	10 March 2023
Checked by	Dr. Priscilla Choy	W.	10 March 2023

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	230315	
Date	15 March 2023 (Wednesday)	
Time	14:00 - 15:30	

		Related
Ref. No.	Non-Compliance	Item No.
	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230315-R01	Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 230309), Item no. 230309-R01 was remarked as 230315-R01. Follow-up action is needed to be review. Item 230309-R02 was observed improved/rectified by the Contractor during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	V/	16 March 2023
Checked by	Dr. Priscilla Choy	UNIT	16 March 2023

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	230323	
Date	23 March 2023 (Thursday)	
Time	10:00 – 11:00	

Ref. No.	Non-Compliance	Related
Kel. 140.	None identified	Item No.
DeN		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230323-R01		D.O.
230323-R01	Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
-	J. Others	
	Follow-up on previous audit section (Ref. No.: 230315), Item no. 230315-R01 was remarked as 230323-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma	Vin	28 March 2023
Checked by	Dr. Priscilla Choy	P .	28 March 2023

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	230330
Date	30 March 2023 (Thursday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230330-R01	Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
_	Follow-up on previous audit section (Ref. No.: 230323), Item no. 230323-R01 was remarked as 230323-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma	M	3 April 2023
Checked by	Dr. Priscilla Choy	WI	3 April 2023

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Weekly Site Inspection Record Summary

Checklist Reference Number	230306
Date	6 March 2023 (Monday)
Time	14:00 – 15:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
230306-R02	Provide impervious sheeting for the dusty stockpile to avoid dust generation.	B 2
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
230306-R01	Provide drip tray for chemical/fuel containers.	E 14
		· · · · · · · · · · · · · · · · · · ·
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	·····
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 230227), item no.2320227-R01 was	
	improved by Contractor.	

	Name	Signature	Date
Recorded by	Him Ng	\mathcal{H}	7 March 2023
Checked by	Dr. Priscilla Choy	WI	7 March 2023

230306_audit(C5)

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	230316	
Date	16 March 2023 (Thursday)	
Time	09:00 - 11:00	

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 230306), item no.230306-R01 and 230306-R02 were observed improved/rectified by the Contractor.	

	Name	Şignature	Date
Recorded by	Marco Ma		16 March 2023
Checked by	Dr. Priscilla Choy	WI	16 March 2023

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	230320	
Date	20 March 2023 (Monday)	
Time	14:00 – 15:00	

		Related
Ref. No.	Non-Compliance	Item No.
=	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	Two onvironmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
4	No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 230316), no major environmental deficiency	
	was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		21 March 2023
Checked by	Dr. Priscilla Choy		21 March 2023

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	230327
Date	27 March 2023 (Monday)
Time	14:00 - 15:00

D C M		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
D 4 M		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230327-R01	Should provide adequate capacity of water treatment to prevent muddy runoff goiing through site surface in Kwu Tung site.	D 5 iii
	unough site surface in Kwu Tung site.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 230320), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	M	28 March 2023
Checked by	Dr. Priscilla Choy		28 March 2023

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Weekly Site Inspection Record Summary

Checklist Reference Number	230302
Date	2 March 2023 (Thursday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230224), no environmental deficiency was identified during site inspection.	

Recorded by Him Ng 3 March 2023 Charlesd by Dr. Priscilla Chay 3 March 2023		Name	Signature	Date
Checked by Dr. Brigaille Chay	Recorded by	Him Ng	111	3 March 2023
Checked by Di. Filsellia Choy S Match 2025	Checked by	Dr. Priscilla Choy		3 March 2023

WELLAB WMA20002 1 230302_audit(C6)

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	230309
Date	9 March 2023 (Thursday)
Time	13:30 - 14:00

D-C M-	Non-Complemen	Related
Ref. No.	Non-Compliance	Item No.
-	None identified	- D 1 4 1
Dof No	Damanka/Ohaanya4ana	Related
Ref. No.	Remarks/Observations B. Air Quality	Item No.
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D.W. (A. P.)	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	 No environmental deficiency was identified during site inspection. 	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	 Follow-up on previous audit section (Ref. No.: 230302), no environmental deficiency was identified during site inspection. 	

	Name	Signature	Date
Recorded by	Him Ng	111	10 March 2023
Checked by	Dr. Priscilla Choy		10 March 2023

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	230315	
Date	15 March 2023 (Wednesday)	
Time	13:30 - 14:00	

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
	140lic Identified	Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230309), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	12-	16 March 2023
Checked by	Dr. Priscilla Choy	UNIL	16 March 2023

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	230323	
Date	23 March 2023 (Thursday)	
Time	13:30 - 14:00	

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230315), no environmental deficiency was identified during site inspection.	

		Date
Marco Ma	Par I	28 March 2023
Dr. Priscilla Choy	7	28 March 2023
-		

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Weekly Site Inspection Record Summary

Checklist Reference Number	230330	
Date	30 March 2023 (Thursday)	
Time	13:30 - 14:00	

		Related
Ref. No.	Non-Compliance	Item No.
	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	 No environmental deficiency was identified during site inspection. 	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	The divinoliniental deficiency was identified during site hispection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230323), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	Jan	3 April 2023
Checked by	Dr. Priscilla Choy	UNI	3 April 2023

WELLAB WMA20002

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	230303	
Date	3 March 2023 (Friday)	
Time	14:00 – 15:00	

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230224), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	lefa	6 March 2023
Checked by	Dr. Priscilla Choy	1/WX	6 March 2023

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	230310
Date	10 March 2023 (Friday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230303), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Him Ng	dit	10 March 2023
Checked by	Dr. Priscilla Choy		10 March 2023
		V	

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	230317
Date	17 March 2023 (Friday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related
-	None identified	Item No
Ref. No.	Remarks/Observations	Related Item No
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
8	• Follow-up on previous audit section (Ref. No.: 230310), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	m	21 March 2023
Checked by	Dr. Priscilla Choy		21 March 2023

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	230324
Date	24 March 2023 (Friday)
Time	10:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230317), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Him Ng	AH'	25 March 2023
Checked by	Dr. Priscilla Choy		25 March 2023

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	230331	
Date	31 March 2023 (Friday)	
Time	14:00 - 15:00	

		Related
Ref. No.	Non-Compliance	Item No
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 230324), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma	gran	3 April 2023
Checked by	Dr. Priscilla Choy		3 April 2023

APPENDIX Q ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation	
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status	
			Measures & Main	the	(Where)	measures?		
			Concerns to address	measures?		(When)		
			(What Requirements)	(Who)				
Constructi	ion Dust In	npact			•		•	
S3.8	DI	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/m2 to achieve the respective dust removal efficiencies	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	^	
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	^	
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	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	#	
			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;					^
		 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; 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, 					^	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address		((When)	
				measures?		(when)	
			(What Requirements)	(Who)			
		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;					
		• Every stock of more than 20 bags of cement or dry pulverised fuel					N/A
		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					N/A
		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					

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					^
SURFACE	D4	Implement regular dust monitoring under EM&A programme during the	Monitoring of dust impact	Contractor	Selected	Construction	^
S3.8		construction stage.			representative	phase	
					dust		
					monitoring station		
Noise Impa	ict (Constru	ction Phase)		•			
S4.9	N1	Implement the following good site management practices:	Control construction	Contractor	All construction	Construction	
		Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;	airborne		sites	phase	^
		Machines and plant (such as trucks, cranes) that may be in	noise				^
		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					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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; Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to 					^
S4.9	N2	screen noise from on-site construction activities. Install temporary site hoarding (approx 2.4m high) located on the site	Reduce the construction	Contractor	All construction	Construction	^
	1.2	boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the	noise levels at low-level		sites where	phase	
		construction period.	zone of NSRs through		practicable		
			partial screening.				
S4.9	N3	Install movable noise barriers and full enclosure and acoustic mat, screen	Screen the noisy plant	Contractor	All construction	Construction	^
		the noisy plants including air compressor and generator.	items to be used at all		sites where	phase	
			construction sites		practicable		
S4.9	N4	Use of "Quiet" Plant and Working Methods	Reduce the noise levels of	Contractor	All construction	Construction	^
			plant items		sites where	phase	
					practicable		
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within	Contractor	All construction	Construction	^
			the same work site to		sites where	phase	
			reduce the construction		practicable		
			airborne noise				
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction	Contractor	Selected	Construction	^
			noise levels at the selected		representative	phase	

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
			_	(**110)			
			representative locations		noise monitoring		
					stations		
Water Qual	ity Impact (Construction Phase)					
S5.7	W1	Construction Runoff and Site Drainage	Control construction runoff	Contractor	All construction	Construction	
		In accordance with the Practice Note for Professional Persons on			sites	phase	
		Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures should be				1	
		provided and the Storm Water Pollution Control Plan is given below.					
		where appropriate, should include the following:					
		Stormwater Pollution Control Plan					^
		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 8m ³					
		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					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		 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 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 minimise 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					

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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 to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized 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	(what Requirements)	(WIII)			^
		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					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		 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 					N/A ^
		be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds.					
S5.7	W2	Stream Diversion	Minimize water quality	Contractor	All streams that	Construction	
		In order to prevent sediment transport during riverbank works,	impact due to stream		required diversion	phase	#
		deployment of silt curtain should be implemented, especially when	diversion				
		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.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S5.7	W3	Groundwater from Contaminated Area	Minimize water quality	Contractor	All identified	Construction	
		For other inaccessible sites, site investigation is required when	impact due to potential		groundwater-	phase	N/A
		they are resumed and handed over to the Project Proponent to	groundwater from		contaminated		
		identify if contaminated groundwater is found.	contaminated area		areas		
		If the investigation results indicated that the groundwater to be					
		generated from construction works would be contaminated, the					N/A
		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					N/A
		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					N/A
		interceptor, should be submitted to the EPD and a discharge					
		license should be obtained under the WPCO through the Regional					
		Offices of EPD.					
S5.7	W4	Sewage from Workforce	Handling of site sewage	Contractor	All construction	Construction	
		Portable chemical toilets and sewage holding tanks should be provided for		_	sites	Phase	^

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
		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.					
Waste Man	agement (Co	onstruction Waste)					
S7.6	WM1	Waste Reduction Measures	Reduce waste generation	Contractor	All construction	Prior to the	
		Waste reduction is best achieved at the planning and design phase, as			sites where	commencement of	
		well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction:			practicable	construction	
		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					^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the	Who to	Location of the	When to	Implementation Status
	Log Kei	(what Measures)	Measures & Main	the	measures (Where)	Implement the measures?	Status
			Concerns to address	measures?	(where)	(When)	
				(Who)		(when)	
			(What Requirements)	((((((((((((((((((((
		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					N/A
		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.					
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation	Contractor	All construction	Construction	^
			during construction		sites	phase	
S7.6	WM3	Good Site Practice	Minimize waste generation	Contractor	All construction	Construction	
		The following good site practices are recommended throughout the construction activities:	during construction		sites	phase	
		Nomination of an approved personnel, such as a site manager, to					^
		be responsible for the 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;					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Provision of sufficient waste disposal points and regular collection					^
		for disposal;					
		Appropriate measures to minimise windblown litter and dust					۸
		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	Minimize waste impacts	Contractor	All construction	Construction	
		The following recommendation should be implemented to minimize the	from storage		sites	phase	
		 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;		~			
S7.6	WM5	Collection and Transportation of Waste	Minimize waste impact	Contractor	All construction	Construction	
		The following recommendation should be implemented to minimize the					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		impacts:	from storage		sites	phase	
		Remove waste in timely manner;					^
		Employ the trucks with cover or enclosed containers for waste					^
		transportation;					
		Obtain relevant waste disposal permits from the appropriate					^
		authorities; and					
		Disposal of waste should be done at licensed waste disposal					^
		facilities.					
S7.6	WM6	Excavated and C&D Material	Minimize waste impacts	Contractor	All construction	Construction	
		Wherever practicable, C&D materials should be segregated from other	from excavated and C&D		sites	phase	^
		wastes to avoid contamination and ensure acceptability at Public Fill Reception Facilities areas or reclamation sites. The following mitigation	material				
		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;					N/A
		Deliver surplus artificial hard materials to Tuen Mun Area 38					N/A
		recycling plant or its successor for recycling into subsequent					
		useful products;					
		 Make provisions in the Contract documents to allow and promote 					N/A
		the use of recycled aggregates where appropriate; and					^
		• Implement a recording system for the amount of waste generated,					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		recycled and disposed of for checking;					
		Standard formwork should be used as far as practicable in order to					N/A
		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.					
S7.6	WM7	<u>Contaminated Soil</u>	Remediate contaminated	Contractor	All construction	Construction phase	
		As a precaution, it is recommended that standard good site practice	soil		sites where		^
		should be implemented during the construction phase to minimize any			applicable		
		potential exposure to contaminated soils or groundwater. The details of					
		river					
		measures to minimize the potential environmental implications arising					
		from the handling of contaminated materials refer to Land					
		Contamination Section.					
S7.6	WM8	<u>Chemical Waste</u>	Control the chemical waste	Contractor	All construction	Construction phase	
		If chemical wastes are produced at the construction site, the Contractors	and ensure proper storage,		sites		^
		should register with EPD as chemical waste producers. Chemical wastes	handling and disposal				
		should be stored in appropriate containers and collected by a licensed					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S7.6	WM9	<u>General Waste</u>	Minimize production of the	Contractor	All construction	Construction phase	
		General refuse should be stored in enclosed bins separately from	general refuse and avoid		sites		^
		construction and chemical wastes. Recycling bins should also be	odour, pest and litter				
		placed to encourage recycling.	impacts				
		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.					
S7.6	WM10	<u>Sewage</u>	Minimize production of	Contractor	All construction	Construction phase	
		The WMP should document the locations and number of portable	sewage impacts		sites		N/A
		chemical toilets depending on the number of workers, land					
		availability, site condition and activities.					
		Regularly collection by licensed collectors should be arranged to					N/A
		minimize potential environmental impacts.					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S7.6	WM11	Topsoil reuse – Topsoil, where identified, should be stripped and stored	Good site practice	Contractor/	Onsite	Construction phase	N/A
		for re-use in the construction of the soft landscape works, where		Project			
		practical. This is considered a general measure for good site practice.		Proponent			
Land Conta	amination						
S 8.4	LC2	Detailed site investigation (SI) for all inaccessible potentially	Verify the land	Project	All inaccessible	After the land is	N/A
		contaminated sites in 2 NDAs	contamination potential	Proponent	potentially	resumed and handed	
			before the	Detailed Design	contaminated sites	over to the Project	
			commencement	Consultant	in 2 NDAs as	Proponent	
			of construction	Contractor	listed in the CAP		
S 8.5	LC3	Preparation and submission of supplementary Contamination	Present the findings of SI	Project	All inaccessible	Prior to the	N/A
		Assessment Report (CAR) and Remediation Action Plan (RAP) for	and evaluate the potential	Proponent/	potentially	commencement of	
		all inaccessible potentially contaminated sites in 2 NDAs to EPD	environmental and	Detailed	contaminated	any proposed	
		for agreement if land contamination is confirmed	human	Design	sites in 2 NDAs	construction works if	
			health impacts	Consultant	as listed in the	land contamination is	
			Recommend appropriate		CAP	confirmed and	
			mitigation measures for			remediation is	
			the			required	
			contaminated soil and				
			groundwater identified in				
			the assessment if				

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
			remediation is required				
S 8.5	LC4	Preparation and submission of Remediation Report to EPD for agreement	Demonstrate that the	Project	All inaccessible	Prior to the	N/A
			decontamination work is	Proponent/	potentially	commencement of	
			adequate and is carried	Detailed	contaminated	any proposed	
			out	Design	sites in	construction works if	
			in accordance with the	Consultant	2 NDAs as listed	land contamination is	
			endorsed supplementary		in the CAP	confirmed and	
			CAR and RAP			remediation is	
						required	
S 8.6	LC5	Re-appraisal of surveyed sites (if they become part of the land requirement	Verify the land	Project	All surveyed	After the land is	N/A
		for NDA development) that were not identified as potentially contaminated or	contamination potential	Proponent/	sites (if they	resumed and handed	
		could not be accessed for visual inspection during the site survey	due to potential change of	Detailed	become part of	over to the Project	
			land uses before the	Design	the land	Proponent.	
			commencement of	Consultant	requirement for		
			construction		NDA		
					development		
					(that were not		
					identified as		
					potentially		

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
					contaminated or		
					could not be		
					accessed for		
					visual inspection		
					during the site		
					survey as listed		
					in the CAP		
S 8.7.2	LC6	Treatment of arsenic-containing soil	To treat the arsenic	Government	KTN NDA	Prior to	N/A
and		"Solidification/Stabilization" (S/S) treatment method was proposed for the	containing	Developer/		commencement of	
Appendix		treatment of arsenic-containing soil. Toxicity Characteristic	soil	Contractor		construction works	
8.4		Leaching Procedure (TCLP) test should be undertaken after S/S in order to				within KTN NDA	
		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.					
S 8.7.2	LC7	Excavation and Transportation	To minimize the potential	Contractor	KTN NDA	Prior to	
and		Excavation profiles must be properly designed and executed	environmental impacts			commencement of	N/A
Appendix		with attention to the relevant requirements for environment,	arising from the handling			construction works	
8.4		health and safety;	of			within KTN NDA	
		In case the soil to be excavated is situated beneath the groundwater	contaminated materials				
		table, it may be necessary to lower the groundwater table;					
		Excavation should be carried out during dry season as far as					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S 8.7.2	LC8	Solidification/Stabilization	To minimize the potential	Contractor	KTN NDA	The course of	
and		The loading, unloading, handling, transfer or storage of	environmental impacts			treatment	N/A
Appendix		cement should be carried out in an enclosed system;	arising from the handling				
8.4		Mixing process and other associated material handling	of				^
		activities should be properly scheduled to minimize potential	contaminated materials				
		noise impact and dust emission;					
		The mixing facilities should be sited as far apart as					^

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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;					
		• 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	LC9	Safety Measures	To minimize the potential	Contractor	KTN NDA	The course of	N/A
and		• Set up a list of safety measures for site workers;	adverse effects on health			treatment	
Appendix		• Provide written information and training on safety for site workers;	and safety of construction				
8.4		Keep a log-book and plan showing the zones requiring treatment and	workers				
		clean zones;					
		Maintain a hygienic working environment;					
		Avoid dust generation;					
		Provide face and respiratory protection gear to site workers if					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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 worker					
		Eating, drinking and smoking should not be allowed in the excavation areas					
		and treatment area to avoid inadvertent ingestion of arsenic containing soil.					
Landfill Ga	is Hazard						
S10.6	LFG1	Underground rooms or void should be avoided as far as	To minimize the risk of	Government /	Buildings within	Detailed	N/A
		practicable in the proposed developments within the Consultation	LFG	Developer/	MTLL	design phase	
		Zone and should be avoided totally in the proposed developments	hazards to occupants	Detailed	and its 250m		
		within the MTLL.	within	Design	Consultation Zone		
		Buildings or structures within the MTLL should be at ground level	MTLL and its 250m	Consultant			
		with raised floor slabs which are less prone to gas ingress.	Consultation Zone	within MTLL			
		For the high risk category, the use of active control of gas,		and its 250m			
		including barriers and detection systems are recommended. These		Consultation			
		measures include the control of gas by mechanical means e.g.		Zone			
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
		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	To minimize the risk of	Contractor	Construction sites	Construction	۸
		minimize the risks of fires and explosions, asphyxiation of	LFG		within MTLL and	phase	
		workers (especially in confined space) and toxicity effects	hazards to the staff and		its		
		resulting from contact with contaminated soils and groundwater.	visitors within MTLL and		250m		
		Safety officers, specifically trained with regard to LFG and	its 250m Consultation		Consultation Zone		^
		leachate related hazards and the appropriate actions to take in	Zone				

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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 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.					

EIA Ref.	EM&A		Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref		(What Measures)	recommended	implement	measures	Implement the	Status
				Measures & Main	the	(Where)	measures?	
				Concerns to address	measures?		(When)	
				(What Requirements)	(Who)			
		•	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					N/A
			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					۸
			breathing apparatus sets should be made available on site and					
			appropriate training given in their use.					

EIA Ref.	EM&A		Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref		(What Measures)	recommended	implement	measures	Implement the	Status
				Measures & Main	the	(Where)	measures?	
				Concerns to address	measures?		(When)	
				(What Requirements)	(Who)			
		•	Ongoing gas monitoring should be considered for offices, stores					^
			etc set up on site.					
S10.6	LFG3		Utility Companies	To minimize the risk of	Government /	Buildings within	Operation	N/A
		•	The developers should make the utility companies aware of the	LFG	Developer	MTLL	phase	
			location and features of the site within the Consultation Zone	hazards to the occupants,	within MTLL	and its 250m		
			during the respective detailed design stage as part of the	maintenance personnel,	and its 250m	Consultation Zone		
			QLFGHA.	visitors and other users	Consultation			
		•	The utilities companies should have a responsibility to train and	within MTLL and its 250m	Zone			
			ensure their staff to take appropriate precautions at all times when	Consultation Zone				
			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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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 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	5				
		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,					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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					

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures?	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		phase.					
Cultural H	eritage (Pre-	-construction Phase)	L			L	
S11.6.1	CH1	Undertaking Further Archaeological Survey to Cover the Outstanding	To confirm and verify the	Project	In the not-yet-	After land resumption	N/A
		<u>Areas</u>	findings of the EIA	Proponent/	surveyed-areas	but before construction	
		Further archaeological surveys to cover the outstanding areas of the not-		Contractor/	with medium		
		yet-surveyed-area with medium archaeological potential located in the		Qualified	archaeological		
		areas with proposed development as presented in Figure 11.9 should be		Archaeologist	potential located		
		implemented after land resumption to confirm and verify the findings of			in the areas within		
		the EIA. The survey should be conducted by a professional			Areas D1-11, A3-		
		archaeologist and prior to fieldwork commencement, the archaeologist			5, A3-6, B1-1, and		
		should obtain a Licence to Excavate and Search for Antiquities from the			B1-7,		
		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.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S11.6.1	CH2	Undertaking Survey-cum-Rescue Excavation	To define the precise	Project	In KTN NDA, for	After land resumption	N/A
		A Survey-cum-Rescue Excavation should be conducted after land	archaeological deposits	Proponent/	Site 3 and In FLN	but before construction	
		resumption and before the commencement of construction works to	extent and to preserve the	Contractor/	NDA for Site 5.	commencement of the	
		define the precise archaeological deposits extent and to preserve the	archaeological resources as	Qualified		zone	
		archaeological resources by record. The excavation should be	far as possible	Archaeologist			
		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.					
S11.6.1	СН3	Undertaking Preservation in-situ for Site 7	To preserve the	Project	Site 7 in FLN	After land resumption	N/A
		Preservation in-situ of the cultivation deposits in Site 7 is proposed. If	archaeological resources as	Proponent/	NDA	prior to	
		disturbance to the site by the design of the Central Park is unavoidable,	far as possible.	Contractor/		preconstruction stage	
		further archaeological survey should be conducted after land resumption		Qualified		of the proposed	
		prior to the pre-construction stage to assess the feasibility to incorporate		Archaeologist		Central Park (Area	
		Site 7 into the design of the development plan of the proposed zone.				C2-8, Zoning O)	
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Authority under the AM Ordinance.					
S11.6.1	CH4	<u>Undertaking Induction Training</u>	To preserve the	Project	Spots A, D, F to	Before the	N/A
		Induction training should be provided to the construction Contractor	archaeological resources as	Proponent/	Н	commencement of the	
		before the commencement of the excavation works in Spots A, D, F to H.	far as possible	Contractor/		excavation works and	
		An induction will be conducted as part of the environmental health and		Qualified		before site staff are	
		safety induction programme to all site staff before they are deployed on		Archaeologist		deployed on site	
		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.					
S11.6.1	CH5	Undertaking Archaeological Impact Assessment before Construction at	To define the precise	Project	Area B1-8 and	After land resumption	N/A
		<u>A1</u>	archaeological deposits	Proponent/	B1-9 zoned as R4	but before construction	
		It is recommended that an Archaeological Impact Assessment to be	extent and to preserve the	Contractor/	and R3 in A1		
		conducted in the impacted area in Area B1-8 and B1-9 at A1 (Sheung	archaeological resources as	Qualified			

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Shui Wa Shan Site of Archaeological Interest) after land resumption and	far as possible	Archaeologist			
		before construction when detail construction work information is					
		available to determine the need for further archaeological follow up					
		actions.					
S11.6.1	СН6	Undertaking Archaeological Impact Assessment before Construction	To define the precise	Project	Area within A1	After land resumption	N/A
		within A1 but except Area B1-8 and B1-9	archaeological deposits	Proponent/	except Area B1-8	but before construction	
		Should there be any development work within the Sheung Shui Wa Shan	extent and to preserve the	Contractor/	and B1-9 in R4		
		Site of Archaeological Interest, it is recommended that an Archaeological	archaeological resources as	Qualified	&R3 zoning		
		Impact Assessment is required after land resumption and before	far as possible.	Archaeologist			
		construction when detail construction work information is available to					
		determine the need for further archaeological follow up actions.					
S11.6.2	CH7	Undertaking baseline condition survey and baseline vibration impact	To minimize the vibration	Project	G303 and G308	Preconstruction stage	N/A
		<u>assessment</u>	impacts during	Proponent/		before commencement	
		In case any potential vibration impact on any nearby built heritage	preconstruction stage on	Contractor		of construction works	
		features are identified during the pre-construction stage of the Project,	any identified potential			during Schedule 3	
		prior to commencement of construction works, a baseline condition	vibration impacted built			study	
		survey and baseline vibration impact assessment should be conducted by	heritage features				
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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	CH8	Undertaking baseline condition survey and baseline vibration impact	To minimize the vibration	Project	KT57, FL05,	Preconstruction stage	N/A
		<u>assessment</u>	impacts during	Proponent/	FL18, and FL2	before commenceme	
		In case any potential vibration impact on any nearby built heritage	preconstruction stage on	Contractor		nt of construction	
		features are identified during the pre-construction stage of the Project,	any identified potential			works	
		prior to commencement of construction works, a baseline condition	vibration impacted built				
		survey and baseline vibration impact assessment should be conducted by	heritage features				
		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	СН9	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	Ancillary	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/	structures of	Relocation of features	
		Prior to removal/relocation of the directly impacted historical buildings	prior to their removal /	Contractor	G303, HKT01,	before commenceme	
		and cultural/historical landscape features, photographic and cartographic	relocation		HKT02, Entrance	nt of construction	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		records should be conducted to preserve them by record. Liaison with			Gate of HKT03,	works during Schedule	
		and obtaining agreement from the descendants of these features will be			HKT04, KT01 to	3 study	
		carried out the Project Proponent.			KT10, KT13,		
					KT36, KT39,		
					KT40, KT41,		
					KT43, KT45,		
					KT47, KT50,		
					KT54, KT62 to		
					KT63, KT69,		
					FL01, FL16, and		
					FL35		
S11.6.2	CH10	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	KT12 and KT61	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/		Relocation of features	
		Prior to removal/relocation of the directly impacted historical buildings	prior to their removal /	Contractor		before commencement	
		and cultural/historical landscape features, photographic and cartographic	relocation			of construction works	
		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.					
S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a	To preserve the directly	Project	HKT01, HKT02,	After the photographic	N/A
		reasonable location nearby may be required.	impacted sites by	Proponent/	Entrance Gate of	and cartographic	
			relocation	Contractor	HKT03	records and before	
						commencement of	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures?	Location of the measures (Where)	When to Implement the measures? (When) construction works	Implementation Status
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	Pre-construction phase	N/A
Cultural Ho	eritage (Con	istruction 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 supposed antiquities in the course of excavation works in construction phase.	Special attention should be given to areas evaluated to have archaeological potential or significance.	Contractor	All soil excavation works	Immediately upon discovery during excavation works	N/A
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	N/A

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S11.6.2	CH15	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor	Identified	Construction phase,	
		Strengthening Measures	impacts during		potential vibration	with details specified	^
		Construction vibration monitoring and structural strengthening measures	Construction phase on any		impacted built	in baseline condition	
		should be conducted during Construction phase based on the assessment	identified potential		heritage features	survey and baseline	
		result of baseline condition survey and baseline vibration impact	vibration impacted built			vibration impact	
		assessment, so as to ensure the construction performance meets with the	heritage features			assessment	
		vibration standard stated in the EIA report.					
Landscape	and Visual I	Impact (Detailed Design, Prior to Construction, Construction and Operation	n Phases)				
S.12.9	LV1	General Good Practice Measures - For areas unavoidably disturbed by		Detailed design	Throughout	Prior to Construction,	N/A
		the Project on a short term basis e.g. works areas, the general principle to		consultant/	NDAs,	Construction & for all	
		try and restore these to their former state to suit future land use, should be		Contractor		planting, this should	
		adhered to.				be installed as the	
		With regard to topsoil, where identified, it should be stripped, treated				areas become	
		appropriately, and where suitable and practical stored for re-use in the				available, to achieve	
		construction of the soft landscape works such as roadside amenity strips,				early establishment	
		and open space sites.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.9	LV2	Minimum Topographical Change -To minimize landscape and visual	Reduce topographical	Government /	Throughout	Prior to Construction	N/A
MM1		impacts, the footprint and elevation of such elements should be optimized	changes and minimize land	Detailed Design	NDAs,		
		to reduce topographical/landform changes, as well as reduce land take and	resumption	Consultant/	particularly for		
		interference with natural terrain. Where there is a need to significantly cut		Contractor	reservoirs		
		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.					
S.12.9	LV3	Detailed Design (Visual) - The footprint and massing of development	Improve visual amenity of	Detailed Design	Throughout	Prior to Construction	N/A
MM2		components and the works area should also be kept to a practical	the new buildings, NDAs	Consultant	NDAs		
		minimum and the detailed design of development components for	in general and integrate as				
		Construction phase should follow the Sustainable Building Design	best possible into the				
		Guidelines. The form, textures, finishes and colours of the proposed	surrounding landscape				
		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					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S12.9	LV 4	Avoid affecting Watercourses – In the detailed design, consideration	Avoid direct impacts to	Detailed Design	All watercourses,	Prior to Construction	^
MM14.4		should be made of watercourses, to minimize any impacts e.g. at new	watercourses	Consultant/	particularly the	and Construction	
		bridge crossings, viaducts, road alignment etc. Guidelines stated		Contractor	stream at Siu	Phase	
		should be followed.			Hang San Tsuen		
		For example, for the stream at Siu Hang San Tsuen in FLN NDA,			that will flow		
		much of the stream is located underneath the viaduct for the proposed			under the Fanling		
		Fanling Bypass. In order to avoid impacts to the stream, the detailed			Bypass Eastern		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		final design of the viaduct should follow guidelines and ensure that			Section		
		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.					
Landscape	and Visual	(Construction)					
S.12.9	LV5	Open Space Provision - the principles adopted in the RODP planning	Reprovision of open space.	Government	Onsite as	Prior to Construction	N/A
MM3		ensure that public open space systems are incorporated. All	Enhance visual amenity of	Developer/	stipulated in the	and Construction Phas	
		requirements for open space areas stipulated in the planning	the area and improve the	Detailed Design	planning		
		documents for the formulation of the Preliminary Layout Plan should	overall landscape character	Consultant/	documents for the		
		be adhered to.		Contractor/	formulation of the		
					Preliminary		
					Layout Plan		
S.12.9	LV6	Tree Protection & Preservation – Exiting trees to be retained within	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	N/A
MM4		the Project Site should be carefully protected during construction.		Detailed Design		and Construction	
		In particular OVTs will be preserved according to ETWB Technical		Consultant/		Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification		Contractor			
		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.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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	LV7	Tree Transplantation - Trees unavoidably affected by the Project	Transplant Trees where	Government /	Onsite where	Prior to Construction,	N/A
MM5		works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed Design	possible.	Construction Phase &	
		transplanted straight to their final receptor site and not held in a		Consultant/	Otherwise	Maintenance in	
		temporary nursery as far as possible.		Contractor	consider offsite	Operation Phase	
					locations		
		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,					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works					
		under Highways Department's Vegetation Maintenance Ambit' should					
		be referred to.					
S.12.9	LV8	Slope Landscaping - Site formation should be reduced as far as	To avoid substantial slope	Government /	Onsite	Prior to Construction,	N/A
MM6		possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed Design		Construction Phase &	
		grading works are completed to prevent erosion and subsequent loss	To prevent erosion and	Consultant/		Maintenance in	
		of landscape resources and character. Woodland tree seedlings and/	subsequent loss of	Contractor		Operation Phase	
		or shrubs should be planted where slope gradient and site conditions	landscape resources and				
		allow.	character.				
			To ensure man-made				
		In addition, landscape planting should be provided for the retaining	slopes are as visually				
		structures associated with modified slopes where conditions allow.	amenable as possible.				
		All slope landscaping works should comply with GEO Publication					
		No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.					
S.12.9	LV9	Compensatory Planting – Compensatory tree planting for felled trees	Compensate for trees and	Government /	Onsite where	Prior to Construction,	N/A
MM7		shall be provided to the satisfaction of relevant Government	shrubs lost due to the	Detailed Design	possible.	Construction Phase &	
		departments. Required numbers and locations of compensatory	Project.	Consultant/	Otherwise	Maintenance in	
		trees shall be determined and agreed separately with Government		Contractor	consider offsite	Operation Phase	
		during the Tree Removal Application process under ETWBTC			locations		
		3/2006.					
		Compensatory planting is proposed at the potential open areas such as					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.9	LV10	Woodland Compensatory Planting - Specific Woodland compensatory					N/A
MM8		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					

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

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.9	LV11	Vertical Greening – Planting of climbers to grow up vertical surfaces	Soften hard surfaces and	Government /	On appropriate	Prior to Construction,	N/A
MM9		were appropriate (e.g. building edges, piers).	facilities	Developer/	structures	Construction Phase &	
				Detailed Design		Maintenance in	
				Consultant/		Operation Phase	
				Contractor			
S.12.9	LV12	Green Roof – Roof greening where appropriate should be established	Reduce exposure to	Government /	On appropriate	Prior to Construction,	N/A
MM10		on proposed buildings as per the guidelines stated. These guidelines	untreated concrete surfaces	Developer/	buildings	Construction Phase &	
		provide further details including information regarding structural	and particularly mitigate	Detailed Design		Maintenance in	
		loading, design, maintenance, etc. considerations as well as providing	visual impact to VSRs at	Consultant/		Operation Phase	
		information on what types of plants might be suitable.	high levels. Provide	Contractor			
			greening.				
S.12.9	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed	Government /	Along roads,	Prior to Construction,	N/A
MM11		This measure may additionally form part of the compensatory planting.	structures such as roads	Detailed Design	around suitable	Construction Phase &	
			and buildings. Improve	Consultant/	built structures, or	Maintenance in	
			compatibility with the	Contractor	around VSRs to	Operation Phase	
			surrounding environment		contain their view		
			and create a pleasant		out to the NDA		
			pedestrian environment		structures.		

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.9	LV14	Road Greening -For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government /	On viaducts or	Prior to Construction,	N/A
MM12		soften the hard, straight edges (for climbers used to cover the vertical,	edges and provide greening	Developer/	along roads	Construction Phase &	
		hard surfaces of the piers - see MM9 Vertical Greening) and shade	along roads.	Detailed Design		Maintenance in	
		tolerant plants should be planted, where light is sufficient, to improve		Consultant/		Operation Phase	
		aesthetic value of areas under viaducts. Both at grade planting and use of		Contractor			
		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)					
S.12.9	LV15	Marsh/Wetland Compensation -The proposed Long Valley Nature Park	Compensate for Marsh/	Project	Onsite where	Prior to Construction,	N/A
MM13 &		(LVNP) will be designed and implemented to enhance on- wetland areas	Wetland lost due to the	Proponent/	possible.	Construction Phase &	
EIA Annex		within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed Design	Otherwise	Maintenance in	
13		Also see LV16, LV17, and LV18 as wetland planting should be provided		Consultant/	consider offsite	Operation Phase	
		along the embankments and beds of modified/ reprovisioned		Contractor/	locations		
		watercourses.		Maintenance			
				Authority			

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.9	LV16	Reprovision of Natural Stream - Where natural streams are unavoidably	Achieve a natural stream,	Government /	Streams and	Prior to Construction,	N/A
MM14.1		affected along some of their length, they can be diverted to avoid the	similar to existing,	Developer/	channelized	Construction Phase &	
		proposed new developments and retain the integrity of the whole stream.	including wetland planting	Detailed Design	watercourses	Maintenance in	
		Detailed design of any stream diversion should follow the Guidelines in	provision for embankments	Consultant/	e.g. a Ma Tso	Operation Phase	
		ETWB Technical Circular (Works) No. 5/2005 (Protection of natural		Contractor	Lung and Siu Han		
		streams/rivers from adverse impacts arising from construction works)			San Tsuen		
		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)					
S12.9	LV17	Stream Buffer Planting –Providing a minimum 10 m buffer with planting	Protect natural streams	Government /	Streams and	Prior to Construction,	N/A
MM14.2		(where there is a general presumption against any development taking		Developer/	channelized	Construction Phase &	
		place) along streams where they flow close to developments, confers a		Detailed Design	watercourses	Maintenance in	
		degree of protection to the stream course and its associated vegetation.		Consultant/	e.g. a Ma Tso	Operation Phase	
				Contractor	Lung and Siu Han		

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		For the stream at Ma Tso Lung in KTN NDA, the middle and upper			San Tsuen		
		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)					
S12.9	LV18	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	Channelized	Prior to Construction,	N/A
MM14.3		watercourses, if these are modified, the Drainage Services Department	watercourse modification,	Developer/	watercourse,	Construction Phase &	
		Practice Note No.1/2005 – Guidelines on Environmental Considerations	protect watercourses where	Detailed Design	particularly the	Maintenance in	
		for River Channel Design, should be considered and appropriate	possible and enhance	Consultant/	Ma Wat River	Operation Phase	
		mitigation measures included ensuring the new watercourses match the	channelized watercourses	Contractor	Channel		
		existing as far as possible. Measures can include enhancement planting to			Diversion		
		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.					_

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S12.9	LV19	Pond Replacement –Principles adopted in the design of the NDAs ensure	Reprovision for ponds lost	Project	E1-7 and C1-9	Prior to Construction,	N/A
MM15		that they incorporate ponds within the RODPs.	due to the Project.	Proponent/	(LVNP) in KNT	Construction Phase	
				Detailed Design	NDA and	Maintenance in	
		All requirements for ponds stipulated in the planning documents for the		Consultant/	generally	Operation Phase	
		formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park		Contractor/	throughout NDA		
		in E1-7 of KNT ND) should be adhered to.		Maintenance			
				Authority			
S.12.9	LV20	Screen Hoarding -Screen hoarding shall be erected along areas of the	To screen undesirable	Contractor	Throughout	Construction Phase	^
MM16		construction works site boundary where the works site borders publically	views of the works site.		NDAs		
		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, non- reflective, 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).					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.9	LV21	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction and	N/A
MM17		controlled to minimize glare impact to adjacent VSRs during the	to adjacent VSRs	Developer/	NDAs	Operation Phases	
		Construction phase.		Contractor			
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					
Ecology (P	rior to Cons	truction Phase or throughout the project)					
S. 13.9	E1	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland	Compensate for loss of	Project	FLN area A1-7	Detailed design phase	N/A
		Planting and Management Plan (WPMP)	Man Kam To Road egretry.	Proponent/	(egretry		
			Compensate for loss of	Detailed Design	compensation).		
			secondary woodland and	Consultant	KTN areas E1-8		
			hillside plantation of	(EHCMP and	and G1-3		
			ecological significance.	WPMP).	(woodland		
					compensation).		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S. 13.9	E2	Detailed design of development along lower reaches of Ma Tso Lung	Minimize impacts on Ma	Project	KTN areas F1-2	Detailed design and	N/A
		Stream and Ma Tso Lung San Tsuen Stream in OU zones F1-2 and F1-3	Tso Lung Stream and Ma	Proponent/	and F1-3 and	construction phases.	
		and detailed design of LMC Loop Eastern Connection Road with	Tso Lung San Tsuen	Detailed Design	LMC Loop		
		restoration of diverted stream and riparian corridor, permanent barrier	Stream and riparian	Consultant.	Eastern		
		and underpass on the at-grade section	corridor of importance to	(design of Ma	Connection Road.		
			species of conservation	Tso Lung			
		Compensation for the loss of seasonally wet grassland at Ma Tso Lung by	significance.	Stream			
		habitat restoration and enhancement along diverted section of Ma Tso		diversion and			
		Lung Stream		buffer zone			
				habitat			
				restoration			
				measures)			
S13.9	E3	Detailed design, implementation and management of Siu Hang San Tsuen	Minimize impacts on Siu	PlanD, Project	FLN area D1-3.	Detailed design,	N/A
		Stream to have 10m wide vegetated buffer in Open Space zone D1-3,	Hang San Tsuen Stream	Proponent/		construction and	
		Fanling Bypass to cross stream on viaduct.	and stream fauna.	Detailed Design		operation phases.	
				Consultant/			
				Contractor/			
				Maintenance			
				Authority			
S.13.9	E4	Long Valley Nature Park (LVNP) designation, design and	Compensate for wetland	Project	Long Valley KTN	Detailed design phase	N/A
		implementation.	loss arising from the	Proponent/	area C1-9 and any		
			project and protection of	Detailed Design	suitable areas to		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Enhancement of non-wetland habitats in LVNP. Planning for the	Long Valley from adverse	Consultant	be identified		
		advanced provision of alternative foraging habitat along main river	ecological impacts	(Long Valley	during the		
		channels for large waterbirds.	including provision of	Nature Park	planning stage		
			additional/alternative	Habitat			
			habitat for large waterbirds	Creation &			
			using Ng Tung, Sheung	Management			
			Yue and Shek Sheung	Plan)			
			River channels.				
S13.9	E5	Stringent planning control requirements in Long Valley north and west of	Protect these wetland areas	PlanD.	KTN areas C2-1	Detailed design phase	N/A
		Sheung Yue River, including Ho Sheung Heung egretry.	from indirect impacts to		and C2-2, Ho		
			habitats and fauna		Sheung Heung		
			especially breeding ardeids		egretry and areas		
			foraging in these areas and		north of Long		
			utilizing flight-lines from		Valley along the		
			Ho Sheung Heung egretry.		Ng Tung River to		
			Avoid habitat loss and		the Shenzhen		
			disturbance to fauna of		River		
			conservation significance,				
			especially nesting ardeids				
			Maintenance of ecological				
			linkages with Deep Bay				
			ecosystem and avoidance				

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

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
					northern and		
					northeastern		
					boundaries.		
S13.9	E8	Preparation and implementation of Guidelines for building design	Minimize mortality and	PlanD/ Project	Near Long Valley	Detailed design phase	N/A
		measures to minimize mortality and light and glare impacts to fauna.	disturbance impacts on	Proponent/			
		Guidelines to address the following measures:	fauna, especially mammals	Developer/			
		Use opaque, non-transparent, non-reflective noise barriers for all	and birds.	Detailed Design			
		developments associated with the Project.		Consultant			
		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;					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Lightweight external screens can be added to windows or become					
		a façade element of larger buildings, and are suitable where non-					
		operable windows are prevalent, which is often the case in modern					
		buildings in HK					
	E9	Not used					N/A
S13.8	E10	Review development footprint and layout of proposed developments in	Minimize loss of	Project	KTN areas D1-	Detailed design phase	N/A
		KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect	secondary woodland and	Proponent/Detai	11a and G1-5 to		
		impacts on secondary woodland at Ho Sheung Heung and shrubland at	shrubland of ecological	led Design	avoid/minimize		
		Crest Hill.	value.	Consultant	direct and indirect		
					impacts on		
					secondary		
					woodland at Ho		
					Sheung Heung		
					and		
					Crest Hill		

S13.9	E11	No construction during ardeid breeding season (1 March to 31 July)	Minimize disturbance	Project	Along and within	Detailed design/	^
		along Sheung Yue River north or east of KTN D1-5 and east of D1-9 and	impacts (including	Proponent/	Sheung Yue and	construction phase.	
		C2-3, construction hours restricted to 09.00 to 17.30 during 1 March to	cumulative impacts with	Detailed Design	Ng Tung Rivers,		
		31 July on new pedestrian bridge over the Sheung Yue River, new	cycle track project) to	Consultant	Long Valley, Long		
		pedestrian bridge over the tidal section of the Ng Tung River and existing	flight-lines of breeding	Contractor	Valley and		
		bridge between KTN areas C2-2 and C1-8.	ardeids.		watercourse		
					upstream areas		
		Review Design and construction methods for all bridges especially those			including KTN		
		on the Sheung Yue and tidal Ng Tung Rivers and adopt methods which			area B3-12		
		minimize impacts on Long Valley and the rivers, and disturbance and					
		fragmentation impacts on fauna.					
		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.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
Ecology (C	onstruction	Phase)					
S13.9	E12	Compensatory egretry habitat provision and establishment.	Compensate for loss of	Project	FLN area A1-7	Construction phase.	^
			Man Kam To Road egretry	Proponent/	500m from Man		
		Review condition and location of egretries before commencement of	habitat.	Detailed Design	Kam To Road		
		works. Formulate and implement additional mitigation measures as		Consultant/	Egretry.		
		appropriate.	Avoid mortality of	Contractor			
			breeding egrets				
		Phasing of works near and within Man Kam To Road Egretry outside					
		breeding season					
S13.9	E13	Review design and construction methods for bridges, especially those on	Minimize impacts on rivers	Project	Along and within	Detailed design and	^
		the Sheung Yue and tidal Ng Tung Rivers, and adopt measures which	and disturbance and	Proponent/	the Sheung Yue,	construction phases.	
		minimize impacts on rivers and disturbance and fragmentation impacts	fragmentation impacts on	Detailed Design	Ng Tung and Shek		
		on fauna.	fauna	Consultant/	Sheung Rivers		
				Contractor			
		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.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S13.9	E14	Buffer zone of 15-30m as appropriate on both sides (not less than 45m	Minimize impacts direct	PlanD/ Project	KTN areas H1-1,	Detailed design and	N/A
		total width) of Ma Tso Lung Stream north of the point where it is crossed	and indirect impacts of	Proponent/	F12 and F1-3 and	construction phases.	
		by the LMC Loop Eastern Connection Road, and Ma Tso Lung Stream	habitat loss, disturbance,	Developer/	Lok Ma Chau		
		diversion during construction of the LMC Loop Eastern Connection	pollution and	Detailed Design	Loop Eastern		
		Road; development along lower reaches of Ma Tso Lung Stream and Ma	fragmentation on Ma Tso	Consultant/	Connection Road.		
		Tso Lung San Tsuen Stream in OU zones in KTN areas F1-2 and F1-3 to	Lung Stream and marsh	Contractor.			
		be set back beyond buffer.	and riparian corridor of	(Design of Ma			
			importance to species of	Tso Lung			
		Construction and maintenance of permanent 1.2m high solid faunal	conservation significance.	Stream			
		barrier at all at-grade sections of LMC Loop eastern connection Road		diversion and			
		north of junction with road D4 within 15-30m as appropriate of Ma Tso		buffer zone			
		Lung Stream buffer and construction of faunal underpass beneath road.		habitat			
				restoration			
		Compensation for the loss of seasonally wet grassland at Ma Tso Lung by		measures)			
		habitat restoration and enhancement along diverted section of Ma Tso					
		Lung Stream.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.13.9	E15	Creation and enhancement of proposed Long Valley Nature Park and	Compensate for wetland	Project	Long Valley,	Construction phase.	^
		creation and enhancement of wetland and buffer planting within LVNP.	loss arising from the	Proponent/	(KTN area C1-9).		
			project	Contractor			
				(LVNP Detailed			
				Habitat			
				Creation &			
				Management			
				Plan)			
S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung and Shek	Minimize disturbance to	Detailed Design	Ng Tung, Sheung	Detailed design and	^
		Sheung Rivers, retention and provision of screen plantings where	waterbirds using Ng Tung,	Consultant/	Yue and Shek	Construction phases.	
		feasible; provision of Open Space areas and development areas along	Sheung Yue and Shek	Contractor	Sheung Rivers		
		river corridors;	Sheung River channels.				
		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.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S13.9	E17	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor	Interface between	Construction phase.	^
		between active works areas and all areas/habitats of ecological	disturbance, mortality and		areas/habitats/		
		importance on edge of development areas, including along any roads	other adverse ecological		fauna/ flora of		
		adjacent to or penetrating into areas/habitats of ecological importance.	impacts on habitats, flora		ecological		
			and fauna. Measures to		importance (e.g.		
		Erection of a 2m high dull green site barrier fence at the edge of the	minimize flight- line		KTN areas B1-3,		
		works area or 30m from Ma Tso Lung Stream and tributaries, whichever	impacts to birds, especially		C1-5, C1-6, C1-9,		
		distance is the greater.	breeding ardeids.		C2-2, C2-4, C2-5,		
					D1-8, E1-8, G1-		
					3, 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 terminus		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
					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	Project	KTN areas E1-8	Construction phase.	N/A
			secondary woodland and	Proponent/	and G1-3.		
			hillside plantation of	Contractor			
			ecological significance.				
S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for all	Minimize mortality	Contractor	All construction	Construction phase.	^
		construction sites.	impacts on birds.		sites		
		Unnecessary lighting should be avoided.					
S13.9	E20	Pre-site clearance check for presence of flora or fauna of conservation	Minimize impacts to flora	Government/	All construction	Prior to clearance of	N/A
		significance and bat roosts. If any are found, measures should be	and fauna of conservation	Developer/	sites.	vegetation and	
		proposed and implemented to avoid, minimize and/or compensate for	significance. Minimize	Contractor/		structures.	
		impacts; including adjustments to design, timing of works,	impacts to protected fauna	Ecologist			
		transplantation and translocation. Seek agreement of relevant authorities	and flora species.				
		including AFCD in respect of proposed measures, then implement.	Formulate and implement				
			mitigation measures to				

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Pre-site clearance check on all construction sites and pre –works	avoid, minimize and/or				
		commencement check on watercourses to be physically and/or	compensate for impacts;				
		hydrologically impacted by construction activities for presence of	including adjustments to				
		protected plant species/specimens of conservation significance. If any are	design, timing of works,				
		found consider adjustments to avoid, minimize and/or compensate for	transplantation and				
		impacts; including adjustments to design, timing of works,	translocation.				
		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.					
		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	Minimize impacts to flora	Government/	All construction	Prior to clearance of	N/A
		hydrologically impacted by construction activities for presence of flora or	and fauna of conservation	Developer/	sites.	vegetation and	
		fauna of conservation significance and bat roosts. If any are found	significance. Minimize	Contractor/		structures.	
		consider adjustments to avoid, minimize and/or compensate for impacts;	impacts to protected fauna	Ecologist			
		including adjustments to design, timing of works, transplantation and	and flora species. Consider				

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		translocation. Seek agreement of relevant authorities including AFCD in	and implement adjustments				
		respect of proposed measures, then implement.	to avoid, minimize or				
			compensate for impacts;				
		Pre-site clearance check on all construction sites for presence of reptile	including adjustments to				
		species of conservation significance, capture and translocate to receptor	design, timing of works,				
		site; review translocation options in respect to species in Ma Tso Lung	transplantation and				
		area and determine whether release locally or elsewhere is appropriate.	translocation				
		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 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	Avoid increase to pollution	Contractor	All construction	Construction	N/A
		area and areas of ecological importance.	entering ecologically		sites.		
			sensitive Deep Bay				
			ecosystem.				
		2 10 171 1 1					

Specific Mitigation Measures for Designated Projects

DP2- Castle Peak Road Diversion (Major Improvement)

Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by		Detailed	Throughout	Prior to	N/A
	DP2	the Project on a short term basis e.g. works areas, the general principle to		Design	NDAs,	Construction,	
		try and restore these to their former state to suit future land use, should be		Consultant/		Construction & for	
		adhered to.		Contractor		all planting, this	
		With regard to topsoil, where identified, it should be stripped, treated				should be installed	
		appropriately, and where suitable and practical stored for re-use in the				as soon as the areas	
		construction of the soft landscape works such as roadside amenity strips,				become available, to	
		and open space sites.				achieve early	
						establishment	
S.12.A9	LV4-	Avoid affecting Watercourses - In the detailed design, consideration	Avoid direct impacts to	Detailed	All	Prior to	N/A
MM14.4	DP2	should be made of watercourses, to minimize any impacts e.g. at new	watercourses	Design	watercourses,	Construction and	
		bridge crossings, viaducts, road alignment etc. Guidelines stated should		Consultant/	particularly the	Construction Phase	
		be followed.		Contractor	stream at Siu		
		For example, for the stream at Siu Hang San Tsuen in FLN NDA, much			Hang		
		of the stream is located underneath the viaduct for the proposed Fanling			San Tsuen that		
		Bypass. In order to avoid impacts to the stream, the detailed final design			will		
		of the viaduct should follow guidelines and ensure that no viaduct			flow under the		
		footings or other structures are placed in the stream. Bridges and box			Fanling Bypass		
		culverts should also be used to minimize the necessity of watercourse			Eastern Section		
		modification and protect the watercourses where necessary.					
S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve	Government/	Onsite	Prior to	^
MM4	DP2	Project Site should be carefully protected during construction.	Trees	Detailed		Construction	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
		Circular (Works) No. 29/2004. Detailed Tree Protection		Consultant/		Construction	
		Specification shall be provided in the Contract Specification. Under this		Contractor		Phase	
		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.					
S.12.A9	LV6-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP2	should be transplanted where practical. Trees should be transplanted straight	suitable for	Detailed	possible,	Construction,	
		to their final receptor site and not held in a temporary nursery as far as	transplantation	Design	otherwise	Construction	
		possible. A detailed Tree Transplanting Specification shall be provided in the		Consultant/	consider offsite	Phase &	
		Contract Specification, where applicable. Sufficient time for necessary tree		Contractor	locations	Maintenance	
		root and crown preparation periods shall be allowed in the project				in Operation	
		programme. A detailed transplanting proposal will be submitted to relevant				Phase	
		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.					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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 VegetationMaintenance Ambit" should be referred to.					
S.12.A9	LV7-	Slope Landscaping – Site formation should be reduced as far as possible.	To avoid substantial	Government	Onsite	Prior to	N/A
MM6	DP2	Seeding of modified slopes should be done as soon as grading works are	slope	Detailed		Construction,	
		completed to prevent erosion and subsequent loss of landscape resources and	cutting and fill slopes.	Design		Construction	
		character. Woodland tree seedlings and/ or shrubs should be planted where	To prevent erosion and	Consultant/		Phase &	
		slope gradient and site conditions allow. In addition, landscape planting	subsequent loss of	Contractor		Maintenance in	
		should be provided for the retaining structures associated with modified	landscape resources and			Operation	
		slopes where conditions allow. All slope landscaping works should comply	character.			Phase	
		with GEO Publication No. 1/2011-Technical Guidelines on Landscape	To ensure man-made				
		Treatment for Slopes.	slopes are as visually				
			amenable as possible.				
S.12.A9	LV9-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	In areas	Prior to	N/A
MM8	DP2	planting is proposed for any areas of quality woodland that are unavoidably	woodland to compensate	Proponent/	identified in	Construction,	
		affected by the Project. The location and design of the woodland	for	Detailed	the EIA	Construction	
		compensatory planting will principally be within habitats of lower value such	those areas of quality	Design	Landscape	Phase &	
		as upland grassland. The proposed locations are identified, for example, on	woodland lost.	Consultant/	Mitigation Plans	Maintenance	
		the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in		Contractor/	and	in Operation	
		KTN NDA; along Fanling Bypass; and a small area in the northern FLN		Maintenance	as agreed with	Phase	
		NDA.		Authority	AFCD		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.A9	LV10-	Vertical Greening – Planting of climbers to grow up vertical surfaces were	Soften hard surfaces and	Government	On appropriate	Prior to	N/A

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
MM9	DP2	appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.A9	LV11-	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This	To screen proposed	Government	Along roads,	Prior to	N/A
MM11	DP2	measure may additionally form part of the compensatory planting.	structures such as roads	Detailed	around	Construction,	
			and	Design	suitable built	Construction	
			buildings. Improve	Consultant/	structures, or	Phase &	
			compatibility with the	Contractor	around	Maintenance	
			surrounding environment		VSRs to contain	in Operation	
			and create a pleasant		their view out to	Phase	
			pedestrian environment		the		
					NDA structures.		
S.12.A9	LV12-	Road Greening -For viaducts, soft landscaping should be provided to soften	To soften the hard,	Government	On viaducts or	Prior to	N/A
MM12	DP2	the hard, straight edges (for climbers used to cover the vertical, hard surfaces	straight	Detailed	along	Construction,	
		of the piers – see MM9 Vertical Greening) and shade tolerant plants should	edges and provide	Design	roads.	Construction	
		be planted, where light is sufficient, to improve aesthetic value of areas under	greening	Consultant/		Phase &	
		viaducts. Both at grade planting and use of elevated planters should be	along roads.	Contractor		Maintenance	
		considered for the soft landscaping of viaducts, taking into account the				in Operation Phase	
		preference to minimize the overall viaduct bulk and integrate architectural					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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)					
S.12.A9	LV13-	Marsh/Wetland Compensation -The proposed Long Valley Nature	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13 &	DP2	Park (LVNP) will be designed and implemented to enhance onwetland areas	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed	Otherwise	Construction	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be provided		Design	consider offsite	Phase &	
		along the embankments and beds of modified/ reprovisioned watercourses.		Consultant/	locations	Maintenance	
				Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
S.12.A9	LV14-	Enhancement Planting along Embankment - For channelized watercourses, if	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3	DP2	these are modified, the Drainage Services Department Practice Note	watercourse	Detailed	watercourse,	Construction,	
		No.1/2005 – Guidelines on Environmental Considerations for River Channel	modification,	Design	particularly the	Construction	
		Design, should be considered and appropriate mitigation measures included	protect watercourses	Consultant/	Ma	Phase &	
		ensuring the new watercourses match the existing as far as possible.	where	Contractor	Wat River	Maintenance	
		Measures can include enhancement planting to upgrade the channels as	possible and enhance		Channel	in Operation	
		appropriate, including consideration of wetland planting along embankments	channelized watercourses		Diversion	Phase	
		where appropriate; as well asconsideration of the best materials for the					
		channel lining (e.g. gabion). All measures must also ensure any necessary					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.A9	LV15-	Pond Replacement –Principles adopted in the design of the NDAs ensure that	Reprovision for ponds	Project	E1-7 and C1-9	Prior to	N/A
MM15	DP2	they incorporate ponds within the RODPs.	lost	Proponent/	(LVNP) in KNT	Construction,	
		All requirements for ponds stipulated in the planning documents	due to the Project.	Detailed	NDA	Construction	
		for the formulation of the Preliminary Layout Plan (e.g. at Fung		Design	and generally	Phase	
		Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Consultant/	throughout NDA	Maintenance	
				Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
Landscape	and Visual (C	Construction)					
S.12.A9	LV16-	Screen Hoarding -Screen hoarding shall be erected along areas of the	To screen undesirable	Contractor	Throughout	Construction	^
MM16	DP2	construction works site boundary where the works site borders publically	views		NDAs	Phase	
		accessible routes and/or is close to visually sensitive receivers (VSRs). It is	of the works site.				
		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).					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.A9	LV17-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction	^
MM17	DP2	controlled to minimize glare impact to adjacent VSRs during the	to	Contractor	NDAs	and Operation	
		Construction phase.	adjacent VSRs			Phases	
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					
Ecology (De	tailed Design	n, Construction and Operational Phases)					
S13.9	E2-DP2	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality	Detailed	Within NDA.	Detailed	^
		Unnecessary lighting should be avoided.	impacts	Design		design phase,	
			on birds.	Consultant/		Construction	
				Contractor/		phase and	
				Maintenance		Operation	
				Authority		phase.	
Ecology (Co	nstruction P	Phase)					
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	Interface	Construction	^
		between active works areas and all areas/habitats of ecological importance.	disturbance,		between	phase.	
			mortality and other		areas/habitats of		
			adverse		ecological		
			ecological impacts on		importance		
			habitats, flora and fauna.		(KTN		
					area B1-3) and		
					works areas.		
S13.9	E4-DP2	Compensatory native woodland planting.	Compensate for loss of	Project	KTN NDA areas	Construction	N/A

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
			plantation of ecological	Proponent /	E1-	phase.	
			significance.	Contractor	8 and G1-3.		
Cultural He	ritage (Cons	truction Phase)					
S11.6.2	CH5-	Conducting Construction Vibration Monitoring and Structural Strengthening	To minimize the potential	Project	Identified	Construction phase,	N/A
	DP2	Measures Construction vibration monitoring and structural strengthening	impacts during	Proponent/	potential	with details specified	
		measures should be conducted during Construction phase based on the	Construction	Contractor	vibration	in baseline condition	
		assessment result of baseline condition survey and baseline vibration impact	phase on any identified		impacted	survey and baseline	
		assessment, so as to ensure the construction performance meets with the	potential vibration		built heritage	vibration impact	
		vibration standard stated in the EIA report.	impacted		features	assessment,	
			built heritage features				
	L	P3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Inc	terchange (New Road) and P	Pak Shek Au Interc	hange Improvement	(Major Improvement)	
Landscape d	and Visual (I	Detailed Design, Prior to Construction, Construction and Operational Phases)					
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by the		Detailed	Throughout	Prior to Construction,	^
	DP3	Project on a short term basis e.g. works areas, the general principle to try and		Design	NDAs,	Construction & for	
		restore these to their former state to suit future land use, should be adhered to.		Consultant/		all planting, this	
		With regard to topsoil, where identified, it should be stripped,		Contractor		should be installed as	
		treated appropriately, and where suitable and practical stored for re-use in the				soon as the areas	
		construction of the soft landscape works such as roadside amenity strips, and				become	
		open space sites.				available, to	
						achieve early	
						establishment	
S.12.A9	LV4-	Avoid affecting Watercourses – In the detailed design, consideration should	Avoid direct impacts to	Detailed	All watercourses,	Prior to Construction	^

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
MM14.4	DP3	be made of watercourses, to minimize any impacts e.g. at new bridge	watercourses	Design	particularly the	And Construction	
		crossings, viaducts, road alignment etc.		Consultant/	stream at Siu	Phase	
		Guidelines stated should be followed.		Contractor	Hang		
		For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of			San Tsuen that		
		the stream is located underneath the viaduct for the proposed Fanling Bypass.			will		
		In order to avoid impacts to the stream, the detailed final design of the			flow under the		
		viaduct should follow guidelines and ensure that no viaduct footings or other			Fanling Bypass		
		structures are placed in the stream.			Eastern Section		
		Bridges and box culverts should also be used to minimize the necessity of					
		watercourse modification and protect the watercourses where necessary.					
S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve	Government	Onsite	Prior to	N/A
MM4	DP3	Project Site should be carefully protected during construction.	Trees	Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
		Circular (Works) No. 29/2004. Detailed Tree Protection		Consultant/		Construction	
		Specification shall be provided in the Contract Specification. Under this		Contractor		Phase	
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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	LV6-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP3	should be transplanted where practical. Trees should be transplanted straight	suitable for	Detailed	possible.	Construction,	
		to their final receptor site and not held in a temporary nursery as far as	transplantation	Design	Otherwise	Construction	
		possible. A detailed Tree Transplanting Specification shall be provided in the		Consultant/	consider offsite	Phase &	
		Contract Specification, where applicable. Sufficient time for necessary tree		Contractor	locations.	Maintenance	
		root and crown preparation periods shall be allowed in the project				in Operation	
		programme.				Phase	
		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.					
S.12.A9	LV7-	Slope Landscaping – Site formation should be reduced as far as possible.	To avoid substantial	Government	Onsite	Prior to	N/A
MM6	DP3	Seeding of modified slopes should be done as soon as grading works are	slope	Detailed		Construction,	
		completed to prevent erosion and subsequent loss of landscape resources and	cutting and fill slopes.	Design		Construction	
		character. Woodland tree seedlings and/ or shrubs should be planted where	To prevent erosion and	Consultant/		Phase &	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		slope gradient and site conditions allow.	subsequent loss of	Contractor		Maintenance	
		In addition, landscape planting should be provided for the retaining structures	landscape resources and			in Operation	
		associated with modified slopes where conditions allow. All slope	character.			Phase	
		landscaping works should comply with GEO Publication No. 1/2011-	To ensure man-made				
		Technical Guidelines on Landscape Treatment for Slopes.	slopes				
			are as visually amenable				
			as				
			possible.				
S.12.A9	LV8-	Compensatory Planting – Compensatory tree planting for felled trees shall be	Compensate for trees and	Government	Onsite where	Prior to	N/A
MM7	DP3	provided to the satisfaction of relevant Government departments. Required	shrubs lost due to the	Detailed	possible.	Construction,	
		numbers and locations of compensate orytrees shall be determined and agreed	Project.	Design	Otherwise	Construction	
		separately with Government during the Tree Removal Application process		Consultant/	consider offsite	Phase &	
		under ETWBTC 3/2006.		Contractor	locations	Maintenance	
		Compensatory planting is proposed at the potential open areas such as open				in Operation	
		spaces, amenity areas, open areas of the streetscapes, as well as the open				Phase	
		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.					
S.12.A9	LV9-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	In areas	Prior to	N/A

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
MM8	DP3	planting is proposed for any areas of quality woodland that are unavoidably	woodland to compensate	Proponent/	identified in	Construction,	
		affected by the Project. The location and design of the woodland	for	Detailed	the EIA	Construction	
		compensatory planting will principally be within habitats of lower value such	those areas of quality	Design	Landscape	Phase &	
		as upland grassland. The proposed locations are identified, for example, on	woodland lost.	Consultant/	Mitigation Plans	Maintenance	
		the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in		Contractor/	and	in Operation	
		KTN NDA; along Fanling Bypass; and a small area in the northern FLN		Maintenance	as agreed with	Phase	
		NDA.		Authority	AFCD		
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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	LV10-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government	On appropriate	Prior to	N/A
MM9	DP3	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.A9	LV11-	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This	To screen proposed	Government	Along roads,	Prior to	N/A
MM11	DP3	measure may additionally form part of the compensatory planting.	structures such as roads	Detailed	around	Construction,	
			and	Design	suitable built	Construction	
			buildings. Improve	Consultant/	structures, or	Phase &	
			compatibility with the	Contractor	around	Maintenance	
			surrounding environment		VSRs to contain	in Operation	
			and create a pleasant		their view out to	Phase	
			pedestrian environment		the		
					NDA structures.		
S.12.A9	LV12-	Road Greening -For viaducts, soft landscaping should be provided to soften	To soften the hard,	Government	On viaducts or	Prior to	N/A

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
MM12	DP3	the hard, straight edges (for climbers used to cover the vertical, hard surfaces	straight	Detailed	along roads.	Construction,	
		of the piers – see MM9 Vertical Greening) and shade tolerant plants should	edges and provide	Design		Construction	
		be planted, where light is sufficient, to improve aesthetic value of areas under	greening along roads.	Consultant/		Phase &	
		viaducts. Both at grade planting and use of elevated planters should be		Contractor		Maintenance in	
		considered for the soft landscaping of viaducts, taking into account the				Operation Phase	
		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)					
S.12.A9	LV13-	Marsh/Wetland Compensation -The proposed Long Valley Nature Park	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13	DP3	(LVNP) will be designed and implemented to enhance onwetland areas	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed	Otherwise	Construction	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be provided		Design	consider offsite	Phase &	
		along the embankments and beds of modified/ reprovisioned watercourses.		Consultant/	locations	Maintenance	
				Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
S.12.A9	LV14-	Enhancement Planting along Embankment - For channelized watercourses, if	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3	DP3	these are modified, the Drainage Services Department Practice Note	watercourse	Detailed	watercourse,	Construction,	
		No.1/2005 – Guidelines on Environmental Considerations for River Channel	modification,	Design	particularly the	Construction	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Design, should be considered and appropriate mitigation measures included	protect watercourses	Consultant/	Ма	Phase &	
		ensuring the new watercourses match the existing as far as possible.	where	Contractor	Wat River	Maintenance	
		Measures can include enhancement planting to upgrade the channels as	possible and enhance		Channel	in Operation	
		appropriate, including consideration of wetland planting along embankments	channelized watercourses		Diversion	Phase	
		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.					
S.12.A9	LV15-	Pond Replacement –Principles adopted in the design of the NDAs ensure that		Project	E1-7 and C1-9	Prior to	N/A
MM15	DP3	they incorporate ponds within the RODPs.		Proponent/	(LVNP) in KNT	Construction,	
		All requirements for ponds stipulated in the planning documents for the		Detailed	NDA	Construction Phase	
		formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in		Design	and generally	Maintenance	
		E1-7 of KNT ND) should be adhered to.		Consultant/	throughout NDA	in Operation	
				Contractor/		Phase	
				Maintenance			
				Authority			
Landscape a	and Visual (C	Construction)					
S.12.A9	LV16-	Screen Hoarding -Screen hoarding shall be erected along areas of the	To screen undesirable	Contractor	Throughout	Construction	N/A
MM16	DP3	construction works site boundary where the works site borders publically	views		NDAs	Phase	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		accessible routes and/or is close to visually sensitive receivers (VSRs). It is	of the works site.				
		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).					
S.12.A9	LV17-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction	N/A
MM17	DP3	controlled to minimize glare impact to adjacent VSRs during the	to	Contractor	NDAs	and Operation	
		Construction phase.	adjacent VSRs			Phases	
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					
Ecology (De	etailed Desig	n, Construction and Operational Phases)					
S13.9	E3-DP3	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality	Detailed	Throughout.	Detailed	^
		Unnecessary lighting should be avoided.	impacts	Design		design,	
			on birds.	Consultant/		Construction	
				Contractor		and Operation	
				Maintenance		phases.	
				Authority.			
Ecology (Co	onstruction P	rhase)					
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and enhancement	Compensate for wetland	Project	Long Valley	Construction	N/A
		of wetland and woodland areas and buffer planting within LVNP.	loss arising from the	Proponent/		phase.	
			project.	Contractor			

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
				(LVNP			
				Detailed			
				Habitat			
				Creation &			
				Management			
				Plan).			
S.13.9	E5-DP3	Design and erection of 2m high solid dull green site barrier fence between	Minimize	Contractor.	Interface	Construction	N/A
		active works areas and all areas/habitats of ecological importance on edge of	dust, disturbance,		between	phase.	
		development areas, including along any roads adjacent to or penetrating into	mortality and other		areas/habitats of		
		areas/habitats of ecological importance.	adverse ecological		ecological		
			impacts on habitats, flora		importance		
			and fauna.		(KTN		
			Measures to minimize		areas B1-3, H1-		
			flightline		1)		
			impacts to birds,		and works areas.		
S13.9	E6-DP3	Compensatory native woodland planting.	Compensate for loss of	Project	KTN areas E1-8	Construction	N/A
			plantation of ecological	Proponent /	and	phase.	
			significance.	Contractor	G1-3.		
		DP4- KTN NDA I	Road D1 to D5 (New Road)				
Landscape	and Visual	(Detailed Design, Prior to Construction, Construction and Operational Pho-	uses)				
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by		Detailed Design	Throughout	Prior to Construction,	N/A
	DP4	the Project on a short term basis e.g. works areas, the general principle to		Consultant/	<u>NDAs</u> ,	Construction & for all	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		try and restore these to their former state to suit future land use, should		Contractor		planting, this should	
		be adhered to.				be installed as soon as	
		With regard to topsoil, where identified, it should be stripped, treated				the areas become	
		appropriately, and where suitable and practical stored for re-use in the				available, to achieve	
		construction of the soft landscape works such as roadside amenity strips,				early establishment	
		and open space sites.					
S.12.A9	LV2-	Minimum Topographical Change –To minimize landscape and visual	Reduce topographical	Government /	Throughout	Prior to Construction	N/A
MM1	DP4	impacts, the footprint and elevation of such elements should be	changes and minimize land	Detailed Design	NDAs,		
		optimized to reduce topographical/landform changes, as well as reduce	resumption	Consultant/	particularly for		
		land take and interference with natural terrain. Where there is a need to		Contractor/	reservoirs		
		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.					
S.12.A9	LV3-	Detailed Design (Visual) -The footprint and massing of development	Improve visual amenity of	Detailed	Throughout	Prior to Construction	N/A
MM2	DP4	components and the works area should also be kept to a practical	the new buildings,	Design	NDAs		
		minimum and the detailed design of development components for	NDAs in general and	Consultant/			
		Construction phase should follow the Sustainable Building Design	integrate as best possible				

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Guidelines. The form, textures, finishes and colours of the proposed	into the surrounding				
		development components should aim to be compatible with the existing	landscape				
		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.					
S.12.A9	LV4-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	۸

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
MM4	DP4	Project Site should be carefully protected during construction. In		Detailed Design		and Construction	
		particular OVTs will be preserved according to ETWB Technical		Consultant/		Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification		Contractor			
		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.					
S.12.A9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where	Government /	Onsite possible.	Prior to Construction,	N/A
MM5	DP4	should be transplanted where practical. Trees should be transplanted	suitable for transplantation	Detailed Design	Consider	Construction Phase &	
		straight to their final receptor site and not held in a temporary nursery as		Consultant/	locations where	Maintenance in	
		far as possible. A detailed Tree Transplanting Specification shall be		Contractor	Otherwise offsite	Operation Phase	
		provided in the Contract Specification, where applicable. Sufficient time			locations		
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.A9	LV6-	Slope Landscaping – Site formation should be reduced as far as possible.	To avoid substantial slope	Government	Onsite	Prior to Construction,	N/A
MM6	DP4	Seeding of modified slopes should be done as soon as grading works are	cutting and fill slopes.	Detailed Design		Construction Phase &	
		completed to prevent erosion and subsequent loss of landscape resources	To prevent erosion and	Consultant/		Maintenance in	
		and character. Woodland tree seedlings and/ or shrubs should be planted	subsequent loss of	Contractor		Operation Phase	
		where slope gradient and site conditions allow.	landscape resources and				
		In addition, landscape planting should be provided for the retaining	character.				
		structures associated with modified slopes where conditions allow. All	To ensure man-made				
		slope landscaping works should comply with GEO Publication No.	slopes are as visually				
		1/2011-Technical Guidelines on Landscape Treatment for Slopes.	amenable as possible.				
S.12.A9	LV7-	Compensatory Planting – Compensatory tree planting for felled trees	Compensate for trees and	Government	Onsite where	Prior to Construction,	N/A
MM7	DP4	shall be provided to the satisfaction of relevant Government departments.	shrubs lost due to the	Detailed Design	possible.	Construction Phase &	
		Required numbers and locations of compensatory trees shall be	Project.	Consultant/	Otherwise	Maintenance in	
		determined and agreed separately with Government during the Tree		Contractor	consider offsite	Operation Phase	
		Removal Application process under ETWBTC 3/2006.			locations		
		Compensatory planting is proposed at the potential open areas such as					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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					
S.12.A9	LV8-	Woodland Compensatory Planting -Specific Woodland compensatory	Reprovide areas of	Project	In areas identified	Prior to Construction,	N/A
MM8	DP4	planting is proposed for any areas of quality woodland that are	woodland to compensate	Proponent/	in the EIA	Construction Phase &	
		unavoidably affected by the Project. The location and design of the	for those areas of quality	Detailed Design	Landscape	Maintenance in	
		woodland compensatory planting will principally be within habitats of	woodland lost.	Consultant/	Mitigation Plans	Operation Phase	
		lower value such as upland grassland. The proposed locations are		Contractor/	and as agreed		
		identified, for example, on the foothills of Tai Shek Mo, and on the		Maintenance	with AFCD		
		higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass;		Authority			
		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,					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.A9	LV9-	Vertical Greening – Planting of climbers to grow up vertical surfaces	Soften hard surfaces and	Government /	On appropriate	Prior to Construction,	N/A
MM9	DP4	were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design	structures	Construction Phase &	
				Consultant/		Maintenance in	
				Contractor		Operation Phase	
S.12.A9	LV10-	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed	Government /	Along roads,	Prior to Construction,	N/A
MM11	DP4	This measure may additionally form part of the compensatory planting.	structures such as roads	Detailed Design	around suitable	Construction Phase &	

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
			and buildings. Improve	Consultant/	built structures,	Maintenance in	
			compatibility with the	Contractor	or around VSRs	Operation Phase	
			surrounding environment		to contain their		
			and create a pleasant		view out to the		
			pedestrian environment		NDA structures.		
S.12.A9	LV11-	Road Greening -For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government	On viaducts or	Prior to Construction,	N/A
MM12	DP4	soften the hard, straight edges (for climbers used to cover the vertical,	edges and provide	Detailed Design	along roads.	Construction Phase &	
		hard surfaces of the piers - see MM9 Vertical Greening) and shade	greening along roads.	Consultant/		Maintenance in	
		tolerant plants should be planted, where light is sufficient, to improve		Contractor		Operation Phase	
		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)					
S.12.A9	LV12-	Marsh/Wetland Compensation –The proposed Long Valley Nature Park	Compensate for Marsh/	Project	Onsite where	Prior to Construction,	N/A
MM13 &	DP4	(LVNP) will be designed and implemented to enhance on-wetland areas	Wetland lost due to the	Proponent/	possible.	Construction Phase &	
EIA		within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed Design	Otherwise	Maintenance in	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be provided		Consultant/	consider offsite	Operation Phase	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		along the embankments and beds of modified/ re-provisioned		Contractor/	locations		
		watercourses.		Maintenance			
				Authority			
S.12.A9	LV13-	Pond Replacement –Principles adopted in the design of the NDAs ensure	Reprovision for ponds lost	Project	E1-7 and C1-9	Prior to Construction,	N/A
MM15	DP4	that they incorporate ponds within the RODPs.	due to the Project.	Proponent/	(LVNP) in KNT	Construction Phase	
		All requirements for ponds stipulated in the planning documents for the		Detailed Design	NDA and	Maintenance in	
		formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan		Consultant/	generally	Operation Phase	
		Park in E1-7 of KNT ND) should be adhered to.		Contractor/	throughout NDA		
				Maintenance			
				Authority			
Landscape	and Visual	(Construction)					
S.12.A9	LV14-	Screen Hoarding -Screen hoarding shall be erected along areas of the	To screen undesirable	Contractor			N/A
MM16	DP4	construction works site boundary where the works site borders publically	views of the works site.				
		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, non-reflective, 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).					
S.12.A9	LV15-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction and	N/A
MM17	DP4	controlled to minimize glare impact to adjacent VSRs during the	to adjacent VSRs	Contractor	<u>NDAs</u>	Operation Phases	

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Construction phase.					
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (P.	rior to Detai	iled Design Prior to Construction Phase)					
S. 13.9	E1-DP4	Egretry Habitat Creation & Management Plan (EHCMP) and	Compensate for loss of	Project	FLN area A1-7	Detailed design phase.	N/A
		Woodland Planting and Management Plan (WPMP)	Man Kam To Road egretry.	Proponent/	(egretry		
			Compensate for loss of	Detailed Design	compensation).		
			secondary woodland and	Consultant	KTN areas E1-8		
			hillside plantation of	(EHCMP and	and G1-3		
			ecological significance.	WPMP).	(woodland		
					compensation).		
Ecology (D	etailed Desi	gn, Construction and Operational Phases)					
S13.9	E2-DP4	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary	Minimize mortality	Detailed Design	Throughout.	Throughout.	N/A
		lighting should be avoided.	impacts on birds.	Consultant/			
				Contractor			
				Maintenance			
				Authority.			
Ecology (C	onstruction	Phase)					
S.13.9	E3-DP4	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	Interface between	Construction phase.	N/A
		between active works areas and all areas/habitats of ecological	disturbance, mortality and		areas/habitats of		
		importance.	other adverse ecological		ecological		
			impacts on habitats, flora		importance (KTN		

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
			and fauna.		areas B1-3, E1-8,		
					G1-3 and H1-1)		
					and works areas		
S13.9	E4-DP4	Compensatory native woodland planting.	Compensate for loss of	Project	KTN areas E1-8	Construction phase.	N/A
			plantation of ecological	Proponent /	and G1-3.		
			significance.	Contractor			
S13.8	E5-DP4	Maintenance of compensatory native woodland planting.	Compensate for loss of	Maintenance	KTN areas E1-8	Operation	N/A
			plantation of ecological	Authority.	and G1-3.	phase	
			significance.				
Cultural H	eritage (Pre-	-construction Phase)					
S11.6.1	CH1-	Undertaking Survey-cum-Rescue Excavation	To define the precise	Project	In KTN NDA, for	After land resumption	N/A
	DP4	A Survey-cum-Rescue Excavation should be conducted after land	archaeological deposits	Proponent /	Site 1	but before	
		resumption and before the commencement of construction works to	extent and to preserve the	Contractor/		Construction	
		define the precise archaeological deposits extent and to preserve the	archaeological resources as	Qualified		commencement of the	
		archaeological resources by record. The excavation should be conducted	far as possible.	Archaeologist		zones	
		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.					
S11.6.1	CH2-	Undertaking Further Archaeological Survey to Cover the	To confirm and verify the	Project	In the not-yet-	After land resumption	N/A
	DP4	Outstanding Areas	findings of the EIA	Proponent/	surveyed- areas	but before	
		Further archaeological surveys to cover the outstanding areas of the not-		Contractor/	with medium	construction	
		yet-surveyed-area with medium archaeological potential located with		Qualified	archaeological		

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		areas with proposed development as presented in Figure 11.9 should be		Archaeologist	potential located		
		implemented after land resumption to confirm and verify the findings of			within the work		
		the EIA. The survey should be conducted by a professional archaeologist			extent of DP4		
		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.					
S11.6.1	СН3-	<u>Undertaking Induction Training</u>	To preserve the	Project	Spot E	Before the	N/A
	DP4	Induction training should be provided to the construction Contractor	archaeological resources as	Proponent/		commencement of the	
		before the commencement of the excavation works in Spot E. An	far as possible	Contractor/		excavation works and	
		induction will be conducted as part of the environmental health and		Qualified		before site staff are	
		safety induction programme to all site staff before they are deployed on		Archaeologist		deployed on site	
		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					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S11.6.2	СН4-	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	Entrance Gate of	Prior to Removal /	N/A
	DP4	Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/	HKT03, KT16,	Relocation of features	
		Prior to removal/relocation of the directly impacted historical buildings	prior to their removal /	Contractor	KT17 and KT18	before commencement	
		and cultural/historical landscape features, photographic and cartographic	relocation			of construction	
		records should be conducted to preserve them by record. Liaison with				works	
		and obtaining agreement from the descendants of these features will be					
		carried out by the Project Proponent.					
S11.6.2	CH5-	Undertaking baseline condition survey and baseline vibration	To minimize the vibration	Project	HKT03 (Main	Preconstruction stage	N/A
	DP4	impact assessment	impacts during	Proponent/	Building) and	before commencement	
		In case any potential vibration impact on any nearby built heritage	preconstruction stage on	Contractor	G308	of construction works	
		features are identified during the pre-construction stage of the Project,	any identified potential				
		prior to commencement of construction works, a baseline condition	vibration impacted built				
		survey and baseline vibration impact assessment should be conducted by	heritage features				
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		phase so as to ensure the construction performance meets with the					
		vibration standard stated in the EIA report.					
S11.6.2	СН6-	Relocation of Built Heritages	To preserve the directly	Project	Entrance Gate of	After the photographic	N/A
	DP4	Relocation of built heritages to a reasonable location nearby may be	impacted sites by	Proponent/	HKT03	and cartographic	
		required.	relocation	Contractor		records and before	
						commencement of	
						construction works	
Cultural Ho	eritage (Con	estruction Phase)					
S11.6.2	СН7-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor	Identified	Construction phase,	N/A
	DP4	Strengthening Measures	impacts during		potential vibration	with details	
		Construction vibration monitoring and structural strengthening measures	Construction phase on any		impacted built	specified in baseline	
		should be conducted during Construction phase based on the assessment	identified potential		heritage features	condition survey and	
		result of baseline condition survey and baseline vibration impact	vibration impacted built			baseline vibration	
		assessment, so as to ensure the construction performance meets with the	heritage features			impact assessment,	
		vibration standard stated in the EIA report.					
	1	DP5- New sewage pump	ing stations (SPSs) in KTN	NDA	l	1	<u>I</u>
Landscape a	and Visual (L	Detailed Design, Prior to Construction, Construction and Operational Phases)					
S.12.B9	S.12.B9	General Good Practice Measures - For areas unavoidably disturbed by the		Detailed	Throughout	Prior to	N/A
		Project on a short term basis e.g. works areas, the general principle to try and		Design	NDAs,	Construction,	
		restore these to their former state to suit future land use, should be adhered to.		Consultant/		Construction &	
		With regard to topsoil, where identified, it should be stripped, treated		Contractor/		for all planting,	

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		appropriately, and where suitable and practical stored for re-use in the				this should be	
		construction of the soft landscape works such as roadside amenity strips, and				installed as	
		open space sites.				soon as the	
						areas become	
						available, to	
						achieve early	
						establishment	
S.12.B9	LV2-	Minimum Topographical Change -To minimize landscape and visual	Reduce topographical	Government /	Throughout	Prior to Construction	N/A
MM1	DP5	impacts, the footprint and elevation of such elements should be optimized to	changes and minimize	Detailed	NDAs,		
		reduce topographical/ landform changes, as well as reduce land take and	land resumption	Design	particularly for		
		interference with natural terrain. Where there is a need to significantly cut		Consultant/	reservoirs		
		into the existing landform, retaining walls should be considered as well as cut		Contractor/			
		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.B9	LV3-	Detailed Design (Visual) -The footprint and massing of development	Improve visual amenity	Detailed	Throughout	Throughout NDAs	N/A
MM2	DP5	components and the works area should also be kept to a practical minimum	of	Design	NDAs		
		and the detailed design of development components for Construction phase	the new buildings, NDAs	Consultant/			
		should follow the Sustainable Building Design Guidelines. The form,	in				

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		textures, finishes and colours of the proposed development components	general and integrate as				
		should aim to be compatible with the existing surroundings. To improve	best possible into the				
		visual amenity designs should be aesthetically pleasing and treatment of	surrounding landscape				
		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.					
S.12.B9	LV4-	Tree Protection & Preservation – Exiting trees to be retained within	Protect and Preserve	Government	Onsite	Prior to	^
MM4	DP5	the Project Site should be carefully protected during construction.	Trees	Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical Circular		Design		and	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		(Works) No. 29/2004. Detailed Tree Protection Specification shall be		Consultant/		Construction Phase	
		provided in the Contract Specification. Under this specification, the		Contractor			
		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 sworks 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.B9	LV5-	Tree Transplantation - Trees unavoidably affected by the Project works	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP5	should be transplanted where practical. Trees should be transplanted straight	suitable for	Detailed	possible.	Construction,,	
		to their final receptor site and not held in a temporary nursery as far as	transplantation	Design	Otherwise	Construction	
		possible. A detailed Tree Transplanting Specification shall be provided in the		Consultant/	consider offsite	Phase &	
		Contract Specification, where applicable. Sufficient time for necessary tree		Contractor	location.	Maintenance	
		root and crown preparation periods shall be allowed in the project				in Operation Phase	
		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.					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.B9	LV6-	Slope Landscaping – Site formation should be reduced as far as possible.	To avoid substantial	Government/	Onsite	Prior to	N/A
MM6	DP5	Seeding of modified slopes should be done as soon as grading works are	slope	Detailed		Construction,	
		completed to prevent erosion and subsequent loss of landscape resources and	cutting and fill slopes.	Design		Construction Phase	
		character. Woodland tree seedlings and/ or shrubs should be planted where		Consultant/		& Maintenance	
		slope gradient and site conditions allow.	To prevent erosion and			in Operation	
		In addition, landscape planting should be provided for the retaining structures	subsequent loss of			Phase	
		associated with modified slopes where conditions allow. All slope	landscape resources and				
		landscaping works should comply with GEO Publication No. 1/2011-	character.				
		Technical Guidelines on Landscape Treatment for Slopes.					
			To ensure man-made				
			slopes are as visually				
			amenable as possible.				
S.12.B9	LV7-	Compensatory Planting – Compensatory tree planting for felled trees shall be	Compensate for trees and	Government/	Onsite where	Prior to Construction,	N/A
MM7	DP5	provided to the satisfaction of relevant Government departments. Required	shrubs lost due to the	Detailed	possible.	Construction Phase	
		numbers and locations of compensatory trees shall be determined and agreed	Project.	Design		& Maintenance in	
		separately with Government during the Tree Removal Application process		Consultant/	Otherwise	Operation Phase	
		under ETWBTC 3/2006.		Contractor	consider offsite		
		Compensatory planting is proposed at the potential open areas such as open			locations		

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.B9	LV8-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	In areas	Prior to Construction,	N/A
MM8	DP5	planting is proposed for any areas of quality woodland that are unavoidably	woodland to compensate	Proponent/	identified in the	Construction Phase	
		affected by the Project. The location and design of the woodland	for those areas of quality	Detailed	EIA Landscape	& Maintenance in	
		compensatory planting will principally be within habitats of lower value such	woodland lost.	Design	Mitigation Plans	Operation Phase	
		as upland grassland. The proposed locations are identified, for example, on		Consultant/	and as agreed		
		the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in		Contractor/	with AFCD		
		KTN NDA; along Fanling Bypass; and a small area in the northern FLN		Maintenance			
		NDA.		Authority			
		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					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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 omentosa, 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	LV9-	Vertical Greening – Planting of climbers to grow up vertical surfaces were	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP5	appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.B9	LV10-	Green Roof – Roof greening where appropriate should be established on	Reduce exposure to	Government /	On appropriate	Prior to	N/A
MM10	DP5	proposed buildings as per the guidelines stated. These guidelines provide	untreated concrete	Detailed	buildings	Construction,	
		further details including information regarding structural loading, design,	surfaces	Design		Construction	
		maintenance, etc. considerations as well as providing information on what	and particularly mitigate	Consultant/		Phase &	
		types of plants might be suitable.	visual impact to VSRs at	Contractor		Maintenance	
			high levels. Provide			in Operation	
			greening.			Phase	
S.12.B9	LV11-	Screen Planting – Tall screen/buffer trees and shrubs should be implanted.	To screen proposed	Government /	Along roads,	Prior to Construction,	N/A
MM11	DP5	This measure may additionally form part of the compensatory planting.	structures such as roads	Detailed	around suitable	Construction	
			and buildings. Improve	Design	built structures,	Phase &	
			compatibility with the	Consultant/	or around VSRs	Maintenance in	
			surrounding environment	Contractor	to contain their	Operation Phase	
			and create a pleasant		view out to the		
			pedestrian environment		NDA structures.		
S.12.B9	LV12-	Enhancement Planting along Embankment - For channelized watercourses, if	Minimize the necessity of	Government /	<u>Channelized</u>	Prior to	N/A
MM14.3	DP5	these are modified, the Drainage Services Department Practice Note	watercourse	Detailed	<u>watercourse,</u>	Construction,	
		No.1/2005 – Guidelines on Environmental Considerations for River Channel	modification,	Design	particularly the	Construction	
		Design, should be considered and appropriate mitigation measures included	protect watercourses	Consultant/	<u>Ma</u>	Phase &	
		ensuring the new watercourses match the existing as far as possible.	where	Contractor	Wat River	Maintenance	
		Measures can include enhancement planting to upgrade the channels as	possible and enhance		<u>Channel</u>	in Operation	
		appropriate, including consideration of wetland planting along embankments	channelized watercourses		<u>Diversion</u>	Phase	
		where appropriate; as well as consideration of the best materials for the					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
Landscape d	and Visual (C	Construction)			•		•
S.12.B9	LV13-	Screen Hoarding –Screen hoarding shall be erected along areas of the	To screen undesirable	Contractor	Throughout	Construction	N/A
MM16	DP5	construction works site boundary where the works site borders publically	views of the works site.		NDAs	Phase	
		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).					
S.12.B9	LV14-	Light Control - Construction day and night time lighting should be controlled	To minimize glare impact	Government /	Throughout	Construction	^
MM17	DP5	to minimize glare impact to adjacent VSRs during the	to adjacent VSRs	Contractor	NDAs	and Operation	
		Construction phase.				Phases	
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					
Ecology (Co	onstruction P	hase)		•	•		•
S.13.9	E1-DP5	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	Interface	Construction phase.	N/A

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		between active works areas and all areas/habitats of ecological	disturbance,		between		
		importance.	mortality and other		areas/habitats of		
			adverse		ecological		
			ecological impacts on		importance and		
			habitats, flora and fauna.		works areas (all		
					sides of KTN		
					area F1-2).		
		DP7-Utilization of Treated Sewage Effluent (TSE)) from Shek Wu Hui Sewag	e Treatment Wor	ks (SWHSTW)		
Landscape	and Visual ((Construction Phase and Operational Phase)	,				
S.12.9	LV1-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	<u>Onsite</u>	Prior to Construction	N/A
MM4	DP7	Project Site should be carefully protected during construction. In		Detailed		and Construction	
		particular OVTs will be preserved according to ETWB Technical Circular		Design		Phase	
		(Works) No. 29/2004. Detailed Tree Protection Specification shall be		Consultant/			
		provided in the Contract Specification. Under this specification, the		Contractor			
		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					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		tree protection measures for those trees to be retained.					
S.12.9	LV2-	Vertical Greening – Planting of climbers to grow up vertical surfaces	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP7	were appropriate (e.g. building edges, piers).	facilities	Detailed	<u>structures</u>	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.9	LV3-	Green Roof – Roof greening where appropriate should be established on	Reduce exposure to	Government /	On appropriate	Prior to	N/A
MM10	DP7	proposed buildings as per the guidelines stated.	untreated concrete surfaces	Detailed	<u>buildings</u>	Construction,	
		These guidelines provide further details including information regarding	and particularly mitigate	Design		Construction	
		structural loading, design, maintenance, etc. considerations as well as	visual impact to VSRs at	Consultant/		Phase &	
		providing information on what types of plants might be suitable.	high levels. Provide	Contractor		Maintenance	
			greening.			in Operation	
						Phase	
		DP10- Fanling Bypas	ss Eastern Section (New Ro	ad)			
Landscape	and Visual	(Detailed Design, Prior to Construction, Construction and Operational Pha	uses)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by		Detailed Design	<u>Throughout</u>	Prior to Construction,	^
	DP10	the Project on a short term basis e.g. works areas, the general principle to		Consultant/	<u>NDAs,</u>	Construction & for all	
		try and restore these to their former state to suit future land use, should be		Contractor		planting, this should	
		adhered to.				be installed as soon as	
		With regard to topsoil, where identified, it should be stripped, treated				the areas become	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		appropriately, and where suitable and practical stored for re-use in the				available, to achieve	
		construction of the soft landscape works such as roadside amenity strips,				early establishment	
		and open space sites.					
S.12.D9	LV2-	Minimum Topographical Change -To minimize landscape and visual	Reduce topographical	Government/	<u>Throughout</u>	Prior to Construction	N/A
MM1	DP10	impacts, the footprint and elevation of such elements should be optimized	changes and minimize land	Detailed Design	<u>NDAs,</u>		
		to reduce topographical/landform changes, as well as reduce land take	resumption	Consultant/	particularly for		
		and interference with natural terrain. Where there is a need to		Contractor	<u>reservoirs</u>		
		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.					
S.12.D9	LV3-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government/	<u>Onsite</u>	Prior to Construction	^
MM4	DP10	Project Site should be carefully protected during construction. In		Detailed Design		and Construction	
		particular OVTs will be preserved according to ETWB Technical Circular		Consultant/		Phase	
		(Works) No. 29/2004. Detailed Tree Protection Specification shall be		Contractor			
		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					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.D9	LV4-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where	Government/	Onsite where	Prior to Construction,	N/A
MM5	DP10	should be transplanted where practical. Trees should be transplanted	suitable for transplantation	Detailed Design	possible.	Construction Phase &	
		straight to their final receptor site and not held in a temporary nursery as		Consultant/	<u>Otherwise</u>	Maintenance in	
		far as possible. A detailed Tree Transplanting Specification shall be		Contractor	consider offsite	Operation Phase	
		provided in the Contract Specification, where applicable. Sufficient time			<u>locations</u>		
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		referred to.					
S.12.D9	LV5-	Slope Landscaping – Site formation should be reduced as far as possible.	To avoid substantial slope	Government/	<u>Onsite</u>	Prior to Construction,	N/A
MM6	DP10	Seeding of modified slopes should be done as soon as grading works are	cutting and fill slopes.	Detailed Design		Construction Phase &	
		completed to prevent erosion and subsequent loss of landscape resources	To prevent erosion and	Consultant/		Maintenance in	
		and character. Woodland tree seedlings and/ or shrubs should be planted	subsequent loss of	Contractor		Operation Phase	
		where slope gradient and site conditions allow.	landscape resources and				
		In addition, landscape planting should be provided for the retaining	character.				
		structures associated with modified slopes where conditions allow. All	To ensure man-made				
		slope landscaping works should comply with GEO Publication No.	slopes are as visually				
		1/2011-Technical Guidelines on Landscape Treatment for Slopes.	amenable as possible.				
S.12.D9	LV6-	Compensatory Planting – Compensatory tree planting for felled trees	Compensate for trees and	Government/	Onsite where	Prior to Construction,	N/A
MM7	DP10	shall be provided to the satisfaction of relevant Government departments.	shrubs lost due to the	Detailed Design	possible.	Construction Phase &	
		Required numbers and locations of compensatory trees shall be	Project.	Consultant/	<u>Otherwise</u>	Maintenance in	
		determined and agreed separately with Government during the Tree		Contractor	consider offsite	Operation Phase	
		Removal Application process under ETWBTC 3/2006.			<u>locations</u>		
		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					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis					
		indica, and Rhododendron simsii are suggested.					
S.12.D9	LV7-	Woodland Compensatory Planting -Specific Woodland compensatory	Reprovide areas of	Project	In areas identified	Prior to Construction,	N/A
MM8	DP10	planting is proposed for any areas of quality woodland that are	woodland to compensate	Proponent/	in the EIA	Construction Phase &	
		unavoidably affected by the Project. The location and design of the	for those areas of quality	Detailed Design	<u>Landscape</u>	Maintenance in	
		woodland compensatory planting will principally be within habitats of	woodland lost.	Consultant/	Mitigation Plans	Operation Phase	
		lower value such as upland grassland. The proposed locations are		Contractor/	and as agreed		
		identified, for example, on the foothills of Tai Shek Mo, and on the		Maintenance	with AFCD		
		higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass;		Authority			
		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,					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.D9	LV8-	Vertical Greening – Planting of climbers to grow up vertical surfaces	Soften hard surfaces and	Government/	On appropriate	Prior to Construction,	N/A
MM9	DP10	were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design	<u>structures</u>	Construction Phase &	
				Consultant/		Maintenance in	
				Contractor		Operation Phase	
S.12.D9	LV9-	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed	Government/	Along roads,	Prior to Construction,	N/A
MM11	DP10	This measure may additionally form part of the compensatory planting.	structures such as roads	Detailed Design	around suitable	Construction Phase &	
			and buildings. Improve	Consultant/	built structures, or	Maintenance in	
			compatibility with the	Contractor	around VSRs to	Operation Phase	
			surrounding environment		contain their view		
			and create a pleasant		out to the NDA		
			pedestrian environment		<u>structures.</u>		
S.12.D9M	LV10-	Road Greening -For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government/	On viaducts or	Prior to Construction,	N/A

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
M12	DP10	soften the hard, straight edges (for climbers used to cover the vertical,	edges and provide greening	Detailed Design	along roads.	Construction Phase &	
		hard surfaces of the piers – see MM9 Vertical Greening) and shade	along roads.	Consultant/		Maintenance in	
		tolerant plants should be planted, where light is sufficient, to improve		Contractor		Operation Phase	
		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)					
S.12.D9	LV11-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government/	<u>Channelized</u>	Prior to Construction,	N/A
MM14.3	DP10	watercourses, if these are modified, the Drainage Services Department	watercourse	Detailed Design	watercourse,	Construction Phase &	
		Practice Note No.1/2005 – Guidelines on Environmental Considerations	modification,	Consultant/	particularly the	Maintenance in	
		for River Channel Design, should be considered and appropriate	protect watercourses where	Contractor	<u>Ma Wat River</u>	Operation Phase	
		mitigation measures included ensuring the new watercourses match the	possible and enhance		<u>Channel</u>		
		existing as far as possible. Measures can include enhancement planting to	channelized watercourses		<u>Diversion</u>		
		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					

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			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.D9	LV12-	Screen Hoarding -Screen hoarding shall be erected along areas of the	To screen undesirable	Contractor	Throughout NDAs	Construction Phase	^
MM16	DP10	construction works site boundary where the works site borders publically	views of the works site.				
		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, non-reflective, 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).					
S.12.D9	LV13-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout NDAs	Construction	^
MM17	DP10	controlled to minimize glare impact to adjacent VSRs during the	to adjacent VSRs	Contractor		and Operation phases	
		Construction phase.					
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					
Ecology (De	etailed Desi	gn, Construction and Operational Phases)					
S13.8	E1-	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary	Minimize mortality	Detailed Design	Throughout NDAs	Detailed design,	^
	DP10	lighting should be avoided.	impacts on birds.	Consultant/		construction and	

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
				Contractor		Operation phases.	
				Maintenance			
				Authority.			
Ecology (Co	onstruction	Phase)					
S13.9	E3-	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide	Minimize impacts on Siu	Contractor.	FLN area D1-3.	Construction phase.	^
	DP10	vegetated buffer in Open Space Zone D1-3 and Fanling Bypass to cross	Hang San Tsuen Stream				
		stream on viaduct.	and stream fauna.				
S.13.9	E4-	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	Interface between	Construction phase.	*
	DP10	between active works areas and all areas/habitats of ecological	disturbance, mortality and		areas/habitats of		
		importance.	other adverse ecological		<u>ecological</u>		
			impacts on habitats, flora		importance and		
			and fauna.		works areas (all of		
			Measures to minimize		the north side of		
			flight-line impacts to birds,		the Bypass works		
			especially breeding		areas west of		
			ardeids.		interchange with		
					<u>Sha Tau Kok</u>		
					<u>Road).</u>		
Cultural He	eritage (Con	estruction Phase)	,				
S11.6.2	СН4-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor.	<u>Identified</u>	Construction phase,	N/A
	DP10	Strengthening Measures	impacts during		potential vibration	with details specified	
		Construction vibration monitoring and structural strengthening measures	Construction phase on any		impacted built	in baseline condition	

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		should be conducted during Construction phase based on the assessment	identified potential		heritage features	survey and baseline	
		result of baseline condition survey and baseline vibration impact	vibration impacted built			vibration impact	
		assessment, so as to ensure the construction performance meets with the	heritage features			assessment,	
		vibration standard stated in the EIA report.					
		DP12-Reprovision of tempo	rary wholesale market in F	FLN NDA			
Landscape	and Visual ((Detailed Design, Prior to Construction, Construction and Operational Pha	uses)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by		Detailed design	Throughout	Prior to Construction,	N/A
	DP12	the Project on a short term basis e.g. works areas, the general principle to		consultant/	NDAs,	Construction & for all	
		try and restore these to their former state to suit future land use, should be		Contractor		planting, this should	
		adhered to.				be installed as soon as	
		With regard to topsoil, where identified, it should be stripped, treated				the areas become	
		appropriately, and where suitable and practical stored for re-use in the				available, to achieve	
		construction of the soft landscape works such as roadside amenity strips,				early establishment	
		and open space sites.					
S.12.D9	LV2-	Minimum Topographical Change –To minimize landscape and visual	Reduce topographical	Government /	Throughout	Prior to Construction	N/A
MM1	DP12	impacts, the footprint and elevation of such elements should be optimized	changes and minimize land	Detailed Design	NDAs,		
		to reduce topographical/landform changes, as well as reduce land take	resumption	Consultant/	particularly for		
		and interference with natural terrain. Where there is a need to		Contractor	reservoirs		
		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					

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.D9	LV3-	Detailed Design (Visual) -The footprint and massing of development	Improve visual amenity of	Detailed Design	Throughout	Prior to Construction	N/A
MM2	DP12	components and the works area should also be kept to a practical	the new buildings, NDAs	Consultant	NDAs		
		minimum and the detailed design of development components for	in general and integrate as				
		Construction phase should follow the Sustainable Building Design	best possible into the				
		Guidelines. The form, textures, finishes and colours of the proposed	surrounding landscape				
		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					

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		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.					
S.12.D9	LV4-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	N/A
MM4	DP12	Project Site should be carefully protected during construction. In		Detailed Design		and Construction	
		particular OVTs will be preserved according to ETWB Technical		Consultant/		Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification		Contractor			
		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					

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	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		trees should be retained, transplanted or felled and will include details of					
		tree protection measures for those trees to be retained.					
S.12.D9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where	Government /	Onsite where	Prior to Construction,	N/A
MM5	DP12	should be transplanted where practical. Trees should be transplanted	suitable for transplantation	Detailed Design	possible.	Construction Phase &	
		straight to their final receptor site and not held in a temporary nursery as		Consultant/	Otherwise	Maintenance in	
		far as possible. A detailed Tree Transplanting Specification shall be		Contractor	consider offsite	Operation Phase	
		provided in the Contract Specification, where applicable. Sufficient time			locations		
		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.					
S.12.D9	LV6-	Slope Landscaping – Site formation should be reduced as far as possible.	To avoid substantial slope	Government /	Onsite	Prior to Construction,	N/A
MM6	DP12	Seeding of modified slopes should be done as soon as grading works are	cutting and fill slopes.	Detailed Design		Construction Phase &	

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			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		completed to prevent erosion and subsequent loss of landscape resources	To prevent erosion and	Consultant/		Maintenance in	
		and character. Woodland tree seedlings and/ or shrubs should be	subsequent loss of	Contractor		Operation Phase	
		planted where slope gradient and site conditions allow.	landscape resources and				
			character.				
		In addition, landscape planting should be provided for the retaining	To ensure man-made				
		structures associated with modified slopes where conditions allow. All	slopes are as visually				
		slope landscaping works should comply with GEO Publication No.	amenable as possible.				
		1/2011-Technical Guidelines on Landscape Treatment for Slopes.					
S.12.D9	LV7-	Compensatory Planting - Compensatory tree planting for felled trees	Compensate for trees and	Government /	Onsite where	Prior to Construction,	N/A
MM7	DP12	shall be provided to the satisfaction of relevant Government departments.	shrubs lost due to the	Detailed Design	possible.	Construction Phase &	
		Required numbers and locations of compensatory trees shall be	Project.	Consultant/	Otherwise	Maintenance in	
		determined and agreed separately with Government during the Tree		Contractor	consider offsite	Operation Phase	
		Removal Application process under ETWBTC 3/2006.			locations		
		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,					

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
		Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii					
		are suggested.					
S.12.D9	LV8-	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed	Government /	Along roads,	Prior to Construction,	N/A
MM11	DP12	This measure may additionally form part of the compensatory planting	structures such as roads	Detailed Design	around suitable	Construction Phase &	
			and buildings. Improve	Consultant/	built structures, or	Maintenance in	
			compatibility with the	Contractor	around VSRs to	Operation Phase	
			surrounding environment		contain their view		
			and create a pleasant		out to the NDA		
			pedestrian environment		structures.		
Landscape	and Visual	(Construction)					
S.12.D9	LV9-	Screen Hoarding –Screen hoarding shall be erected along areas of the	To screen undesirable	Contractor	Throughout	Construction Phase	N/A
MM16	DP12	construction works site boundary where the works site borders publically	views of the works site.		NDAs		
		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).					

App Q - IMPLEMENTATION SCHEDULE AND RECOMMENDED MITIGATION MEASURES

March 2023

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
	Log Ref	(What Measures)	recommended	implement	measures	Implement the	Status
			Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
S.12.D9	LV10-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction and	N/A
MM17	DP12	controlled to minimize glare impact to adjacent VSRs during the	to adjacent VSRs	Contractor	NDAs	Operation Phases	
		Construction phase.					
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					

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 R WASTE GENERATION IN THE REPORTING MONTH Name of Department: Civil Engineering and Development Department

Monthly Summary Waste Flow Table for 2023

	Actua	l Quantities	of Inert C&D	Materials Ge	nerated Mon	ıthly	Actual	Quantities of	C&D Wastes	Generated	Monthly
Month	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	3.628	0.000	2.500	0.000	1.128	6.425	2.904	0.000	0.004	0.000	0.571
February	3.466	0.000	1.869	0.000	1.597	6.967	0.004	0.364	0.003	0.560	0.445
March	2.338	0.000	1.814	0.000	0.524	2.944	0.003	0.449	0.003	0.000	0.572
April											
May											
June											
Sub-total	9.432	0.000	6.183	0.000	3.249	16.336	2.911	0.813	0.010	0.560	1.588
July											
August											
September											
October											
November											
December											
Total	9.432	0.000	6.183	0.000	3.249	16.336	2.911	0.813	0.010	0.560	1.588

AECOM Asia Co. Ltd. PSA1.34/4

		Foreca	ast of Total Qu	antities of C8	D Materials to	be Generate	d from the Co	ntract*		
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)
1,310.619	300.000	1,010.619	0.000	0.000	0.000	20.000	10.000	20.000	0.500	10.000

Notes: (1) The performance target are given in PS Clause 1.115(14)

- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The Contractor shall also submit the latest forecast of the amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m³.
- (5) Conversion factors for reporting purpose:

in-situ: rock = 2.5 tonnes/m³; soil = 2.0 tonnes/m³

excavated: rock = 2.0 tonnes/m³; soil = 1.8 tonnes/m³

broken concrete and bitumen = 2.4 tonnes/m³

C&D Waste = 0.9 tonnes/m³

Slurry = 1.0 tonnes/m3

- (6) Numbers are rounded off to the nearest three decimal places
 - * Forecast
- (7) Total Quantity Generated = a+b+c+d

AECOM Asia Co. Ltd.



Contract No.: ND/2019/02

Year **2023**

Waste Flow Table

		Actual Qua	antities of Ine	rt C&D Mate	rials Generate	ed Monthly	Actual Quar	ntities of Non-	Inert C&D W	Vastes Genera	ted Monthly
Month	Total Quantity Generated (a) = (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	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse#
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	3,700.28	0.00	0.00	3,700.28	0.00	0.00	0.00	0.00	0.00	0.00	126.34
Feb	7,033.84	0.00	0.00	7,033.84	0.00	0.00	0.00	0.12	0.00	0.00	102.69
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	106.73
Apr											
May											
June											
Sub-total	10,734.11	0.00	0.00	10,734.11	0.00	0.00	0.00	0.12	0.00	0.00	335.76
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	10,734.11	0.00	0.00	10,734.11	0.00	0.00	0.00	0.12	0.00	0.00	335.76

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) Broken concrete for recycling into aggregates.

	Forecast of Total Quantities of C&D Materials to be Generated from the ND/2019/02													
Forecast Made at the End of the Project	Total Quantity Generated	Hard Rock & Large Broken Concrete	Relised in the	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemicals Waste	Others, e.g. general refuse			
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)			
Total:	234,210	8,400	2,500	0	231,710	600	100	1.0	0.5	0.5	375			

Sang Hing – Kuly Joint Venture
Contract No.: ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1:

Development of Long Valley Nature Park

Contract No.: ND/2019/03

Name of Department: CEDD

Monthly Summary Waste Flow Table for ______ 2023 (Year)

Monthly Summary Waste Flow Table 101 (Teal)											
	A	ctual Quantities	of Inert C&D	Materials Gen	erated Monthl	у	Actu	al Quantities o	of C&D Wastes	Generated Mo	onthly
Month	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 '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.24082	0	0	0.16613	0.07469	0	0	0	0	0	0
Feb	0.011965	0	0	0	0.011965	0	0	0	0	0	0
Mar	0.027225	0	0	0	0.027225	0	0	0	0	0	0
Apr											
May											
Jun											
Sub-Total											
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total											

^{*}Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*

Sang Hing – Kuly Joint Venture Contract No.: ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1:

Development of Long Valley Nature Park

Total Quantity Generated	Hard Rock and Large Broken Concrete		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 '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	$(in '000m^3)$
9	2	1	1	6	10	3	3	1	1	3

^{*}Remark: Figure to be revised if necessary

Notes:

- (1) The performance targets are given in ETWB Technical Circular PS Clause 6(14).
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) 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 50,000 m3. (ETWB Technical Circular PS Clause 5(4)(b) refers).

[Delete Note (4) and the table above on the forecast, where inapplicable].



Monthly Summary Waste Flow Table for <u>2023</u> (Year)

		Actual (Quantities of In	ert C&D Mater	ials Generated	Monthly	Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in other Projects	Disposed as Public Fill (d)	Imported Fill	Metals (f)	Paper/ cardboard packaging (g)	Plastics (h)	Chemical Waste (i)	Others, e.g. general refuse (j)
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	1,821.54	0.00	0.00	0.00	1,648.04	0.00	62.72	0.00	0.00	0.00	110.78
Feb	5,111.83	0.00	0.00	1,432.80	3,268.73	289.95	0.00	0.07	0.00	0.00	120.28
Mar	17,069.10	0.00	0.00	12,165.07	4,675.24	0.00	0.00	0.04	0.00	0.00	228.75
Apr											
May											
June											
Sub-total	24,002.47	0.00	0.00	13,597.87	9,592.01	289.95	0.00	0.10	0.00	0.00	459.81
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	24,002.47	0.00	0.00	13,597.87	9,592.01	289.95	0.00	0.10	0.00	0.00	459.81

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.
- $(3) \ Broken \ concrete \ for \ recycling \ into \ aggregates.$
- (4) Total quantity generated = a+b+c+d+e+f+g+h+i+j



Appendix F

Contract No.: ND/2019/04

	Forecast of Total Quantities of C&D Materials to be Generated from the DCK JV														
		Hard Rock &						Paper/	Plastics						
Forecast Made at the End of	Total Quantity Generated	Large Broken Concrete	Reused in the	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	cardboard packaging	(see Note 3)	Chemicals Waste	Others, e.g. general refuse				
the Project	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)				
	141,782.30	0	10,000	20,000.00	60,000.00	32,200.00	80	0.8	0	1.5	19,500.00				

Monthly Summary Waste Flow Table for 2023 (year)

Name of Person completing the record: Louise Poon (EO)

Project: Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

r roject . r anning r	North New Development A		<u> </u>	,								
	A	ctual Quantities	of Inert C&D M	aterials Generat	ed Monthly			Actual Qι	antities of C&D	Wastes Genera	ated Monthly	
Month	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 (I)
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan-23	2.680	0.000	1.956	0.000	0.724	0.000	4.126	0.275	0.005	0.000	0.000	46.650
Feb-23	3.264	0.000	1.794	0.000	1.470	0.000	0.000	0.608	0.000	2.660	0.000	79.010
Mar-23	3.564	0.000	1.614	0.000	1.950	0.000	0.090	1.302	0.098	1.860	0.000	91.690
Apr-23												
May-23												
Jun-23												
Sub-total	9.508	0.000	5.364	0.000	4.144	0.000	4.216	2.185	0.103	4.520	0.000	217.350
Jul-23												
Aug-23												
Sep-23												
Oct-23												
Nov-23												
Dec-23												
Total in 2023	9.508	0.000	5.364	0.000	4.144	0.000	4.216	2.185	0.103	4.520	0.000	217.350
Total of the Project since 2020	116.746	0.000	29.979	2.857	83.910	5.110	141.920	11.617	3.923	787.333	24.882	3306.260

Contract No · ND/2019/05

Total Quantity of Inert C&D Materials Generated: 116.746 (in '000m3) (a) = (b)+ (c)+(d)+(e)

^{*}Approx. estimation for each dump truck is 6m3/truck or 12 ton/truck

Monthly Summary Waste Flow Table for <u>2023</u> (year)

Name of Person completing the record: KM LUI (EO)

Project: Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

110,000.11	roject : Paining North New Development Area, Phase 1: Site Pormation and Infrastructure Works										
		Actual Quantit	ies of Inert C&	D Materials Ge	nerated Monthly		Actual Quantities of C&D Wastes Generated Monthly				
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract	Reused in other Projects (c)	Disposed as Public Fill (d)	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000T)	(in '000T)	(in '000T)	(in '000T)	(in '000T)	(in '000T)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 T)
Jan	0	0	0	0	0	0	0	0	0	0	0.018
Feb	0	0	0	0	0	1.400	0	0	0	0	0.013
Mar	0.212	0	0	0	0.212	11.711	0	0	0.001	0	0.028
Apr											
May											
Jun											
Sub-total	0.212	0.000	0.000	0.000	0.212	13.111	0.000	0.000	0.001	0.000	0.059
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	5.521	0.000	1.514	0.000	4.007	163.158	0.017	1.763	0.026	212.240	5.708

Contract No.: ND/2019/07

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 materials.
- (3) Broken concrete for recycling into aggregates.
- (4) Total Quantity Gernerated = a+b+c+d..

APPENDIX S COMPLAINT LOG

Appendix S - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2020-07-01	Public Road at Portion 6a (ND/2019/01)	13 th July 2020	The EPD visit on 13 July 2020 was to respond the complaint received from the 2nd week in July regarding the dust problem in public road of Portion 6a. Mr. Tse (EPD) observed muddy wheel track on the public road, and he expressed that the public road should keep free of mud even it was inside the project area. He also advised BKRWJV (the Contractor) to clean up the muddy wheel track and provide rectified photos to him.	A designated person is provided at the ingress/egress for vehicle washing before the wheel washing facility is in use, this is to make sure all vehicle are free of mud before leaving the site. And, the designated person is also responsible for cleaning the public road if any mud is found on it.	Closed
COM-2020-11-01	Portion 4 and Portion 7 near Dills Corner Garden (ND/2019/01)	11 th November 2020	The EPD inspection at Portion 4 on 11 November 2020 was to respond the complaint regarding the dust problem near Dills Corner Garden referred by a District Council Member. No construction activities was carried out and no obvious dust emission was observed. EPD advised BKRWJV (the Contractor) to increase the height of temporary water barrier and install sprinklers on bare ground. Another EPD inspection was conducted on 26 November 2020 at	The height of temporary water barrier was increased at Portion 4. Sprinklers were installed on bare ground at Portion 4 and on top soil at Portion 7. Manual water spraying were provided regularly. Hydroseeding will be provided on soil surface at Portion 4 for long-term measures. Proper implementation of dust mitigation measures will be continuously reviewed and monitored to avoid potential dust impact on site.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			Portion 7 for the dust complaint. During inspection, no obvious dust emission was observed and potential dust may generate from top soil which appear to be dry. EPD advised the Contractor to install sprinklers on top soil for dust suppression.		
COM-2020-11-02	Works Area A & B (ND/2019/05)	27 th November 2020	The complainant complained about the noise generated from the alarm of scissors platform during works for PM's site accommodation on Sunday and called the police force. Police officer has checked that Construction Noise Permit has been applied for the construction work. Also, the complainant complained about the reflective blue color of roof material of site office.	Permit-to-Work system was properly implemented for works at restricted hours. The PME used have been checked in compliance with the valid Construction Noise Permit (CNP No.: GW-RN0788-20). Acoustics mats were erected between works area and noise sensitive receivers. Scissor platform or noisy work activities will be arranged and minimized to be used on Sunday or evening time on weekdays. Specific training for the quieter works arrangement was provided to workers. Also, the blue roof will be covered by non-reflective green roof material.	Closed
COM-2021-01-01	Ma Tso Lung Road (ND/2019/01)	7 th January 2021	A complaint regarding soil deposited on Ma Tso Lung Road was referred by EPD verbally.	No soil / mud deposit or mud track were observed along the Ma Tso Lung Road during investigation and site inspection between Contractor, the <i>Supervisor</i> , ET and IEC. The road condition of Ma Tso Lung Road will be closely monitored and the public road will be regularly cleaned if mud deposit was observed. Wheel washing facilities at every site entrance will be regularly monitored to ensure proper implementation of dust control measures.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2021-01-02	Ma Tso Lung Road (Near L/P VD5622) (ND/2019/01)	13 th January 2021	A complaint was received from 1823 regarding the suspected odour emitted from muddy water discharged.	Water sample collected from the wastewater treatment facility was clear and no odour was detected. Sewage from chemical toilet was collected on a regular basis by licensed collector. Brownish wastewater was observed discharging upstream of the site from an unknown factory to the uncharted channel which may be potential source of the odour.	Closed
COM-2021-01-03	CTC Storage Yard (ND/2019/05)	22 nd January 2021	A complaint was referred from EPD regarding the noise generated before 7 a.m. on weekdays and machinery noise generated on Sunday from CTC Storage Yard.	No attendance record of workers working for CTC Storage Yard earlier than 8 a.m. and on Sunday (day of complaint) was recorded. To ensure strict compliance to Noise Control Ordinance and prevent noise nuisance to the nearby villages, the Contractor has implemented the following enhancement measures: 1. Issue a memo to the relevant sub-contractor on restricted working hour. 2. Conduct specific training to sub-contractor frontline supervisor and works. 3. Apply a construction noise permit for the suspected location.	Closed
COM-2021-01-04	Ho Sheung Heung (ND/2019/02)	28 th January 2021	A complaint was received from 1823 regarding an idling construction vehicle near Ho Sheung Heung to operate the engine for over 10	Ad-hoc training was provided to workers on switching off idling engines when awaiting on site. Poster for "Switching off idling engines" was posted at site entrance to alert workers on the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			minutes. Also, the complainant complained on noise nuisance from the speaker during meeting.	issue. For noise nuisance from the meeting, the speaker volume in the future event will be lower as much as possible.	
COM-2021-02-01	CTC Storage Yard (ND/2019/05)	4 th February 2021	A complaint was received from EPD call on 2 nd February 2021 regarding a noise complaint from a Tong Hang villager about noise from CTC storage yard at around 19:00 – 20:00 on 1 st February 2021.	The suspected cause of the complaint was the delivery of a rotary drilling rig by a tractor lorry arrived at CTC Storage Yard at around 19:00 at 1 st February 2021. The delivery time was restricted due to the oversized tractor lorry (width >2.4m and length protruded >1.4m at tractor tail). No loading and unloading was conducted during the time of complaint. For follow up action, the Contractor will apply	Closed
				Construction Noise Permit for any foreseeable delivery that may not be finished before restricted hours and will notify possible affected village representatives in advance.	
COM-2021-02-02	CTC Storage Yard (ND/2019/05)	16 th February 2021	A complaint was received from EPD call on 10 th February 2021 regarding a noise complaint from a Tong Hang villager about some impact noise from CTC Storage yard at Sunday's daytime (7 th February 2021).	Under investigation, erection of chain link fence for separating works area and adjacent village house was conducted by a sub-contractor on 7 th February 2021 without notification to the Contractor. Sub-contractor has been reminded that any work within site area shall be conducted after instruction by the Contractor and permit-to-work system on restricted hours works shall be strictly followed.	Closed
COM-2021-02-03	CTC Storage Yard (ND/2019/05)	2 nd March 2021	A complaint was received from EPD call on 24 th February 2021 regarding a noise complaint from a Tong Hang villagers about some machinery noise	Further enhancement on erection of acoustics mats and mobile acoustics mat panels was conducted at strategic location at E1-01 for mitigation of the noise impact to the nearby	Closed

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			and dust from CTC Storage yard. Joint site inspection of the Contractor, the <i>supervisor</i> and EPD was conducted on the same day for the bored piling at CTC Storage Yard and check on the noise and dust mitigation measures. EPD requested to enhance noise and dust mitigation measures for grabbing operation of the Rotary Drill Rig for construction of piles of E1-01.	sensitive receivers. Regular water spraying has been applied to suppress the dust from grabbing procedure and the skip.	
COM-2021-03-01	Ma Tso Lung Shun Yee San Tsuen (ND/2019/01)	1 st March 2021	A complaint was referred from EPD regarding fly-tipping of C&D waste near Ma Tso Lung Shun Yee San Tsuen and muddy public road.	Under investigation, the suspected site near Shun Yee San Tsuen was out of project site boundary. Internal trip ticket system was properly implemented for dump trucks transported from project site to other approved alternative disposal ground. Also, dump trucks were properly washed and mechanical cover of dump trucks were closed while leaving the site. For follow up action, banners and flags were displayed on site to promote the environmental protection awareness. Regular training was provided to remind the dump truck drivers that illegal dumping is strictly prohibited.	Closed
COM-2021-03-02	CTC Storage Yard (ND/2019/05)	15 th March 2021	A complaint was received from EPD call and an inspection by EPD was conducted on 9 th March 2021 regarding a dust complaint from a Tong Hang villager. The complainant	For follow up action, the Contractor provided training to remind frontline supervisors and workers to wet the auger before movement when it was dried for preventing any occasional situation that the auger was dried.	Closed

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			complained that rotary drill rig shall be equipped with enclosure for dust control and rotary drill rig had exhaust disturbance. Also, the complainant requested to improve wheel washing at site entrance.	The Contractor provided training to brief frontline supervisor and the operators to prevent exhaust disturbance. Also, the drill rigs exhaust pipe shall not face to the public area. If it is avoidable, screens shall be arranged to divert the exhaust gas. An additional cut-off drain was constructed and notice signs were erected for notifying drivers to give wheel washing in front of the cut-off drains.	
COM-2021-03-03	Ma Tso Lung Road (ND/2019/01)	9 th April 2021	A complaint was referred from EPD on 23 March 2021 regarding muddy public access road along Ma Tso Lung Road.	The muddy access road was found generated from a nearby private factory where the access road is not hard paved. The Contractor arranged water browser to help clean up the section of road on 24 th and 25 th March 2021 respectively. Also, dump truck were properly washed at project site exit near Ma Tso Lung Road.	Closed
COM-2021-04-01	Long Valley, Kwu Tung (ND/2019/03)	9 th April 2021	A complaint was referred from EPD regarding to associated impacts arising from construction works at Long Valley Nature Park, causing nuisance and affecting the habitat and ecological value in Long Valley.	Construction works for development of Long Valley Nature Park are conducted according to the recommended mitigation measures stated in Habitat Creation and Management Plan. Wetland creation and restoration works are in progress which include provision of paddy field, turning abandoned agricultural lands into wet agricultural land and provision of open water habitat with bird island. Irrigation channel is under construction for provision of reliable water supply to farmland. For construction works, the following significant mitigation measures are implemented: 1. Provide noise barriers to minimize noise nuisance to adjacent field where Greater Painted-	Closed

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				snipe was found; 2. Arrange concrete pump for concreting works to minimise noise impact; 3. Provide water spraying on the exposed earth to dampen the dusty surface; 4. Provide shade cloth to separate works area and marsh where Greater Painted-snipe were found; 5. Demarcation of temporary vehicle access to prohibit vehicle across the farmland; 6. Provide 2m dull green site boundary fence along Long Valley work areas; and 7. Block the main accesses by temporary barrier to avoid human disturbance.	
COM-2021-04-02	Close to junction of Ma Wat River and Ng Tung River (ND/2019/04, ND/2019/05, ND/2019/06)	23 rd April 2021	A complaint was referred from EPD regarding to suspected polluting effluent discharged from Ma Wat River near junction of Ma Wat River and Ng Tung River.	Under investigation, muddy water was observed from a small stream of Ma Wat River which is outside project site boundary. Contractor's wastewater treatment facilities and mitigation measures on water quality were checked. Latest discharge monitoring results shows the discharge quality in compliance with the limit stated in the discharge licence. The following mitigation measures will keep implemented and inspected: 1. Installation of silt curtain, geotextiles and concrete blocks for excavation works at Ng Tung River with regular inspection;	Closed
				2. Exposed slope paved with concrete to prevent muddy runoff;3. Setting up wastewater treatment plants at	

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				several locations of the site area; 4. Bund/seal off works area near river and set up with dewatering system; 5. Spare water pumps and sand bags for emergency use during heavy rain; 6. Regular training to the operators of wastewater treatment facilities; and 7. Regular checking and maintenance of the wastewater treatment facilities and desilting tank.	
COM-2021-04-03	Near Shek Wu San Tsuen, Sheung Shui (ND/2019/04)	28 th April 2021	A complaint was referred from EPD regarding to construction dust arising from dump trucks from construction sites near Shek Wu San Tsuen.	No obvious dust emission was observed during EPD inspection on 28 th and 29 th April 2021, However, potential dust impact may arise from sandy materials found on public road and exposed ground surface. For follow up action, soil debris were removed at	Closed
				public road. Water spraying was provided on the exposed ground surface. Also, all dump trucks are covered properly and wheel wash is provided before leaving site. Implemented of the mitigation measures will keep reviewed and monitored.	
COM-2021-05-01	Near Tong Hang section of Ma Wat River (ND/2019/05)	17 th May 2021	A complaint was referred from EPD regarding to suspected polluting effluent discharged from construction sites near Ma Wat River.	Under investigation, no pollution from works areas near Ma Wat River was observed. For wastewater pollution control, all wastewater treatment facilities have been setup at discharge points. According to the latest discharge monitoring results on April 2021, no noncompliance to limit set in discharge licence was recorded. Regular maintenance and services of the facilities have been conducted. Close monitoring	Closed

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				with checklist has been conducted by operators of the facilities. Mitigation measures such as sealing gaps between concrete blocks/water barriers/pipe pile walls have been implemented to prevent leakage. Implementation of the mitigation measures will keep reviewed and closely monitored.	
COM-2021-09-01	Chau Tau Road near the CLP Chau Tau Substation (ND/2019/01)	2 nd September 2021	A complaint was referred by EPD and an inspection by EPD was conducted on 3 September 2021 regarding a muddy public access road at Chau Tau Road near the CLP Chau Tau Substation.	Ad-hoc site inspection was conducted on 2 Sep 2021 at Chau Tau Road near the CLP Chau Tau Substation, no muddy wheel track or soil deposit was observed. No concrete lorry was observed using the Chau Tau Road near the CLP Chau Tau Substation. Concreting at Portion 5 was observed during EPD inspection on 3 September 2021, wheel washing bay and manual wheel washing was provided at site exit, all vehicles were properly washed and no muddy track was observed at Chau Tau Road. The Contractor has been implement following mitigation measure upon received the complaint: Rearranged the traffic route and informed the concrete lorry drivers not to use Chau Tau Road; Keep monitoring the effectiveness of the wheel washing facilities at site exist; and Clean up the public road immediately if soil deposit was observed.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2021-09-02	Not specified (ND/2019/01)	3 rd September 2021	A complaint was referred by EPD regarding C&D waste stored on site.	Refer to the photos provided by the complainant, the mentioned C&D waste mainly felled trees mixed with general refuse and temporary stored within the site boundary, Ad-hoc site inspection was conducted by Contractor and RSS on 3 rd September 2021, all C&D waste were stored within the site boundary, no odour perceived during site inspection. The Contractor has been implement following	Closed
				 mitigation measure upon received the complaint: Sort out the non-inert waste from the felled trees; Remove the general refuse if possible, otherwise, coved by tarpaulin sheet; and Relocate or transport the yard waste to other places which are not easy visible by public. Implementation of the mitigation measures will keep reviewed and closely monitored to ensure no adverse impact will be generated from the construction works of the Project. 	
COM-2021-11-01	Close to Shek Wu San Tsuen (ND/2019/04)	3 rd November 2021	A complaint was referred from EPD on 22 th November 2021, about various issues including suspected environmental nuisances from the captioned Project from a member of public on 3 rd Nov 2021. He followed-up again on 19 th Nov 2021.	Site inspection was conducted by contractor and EPD inspectors on 25 th November 2021, no obvious dust emission was observed within site boundary. The potential dust impact may arise from sandy materials found at public road which is under DSD maintenance. Air quality monitoring was carried out at location FLN-DMS1 - Scattered Village	Closed

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				Houses North of Proposed Potential Ecopark and Location FLN-DMS5 - Noble Hill near Shek Wu San Tsuen in accordance with the EM&A manual. With reference to the air quality monitoring data collected in Nov 2021, all monitoring data were complied with the action and limit level and no exceedance was recorded. The Contractor has been implement following mitigation measure upon received the complaint: 工程團隊亦已於接近民居並正在進行大型工程(例如建造大口徑椿)位置安裝了各種隔音屏障,例如在大型機器的發電機上加上隔音布、在圍板加上隔音屏障 增加自動灑水系統 	
COM-2021-12-01	On Kui Street along Ma Wat River (ND/2019/05)	13 rd December 2021	AECOM referred to public complaints received by 1823 on 13 December 2021 regarding "中鐵建保華聯營公司粉嶺地盤工人沖建築泥水落河 污染河道。"	Refer to the photo attached in the above complaint, it is suspected that there were bentonite slurry leaking from the flexible pipe joint near works area of pier C2-01 and the cause of incident as blow: • Tightness of flexible pipe joint • Worker's awareness and knowledge on proper handling of pipe leakage • Readiness of contingency tools and equipment for the pipe leakage The Contractor has been implement following mitigation measure upon received the complaint: • Doubling pipe clamps at each joint to strengthen the connection tightness and	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				 Briefing workers for proper spillage handling Well readiness of contingency tools and equipment for handling of leakage Designating responsible supervisor for regular pipeline condition check and monitoring Daily inspection for pipeline condition by responsible supervisors before works Erection of bunding/sandbags along the works area to effectively stop any potential leakage/surface runoff Review and updated Environmental Management Plans (EMP) covering Site Specific Procedures for Muddy runoff/leakage Control (See CSF submission, ref. no. CSF/HSE/002115) on 21 Dec 2021 Specific trainings of proper handling of leakage adjacent to the river/drainage for JV managerial and supervisory staff 	
COM-2022-01-01	Close to Shek Wu San Tsuen (ND/2019/04)	13 rd January 2022	A complaint was referred from EPD on 14 Jan 2022 from a public member alleged the captioned Project of "我們每個工作天都會受到高噪音和震動的影響,在沒有足夠的保障下,使近距離的民居十分擔心,屋裂有惡化跡象,兒童/長者難有	Contractor have carried out daily noise monitoring and vibration monitoring. No exceedance was recorded. The monitoring results are displayed on the notice board for easy reference. For noise control measures, QPME label are affixed to generators and acoustic noise barriers are mounted on powered mechanical equipments such as	Closed

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			寧靜環境,成人在家中工作、兒童做功課在噪雜的環保下,難以適應,我們很希望受到合理的重視和改善,使實際環境不會太差。"	excavators, crawler cranes and vibration hammers and installed along hoarding to minimize noise nuisance to neighborhood. Based on the findings of investigation, no exceedance of noise and vibration monitoring was found. Contractor will ensure that the construction works carried out must comply with the condition stated in the Noise Control Ordinance and to implement mitigation measures proposed in the Project Implementation Schedule.	
COM-2022-01-02 Near Sheun Yue River (ND/2019/02)	Yue River	28 th January 2022	A complaint was received from 1823 on 28 Jan 2022 regarding "在雙魚河河邊單車徑附近的工程,一個多月來,當工人沒有工作期間,所有機械都沒有熄匙,當機械運作時,產生很大的嗓音及很多廢氣。 理解工人有工作時,機械運作是正常,	Investigation was conducted by contractor on 4 Feb 2022. All plants are turned off when awaiting more than 3 min. Dark smoke monitoring for the powered mechanical equipment had been carried out. No dark smoke was recorded. Based on the findings of investigation, no exceedance of noise and air monitoring was found.	Closed
			但一個月來工人沒工作時,機械依 然運作,產生問題嚴重,要求部門 跟進及處理。"	Follow-up Actions had been conducted on 4 Feb 2022. Mitigation measures are implemented. Dull green barriers are installed around active works areas to prevent dust emitted to the public. QPME is used to minimize noise nuisance to the neighbourhood.	
				Specific environmental training about Noise and Smoke Control for Plants was provided to frontline staff on 4 Feb 2022. The frontline staff was reminded to switch off idling equipment for	

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				preventing recurrence of idling construction equipment awaiting on site, and carry out routine maintenance of plant and equipment for mitigating unwanted noise and air pollutant emissions.	
COM-2022-02-01	Ng Tung River (ND/2019/04)	17 th February 2022	EPD received 2 complaints from members of public about suspected disposal of foam waste and illegal discharge from the captioned Project to Ng Tung River on 13 & 16 Feb 2022 respectively. Details of complaint case received on 13 Feb 2022: 「本人途經唔上水悟洞河近馬屎埔新村附近地盤發現河道有大量懷疑發泡膠影響何到魚類生物,要求環境保護署或相關部門進行跟進」 Details of complaint case received on 16 Feb 2022: 「2022年2月10日下午三時,發現梧桐河面出現乳白色,懷疑與附近工程泥漿水有關,懷疑經雨水渠排出。」	Investigation was conducted by contractor. It is found that no foam has been used on site. No construction works was carried out during 9 Feb to 14 Feb 2022 at A3 piling platform as two suspected close contact cases for A3-02 piling platform team was found. The bored piling works and A3 piling platform welding works was suspended from 9 Feb 2022 and resumed on 14 Feb 2022 after the whole team received negative results. Mitigation measures are implemented, there is a silt curtain enclosing the opened workfronts and the openings of the A3 piling platform. Hence, the platform and other workfronts along the river have no discharge to the river. In addition, it is reported that suspected contaminated water was discharging to Ma Wat River from surrounding industrial buildings near C5 contract site. Based on the findings of investigation, no foam	Closed

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				has been used by on site and no suspected contaminated water was discharged from the project. Thus, the complaint cases are not caused by our project.	
COM-2022-03-01	Near Ho Sheung Heung (ND/2019/02)	2 nd March 2022	A complaint was received from EPD on 8 Mar 2022 from a public member regarding "投訴河上鄉鄉公所附近地盤的機器及吊雞車的難嗅氣味滋擾"	Joint inspection for the issue was conducted by AECOM, Environmental team, Contractor on 9 March 2022 and no source of odour was found during the inspection. There was no major works. The area is for temporary soil storage. Only one excavator is at Portion 11. The excavator is well maintained and no bad smell is emitted. Moreover, all plants are checked before used. As per the contract requirement, project must use Euro V diesel in our plants, which is a cleaner fuel than industrial diesel and shall generate less odour. Project regularly conducts diesel sampling and testing to ensure that the used fuel is Euro V diesel. A diesel sampling for the excavator at Portion11 was also conducted on 9 March 2022. Based on the findings of investigation, all plants are well maintained and checked before use. Cleaner fuel is used for plants onsite. No odour was found. CW-KL JV mitigates air pollution	Closed
				from sources to reduce environmental nuisance to the neighbourhood.	
COM-2022-03-02	Near Ho Sheung Heung (ND/2019/02)	23 rd March 2022	A complaint was received from EPD on 22 Mar 2022 from a public member regarding "河鄉近洪聖爺廟	Joint inspection for the issue was conducted by AECOM, Environmental team, Independent Environmental Checker and Contractor on 25 March 2022. There was no major works. The area	Closed

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			有個很大的基建地盤,經常發出很大噪音,包括車輛駛入後停泊時的聲浪,地盤面積有半個摩士公園大,車輛可以泊到其他地方,減少對居民的滋擾,之前亦曾作出相同投訴,有環保署職員跟進,故現堅持要求再次跟進及回覆"	is for temporary soil storage. A dump truck was at portion 11, but left the site in short time. All dump trucks used in the project would not stay on site overnight and left the site before 6p.m. One excavator and one loader were at Portion11. No idling crane lorry was at Portion 11. The equipment would be switched off when not in use. Moreover, all our plants are well maintained and checked before used.	
				Noise monitoring around Portion 11 had been conducted on 26, 28 and 29 March 2022 (AM and PM periods) by Contractor with AECOM. The noise levels are lower than the standard of noise requirement for domestic premises (75dB(A)). It was predicted that no noise exceedance would be found at NSRs.	
				Environmental Training related to use of equipment onsite had been provided to site staff to increase their awareness of environmental protection. Posters of mitigating adverse environmental impacts had been fixed at Portion 11 to increase workers' environmental awareness. QR codes for air quality, noise, and water quality monitoring data conducted by Environmental team of the project had been also fixed at Portion 11 for the public's information.	
				Based on the findings of investigation, all plants	

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				are well maintained and checked before use. CW-KL JV mitigates noise pollution from sources to reduce environmental nuisance to the neighborhoods. No noise exceedance is predicted to be found at NSRs. Environmental promotion is given to site staff to increase their awareness of environmental protection.	
COM-2022-06-15	Near Ng Tung River, adjacent to Shek Wu San Tsuen North (ND/2019/04)	5 th July 2022	A complaint was received from EPD on 15 June 2022 from a public member regarding "本人住在梧桐河多年,每天都會到河邊兩岸進行晨運或會經河邊出外購物。由年頭開始,兩岸邊有些小型機械在進行工程,開始時還好,但近期發現機械所發出的黑煙比以前多,有時發現有些污水,泥水和油污流道出行人道來。本人有一次發現有些泥水和油污落到溝渠和地面,便好心跟現場人員講叫他們小心。但是他們沒有理會,因為梧桐河是一個非常美麗的地方,假日也有很多人來遊玩。避免意外發生,希望貴處能代為處理。"	Investigation was conducted by contractor and reply as follow: "工程團隊經常及日後亦會加緊巡視地盤範圍,同時敦促工程人員注重機械及挖掘機的廢氣排放,以及工程污水或泥水流出,減少對周邊環境的影響。" Air monitoring was conducted on 2, 8, 14, 20, 24 and 30 June 2022, including AM and PM period. No exceedance of air monitoring was found. One exceedance of Water Quality Monitoring was found on 13 June 2022, but based on the investigation report, there was no direct evidence showing that the exceedance recorded at the 3 nearby monitoring stations were due to Contract. For dark smoke emission, the contractor would collect and test the Ultra Low Sulphur Diesel(ULSD) content monthly. For monitoring of any muddy water discharging from construction activities, the contractor would collect and test the suspended solids from Ng Tung River monthly, also collect and test pH, suspended solids and	Closed

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				COD of wastewater sampling at wastewater treatment plant monthly.	
COM-2022-06-28	Near Ng Tung River, adjacent to Shek Wu San Tsuen North (ND/2019/04)	5 th July 2022	A complaint was received from EPD on 28 June 2022 from a public member regarding "連續兩日聞到燒塑膠燒鐵味,然後見到地盤這部機放黑煙,每幾秒噴一次村民不想再持續吸入這些毒氣。"	Investigation was conducted by contractor and reply as follow: "本工程沒有包含燃燒塑製品或鐵製品工序,而附近居民有焚燒垃圾習慣,有可能因而產生誤會;工程所使用的機械及挖掘機已符合環保署要求,有團隊接收投訴後即時於6月29日安排維修人員檢查相關挖掘松並無異常,同時就投訴人的關注已於7月4日將所述挖掘機調離該範圍。工程團隊會繼續盡力安排工程機械及挖掘機在合理工作距離內遠離居民住處,以減少對居民的影響。"	Closed
COM-2022-06-30	Near Ng Tung River, adjacent to Shek Wu San Tsuen North (ND/2019/04)	5 th July 2022	A complaint was received from EPD on 30 June 2022 from a public member regarding "講嚟講去都係得個講字,日日都大塵,又話整自動灑水系統等咗咁耐都有,機器又放黑煙又臭。"	Investigation was conducted by contractor and reply as follow: "自動灑水系統已安裝完成,另外工程人員亦會手動向工地範圍噴灑水份,以減低塵埃對附近居民的影響;而由於相關投訴時段(6月30日)至今均為兩天,工程人員亦有持續觀察塵土飛揚及泥水等開題,由於雨水可有效隔絕塵埃,待天氣好轉後相關恆常減少塵埃的措施亦會恢復,例如地面乾燥就會進行相對應減少塵埃的措施,包括人手及自動灑水等。"	Closed
COM-2022-07-21	Man Young Storage area (ND/2019/05)	21st July 2022	EPD received a public complaint on 14 July 2022 from nearby villagers regarding noise and odour nuisance from generators. Complaint detail is as follow:	Investigation was conducted by contractor and clarify a few points as follow: 1. Instead of four generators being used simultaneously from the complaint, there shall be actually two generators being used	Closed

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		"現投訴地盤長期24 小時 長期用柴油發電機,做成民居滋擾,因為噪音及震動.附近居民無法睡眠,柴油氣味亦令人非常討厭,請問法例是否不能晚上七點後不能用柴油發電機.另外那地盤晚上七點後亦有人工作.故亦不一需要長時間開發電機同時開動.。該地盤為保華公司與中國建築聯營。正確地址為粉嶺塘坑村370 號。萬勇地盤。燈柱號碼AJ2326對面"	alternatively (one is solely for standby purpose) for power supply of site works and containers. 2. Instead of 24 hours operation of the concerned generator from the complaint, there shall be actually no restricted hour (19:00-07:00) works for generator operation according to our permit-to-work system (see appendix I). 3. A valid construction noise permit (ref. no.: GW-RN0551-22) is obtained on 11/7/2022 covering concerned works area and PMEs before 23:00 (see appendix II). All conditions imposed on permit will be strictly followed once restricted hour works are conducted. The cause of the complaint is concluded to be noise and odour nuisance for the daily operation of one generator in non-restricted hours (07:00 to 19:00). For noise mitigation measures, contractor had arranged all generators of Quality Powered Mechanical Equipment (QPME) type and installed sound reduction fabric along the side of site boundary facing to the villagers. On top of these measures, JV had installed acoustic blanket (27 dB sound reduction) enclosing the two generators for non-restricted hour operation For odour mitigation measures, on top of currently	

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				using all generators with approved NRMM type, JV also installed odour adsorption bags which is made of activated carbon during oil fueling practice to further reduce nuisance.	
COM-2022-07-27	Near Portion 1b/1c (Ma Tso Lung) (ND/2019/01)	27th July 2022	A complaint referred from 1823 regarding dust emission and noise impact, "古洞馬草壟地盤沒有任何圍板引致沙塵及噪音影響附近村民事宜"	The contractor claimed that due to the confirmation of site formation level of the hoarding, water main diversion and necessary access, the erection of site hoarding is on hold. Weekly environmental walk was conducted at the mentioned area on 19 and 26 July 2022, no obvious dust emissions and noise impacts were identified. EPD carried out complaint investigation at Portion 1b / 1c on 26 July 2022 at 11:00, no adverse comment was given. Air quality monitoring and noise monitoring were carried out at nearby location once to twice a week and no exceedance was recorded. An ad-hoc noise monitoring was carried out on 28 July 2022 at Portion 1b, no exceedance was recorded also. The contractor would start the hoarding erection in early of August 2022, erect tarpaulin sheet on temporary fencing in front of villager's house etc as mitigation. The environmental conditions of the site will be continuously reviewed and monitored to ensure no adverse impacts generated from the construction works of the Project.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2022-07-21	Lower Ng Tung River (from upstream Ma Wat River) (ND/2019/05)	29 th July 2022	EPD received a complaint on 29 July 2022 concerning that the brownish silty water was continuously flowing to Lower Ng Tung River from upstream of Mat Wat River. The complaint was forwarded to ET by EPD through email on 5 Aug 2022. Based on peripheral inspection, the muddy water was spotted.	At the time of EPD's inspection, a tiny gap was found at the bund around the sheet piles at B2-03. The gap was then sealed off so as to prevent muddy runoff from the sheet piling work. Concerning the photo taken at C2-02 by EPD, there shall be collection facilities to divert runoff to our wastewater treatment plant prior to discharge. Wastewater collection facilities including sufficient water pumps and flexible pipes are prepared during works. Meanwhile, below are some JV's regular preventive measures for water pollution control: 1. 18 nos. of wastewater treatment facilities are operating for different working areas including B2-03 and C2-02; 2. Discharge qualities are regularly monitored and tested by HOKLAS accredited laboratory. The results show all discharge quality are complying with discharge standards as per discharge license, test results for concerned areas which were submitted to EPD.	Closed
COM-2022-08-08	Ma Wat River near Lamp Post EB1339 (ND/2019/05)	8 th August 2022	EPD received a complaint EPD ref: N07/RN/00016607-22 on 8 August 2022 and forwarded to ET through Email on 12/08/2022 and transferred to JV on the same day.	Noise Refer to the Contractor's internal Permit-to-Work (PTW) System for restricted hours works, there was no works carried out at Pier C4-01 on any Sundays or public holidays which is nearest to the	Closed
			The complaint content: "近電燈柱	lamp pole EB1339 since 13 July 2022. The	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			EB1339 沿麻芴河一帶,有一大型建天橋工程,本來已經帶給鄉郊空氣和噪音污染,近來星期日和假期也開工,其機器均嘈雜和發出廢氣,貴署不應該容許工程在假日運作,嚴重影響跑步、踏單車和郊遊人士。請貴署注視。"	Sundays works at Pier C4-02 and C4-03 which are further away from the aforesaid lamp pole were performed in accordance with the CNP ref. GW-RN0551-22 (with validity from 11 July 2022 to 10 October 2022 granted by EPD on 30 June 2022). Therefore, the possible cause of the incident might be Sundays' works at Pier C4-02 and C4-03 on 31/07/2022 and Pier C4-02 on 07/08/2022 but the works at these areas were carried out in complying with the condition to the valid CNP.	
				Air For the aforesaid Sundays' works for Pier C4-02, a generator has been used and emitted exhaust gas that might be the cause of the incident. There is a high volume sampler for regular air monitoring at around 30m distance from the generator. Up to now, there was no any exceedance reported from ET since commencement of the project. Based on the above findings, it might conclude that there was no any non-compliance issue.	
				Nevertheless, the Contractor will conduct internal surprise check to the restricted hours works, if any, and give exhaust checking and fuel testing to ensure compliance of ULSD standard.	
COM-2022-08-16a	Ma Wat River near Lamp Post EB1339 (ND/2019/05)	16 th August 2022	EPD received a complaint (EPD ref: N07/RN/00017008-22) regarding water pollution in Fanling On Lok Tsuen near lamp post EB1339 on 16	To facilitate ET's investigation, this report is providing the following information: Since the works areas vicinity to lamp post EB1339 are Piers C4-01 and C4-02, the following	Closed

Log Ref. Locati	ion Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
		August 2022. EPD forwarded the case to ET through email on 17 August 2022. The complaint content: "本人留意到近麻芴村的麻芴河有大量水泥水流入河,影響釣魚人士,查看下,是由上游(近安樂村業和街利亨中心近電燈柱EB1339)一帶的多個大型工程的水泥流入河。 另外,建築物和工地範圍和附近很多積水,很污糟,有大量工人的飯盒和垃圾,引起蚁患和衛生。"	investigation are focusing on these two works area locations. 1. Site activities at Piers C4-01 and C4-02; From thorough investigation, there are only minor defect rectification works for pier concrete surface at Pier no. C4-01 which is nearest to the lamp pole EB1339. Besides, there are only formwork/falsework dismantling works in the concerned area at Pier C4-02 which is further away from the aforesaid lamp pole. The whole area has been hard paved without any muddy surface. It is reasonably concluded that there are no construction activities in the concerned location which would generate large amount of muddy water. 2. Preventive measures for pollution control; 18 nos. of wastewater treatment facilities have been setup and operating for different working areas including works area of Pier Nos. C4-01 & C4-02 in the concerned period. 3. Latest discharge monitoring results; The water quality of the discharge from the Site have been monitored according to the granted discharge licence ref. WT00036996-2020. Discharge qualities are regularly monitored and tested by HOKLAS accredited laboratory. The results show all discharge samples are complying with discharge standards outlined in discharge license, test results of discharge sample in concerned areas which were	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				submitted to EPD. 4. Any possible source of muddy discharge to induce the captioned incident; Based on the above information and investigation findings, it is concluded that the source of muddy discharge was not related to the construction activities under Contract No. ND/2019/05. 5. Housekeeping; Receptacle with lid were provided on site. Cleaning have been performing in daily basis. Daily morning brief have been conducting to remind frontline staff about housekeeping.	
				Although it is concluded that the complaint was not related to the Contract, the Contractor will keep daily monitoring on site condition and visual check discharge qualities against with standard solution of suspended solids (30 mg/L stipulated in licence condition) in order to get rid of any muddy discharge to the river. In addition, the Contractor will regularly conduct morning briefing and tool-box training to the frontline for keeping refresh their awareness on muddy water control.	
COM-2022-08-16b	Ma Sik Road and Sha Tau Kok Road near Lung Yeuk Tau (ND/2019/04)	16 th August 2022	A complaint was received from EPD on 16 August 2022, "One Innovale construction site located in Ma Sik Road and Sha Tau Kok Road (Lung Yeuk Tau) that has been creating not only serious dust but also muddy	Investigation was conducted by contractor and reply as follow: "Despite the fact that the One Innovale construction site, where the complainant concerned about, is not part of ND/2019/04 project, we would ensure all vehicles has used the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			materials along the main road. During sunny days, dust flies up with busy traffic flow. This morning I even saw muds dropped down from the trucks made the road a muddy mesh pollution."	wheel washing facilities before leaving the site. Also, we have assigned two workers to conduct cleaning works to area adjacent with our vehicle egress. Moreover, we inspect every dump trucks on application of mechanical dump truck cover and keep photo records for compliance control. In addition, water bowser is arranged for road washing along Sha Tau Kok Road adjacent with our vehicle egress regularly."	
COM-2022-09-01	青山公路近燈 柱EA2139 (ND/2019/01, ND/2019/05)	1 st September 2022	Complaint received by EPD on 1 Sep 2022 and forwarded to ET on 2 Sep 2022, "投訴土木工程署,環保署監管不善,大量黃泥水從地盤流入附近河流,影響生態. 地點:青山公路近燈柱EA2139".	Investigation was conducted by contractor and reply as follow: "A soil storage area was handed over from ND/2019/01 to ND/2019/05 on 18 August 2022. As this is a new area just possessed about 2 weeks before the date of this complaint, site preparation and setup such as wheel washing bay, temporary drainage system, wastewater treatment facility etc. were still undergoing. Some temporary measures were provided in place for preventing runoff into the adjacent public drainage system. During the site preparation and setup works, it was found that there is a pipework by others outside C5's site which intermittently discharges muddy water into the surface drainage and suspected the complaint is caused by this. Contractor of C1 also provided certain information as follow: "Portion 1e (next to the said area) which is a temporary storage area with no major construction works will be carried out at such portion. The grey water pipe which is	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				belongs to other contractor nearby and muddy water discharge into the surface drainage was occasionally observed. We suspected the complaint is caused by this. Few water pipes were identified at the north sides near the interface of other contractor." From 5 Sep 2022, the weekly environmental inspection of C5 with Environmental Team (ET) will cover this area for regular identification of any deficiency in environmental management.	
COM-2022-09-29	Construction site nearby Dills Corner Garden Blk 5 (ND/2019/02)	29 th September 2022	Complaint received by EPD on 29 Sep 2022 and forwarded to ET on 30 Sep 2022. Complaint detail is as follow: "石仔嶺花園第五座投訴工程噪音滋擾。我們不知承辦商工程,請幫忙跟進。謝謝!"	Joint inspection for the issue was conducted by AECOM, EPD and Contractor on 29 September 2022. Installation of sheet pile by Vibration Hammer was in progress during the inspection. Considering the founding during inspection and in order to quantify the noise nuisance made by related works, noise monitoring around Portion 2 had been conducted on 30 September, 3 and 5 October 2022(AM and PM periods) by Contractor with AECOM. Result shown that all noise levels are lower than the standard (75dB(A)). But the traffic condition has been considered as an influencing factor. Based on the findings, no noise exceedance is predicted to be found at NSRs. Several mitigation measures have been taken to alleviate the impact made. Noise screen has been erected along the fencing at Portion 2. Moreover, noise generation works including installation of sheet pile will be suspended at Portion 2 during 11:00-14:00 of working day. Environmental	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				promotion is given to site staff to increase their awareness of environmental protection.	
COM-2022-10-06	Fanling On Lok Tsuen near lamp post EB1339" (ND/2019/05)	7 th October 2022	Complaint received by EPD on 6 Oct 2022 and forwarded to ET on 7 Oct 2022. "近電燈柱 EB1339 近麻芴河,有一大型建天橋工程,星期日和假期幾十名工人正在開工,工作間大型鐵板聲炒耳,工人大聲叫囂,還開擴音器播歌使附近寧靜的安樂村、麻芴村、塘坑村和郊遊人士不安寧。"	Based on the Contractor's internal Permit-to-Work (PTW) System for restricted hours works, there was no works carried out at Pier C4-01 on recent Sundays or public holidays where is located near lamp pole EB1339 since September 2022. The holiday works at Pier C4-02 which are further away from the aforesaid lamp pole were carried out on 04/10/2022 in accordance with the CNP ref. GW-RN0551-22 granted by EPD. The works involved housekeeping and scaffold erection without any Powered Mechanic Equipment (PMEs). Therefore, the possible cause of the incident might be the work at Pier C4-02 on 04/10/2022. But the scaffold erection involved prescribed construction work in non-Designated Area was carried out with fully compliance with the valid CNP. Therefore, it might conclude that there was no any non-compliance issue. Nevertheless, the Contractor have conducted specific training to relevant site supervisors to remind workers to refrain from using loud speakers/playing loud music for works during restricted hours and to ensure keep the restricted hours works as quiet as possible, if any, and will install sound absorbing materials for the concerned works.	Closed
COM-2022-10-09	Portion 5 (ND/2019/02)	17 th October 2022	Complaint received by EPD on 13 Oct 2022 and forwarded to ET on 17	As mentioned by EPD, the construction site is near Shek Sheung River. The complaint location	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			Oct 2022. The complainant alleged the captioned Project of "有關上水石上河有地盤直接排放污水落河事宜 2022 年 10 月 9 日 地盤直接排放污水落河"	may be Portion 5 of project site. Joint inspection for the issue was conducted by EPD, AECOM and Contractor on 14 October 2022. According to the record of construction site, no work was arranged on 9 Oct 2022. Subject to the comments made by EPD staff during the site inspection, several mitigation measures have been taken to enhance the water pollution control performance. Contractor had arranged a wastewater treatment tank to replace the existing tank on site to improve the treatment performance and one more sedimentation tank is introduced to increase the detention time. Moreover, all hoses related to the wastewater transportation have been removed from the slope near Shek Sheung River. Also, water discharge has been suspended for the facilities enhancement. Contractor enhanced the routine checking and maintenance of wastewater treatment facilities including cleaning and replacing of tanks. Posters of mitigating adverse environmental impacts had been fixed at Portion 5 to increase workers' environmental awareness. Training has been provided for site staff. Based on the findings of investigation, CW-KL JV enhanced water pollution control to reduce nuisance to the environment. Environmental promotion is given to site staff to increase their awareness of environmental protection.	
COM-2022-10-18	安樂村新界蔬	28 th October 2022	EPD received a complaint (EPD ref: N07/RN/00022664-22) regarding	Since the works areas adjacent to North District Temporary Wholesale Market (北區臨時農	Closed

Log Ref.	Location Received	Date Details of Complaint	Investigation/ Mitigation Action	Status
	比發市場旁 D/2019/05)	water pollution in "construction works of the Kwu Tung North new development area of NENT Project" on 18 October 2022 and forwarded to ET through E-mail on 28 October 2022 and ET transferred to JV on the same day. The complaint alleged: "投訴安樂村新界蔬菜批發市場旁有人私自破壞污水渠並把污水接駁至麻笏非法排放污水,投訴人表示親眼見到涉事人員鑿爛污水渠,具體位置會後續來電補充附近的燈柱號碼,又表示部門跟進時如需要具體位置亦可直接聯絡查詢人。"	River" is not observed on-site. There were substructure construction works which did not generate wastewater in Portion I and II. 2. Preventive measures for pollution control; 2 nos. of wastewater treatment facilities have been setup and operating for works area in portion I & Portion II in the concerned period.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2022-10-31	near Po Lau	31st October	EPD received a complaint with ref:	monitored. Based on the above findings, it is concluded that the complaint was not related to the Contract. Contractor will continue daily monitoring on our site condition and visual check discharge qualities against with standard solution of suspended solids (30 mg/L stipulated in licence condition) in order to get rid of any water pollution to the river. In addition, Contractor will regularly conduct morning briefing and tool-box training to the frontline for keeping refresh their awareness on water pollution control. The suspected complaint location was Portion 1b.	Closed
COM-2022-10-31	near Po Lau Road, Kwu Tung (ND/2019/01)	2022	N07/RN/00024008-22 on 31 October 2022 and referred the complaint to ET. Description: A complaint referred from EPD regarding dust impact near Po Lau Road, Kwu Tung. The complaint alleged: "古洞開發區波樓路新大樓附近有路面平整工程,早上九時多有儲泥及卸泥活動,吹起沙塵,影響駕駛安全"	According to the records of Hong Kong Observatory on 31 October 2022, typhoon signal number 1 was hoisted and the local winds were generally strong. 1. Weekly environmental walk and EPD ad-hoc inspection was carried out on 01 November	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				 Dust monitoring was carried out at KTN-DMS4(B) on 21 Oct 2022 and 27 Oct 2022, no exceedance was recorded. Cover the slope surface with impervious sheeting. Addition water browser with capacity 20,000L was deployed on site on 01 November 2022. Hydroseeding to exposed soil once the formation level reached. Keep closely monitoring on the concerned area. 	
COM-2022-11-10	Construction site near Shek Wu San Tsuen North (ND/2019/04)	10 th November 2022	EPD received a complaint with ref: N07/ RN/00025077-22 on 10 November 2022 and referred the complaint to ET and IEC on 2 December 2022. The complaint alleged: "White smoke was emitted from an operating crane (blue/white color) in the construction site of Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section nearby Shek Wu San Tsuen North."	There was a crane in blue/white color working in the area nearby Shek Wu San Tsuen. According to Contractor's record, the crane has stopped works since 10 Nov 2022 afternoon for the preparation of removal from site. No white or dark smoke emission has been observed on 10 Nov 2022 morning. The crane was removed on 12 Nov 2022. Photo record shown that the blue/white crane was totally removed on 14 Nov 2022. Based on the findings of investigation, no emission of white smoke was observed on the date of complaint. The Contractor would keep monitoring the plant whether there are dark smoke emission and the operation would stop at once if dark smoke emission has been observed, by comparing with the Ringelmann Chart.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2022-12-07	Construction site near Lamp post VD6513 (ND/2019/05)	7 th December 2022	EPD received a complaint with ref.: N07/RN/00028143-22 on 7 Dec 2022 and referred the complaint to ET and IEC on 14 Dec 2022. The complaint alleged: "本人住北區,習慣晨運,目睹近來北區太多基建工程,已經很多污染,環保署有沒有積極監察? 本人於星期日(27.12.2022),行經粉嶺龍山近塘坑村附近,近電燈柱VD6513,興建中的橋跨行人路,高空掉下釘子在行人路上,掉下發泡膠並隨風吹散各地和麻芴河流中,請環保署查看是否有物質?做成污染。附上圖。另外,水馬大部分欠蓋存積水。 高空掉建築物很危險"	 The investigation results are as follows: The works area vicinity to lamp post VD6513 is Piers C4-03. There are viaduct construction works above the concerned lamp post. Expanding foam and tiny metal nails found over there were both non-hazardous and non-harmful substance. It is suspected that they were some remaining left behind from previous foundation construction works or by the public due to there is a public area currently. Although the material might be not from the current works, to maintain good neighborhood relationship, the Contractor have promptly followed up as follow: A. Cleaned up the expanding foam and metal nails, B. Tightened and securely fixed the safety net, C. Sealed up those water-filled barriers without lids and their damaged parts. JV conducted joint site inspection with EPD inspectors at the concerned area on 13 Dec 2022. EPD satisfied with the above follow-up actions taken for the complaint. 	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-01-12	Sheung Yue River (ND/2019/01) (ND/2019/02)	12 th January 2023	As reported by DSD, DSD had a joint site inspection, and observed large amount of muddy runoff was outflowing from the construction sites at Kwu Tung North into Sheung Yue River, which divided into 3 main sources of muddy runoff.	Due to the complaint location, there will be two contractors conducted the investigation as below. From Contract Number (ND/2019/01): Investigation was conducted by contractor and reply as follow: Investigation Findings: 1. The suspected complaint location was between Portion 7 and the outlet of Sheung Yue River. 2. According to the site records, activities include trimming and compaction of formation level and installation of lamp post were conducted. 3. EPD staff carried out investigation on 16 January 2023 and two water samples were collected. 4. An immediate checking by supplier was arranged to check the efficiency of the wastewater treatment plant. 5. During the checking, it was observed that the chemical dosing system was found clogged due to undissolved chemical, and it has been repaired. 6. The chemical was found lumping due to recent high relative humidity. 7. According to the records of Hong Kong Observatory on 10-15 January 2023, the relative humidity was reached to at least 94%. 8. An inspection was carried out with ET, it was observed that a covered u-channel was found damage and mud was accumulated at the bottom of the channel. Wastewater discharged from wastewater treatment plant may mixed with the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				accumulated mud and cause the wastewater	
				become turbid / muddy.	
				9. Visual comparison was conducted with ET	
				on17 January 2023, the colour of the glass bottle	
				collected from wastewater treatment plant looks	
				clear when compare with the standard solution.	
				10. During the ad-hoc inspection on 27 January	
				2023, inadequate treated wastewater discharge	
				from nearby private construction site was	
				observed.	
				Mitigation Measures and Follow-Up Actions:	
				1. Properly store the chemical with covered	
				tarpaulin to prevent lumping;	
				2. A refresher training for WWTP operation and	
				maintenance by supplier was provided to foreman	
				and designated workers;	
				3. Repair the damaged u-channel;	
				4. Arrange to clear the accumulated sludge in the	
				channel; and	
				5. Keep closely monitoring such as daily visual	
				inspection on the WWTP and clear the	
				accumulated sludge in the channel.	
				From Contract Number (ND/2019/02):	
				Investigation was conducted by contractor and	
				reply as follow:	
				As mentioned by EPD and DSD, the finding was	
				happened at the upstream of Sheung Yue River	
				and the project site falls along the downstream of	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				complaint location.	
				1. Joint inspection for the issue was conducted by	
				EPD and DSD on 11 January 2023.	
				2. According to the record of construction site, no	
				work was arranged on 12 January 2023 at Portion	
				1 along Castle Peak Road. Formwork, steel work	
				and welding were carried out along Sheung Yue	
				River. Site inspection and discharge sampling by	
				contractor itself was conducted 12 January 2023	
				along all of the functioning wastewater treatment	
				facilities along Sheung Yue River and no muddy	
				discharge was found. The condition of outfall	
				along rivers were also checked.	
				3. According to investigation by contractor 12 Jan	
				2023, no muddy discharge from our project was	
				observed. Preventative measures have been	
				provided to further reduce the risk of illegal	
				discharge. Silt Curtain has been installed along	
				outfall and workfront with potential risk of	
				polluted runoff has been installed sheet pile and	
				canvas was provided to intercept runoff due to	
				rainwater.	
				4. Checking and maintenance of wastewater	
				treatment facilities have been carried out by	
				supplier before the joint inspection by EPD and	
				DSD.	
				5. Training on proper wastewater treatment and	
				discharge has been provided for site staff to raise	
				the awareness of site staff at all levels.Conclusion:	
				Based on the findings of investigation, CW-KL	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				JV enhanced water pollution control to reduce nuisance to the environment. Environmental promotion is given to site staff and workers to increase their awareness of environmental protection.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-02-03	a construction site near On Lok Garden at On Fuk Street, North District. (ND/2019/05)	3 rd February 2023	EPD received a complaint with ref.: N07/RN/0002434-23 on 29 Jan 2023. Complaint detail: Suspect some closeby construction sites flow the waste water into the river that potentially kill the fish inside the river.	The investigation result as follows: Since the concerned area near On Lok Garden is Portion V, the following investigation is focusing on portion V and its nearby works area (portion VI & VIII) from upper stream of Ma Wat River. 1. Site activities at concerned areas; There were superstructure construction works (i.e., construction of pier and portal beam and segment) which did not generate wastewater in Portion V and its nearby works area from upper stream of Ma Wat River. 2. Preventive measures for pollution control; 19 sets of wastewater treatment facilities have been setup and operating for all works area for Contract No. 5 which covering all of the concerned works areas, 3. Latest discharge monitoring results; The water quality of the discharge from the Site have been monitored according to the granted discharge licence ref. WT00036996-2020. Discharge qualities are regularly monitored and tested by HOKLAS accredited laboratory. The results show all discharge samples are complying with discharge standards outlined in discharge license, test results of discharge sample in concerned areas which were submitted to EPD.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				 4. Any possible source of muddy discharge to induce the captioned incident; No wastewater generating activities were conducted at Portion V in concerned period between 06:48 to 06:53 on 19 January 2023. Wastewater (if any) from all our construction activities is properly collected, treated and monitored. During joint inspection with EPD inspectors and the Supervisor as well as the contractor on 31 January 2023, off site wastewater sources from other discharge pipes at upper stream of Ma Wat River are observed which are highly potential contributing to the incident. 	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-02-08	Construction site near Dills Corner Garden (ND/2019/01)	8 th February 2023	EPD received a complaint with ref.: N07/RN/00003315-23 on 6 Feb 2023. Complaint detail: 投訴波樓路石仔嶺花園裏面的 打椿工程噪音	 The investigation result as follows: The suspected complaint location was Dills Corner Garden where few contracts which included ND/2019/01, ND/2019/02, ND/2019/05 and private construction site were carried out construction works nearby. There was no foundation work carried out at or near Drills Corner Garden under ND/2019/01. The nearest site area Portion 1e was a temporary storage area for construction material where no construction works carried out. However, piling work was identified next to the Drills Corner Garden which was not belonged to ND/2019/01. According to the EPD records, there were two piling permits granted to other contactors near the Drills Corner Garden which were not under ND/2019/01. As there was no foundation work carried out under ND/2019/01, no mitigation measures or follow-up actions were proposed. 	Closed

APPENDIX T SUMMARY OF SUCCESSFUL PROSECUTION

Appendix T - Summary of Successful Prosecution

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

APPENDIX U SUMMARY TABLE FOR REQUIRED SUBMISSION UNDER ENVIRONMENTAL PERMIT

Development of Kwu Tung North and Fanling North New Development Areas Summary for the EP Submissions

DP No.	EP No.	Designated Project	Phase (1st Phase = 1, Remaining Phase = 2)	Commencement date of construction	C1	C2	С3	C4	C5	C6	C7
<u>DP2</u>	EP-466/2013/A	Castle Peak Road Diversion	1	12-Aug-20	<u>C1-DP2</u>						
DP3	EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	1	12-Aug-20	C1-DP3						
DP4	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	1	1-Jun-20 (for C1) 3-Jul-20 (for C3)	C1-DP4		<u>C3-DP4</u>				
DP5	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area	1	28-Oct-20		<u>C2-DP5</u>					
DP7	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	1	23-Mar-20	<u>C1-DP7</u>						
<u>DP10</u>	EP-473/2013/A	Fanling Bypass Eastern Section	1	6-Oct-20 (for C3) 23-Feb-21 (for C4) 1-Aug-20 (for C5)			C3-DP10	C4-DP10	C5-DP10		
<u>DP12</u>		Reprovision of temporary Wholesale Market in Fanling North New Development Area	1	29-Oct-19						<u>C6-DP12</u>	
<u>DP14</u>	EP-546/2017	Fanling North Temporary Sewage Pumping Station	1	16-Feb-21				<u>C4-DP14</u>			

DP2	EP-466/2013/A	Castle Peak R	astle Peak Road Diversion			
Constr	uction commencement d	ate	12 August 2020			
Operat	Operation commencement date t					

Operati	on commencement date	<u> </u>	tbc			
EP Condition		Requirements and Subm	issions	Submission Status	Remarks	
	Li Condition	Period	Action	Timeframe	Subinission Status	ACIRAL AS
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction.	Notified 2 March 2020	
2.1	Establish of ET				Established 5 March 2020	Pre-construction ET
		Before	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	construction	experience in EM&A or environmental management.	commencement of construction .	Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction.	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction.	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction.	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Cultural Heritage Impact Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer. Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3.	prior to the commencement of construction.	Submitted 8 October 2022	
2.7	Cultural Heritage Impact Photographic and Cartographic Records/ Proposals on	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings at HKT08 and the entrance gate of HKT03.	prior to the commencement of the respective removal or relocation works.	NA	No relocation is required.
	relocation of any building	Others	For Approval - Proposals on relocation of any built heritages.	prior to commencement of the respective relocation work.	NA	No relocation is required.
2.8	Landscape Plan	Others	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project.	NA	Submitted justification 3 October 2022 PlanD comment 13 October 2022
2.10	Traffic Noise Mitigation Plan	Before construction	Submit	At least one month before commencement of construction	To be submitted before commencement of Remaining Phase works	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction.	Submitted by Pre- Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period.	Submitted by ET Monthly	
		During construction	Set up and Notify in writing the internet address.	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
4.2	Dedicated website	During construction and operation	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit.	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available.	N/A	
			Maintain	entire construction period and during the first 3-year of operation.	N/A	
Domorke.	tbc: To be confirmed					

DP: Designated Project

^{*} tentative submission date will be supplemented once available

The Landscape Plan will be submitted by CEDD's Castle Peak Road project team as confirmed since there is no existing tree is being affected by CEDD KTN NDA Phase 1 Works
within the small portion of area along Castle Peak Road (near Pak Shek Au) which is overlapped with DP2 work boundary.

DP3	EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and
		Pak Shek Au Interchange Improvement

12 August 2020 **Construction commencement date**

Operati	on commencement date)	tbc			
EP Condition			Requirements and Sumb	oissions	Submission Status	Remarks
	Er Condition	Period	Action	Timeframe	Submission Status	Kemarks
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1	Establish of ET				Established 5 March 2020	Pre-construction ET
2.1	Establish of E1	Before	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before the commencement of consturction	Deposited 31 July 2019	EPD Approved 9 August 2019
2.7	Cultural Heritage Impact Photographic and Cartographic Records	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical lanscape features at Locatoins KT38, KT44 and KT52.	prior to the commencement of the respective removal or relocation works	Deposited 10 Feb 2021	No relocation is required
2.8	Landscape Plan	Others	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	Deposited 19 December 2022	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
		During construction	Set up and Notify in writing the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
4.2	Dedicated website	During construction and operation	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
		орегиноп	Maintain	entire construction period and during the first 3-year of operation	N/A	
2 amarka:	tha: To be confirmed	•	•		•	

Remarks: tbc: To be confirmed
DP: Designated Project
*tentative submission date will be supplemented once available

DP4	EP-468/2013/A	Kwu Tung No	Kwu Tung North New Development Area Road D1 to D5	
Construction commencement date		1 June 2020		

Operatio	on commencement date	,	tbc			
	EP Condition		Requirements and Subm	issions	Submission Status	Remarks
	El Condition	Period	Action	Timeframe	Notified	Kemarks
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1	Establish of ET				Established 5 March 2020	Pre-construction ET
2.1	Establish of E1	Before	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.6	Cultural Heritage Impact Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	Submitted 8 October 2022	
2.7	Cultural Heritage Impact Photographic and Cartographic Records/ Proposals on	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18	prior to the commencement of the respective removal or relocation works	NA	No relocation is required.
leiocation	relocation of any building	Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	NA	No relocation is required.
2.8	Compensatory Tree Planting Plan	Before construction	For Approval	prior to the commencement of construction	Resubmitted 17 August 2022	EPD approved 31 August 2022
2.9	Habitat Creation and Management Plan	Others	For Approval	prior to the commencement of construction of relevant part of the Project	Submitted 20 October 2020	EPD approved 4 November 2020
2.10	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before commencement of construction	Submitted 31 July 2019	EPD approved 9 August 2019
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
		During construction	Set up and Notify in writing the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
4.2	Dedicated website	During construction and operation	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
		-	Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks: tbc: To be confirmed DP: Designated Project

*tentative submission date will be supplemented once available

DP5	EP-469/2013	Sewage Pump	ewage Pumping Stations in Kwu Tung North New Development Area				
Constru	Construction commencement date		28 October 2020				
Operation commencement date		tbc					

	ED C 144		Requirements and Subi	missions		_
	EP Condition	Period Action Timeframe		Timeframe	Submission Status	Remarks
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notify 14 October 2020	
2.1	Establish of ET				Established 5 March 2020	Pre-construction ET
2.1	Establish of E1	Before	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
2.2	Employment of IEC				Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 17 September 2020	
2.5	Location Plans	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 11 August 2022	First Deposited 15 October 2020
2.6	Landscape Plan	Before construction	Deposit	at least 6 weeks before the commencement of th corresponding parts of landscape and visual mitigation measures	Deposited 9 August 2022	Comments from PlanD on 8 September 2022
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
		During construction	Set up and Notify in writing the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
4.2	Dedicated website	During construction and operation	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
		operation	Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks: tbc: To be confirmed DP: Designated Project

*tentative submission date will be supplemented once available

DP7	EP-470/2013	Utilization of	tilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works			
Constru	Construction commencement date		23 March 2020			
Operation commencement date		tbe				

peration commencement date toc							
ED Condition		Requirements and Submissions			Remarks		
Er Condition	Period	eriod Action Timeframe		Submission Status	Kemarks		
Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notify 22 January 2020			
Establish of FT				Established 5 March 2020	Pre-construction ET		
Establish of E1	Before A	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET		
Employment of IEC	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC		
Employment of IEE				Established 20 February 2020	Construction Phase IEC		
Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET			
Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020			
Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020			
Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	by Fugro		
Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly			
	During construction	Set up and Notify in writing the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]		
Dedicated website	During construction and	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A			
	ореганоп	Maintain	entire construction period and during the first 3-year of operation	N/A			
	EP Condition Commencement date of construction Establish of ET Employment of IEC Update EM&A Manual Management organization of the main construction companies Layout Plan Baseline Monitoring Report Monthly EM&A Report	EP Condition Commencement date of construction Establish of ET Before construction Employment of IEC Update EM&A Manual Management organization of the main construction companies Layout Plan Before construction Before construction Before construction During construction During construction During construction During construction During construction During construction	Requirements and Submark	Requirements and Submissions	Requirements and Submissions Submission Status		

DP: Designated Project *tentative submission date will be supplemented once available

DP10	EP-473/2013/A	Fanling Bypa	anling Bypass Eastern Section						
Construction commencement date			1 August 2020						
Operat	ion commencement date)	tbc						
EP Condition			Requirements and Submi		Submission Status	Remarks			
EP Condition	Er Condition	Period	Action	Timeframe	Submission Status	Remarks			

EP Condition		Requirements and Submissions		Submission Status	Remarks
Condition	Period	Action	Timeframe	Submission Status	Keniai Ks
			no later than 8 weeks prior to the commencement of construction	Notified 8 September 2020	
olish of FT				Established 5 March 2020	Pre-construction ET
		Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
loyment of IEC	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
				Established 20 February 2020	Construction Phase IEC
ite EM&A Manual		Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
nain construction		Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 17 March 2021	
tion Plans		Deposit	no later than 2 weeks before the commencement of construction	Deposited 10 December 2020	
		Approval	before the commencement of construction	N/A	
•		Approval	before the commencement of construction	N/A	
0		Deposit	before the commencement of construction	Deposited 5 May 2022	EPD Satisfied 18 May 2022
ic Noise Mitigation Plan		Approval	no later than 1 month before the commencement of construction	Submitted 11 September 2020	EPD Approved 8 October 2020
		To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	Submitted 1 September 2022, 5 May 2022 and 12 July 2022	
ıral Heritage Impact ographic and Cartographic ırds/ Proposals on	Others	Deposit - A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at FL19	prior to the commencement of the respective removal or relocation works	Submitted 25 May 2022	No relocation is required
ation of any building	Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	NA	No relocation is required
line Monitoring Report		Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	by Fugro
INIV EIVI&A REPORT		Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
	-	Set up and Notify in writing the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
I	construction and	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
		Maintain	entire construction period and during the first 3-year of operation	N/A	
	ruction lish of ET oyment of IEC te EM&A Manual gement organization of ain construction anies ion Plans cation Plan for Rose ling ry Habitat Creation and gement Plan led Design of Siu Hang Suen Stream c Noise Mitigation Plan ral Heritage Impact ine condition survey and ine vibration impact sment ral Heritage Impact sment rate description survey and s	ruction construction Before construction Construction Before construction Before construction Construction Before construction Construction Before construction Construction Before construction Before construction Construction Before construction Before construction Construction Before construction During construction During construction During construction During construction During construction and operation	ish of ET Before construction Deposit ish of ET Before construction Syment of IEC Before construction Paperval Construction Before construction Approval Before construction Before construction Before construction Approval Before construction Before construction Before construction Approval Before construction Construction Before construction Before construction Before construction Deposit Conduct - A backline condition survey and baseline vibration impact assessment by a qualified structural engineer and Heritage Impact - mine condition survey and baseline vibration impact assessment by a qualified building survey or a qualified structural engineer Condition 3.3 Before construction Dobers Dobers Dobers Dobers Dobers Dobers Dobers Before construction of any building conditions are qualified structural engineer Before construction Submit conditions are qualified structural engineer Before construction During construction Submit conditions are qualified structural engineer Before construction During construction Submit conditions are qualified structural engineer Before construction During construction Submit conditions are qualified structural engineer Before construction period and the proposal on relocation of any builk period to be commencement of the expective removal or relocati	inclination operated in the property of the first part of the commencement of construction of the property of the commencement of construction of the construction of the commencement of construction of the construction of the commencement of construction of the cons	

DP: Designated Project *tentative submission date will be supplemented once available

DP12	EP-475/2013/A	Reprovision o	eprovision of Temporary Wholesale Market in Fanling North New Development Area		
Construction commencement date		29 October 2019			
Operation commencement date		tbc			

on commencement date	e	tbo			
EP Condition		Requirements and Subm	issions	Submission Status	D 1 .
EF Condition	Period	Action	Timeframe	Submission Status	Remarks
Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 15 October 2019	
Establish of FT				Established 5 March 2020	Pre-construction ET
Establish of E1	Before	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
Employment of IEC	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
Employment of IEC				Established 20 February 2020	Construction Phase IEC
Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
Landscape Plan	Others	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	Deposited 31 March 2022	
Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submited by Pre- construction ET	by Fugro
Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET monthly	
	During construction	Set up and Notify in writing the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
Dedicated website	During construction and operation	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
	орегиноп	Maintain	entire construction period and during the first 3-year of operation	N/A	
	EP Condition Commencement date of construction Establish of ET Employment of IEC Update EM&A Manual Management organization of the main construction companies Layout Plan Landscape Plan Baseline Monitoring Report Monthly EM&A Report	EP Condition Period Commencement date of construction Establish of ET Before construction Employment of IEC Update EM&A Manual Management organization of the main construction companies Layout Plan Before construction Construction Before construction Bore construction Construction During construction During construction During construction During construction During construction During construction	Requirements and Subman	Period Action Timeframe	Requirements and Submissions Submission Status

DP: Designated Project

*tentative submission date will be supplemented once available

DP14	EP-546/2017	Fanling North Temporary Sewage Pumping Station					
Constant	 ction commencement d	lata	16 Eshanoun 2021				
			16 February 2021	†			
Operati	on commencement date	2	tbc				
	EP Condition		Requirements and Subm	issions	Submission Status Remarks		
	EF Condition	Period	Action	Timeframe	Submission Status	Kemarks	
1.12	Commencement date of construction	Before construction		no later than 1 month prior to the commencement of construction	Notified 8 September 2020		
1.14	Commencement date of operation	Before operation	Noniv in writing	no later than 1 month prior to the commencement of operation	N/A		
2.4	IEC Audit Report	After construction	Deposit	within one month upon completion of the construction works	N/A		