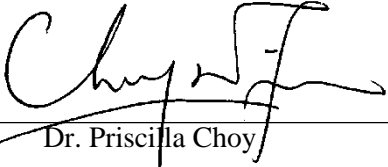


Civil Engineering and Development Department

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 May 2023

(Version 1.0)

Certified By	 Dr. Priscilla Choy (Environmental Team Leader)
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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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Agreement No. CE 33/2019 (EP)

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. 43 (May 2023)

26 June 2023

BY EMAIL

Dear Sir,

We refer to email of 25 June 2023 attaching the Monthly Environmental Monitoring and Audit Report No. 43 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
Mott MacDonald Hong Kong Limited



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EXECUTIVE SUMMARY**Introduction**

1. This is the 43rd 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 May 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
Contract No. ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	EP-466/2013/A	Castle Peak Road Diversion	12 August 2020
	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 New Development Areas, Phase 1: Development of Long Valley Nature Park	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	3 July 2020
	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

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	EP-475/2013/A	Reprovision of temporary Wholesale 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 not under relevant Environmental Permit for Phase 1 of the 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:

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

EM&A Activities	Monitoring Station (s)	Works Contracts						
		ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/04	ND/2019/05	ND/2019/06	ND/2019/07
1-hr Total Suspended Particulates Monitoring (TSP)	FLN-DMS1	N/A	N/A	4, 10, 16, 22, 25 and 31 May 23	4, 10, 16, 22, 25 and 31 May 23	N/A	N/A	N/A
	FLN-DMS3			N/A	N/A	4, 10, 16, 22, 25 and 31 May 23		
	FLN-DMS5			3, 9, 15, 19, 24 and 30 May 23	3, 9, 15, 19, 24 and 30 May 23	N/A		
	KTN-DMS4(B)	3, 9, 15, 19, 24 and 30 May 23	3, 9, 15, 19, 24 and 30 May 23	N/A				
24-hr TSP Monitoring	FLN-DMS1	N/A	N/A	3, 9, 15, 19, 24 and 30 May 23	3, 9, 15, 19, 24 and 30 May 23	N/A	N/A	N/A
	FLN-DMS3			N/A	N/A	3, 9, 15, 19, 24 and 30 May 23		
	FLN-DMS5A			3, 9, 15, 19, 24 and 30 May 23	3, 9, 15, 19, 24 and 30 May 23	N/A		
	KTN-DMS4(B)	3, 9, 15, 19, 24 and 30 May 23	3, 9, 15, 19, 24 and 30 May 23	N/A				
Noise Monitoring	CP-FLN-NMS1	N/A			4, 10, 16, 22 and 31 May 23			N/A
	CP-FLN-NMS2	N/A				4, 10, 16, 22 and 31 May 23	N/A	
	CP-KTN-NMS2	3, 9, 19, 24 and 30 May 23	N/A	N/A				
	CP-KTN-NMS3							
	CP-KTN-NMS5							
	CP-KTN-NMS6	N/A	3, 9, 19, 24 and 30 May 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*	4, 5, 10, 11, 15, 16, 22 and 23 May 23	4, 11, 15, 23 May 23	N/A*	N/A*	N/A*

	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream	9 May 23	N/A*	9 May 23	9 May 23	N/A*	N/A*	N/A*
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	8 and 25 May 23	8 and 25 May 23	8 May 23	8 May 23	8 May 23	N/A*	N/A*
Egret Monitoring		N/A	N/A	24 May 23	N/A	N/A	N/A	N/A
24-hr RSP (Ambient Arsenic) Monitoring for Land Contamination		4, 10, 16, 22 and 27 May 23	N/A	4, 10, 16, 22 and 27 May 23	N/A	N/A	N/A	N/A
Water Quality Monitoring		N/A	2, 4, 6, 8, 10, 12, 15, 17, 19, 22, 24, 27, 29 and 31 May 23	N/A	2, 4, 6, 8, 10, 12, 15, 17, 19, 22, 24, 27, 29 and 31 May 23	N/A	N/A	N/A
Landfill Gas Monitoring		25 May 23	N/A	N/A	N/A	N/A	N/A	N/A
Built Heritage Monitoring		N/A	Daily assessment subject to construction works conducted within assessment area	N/A	N/A	N/A	N/A	N/A
Environmental Site Inspection		2, 9, 16, 23 and 31 May 23	3, 10, 17, 24 and 29 May 23	5, 12, 16 and 22 May 23	4, 11, 17 and 25 May 23	2, 8, 18, 22 and 29 May 23	4, 11, 17 and 25 May 23	5, 12, 19 and 25 May 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 exceeds 500m, 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

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 Contract
		Action Level	Limit Level		Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	0	0
	24-hr TSP	0	0	0	0	0	0
	24-hr RSP (Ambient Arsenic)	0	0	0	0	0	0
Noise	L _{eq} (30min)	0	0	0	0	0	0
Water Quality ^[1]	DO	0	4	4	0	0	0
	Turbidity	0	3	3	0	0	0
	SS	0	2	2	0	0	0
	Arsenic	0	0	0	0	0	0
Landfill Gas	O ₂	0	0	0	0	0	0
	CH ₄						
	CO ₂						
Cultural heritage	Built Heritage Monitoring	0	0	0	0	0	0
Ecological Monitoring	Avifauna	0	0	0	0	0	0
	Aquatic fauna	0	0	0	0	0	0
	Non-aquatic fauna	1	1	2	0	0	0

Air Quality

5. All construction air quality monitoring was conducted as scheduled in the reporting month. 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. Four (4) Limit Level for DO, Three (3) Limit Level for turbidity, and Two (2) Limit Level for Suspended Solid of impact water quality monitoring were 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/2019/02 for surveyed cultural heritage. No Limit Level exceedance was recorded.

Ecological Monitoring

11. All ecological monitoring was conducted as scheduled in the reporting month. One (1) action level exceedance and one (1) limit level exceedance for odonata were recorded at T3. The exceedance was considered non-project related, as large proportion of vegetative habitat along T3 were observed either removed or tarmacked as haul road by construction works outside of project, first reported in the Monthly Monitoring Report in December 2021. The ecological monitoring result in the Reporting Month is shown in **Appendix L**.

Egretty Monitoring

12. All Egretty monitoring was conducted as scheduled in the reporting month. The monitoring results can refer to the Monthly Egretty Monitoring Report for May 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 (June to August 2023)
ND/2019/01	<ul style="list-style-type: none"> (a) Site Clearance, tree felling, removal of existing structures, slope work and drainage works in Portion 1a (b) Excavation, backfilling, construction of hoarding/fencing and road works and tree felling 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) Watermain, excavation, backfilling, road works, sheet piling and pipe jacking in Portion 5 (h) Drainage works, backfilling, road works, watermain works 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 fresh water reservoir, construction of WSD's maintenance access and backfilling works and drainage 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) Portion 10a was handed over (p) Road works and site clearance in Portion 10b (q) Site clearance, tree felling, remove of existing structure in Portion 13
ND/2019/02	<ul style="list-style-type: none"> (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	<ul style="list-style-type: none"> (a) Portion 1 & Portion 1A <ul style="list-style-type: none"> - Road & Drainage works and watermain works at Yin Kong Road - Installation of Street Lighting - Construction of Pavilion at Yin Kong Road (b) Portion 2 to Portion 20C <ul style="list-style-type: none"> - Wetland creation & restoration, Dry agricultural land creation - Construction of compacted earth path - Construction of Water Treatment Wetland - Tree felling and tree pruning work - Construction of Lodging Facility - Construction of Dry Weather Flow Interception (DWFI)

Contract No.	Site Activities (June to August 2023)
ND/2019/04	<ul style="list-style-type: none"> (a) Tree Felling and transplant (b) Pile Cap (c) Back Filling (d) Excavation (e) Grouting (f) Sheet Piling (g) Road works (h) Pre-drill (i) Bore pile (j) ELS
ND/2019/05	<ul style="list-style-type: none"> (a) <u>North Team Works</u> <ul style="list-style-type: none"> - ELS works and Pile cap construction at B2-01, B2-02, B2-03, C2-04b & D2-01 - Backfilling at C4-02 & C4-01 - Footing of tower crane at E2-01 - Construction of B1-abutment wall. - Pier construction at C2-04b, & B2-02. - Pier head construction at C2-04b, C1-01b & E2-01 - Slope works, road works and drainage work at Jockey Club Road (3SW-C/F63), Tong Hang Junction and Portion VI (FS28 & 29) <u>Viaduct Works</u> <ul style="list-style-type: none"> - 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 E3-02, D2-03, E2-01, E2-03 - Construction of pile cap and installation of bridge rotation components at pier D2-01. - Design and fabrication of 3rd and 4th set of form traveler. - Design and fabrication of falsework for Bridge B1. - Erection of tower crane at E2-01. (b) <u>South Team Works</u> <ul style="list-style-type: none"> - TWSRW – Road work and UUs laying (Section P800 CH 250 to 450). - TWSRW – Installation work of raking drain for FS04. CLP 11 kV cable diversion work (1ST) - TWSRE – Form D300 new road, BBI footing, relocation of existing BBI and road diversion - TWSRE – Drainage Diversion, Road Drain, UUs laying (HKT, CLP, TCSS, Irrigation) - HKY FB (East) – Construction of extension roof, install subframe, cladding, E&M - HKY FB (West) – Construction of LT2 (Foundation) - E3-04a, E3-05M, E4-01 and E4-02 – cap construction. - NB109 – bay 5~8, base slab construction. - NB69 – ELS excavation (c) <u>Form Traveler</u> <ul style="list-style-type: none"> - E2-02 – construction 4th to 7th pair - E3-03 – construction 5th to 8th pair - D2-02 – erection of form traveller no. 3
ND/2019/06	The construction phase has been completed and handed over to AFCD since 4 April 2022.

Contract No.	Site Activities (June to August 2023)
ND/2019/07	<ul style="list-style-type: none">(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 and 4(g) Mini piling works at Portion 4(h) Construction of noise barrier at Portion 4 and 5(i) Waterworks at Portion 1 and 4

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 43rd EM&A Report which summarises the key findings of the EM&A programme in May 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** - summarises 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 egret sites in the FLN NDA and enhancement works to an existing egret 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 **2.1b**.

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

EP No.	Designated Project	C1	C2	C3	C5 A	C5 B	C6	C7
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				✓			

Notes: C1: ND/2019/01 C2: ND/2019/02 C3: ND/2019/03 C5A: ND/2019/04
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	Figure 13
EP-468/2013/A(Part)	C1	Construction of new primary distributor roads (D1, D3, D4 and part of D5) within Kwu Tung North New Development Area	Figure 14
	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 linkage between the Man Kam To Road and the proposed Fanling Bypass Eastern Section	Figure 19
EP-473/2013/A(Part)	C5B		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	Figure 21
EP-546/2017	C5A	Construct and operate a temporary sewage pumping station in Fanling North with installed capacity (average dry weather flow) of about 3,600m ³ /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

Party	Role	Contact Person	Phone No.	Fax No.
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Raymond Cheng	3619 3919	3547 1658
<i>Supervisor / Supervisor's Representative</i> (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Mr. Alan Lee	6398 5982	2680 9515
	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
<u>Contract No. ND/2019/01</u> Contractor (Build King – Richwell Engineering Joint Venture)	Site Agent	Mr. Ivan Leung	9640 8340	--
	Environmental Officer	Mr. Edward Tam	9287 8270	
<u>Contract No. ND/2019/02</u> Contractor (Chun Wo – Kwan Lee Joint Venture.)	Site Agent	Mr. Andy Chan	3485 9780	--
	Environmental Officer	Mr. Wesley So	9144 1643	
<u>Contract No. ND/2019/03</u> Contractor (Sang Hing Kuly Joint Venture)	Site Agent	Mr. Tang Wing Kai	9300 7037	--
	Environmental Officer	Mr. Ken Cheung	9803 5297	
<u>Contract No. ND/2019/04</u> Contractor (Daewoo – Chun Wo – Kwan Lee Joint Venture)	Site Agent	Mr. Eric Wu	9786 8630	--
	Environmental Manager	Mr. Jimmy Cheng	9609 5916	
	Environmental Officer	Mr. Sam Lam	6178 3179	
<u>Contract No. ND/2019/05</u> Contractor (CRCC – Paul Y. Joint Venture)	Site Agent	Mr. Darwin Lo	9467 5891	--
	Environmental Manager	Mr. Pan Fong	9436 9435	
	Environmental Officer	Ms. Louise Poon	5272 5709	
<u>Contract No. ND/2019/06</u> Contractor (New Concepts Engineering Development Ltd.)	Project Manager	Mr. Joe Cheng	9861 0060	--
	Environmental Officer	Mr. Alex Choy	6360 3236	
<u>Contract No. ND/2019/07</u> Contractor (China Road and Bridge Corporation)	Site Agent	Mr. Daniel Wong	5335 9572	--
	Environmental Officer	Mr. K. M. Lui	5113 8223	
	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

Contract No.	Site Activities (May 2023)
ND/2019/01	(a) Site clearance, removal of existing structures and drainage works 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 (j) Drainage works, excavation and backfilling at Portion 7 (k) Construction of retaining wall, RC construction of fresh water service reservoir and backfilling works at Portion 8a (l) Construction of jacking pit at LWSC's car park, trenchless work and watermain construction at Portion 8b (m) Sheet piling, excavation, drainage works and watermain construction at Portion 9b (n) Stockpile of soil at Portion 9c (o) Road works and site clearance at Portion 10a (p) Road works and site clearance at Portion 10b (q) Site clearance and removal of existing structures at Portion 13
ND/2019/02	(a) Pipe Jacking (b) Backfilling (c) Concreting (d) Bedding and pipe laying (e) ELS (f) Sheet Pile Installation (g) Cut and Fill of Slope
ND/2019/03	(a) Portion 1 & Portion 1A <ul style="list-style-type: none"> - Road & Drainage works and watermain 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 <ul style="list-style-type: none"> - 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 Facility - Construction of Dry Weather Flow Interception (DWFI)

Contract No.	Site Activities (May 2023)
ND/2019/04	(a) Tree Felling (b) Pile Cap (c) Back Filling (d) Excavation (e) Grouting (f) Sheet Piling (g) Road works (h) Formwork erection (i) Rebar fixing (j) Pre-drill (k) Bore pile (l) 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) 5 th 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

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
Environmental Permit (EP)				
ND/2019/01	EP-466/2013/A	21/11/2013	N/A	Valid
	EP-467/2013/A	27/01/2017	N/A	Valid
	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

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
	EP-473/2013/A	27/01/2017	N/A	Valid
ND/2019/04	EP/473/2013/A	27/01/2017	N/A	Valid
	EP/546/2017	16/11/2017	N/A	Valid
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 Permit (CNP)				
ND/2019/01	GW-RN0144-23	13/02/2023	12/05/2023	Expired in reporting month
	GW-RN1196-22	19/12/2022	18/05/2023	Expired in reporting month
	GW-RN0252-23	16/03/2023	15/08/2023	Valid
	GW-RN0304-23	26/03/2023	31/08/2023	Valid
	GW-RN0392-23	20/04/2023	19/08/2023	Valid
	GW-RN0394-23	26/04/2023	25/07/2023	Valid
	GW-RN0419-23	24/04/2023	31/08/2023	Valid
	GW-RN0414-23	13/05/2023	12/09/2023	Valid
	GW-RN0426-23	19/05/2023	18/11/2023	Valid
	GW-RN0439-23	17/05/2023	31/08/2023	Valid
	GW-RN0459-23	15/05/2023	14/07/2023	Valid
ND/2019/02	GW-RN1130-22	22/11/2022	10/05/2023	Expired in reporting month
	GW-RN0049-23	16/02/2023	15/05/2023	Expired in reporting month
	GW-RN0234-23	15/03/2023	14/07/2023	Valid
	GW-RN0048-23	08/02/2023	07/06/2023	Valid
	GW-RN0518-23	21/05/2023	31/08/2023	Valid
ND/2019/03	GW-RN0054-23	01/03/2023	31/08/2023	Valid
ND/2019/04	GW-RN0183-23	27/02/2023	26/05/2023	Expired in reporting month
	GW-RN0430-23	05/05/2023	31/05/2023	Expired in reporting month
	GW-RN0300-23	23/03/2023	22/06/2023	Valid
	GW-RN0353-23	13/04/2023	12/07/2023	Valid
	GW-RN0480-23	13/05/2023	25/07/2023	Valid
	GW-RN0481-23	15/05/2023	31/07/2023	Valid
	GW-RN0498-23	24/05/2023	30/07/2023	Valid
ND/2019/05	GW-RN0301-23	01/04/2023	31/05/2023	Expired in reporting month
	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
	GW-RN0435-23	08/05/2023	07/08/2023	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation				
ND/2019/01	451792	11/12/2019	N/A	Valid
	477388	02/03/2022	N/A	Valid
ND/2019/02	454012	05/03/2020	N/A	Valid
ND/2019/03	452216	24/12/2019	N/A	Valid
	452332	31/12/2019	N/A	Valid
	452333	31/12/2019	N/A	Valid
ND/2019/04	461184	23/10/2020	N/A	Valid

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
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 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
Registration of Chemical 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	5211-624-D2709-01	26/11/2020	N/A	Valid
ND/2019/05	5213-625-C4464-01	20/05/2020	N/A	Valid
ND/2019/06	5213-625-N2716-01	02/10/2019	N/A	Valid
ND/2019/07	5213-625-C4498-01	21/09/2020	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance				
ND/2019/01	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
	WT00036076-2020	22/06/2020	30/06/2025	Valid
	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	WT00041311-2022	21/06/2022	30/06/2027	Valid
	WT00036584-2020	21/10/2020	31/10/2025	Valid
ND/2019/03	WT00036952-2020	17/12/2020	31/12/2025	Valid
	WT00035847-2020	12/08/2020	31/08/2025	Valid
	WT00036414-2020	25/02/2021	28/02/2026	Valid
	WT00037771-2021	08/07/2021	31/07/2026	Valid
ND/2019/04	WT00035984-2020	25/02/2021	28/02/2026	Valid
ND/2019/04	WT00037539-2021	02/06/2022	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

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).
- 3.5 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
EP-473/2013/A	ND/2019/03	FLN-DMS1 ^[2]	Scattered Village Houses North of Proposed Potential Ecopark
	ND/2019/04		
	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 EP-468/2013/A	ND/2019/01	KTN-DMS4(B) ^[5]	Temporary Structure near Fanling Highway (near Pak Shek Au)
EP-468/2013/A	ND/2019/03		

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	8
FLN-DMS1 FLN-DMS3	Dust Monitor (1-hour TSP)			
	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 $\pm 3^{\circ}\text{C}$; the relative humidity (RH) was $< 50\%$ and not variable by more than $\pm 5\%$. 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 $\pm 3^\circ\text{C}$; the RH should be $< 50\%$ and did not vary by more than $\pm 5\%$. 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 ($\mu\text{g}/\text{m}^3$)		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
FLN-DMS1	90.5	61.1 – 130.7	303	500
FLN-DMS3	86.9	53.4 – 164.9	301	500
FLN-DMS5	100.0	66.9 – 146.9	279	500
KTN-DMS4(B)	86.8	54.4 – 161.4	297	500

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

Monitoring Station	Concentration ($\mu\text{g}/\text{m}^3$)		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
FLN-DMS1	81.6	63.4 – 113.7	150	260
FLN-DMS3	59.0	41.3 – 91.0	165	260
FLN-DMS5A	87.7	60.1 – 145.5	153	260
KTN-DMS4(B)	78.9	56.3 – 124.1	192	260

- 3.23 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. 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	CP-FLN-NMS1 ^[2]	Belair Monte
ND/2019/04		
ND/2019/05	CP-FLN-NMS2 ^[3]	Scattered Village Houses in Tong Hang
ND/2019/01	CP-KTN-NMS2 ^[4]	Residential Buildings at Ma Tso Lung
	CP-KTN-NMS3 ^[5]	Fung Kong Garden
ND/2019/01	CP-KTN-NMS5	N/A
ND/2019/02	CP-KTN-NMS6	Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery

Remarks:

[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.

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**.

Table 4.2 Noise Monitoring Equipment

Equipment	Manufacturer	Model	Quantity
Sound Level Meter	BSWA	BSWA 308	5
Acoustical Calibrator	SVANTEK	SV30A	3

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	Frequency	Measurement
ND/2019/06	CP-FLN-NMS1 ^[3]	$L_{10}(30 \text{ min.}) \text{ dB(A)}$ $L_{90}(30 \text{ min.}) \text{ dB(A)}$ $L_{eq}(30 \text{ min.}) \text{ dB(A)}$ (as six consecutive $L_{eq, 5 \text{ min}}$ readings)	0700-1900 hours on normal weekdays	Once per week	Façade
ND/2019/04					
ND/2019/05	CP-FLN-NMS2 ^[4]				
ND/2019/01	CP-KTN NMS2 ^[5]				Free-field ^[1]
	CP-KTN NMS3 ^[6]				
ND/2019/01	CP-KTN NMS5				Façade
ND/2019/02	CP-KTN-NMS6				

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 weighting : A
 - time weighting : Fast
 - time measurement : $L_{eq}(30 \text{ min.}) \text{ dB(A)}$
(as six consecutive $L_{eq, 5\text{min}}$ 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	CP-FLN-NMS1 ^[1]	65.8 – 73.4	69.9	75
ND/2019/04				
ND/2019/05	CP-FLN-NMS2 ^[2]	60.3 – 68.4	59.6	
ND/2019/01	CP-KTN-NMS2 ^[3]	54.0 – 59.7	58.6	
	CP-KTN-NMS3 ^[4]	51.7 – 56.2	51.6	
ND/2019/01	CP-KTN-NMS5	52.0 – 66.6	57.2	
ND/2019/02	CP-KTN-NMS6	54.8 – 63.6	55.1	

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.

- 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	CP-FLN-NMS1 ^[1]	Belair Monte (Existing)	Excavator, dump truck, mobile crane, piling, road traffic
ND/2019/04			
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.

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

- 5.4 **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

Parameters, unit	Depth	Frequency
<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> 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

- 5.5 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			
SYR-CS1	Control Station	Upstream of river	During the construction site drainage along River Beas and construction of the footbridge across River Beas
SYR-IS1	Impact Station	Downstream of river	
River Indus and near Siu Hang San Tsuen Stream			
NTR-CS1	Control Station	Upstream of river	During construction of the bridge across River Indus
NTR-IS1	Impact Station	Downstream of river	
SHST-IS2	Impact Station	Water sensitive receiver at near Siu Hang San Tsuen Stream	
MWR-IS3	Impact Station	Water sensitive receiver at near Ma Wat River	

Monitoring EquipmentInstrumentation

- 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.

pH

- 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	2

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 Station(s)	Parameters, unit	Depth	Frequency
River Beas	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> 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 might be omitted. 	3 days per week
River Indus and near Siu Hang San Tsuen Stream	<ul style="list-style-type: none"> 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) 		

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 The summary of exceedance record in the reporting month is shown in **Appendix O** and summarised in the **Table 5.6**.

Table 5.6 Summary of Water Quality Exceedances

Station	Exceedance Level	DO	Turbidity	SS	Arsenic	Total number of Non-project Related Exceedances	Total number of project Related Exceedances
SYR-IS1	Action Level	0	0	0	0	0	0
	Limit Level	1	0	0	0	1	0
NTR-IS1	Action Level	0	0	0	N/A	0	0
	Limit Level	1	1	1		3	0
SHST-IS2	Action Level	0	0	0		0	0
	Limit Level	1	1	0		2	0
MWR-IS3	Action Level	0	0	0		0	0
	Limit Level	1	1	1		3	0
Total	Action Level	0	0	0	0	0	0
	Limit Level	4	3	2	0	9	0

* Exceedances record date: 08/05/2023

Four (4) Limit Level for DO, Three (3) Limit Level for turbidity, and Two (2) Limit Level for Suspended Solid of impact water quality monitoring were recorded. Exceedances were recorded on 8 May 2023. After investigation, the exceedance was considered due to the other external factors rather than the contract works due to the following reasons:

1. No pollution discharged was observed from land-based site area;
2. Water quality mitigation measures at the nearby construction sites (i.e. Contract No. ND/2019/02 and ND/2019/04) were observed properly maintained including covering the exposed soil/slope, silt curtain were deployed for the construction of cofferdam around the works area.
3. 2m Dull green barriers with sheeting were deployed and well maintained to avoid muddy runoff going through the site surface and entering the stream. Muddy water from upstream was observed. No soil exposed works at the nearby construction site next to the Ma Wat River.
4. Control Station's DO Value already exceed either the Action or Limit Levels.

5. Red and Amber warning signal were enforced on 7 May 2023. Rainfall in Northern District was recorded before the water quality monitoring which led to increased surface runoff and hence adverse water quality.

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 10-3.1 Selection, Preparation and Extraction of Filter Material, Center for Environmental Research Information, Office of Research and Development, USEPA, June 1999; and
 - Compendium Method 10-3.5 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 EP-468/2013/A	ND/2019/01	KTN-DMS-4A ^[1]	Temporary Structure at Pak Shek 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
	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 $\pm 3^{\circ}\text{C}$; the relative humidity (RH) was $< 50\%$ and did not vary by more than $\pm 5\%$. 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 $\pm 3^{\circ}\text{C}$; 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/m ³)	Action Level (ng/m ³)	Limit Level, (ng/m ³)
04/05/2023	KTN-DMS4(A)	3.12	9.36	11.7
10/05/2023		0.67		
16/05/2023		0.61		
22/05/2023		4.66		
27/05/2023		2.68		

- 6.15 All ambient arsenic monitoring was conducted as scheduled in the reporting month. During the reporting month, around 536.45m³ of arsenic soil transported to soil treatment plant and 421.05m³ 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 6b
- Manholes 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	OPTIMA7 Biogas (Serial No. 331555)	1

Results and Observations

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

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 Castle Peak Road Diversion under EP-466/2013/A, Kwu Tung North New Development Area Road D1 to D5 under EP-468/2013/A, and 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 HKT03 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

EP. No	Contract No.	Monitoring Station (s)	Nature of Cultural Heritage	Location (s)
EP-466/2013/A and EP-468/2013/A	ND/2019/02	HKT03	Entrance Gate	Home of Loving Faithfulness (Entrance Gate)

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
EP-466/2013/A and EP-468/2013/A	ND/2019/02	HKT03	Within 50m	Daily assessment is required
			Within 75m	Bi-daily assessment is required
			Within 100m	Weekly assessment is required

Remark:

[1] Baseline condition survey was conducted for built heritage features at G202, G203, G303, G308, HKT03 and KT57 under EP-468/2013/A, also HFL08, FL05, FL07, FL08, FL10, FL11, FL17, FL19, FL31 and FL33 under ND/2019/04, and HFL05, FL02, FL04, FL24, FL27 and FL36 under ND/2019/05 for EP-473/2013/A. As G202, G203, G303, G308, KT57, HFL05, HFL08, FL02, 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.

- 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 HKT03 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:

* peak particle velocity

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

- 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.

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: 4, 5, 11, 10, 15, 16, 22 and 23 May 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.
- 9.7 The location of Transects T1, T2, T3 and T5 is shown in **Figure 9** for reference.

Monitoring Parameters

- 9.8 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.
- 9.9 Other information at the time of survey such as weather condition, tidal condition, tide level and noticeable natural or anthropogenic activities were documented.
- 9.10 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

- 9.11 In total, 58 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 20 species of waterbirds. The detailed list of waterbirds and all recorded birds are shown in **Appendices L1k and L1l** respectively.
- 9.12 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.
- 9.13 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.
- 9.14 Construction works were observed in T5 in the reporting month.
- 9.15 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.
- 9.16 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.
- 9.17 Avifauna monitoring in construction phase was conducted during the reporting month and the detailed results are attached in **Appendix L1**.
- 9.18 **Table 9.1** summarises the avifauna monitoring results during the reporting month.

Table 9.1 Summary Table of Avifauna Monitoring Results to Corresponding Action and Limit Levels.

Monitoring Parameter	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
Mean abundance of large water birds* using Ng Tung River, Sheung Yue River and Shek Sheung River	37.25	17	12	8
Mean abundance of <i>Ardeola bacchus</i> using Ng Tung River, Sheung Yue River and Shek Sheung River	10.75	8	5	4
Mean Abundance of Bird recorded in LVNP	421.25	408	286	204
Mean Abundance of <i>Ardeola bacchus</i> recorded in LVNP	14	14	10	7
Environmental disturbance and damage from activities in LVNP	-		Activity likely to cause unacceptable environmental disturbance or damage noted in LVNP.	Activity causing unacceptable environmental disturbance or damage noted in LVNP.
*Note Large Waterbirds includes: <i>Ardea alba</i> , <i>Ardea cinerea</i> , <i>Egretta eulophotes</i> , <i>Egretta garzetta</i> , <i>Ardea intermedia</i> and <i>Phalacrocorax carbo</i>				

9.19 No Action or Limit Level exceedance in avifauna monitoring was recorded during the reporting month.

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

Monitoring Requirements and Protocol

9.20 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.

9.21 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

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

Date of aquatic fauna monitoring: 9th May 2023

Monitoring Location

- 9.23 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 |

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

Monitoring Parameters

- 9.25 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
- 9.26 Other information at the time of survey such as weather conditions and noticeable natural or anthropogenic activities were recorded.

Monitoring Status

- 9.27 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.
- 9.28 In the survey of aquatic fauna, a total of 26 aquatic invertebrate species were recorded in Ma Tso Lung Stream and Siu Hang San Tsuen Stream. There were 5 fish species recorded in the reporting month. 2 species of conservation importance, *Parasacco spilurus* and *Oreochromis mossambicus*, was recorded. *Parasacco spilurus* is a native species whilst *Oreochromis mossambicus* is an introduced species.
- 9.29 For the monitoring on 9th May 2023, two monitoring stations, MS_01 & MS_05, were found dried-up. No aquatic invertebrate nor fish species was recorded in those stations.
- 9.30 Aquatic faunal monitoring in construction phase was conducted during the reporting month and the results are attached in **Appendices L2 to L3**.
- 9.31 **Table 9.2** and **Table 9.3** summarises the aquatic monitoring results during the reporting month.

Table 9.2 Summary Table of Aquatic Macroinvertebrates Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in Stations: MS_01 - MS_15	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
MS_01	0	0	NA	NA
MS_02 & MS_03	2	3	2	1
MS_04, MS_06 & MS_07	8	9	6	5
MS_05	0	0	NA	NA
MS_08, MS_09 & MS_10	11	8	6	4
MS_11	0	0	NA	NA
MS_12	0	0	NA	NA
MS_13 & MS_14	1	1	NA	NA
MS_15	0	1	NA	NA

Table 9.3 Summary Table of Fish Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in Stations: MS_01 - MS_15	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
MS_01	0	0	NA	NA
MS_02 & MS_03	0	1	NA	NA
MS_04, MS_06 & MS_07	2	3	2	1
MS_05	0	0	NA	NA
MS_08, MS_09 & MS_10	1	1	NA	NA
MS_11	0	0	NA	NA
MS_12	0	0	NA	NA
MS_13 & MS_14	1	0	NA	NA
MS_15	0	0	NA	NA

9.32 No Action or Limit Level exceedance was recorded during the reporting month during monitoring of aquatic fauna.

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

Monitoring Requirements and Protocol

- 9.33 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.
- 9.34 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

- 9.35 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 from the field signs observed.
- 9.36 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)

- 9.37 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.
- 9.38 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)

- 9.39 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

- 9.40 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: 8, 25 May 2023

Monitoring Location

- 9.41 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.

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

Monitoring Parameters

9.43 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

- 9.44 During the survey, a total of 5 mammal species were recorded from transects. Two species of conservation importance were recorded, namely *Callosciurus erythraeus*, *Cynopterus sphinx* and *Pipistrellus abramus*.
- 9.45 Domestic dogs, *Canis lupus familiaris*, were commonly found at transect T1, T4, T5 and T6, where associated with human settlements, whilst domestic cats, *Felis catus*, were found at T1, T3 and T5.
- 9.46 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).
- 9.47 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).
- 9.48 *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).
- 9.49 Bat species, *Cynopterus sphinx* was observed roosting in the tent-shaped shelter under fronds of Chinese Fan-palm during the monitoring at T1 and T4. *Pipistrellus abramus* was recorded in flight at nighttime at all transects except T3.

Herpetofauna (Amphibians and Reptiles)

- 9.50 Along the transects, a total of 13 herpetofauna species was observed. No species of conservation importance was recorded. Species including toads, frogs, skinks, snake and geckos were recorded near wetland habitats and watercourse. Transects T1 and T5 had the highest species diversity among all transects.

Insects (Butterfly and Dragonfly)

- 9.51 During the insect survey, a total of 50 butterfly species were recorded from transects. 3 species of butterfly recorded was of particular conservation interest, namely *Aeromachus jhora*, *Papilio Xuthus* and *Charaxes marmax*. Transect T1 had recorded the highest butterfly diversity among all transects.
- 9.52 17 species of odonata were recorded in the reporting month. No species recorded was of particular conservation interest.
- 9.53 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**.
- 9.54 **Table 9.4** summarises the mammal monitoring results during the reporting month.

Table 9.4 Summary Table of Mammal Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	2	1	NA	NA
T3	0	1	NA	NA
T4	2	1	NA	NA
T5	1	1	NA	NA
T6	1	0	NA	NA

- 9.55 **Table 9.5** summarises the herpetofauna monitoring results during the reporting month.

Table 9.5 Summary Table of Herpetofauna Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	7	7	5	4
T3	5	4	3	2
T4	4	4	3	2
T5	7	4	3	2
T6	3	3	2	1

- 9.56 **Table 9.6** summarises the butterfly monitoring results during the reporting month.

Table 9.6 Summary Table of Butterfly Monitoring Results to Corresponding Action and Limit Levels.

Number of Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	36	11	8	6
T3	12	6	4	3
T4	11	7	5	4
T5	21	8	6	4
T6	17	5	4	3

9.57 **Table 9.7** summarises the herpetofauna monitoring results during the reporting month.

Table 9.7 Summary Table of Odonata Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	16	8	6	4
T3	1	9	6	5
T4	5	3	2	1
T5	5	6	4	3
T6	5	5	4	3

9.58 One (1) Action Level exceedance and one (1) Limit Level exceedance was recorded in non-aquatic fauna monitoring during the reporting month.

9.59 For the monitoring conducted on 8 May 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

Action and Limit Level Exceedance

- 9.60 One (1) action level exceedance and one (1) limit level exceedance for odonata were recorded at T3. The exceedance was considered non-project related, as large proportion of vegetative habitat along T3 were observed either removed or tarmacked as haul road by construction works outside of project, first reported in the Monthly Monitoring Report in December 2021.

Details of the Influencing Factors

Major Activities

- 9.61 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.
- 9.62 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..
- 9.63 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.
- 9.64 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 T3 and T5.

Weather Conditions

- 9.65 According to the observation during survey, temperature and the rain flow records in the reporting month (Reference: <http://www.weather.gov.hk/wxinfo/pastwx/metob202305.htm>), weather conditions might pose influence towards the monitoring results.
- 9.66 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 Site Inspection	Works Contracts						
	ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/04	ND/2019/05	ND/2019/06	ND/2019/07
Weekly site audit with representative of the <i>Supervisor's</i> Representative and the Contractor	2, 9, 16, 23 and 31 May 23	3, 10, 17, 24 and 29 May 23	5, 12, 16 and 22 May 23	4, 11, 17 and 25 May 23	2, 8, 18, 22 and 29 May 23	4, 11, 17 and 25 May 23	5, 12, 19 and 25 May 23
Joint Site Audit with representative of the <i>Supervisor's</i> Representative, the Contractor and IEC	31 May 23	29 May 23	16 May 23	17 May 23	18 May 23	N/A	19 May 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

Parameters	Date	Observations and Recommendations	Follow-up
Contract No.: ND/2019/01			
Waste/Chemical Management	27/04/2023	General refuse should be disposed of properly and regularly.	Improvement/Rectification was observed during follow-up audit session on 2 May 2023.
Contract No.: ND/2019/02			
Water Quality	03/05/2023	Exposed slopes on the side of the outlet next to Sheung Yue River should be covered with tarpaulin sheets.	Item remarked as 230510-R01. Follow-up action is needed to be review.
	10/05/2023		Improvement/Rectification was observed during follow-up audit session on 17 May 2023.
	17/05/2023	The excavated slope surface should be covered by impervious sheets.	Item remarked as 230524-R01. Follow-up action is needed to be review.
	24/05/2023	The exposed slope surface should be covered by impervious sheets.	Item remarked as 230529-R01. Follow-up action is needed to be review.
	29/05/2023	The exposed slope surface should be covered by tarpaulin sheets.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/03			
Air Quality	28/04/2023	Dusty debris was observed at Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	Item remarked as 230505-O02. Follow-up action is needed to be review.
	05/05/2023		Item remarked as 230512-O02. Follow-up action is needed to be review.
	12/05/2023		Improvement/Rectification was observed during follow-up audit session on 16 May 2023.
	05/05/2023	Dusty stockpiles should be covered with tarpaulin sheets.	Item remarked as 230512-R03. Follow-up action is needed to be review.
	12/05/2023		Item remarked as 230516-R03. Follow-up action is needed to be review.
	16/05/2023		Item remarked as 230522-R02. Follow-up action is needed to be review.
	22/05/2023		Follow-up action is needed to be reported in the following month.
Water Quality	28/04/2023	Provide adequate wheel-washing facilities for each vehicle exits, suitable for the current temporary traffic arrangement, and ensure that	Item remarked as 230505-O01. Follow-up action is needed to be review.





Parameters	Date	Observations and Recommendations	Follow-up
	05/05/2023	vehicles are properly washed before leaving the site.	Item remarked as 230512-O01. Follow-up action is needed to be review.
	12/05/2023		Item remarked as 230516-O01. Follow-up action is needed to be review.
	16/05/2023		Item remarked as 230522-O01. Follow-up action is needed to be review.
	22/05/2023		Follow-up action is needed to be reported in the following month.
<i>Waste / Chemical Management</i>	28/04/2023	Provide drip tray for chemical/fuel containers.	Item remarked as 230505-R01. Follow-up action is needed to be review.
	05/05/2023		Item remarked as 230512-R01. Follow-up action is needed to be review.
	12/05/2023		Item remarked as 230516-R01. Follow-up action is needed to be review.
	16/05/2023		Improvement/Rectification was observed during follow-up audit session on 22 May 2023.
<i>Landscape & Visual</i>	28/04/2023	Remove any construction material from tree protection zone.	Item remarked as 230505-R02. Follow-up action is needed to be review.
	05/05/2023		Item remarked as 230512-R02. Follow-up action is needed to be review.
	12/05/2023		Item remarked as 230516-R02. Follow-up action is needed to be review.
	16/05/2023		Item remarked as 230522-R01. Follow-up action is needed to be review.
	22/05/2023		Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/04			
<i>Waste/Chemical Management</i>	11/05/2023	Prevent oil leakage from air compressors.	Improvement/Rectification was observed during follow-up audit session on 17 May 2023.
<i>Air Quality</i>	25/05/2023	The idle stockpile of dusty materials at Portion K should be covered properly with tarpaulin sheet.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/05			
<i>Water Quality</i>	08/05/2023	To enhance water mitigation measures at D2-01 to prevent muddy water runoff go through the site surface and discharge to public access road e.g. sandbag barrier.	Improvement/Rectification was observed during follow-up audit session on 18 May 2023.



Parameters	Date	Observations and Recommendations	Follow-up
	18/05/2023	The earth bunding at D2-02 should be fully enclosed to prevent muddy runoff from entering the river.	Improvement/Rectification was observed during follow-up audit session on 22 May 2023.
Contract No.: ND/2019/06			
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Contract No.: ND/2019/07			
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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

EP No.	Condition	Photographic Record	Implementation Status
EP- 466/2013/ A	2.9	 <p>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.</p>	Λ _[1]
EP- 467/2013/ A	2.9	 <p>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.</p>	Λ _[1]
EP- 468/2013/ A	2.11	 <p>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.</p>	Λ _[1]
EP- 469/2013	2.7	 <p>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.</p>	Λ _[1]

<p>EP- 473/2013/ A</p>	<p>2.13</p>	 <p>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.</p>	<p>^_[1]</p>
<p>EP- 475/2013/ A</p>	<p>2.7</p>	 <p>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.</p>	<p>^_[1]</p>
<p>Implementation status:</p>	<p>^ 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</p>		

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

Works Contracts	Photographic Records	
ND/2019/01	 <p>Hard paved exposed slope surface</p>	 <p>Hydroseeding for slope area</p>
ND/2019/02	 <p>Hard paved exposed haul road</p>	 <p>Hard paved exposed slope surface</p>
ND/2019/03	 <p>Hard paved exposed haul road</p>	 <p>Watering the main haul road regularly.</p>
ND/2019/04	 <p>Hard paved exposed slope surface</p>	 <p>Deployment of silt curtain around works area in Ng Tung River</p>

ND/2019/05		
	Covering dusty stockpile	Provision of sand bags around works area
ND/2019/07		
	Covering exposed slope surface with tarpaulin	De-silting waste water before discharge
Water quality mitigation measures for site(s) in operation phase, remaining defect works		
ND/2019/06		
	Hard paved exposed haul road	Hard paved exposed haul road

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 summited 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



A *Himantopus himantopus* was recorded



Wet agricultural land



Provision of noise barrier for noisy works in Long Valley

11 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 11.1 Four (4) Limit Level for DO, Three (3) Limit Level for turbidity, and Two (2) Limit Level for Suspended Solid of impact water quality monitoring were recorded. After investigation, the exceedance was considered due to the other external factors rather than the contract works.
- 11.2 No Action/Limit Level exceedance for air quality, construction noise, ambient arsenic, built heraitage and landfill gas monitoring was recorded in the reporting month. The summary of exceedance record in the reporting month is shown in **Appendix O**.
- 11.3 Ecological monitoring was carried out in the reporting month. One (1) Action Level exceedance and one (1) Limit Level exceedance for odonatan monitoring were recorded. The exceedance was considered non-project related as the habitat were heavily altered due to non-project related works..
- 11.4 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

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

Summary of Environmental Complaint

- 11.6 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

- 11.7 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 (June to August 2023)	Location/ Working Period	Potential Environmental Impact	Recommended Mitigation Measures
ND/2019/01	(a) Site clearance / tree felling	Portions 1a, 1b, 1c, 2, 10b, 13	<ul style="list-style-type: none"> - Construction Dust impact - Noise Impact (Construction Phase) - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) 	Air <ul style="list-style-type: none"> - Watering on exposed earth and haul road. - Cover the stockpiles or dusty materials. - Deploy water bowsers to water the haul road. - Deploy mist-cannon on site - Provide shelter with top and 3-sides for cement production activities. - Cover the Arsenic-containing soil. - Store the bulk cement in enclosed silo tank for soil treatment. - Close the mechanical cover of the vehicles used for transporting dusty materials. - Establish vehicle wheel washing facilities at vehicle exit points. - Speed control of site vehicles. Noise <ul style="list-style-type: none"> - Regular inspect of construction plants in good condition.
	(b) GI works	NIL		
	(c) Excavation	Portions 1b, 3, 5, 7, 8b, 8b, 9b		
	(d) Construction of retaining wall	Portions 8a		
	(e) Construction of hoarding / fencing	Portion 1b		
	(f) Site Formation	Portions 1c, 1e, 2, 7		
	(g) Removal of existing structure	Portions 1a, 13		
	(h) Construction of subway	Portions 2		
	(i) Operation of HAC treatment facility	Portions 6b		
	(j) Drainage works / watermains	Portions 1a, 3, 5, 6a, 7, 8a, 8b, 9b		

	(k) Road Construction	Portion 1b, 5, 6a, 10b		<ul style="list-style-type: none"> - Provide temporary noise screens if necessary. - Use of Quiet plants (QPME) and working methods if possible. - Sequencing operation of construction plants where practicable. - Shut down the machines and plant if not in use. - Only well-maintained plant to be operated 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. <p>Water</p> <ul style="list-style-type: none"> - 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. <p>Waste / Chemical Management</p> <ul style="list-style-type: none"> - 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.
	(l) Trenchless	Portion 5, 8b		
	(m) Construction of reservoir	Portions 8a		
	(n) Sheet piling / ELS	Portion 1c, 5, 7, 8b, 9b		

				<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - Dusty works should be spray water. Idle stockpile or slop should be covered by Tarpaulin sheet properly. - Wheel washing should be carried out at every exit. - Plants should be well maintained 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 obtained. - Erect noise screen along site boundary. - 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.
	(b) Backfilling	Portion 2, 3 & 4	Air, Noise, Waste	
	(c) Concreting	Portions 4, 7, 8, 9 & 10	Air, Noise, Water, Waste, Ecology	
	(d) Bedding & Pipe Laying	Portion 3 & 5	Air, Noise, Water, Waste, Ecology	
	(e) ELS	Portions 3, 5 & 10	Air, Noise, Water, Waste, Ecology	
	(f) Sheet Pile Installation	1.32, Portion 3, 8, CH982-1046	Air, Noise, Water, Waste	
	(g) Cut and Fill of Slope	Portion 3, 4	Air, Noise, Water, Waste	
ND/2019/03	(a) Excavation & ELS	Portion 1, 1A, 2, 3, 4, 4A, 4B, 5, 5A	<ul style="list-style-type: none"> - Waste - Air pollution - Noise pollution 	<ul style="list-style-type: none"> - Dusty works should be sprayed with water or stockpile should be covered by Tarpaulin properly.
	(b) Site Clearance	Sections 7, 8 and 9	<ul style="list-style-type: none"> - Waste 	

			<ul style="list-style-type: none"> - Air pollution - Noise pollution 	<ul style="list-style-type: none"> - Plants should have maintenance to prevent dark smoke and oil leakage. Idle plant should be turned off.
	(c) Tree Felling	Sections 6, 7, 8 and 9	<ul style="list-style-type: none"> - Waste - Air pollution - Noise pollution 	<ul style="list-style-type: none"> - 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, F, K and Bridge A301	- Air, Noise, Waste	<ul style="list-style-type: none"> - Dusty works should be sprayed with water or stockpile should be covered by tarpaulin properly. - 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.
	(b) Pile cap	Bridge A1, A2 and A3	- Air, Noise, Water, Waste	
	(c) Grouting	Bridge F, A2, A3 and Portion A, B, K, H	- Air, Noise, Water, Waste	
	(d) Bore pile	Portion B, Bridge A302	- Air, Noise, Water, Waste	
	(e) Excavation & ELS	Portion J, F, H, K, X, S Bridge A1, A2	- Air, Noise, Waste	
	(f) Road works	Portion J, H, Q, R, U and VY	- Air, Noise, Waste	
	(g) Pre-drilling	Bridge A1	- Air, Noise, Water, Waste	

	(h) Tree felling	Portion S and V	- Air, Noise, Waste	
	(i) UU diversion	Portion J	- 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	<ul style="list-style-type: none"> - Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual - Cultural Heritage 	<ul style="list-style-type: none"> - Regular watering on exposed worksites and haul road. - Stockpiling area should be provided with covers and water spraying system. - Only well maintained plant to be operated 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. - mobile plant to be sited as far away from NSRs as possible practicable. - All open stockpiles of construction materials of more than 50m³ to be covered with tarpaulin. - Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system. - All vehicles and plant to be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. - Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal.
	(b) Pier/Pier head Construction	C1-01a, C2-03b, C2-04b, D2-01 & E2-01; C3-01b, C1-01a & E2-01		
	(c) Cross head construction	C2-01, C2-02, C3-02		
	(d) Slope works	JCR (3SW-C/F63); Tong Hang Junction and Portion VI (FS28 & 29); FS04, FS06		
	(e) Fabrication for segment	bridge C2 & D1 & E1		
	(f) Fabrication for Form Traveler	3rd and 4th set of form traveler.		
	(g) Fabrication for truss formwork	Bridge B1		
	(h) Segment Erection by Launching Girder & Crane	bridges C4,C3; bridge D1 and E1		
	(i) SOP construction (precast & in-situ cast in type)	D2-02, E3-02, D2-03		

	(j) T-span construction by Form Traveler	Pier E2-02, E3-03, D2-02, E3-01		<ul style="list-style-type: none"> - Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions. - Provide training to workers on appropriate waste management procedures, including waste reduction, reuse and recycling. - To adopt other good site practice, such as arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site and regular cleaning and maintenance programme for drainage. - 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 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. - Conducting Construction Vibration Monitoring - Tree Protection & Preservation Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004.
	(k) Installation of bridge rotation components	pier E2-01, D2-01		
	(l) Road construction	Jockey Club Road; TWSRW, TWSRE		
	(m) Base slab construction	NB109 – bay 5~8		
	(n) Tree Works	All works areas		

				<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual 	<ul style="list-style-type: none"> - Regular watering on exposed worksites and haul road. - Stockpiling area should be provided with covers and water spraying system. - Only well-maintained plant to be operated 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. - mobile plant to be sited as far away from NSRs as possible practicable. - All open stockpiles of construction materials of more than 50m³ to be covered with tarpaulin. - Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system. - All vehicles and plant to be cleaned before leaving a construction site to ensure no
	(b) C&D waste disposal	Portion 1, 2, 4, 5		
	(c) Construction of box culvert	Portions 2		
	(d) Filling works	Portions 1, 2, 4		
	(e) Construction of site haul road	Portions 4		
	(f) Drainage Works	Portion 1, 3, 4, 5		
	(g) Sewerage works	Portion 1, 3, 4, 5		
	(h) Construction of Noise Barrier	Portion 5		
	(i) Waterworks	Portion 1, 4		

				<p>earth, mud, debris and the like is deposited by them on roads.</p> <ul style="list-style-type: none"> - Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal. - Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions. - Provide training to workers on appropriate waste management procedures, including waste reduction, reuse and recycling. - To adopt other good site practice, such as arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site and regular cleaning and maintenance programme for drainage. - 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 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. - Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during
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				<p>construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004.</p> <ul style="list-style-type: none"> - 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.
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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 May 2023 in accordance with the Updated EM&A Manual.
- 13.2 Four (4) Limit Level for DO, Three (3) Limit Level for turbidity, and Two (2) Limit Level for Suspended Solid of impact water quality monitoring were recorded.
- 13.3 No Action/Limit Level exceedance for air quality, construction noise, ambient arsenic, landfill gas monitoring and build heritage monitoring was recorded in the reporting month.
- 13.4 One (1) action level exceedance and one (1) limit level exceedance for odonata were recorded.

Contract No. ND/2019/01

- 13.5 Environmental site inspections were conducted on 2, 9, 16, 23 and 31 May 23 by ET in the reporting month.

Contract No. ND/2019/02

- 13.6 Environmental site inspections were conducted on 3, 10, 17, 24 and 29 May 23 by ET in the reporting month.

Contract No. ND/2019/03

- 13.7 Environmental site inspections were conducted on 5, 12, 16 and 22 May 23 by ET in the reporting month.

Contract No. ND/2019/04

- 13.8 Environmental site inspections were conducted on 4, 11, 17 and 25 May 23 by ET in the reporting month.

Contract No. ND/2019/05

- 13.9 Environmental site inspections were conducted on 2, 8, 18, 22 and 29 May 23 by ET in the reporting month.

Contract No. ND/2019/06

- 13.10 Environmental site inspections were conducted on 4, 11, 17 and 25 May 23 by ET in the reporting month.

Contract No. ND/2019/07

- 13.11 Environmental site inspections were conducted on 5, 12, 19 and 25 May 23 by ET in the reporting month.

- 13.12 No environmental complaints was received in the reporting month. No notification of summons or successful prosecutions was received in the reporting month.

- 13.13 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.

Recommendations

13.14 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.

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.

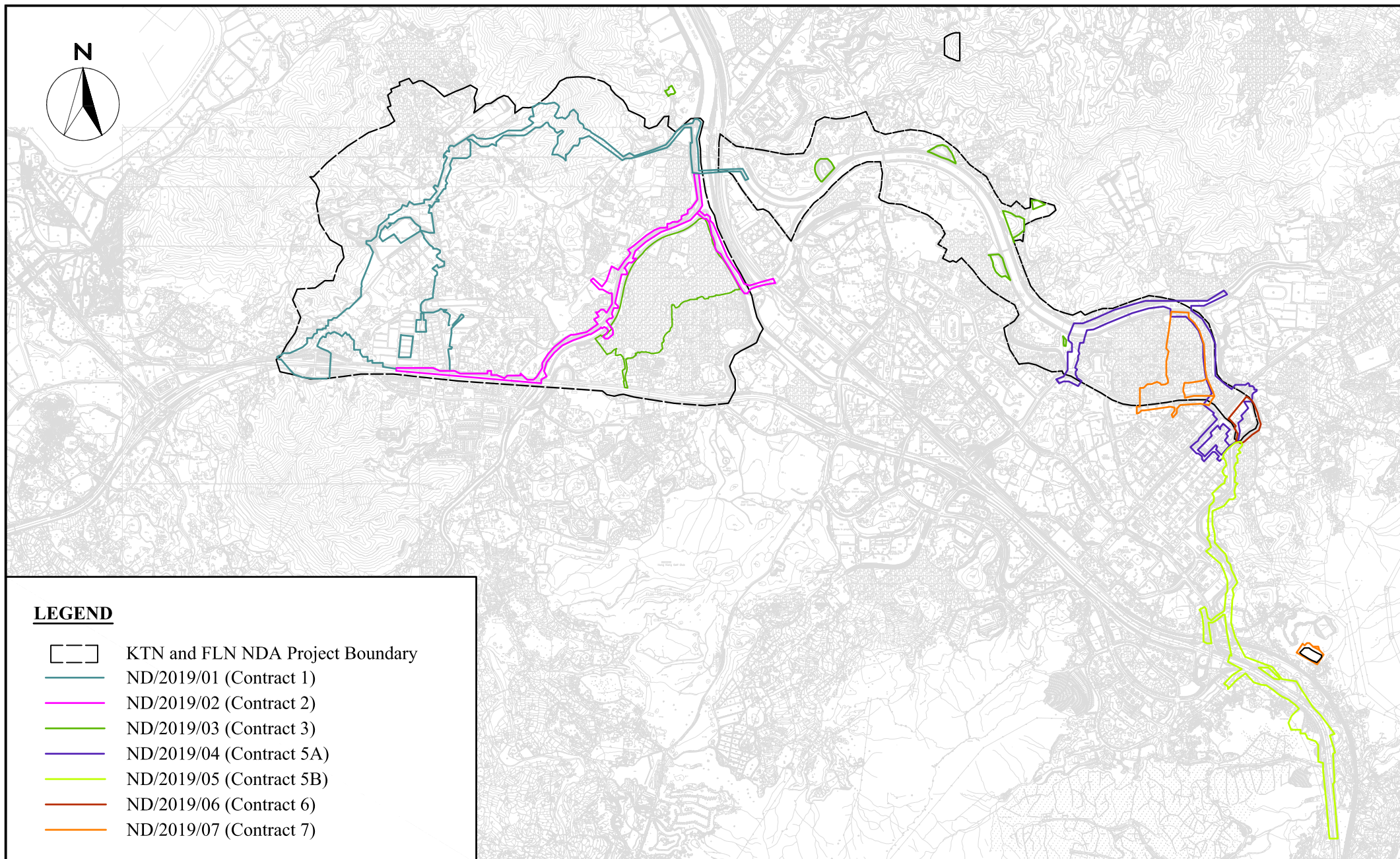
Ecology

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

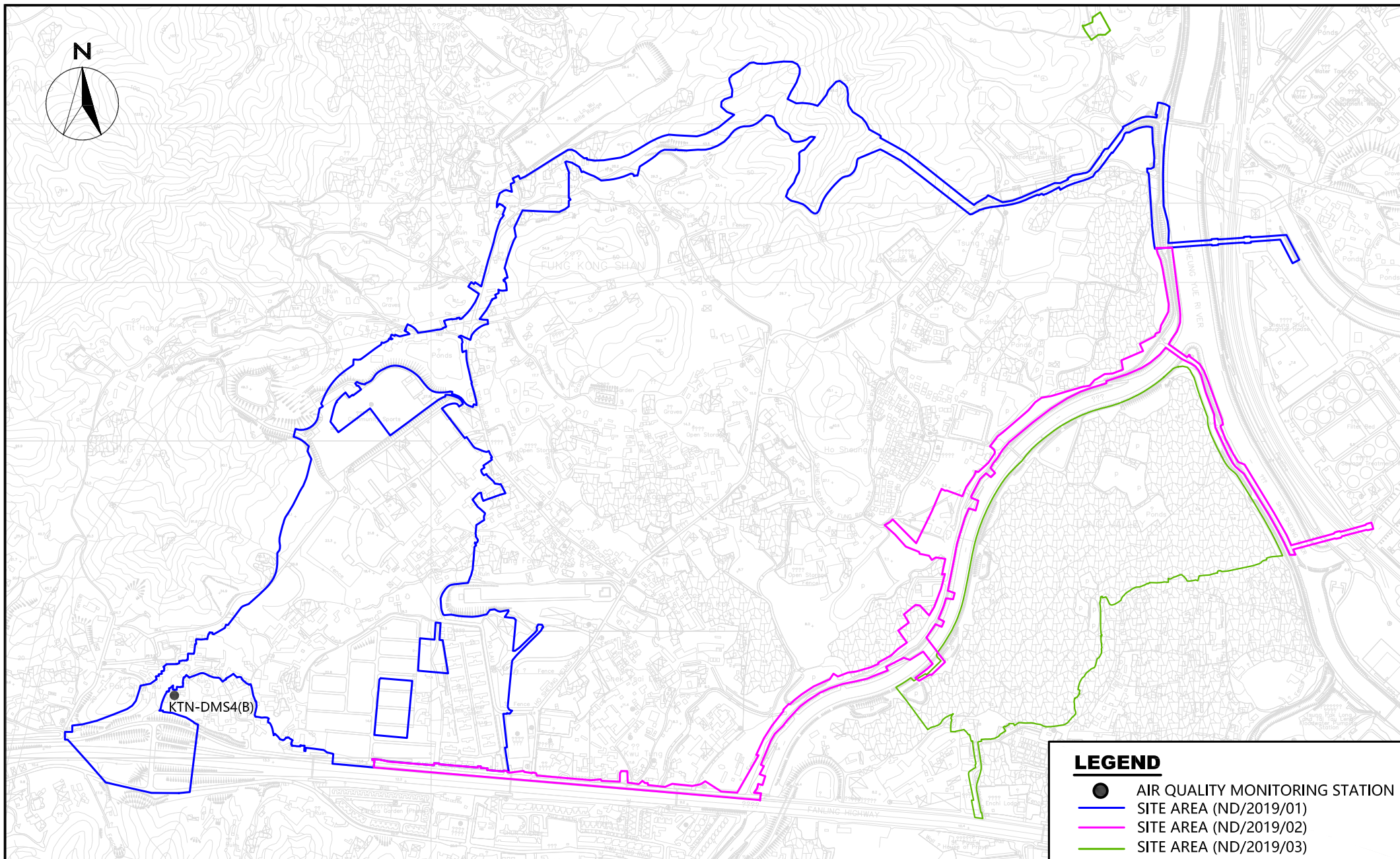
Permit/ Licences

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

DRAWING(S)

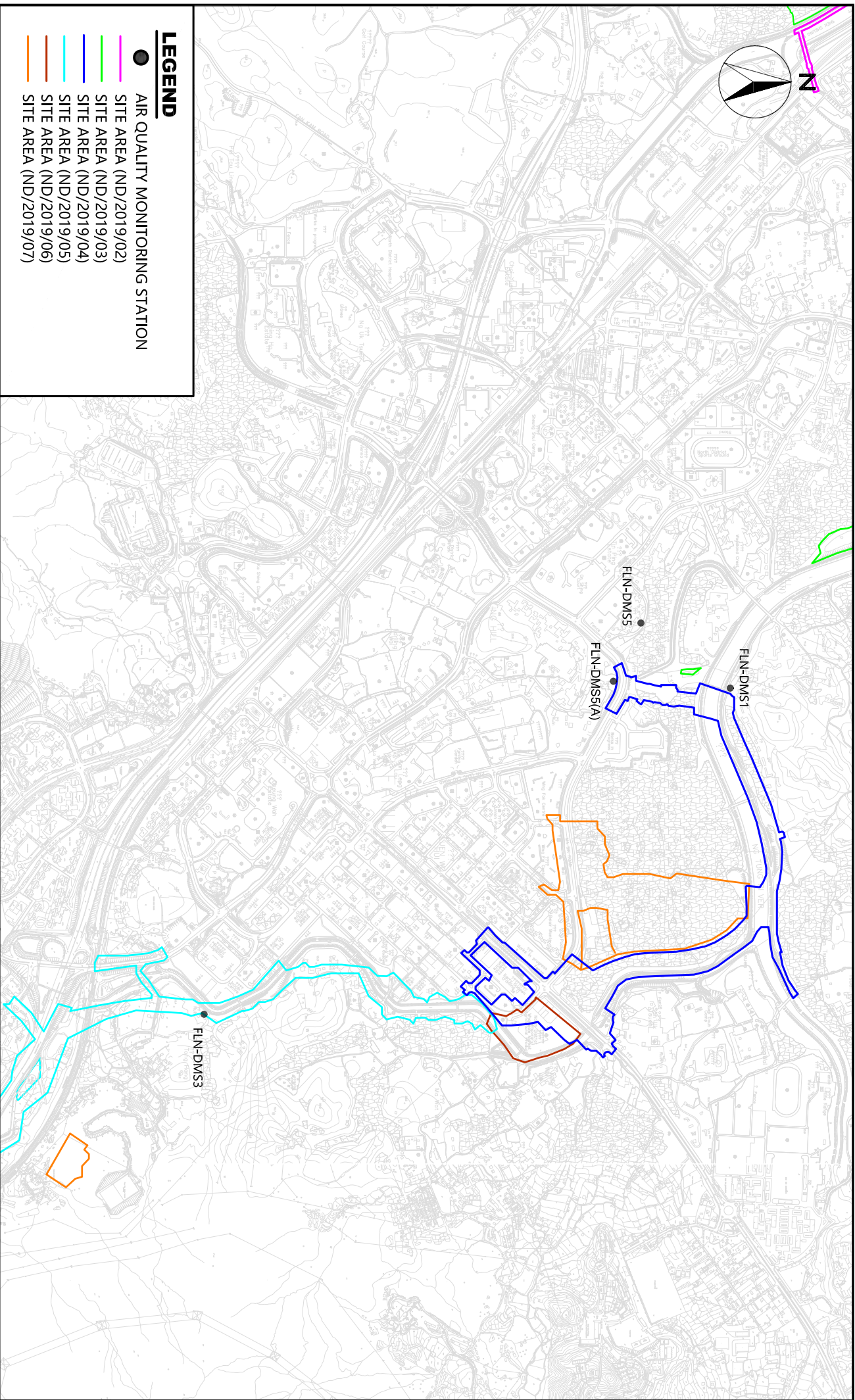


FIGURE(S)

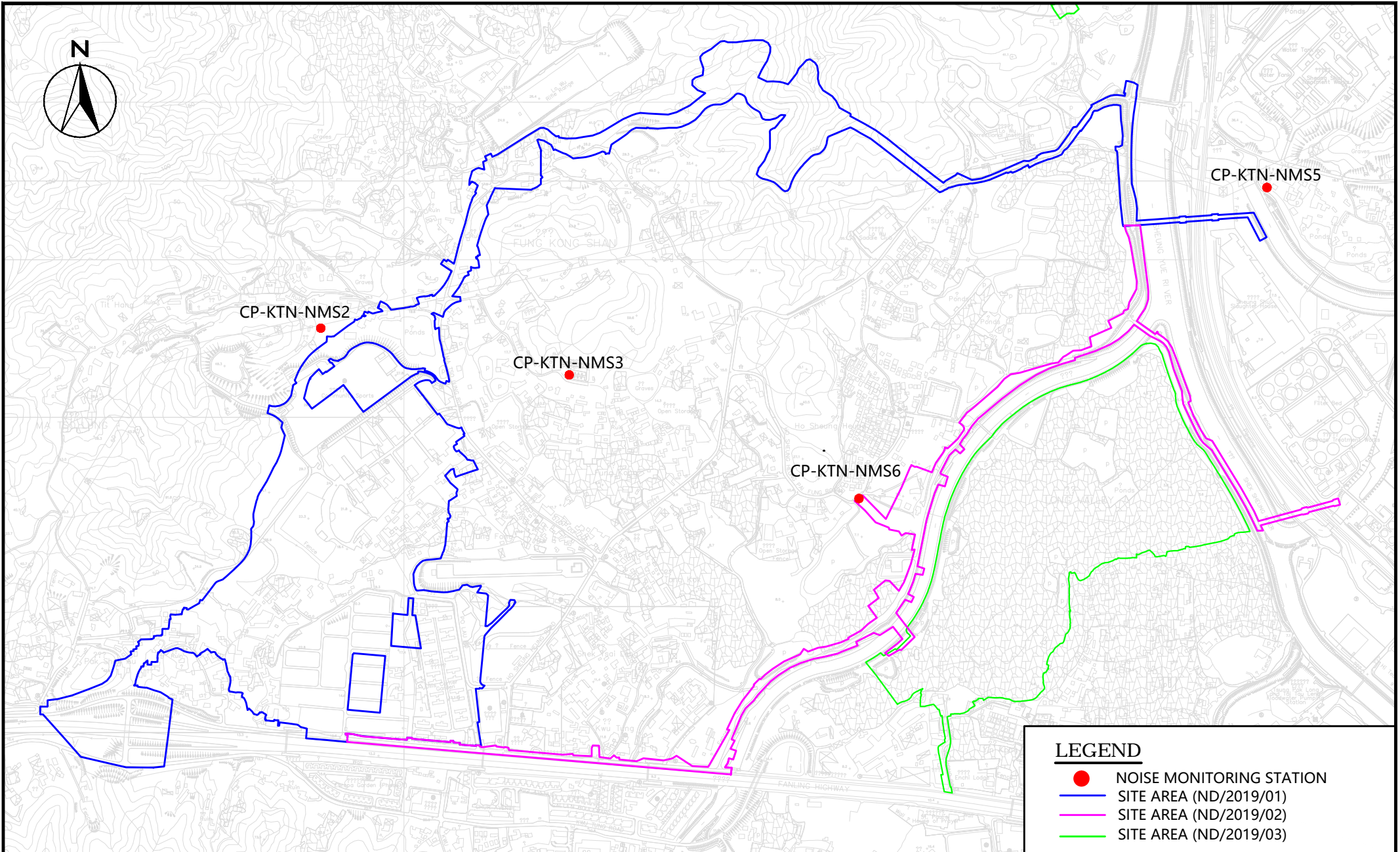


LEGEND

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/01)
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)

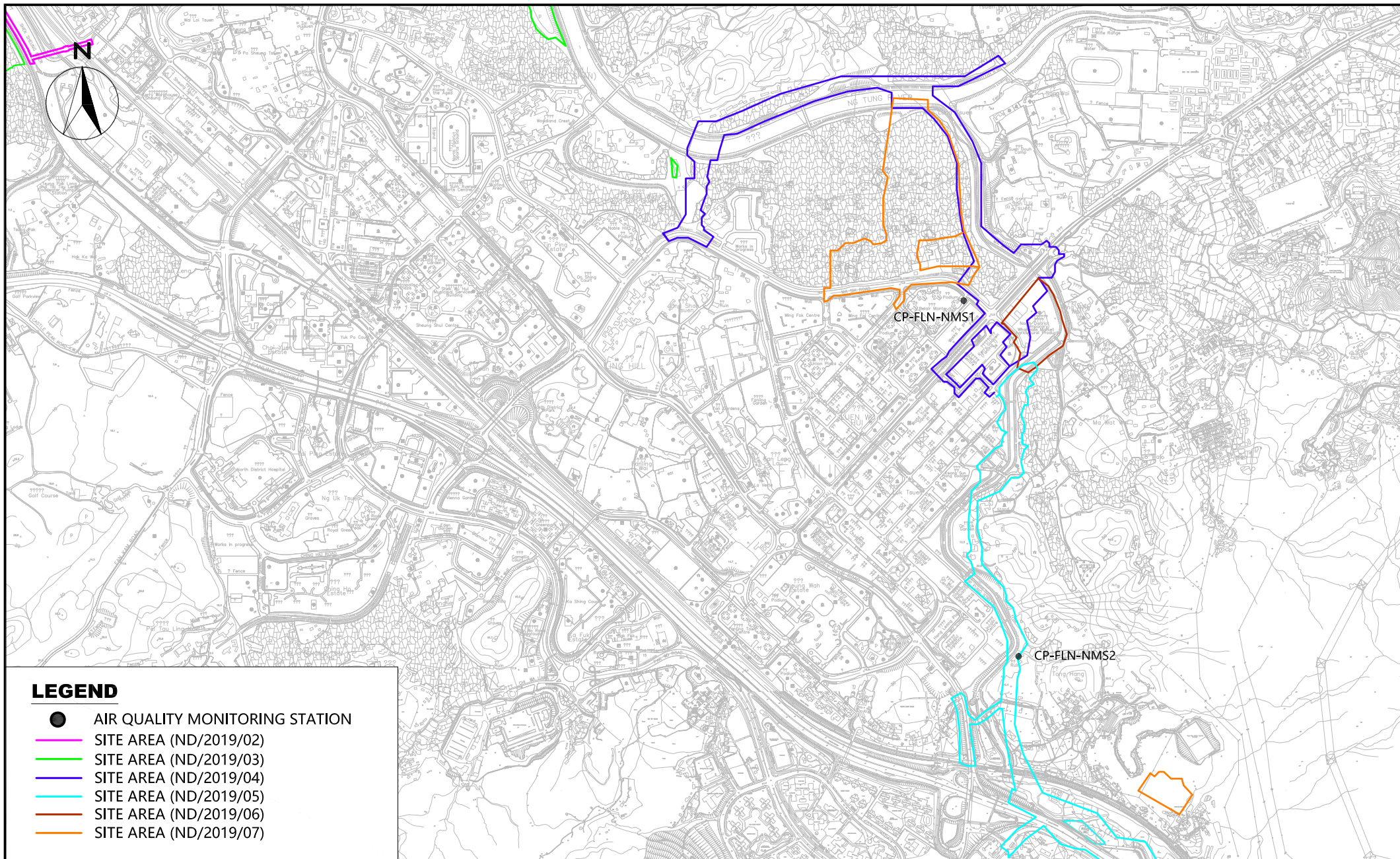


WELLAB consulting . testing . research		Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction		SCALE		A4 @ 1:40000		DATE		DEC 2021	
Phase for the First Phase Development of KTN and FLN NDAs		Location of Air Quality Monitoring Station (FLN)		CHECK		IT		DRAWN		ML	
				PROJECT No.		WMA20002		FIGURE NO.		2	
										REV	
										—	



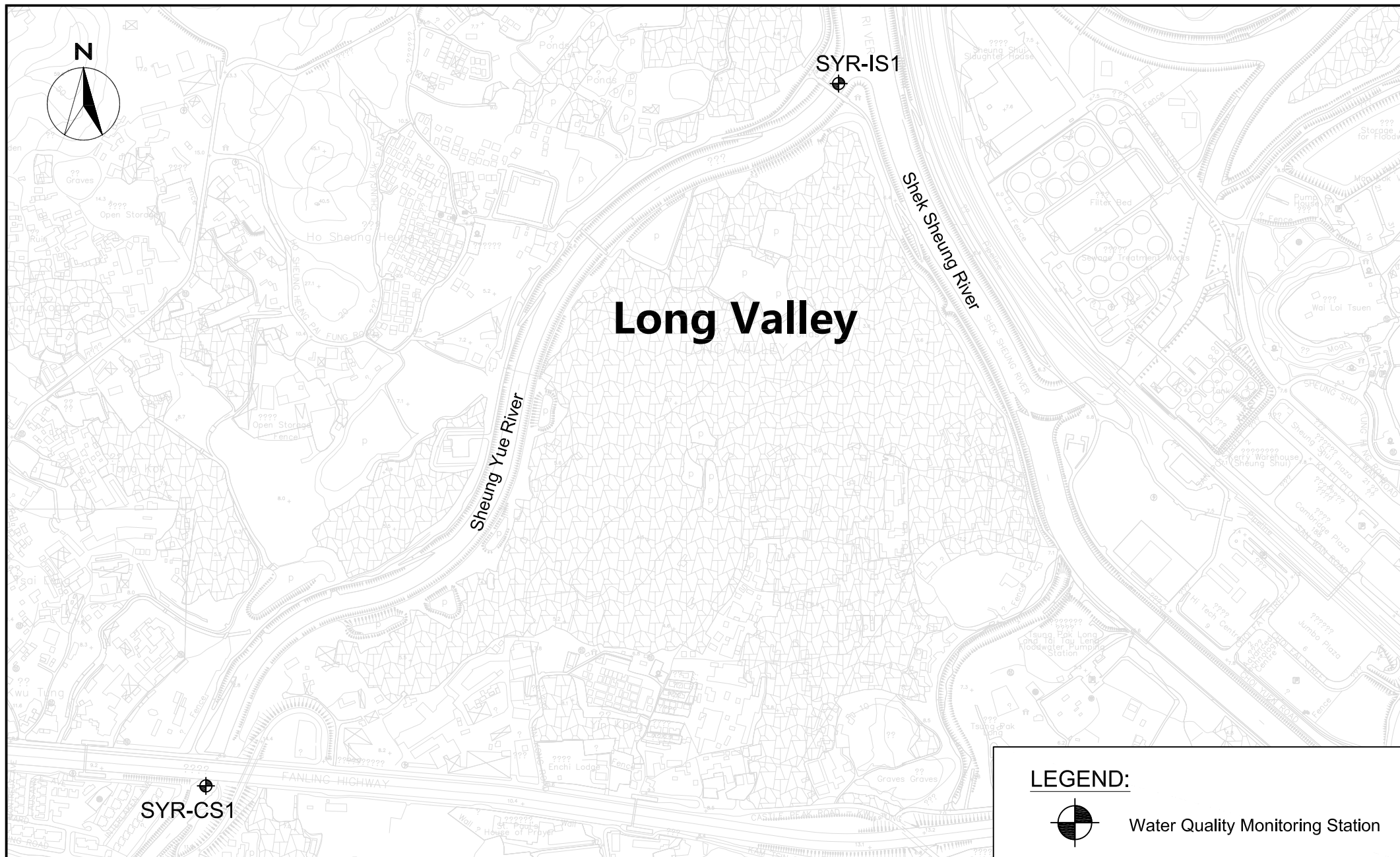
LEGEND

- NOISE MONITORING STATION
- SITE AREA (ND/2019/01)
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)



LEGEND

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)
- SITE AREA (ND/2019/04)
- SITE AREA (ND/2019/05)
- SITE AREA (ND/2019/06)
- SITE AREA (ND/2019/07)



LEGEND:



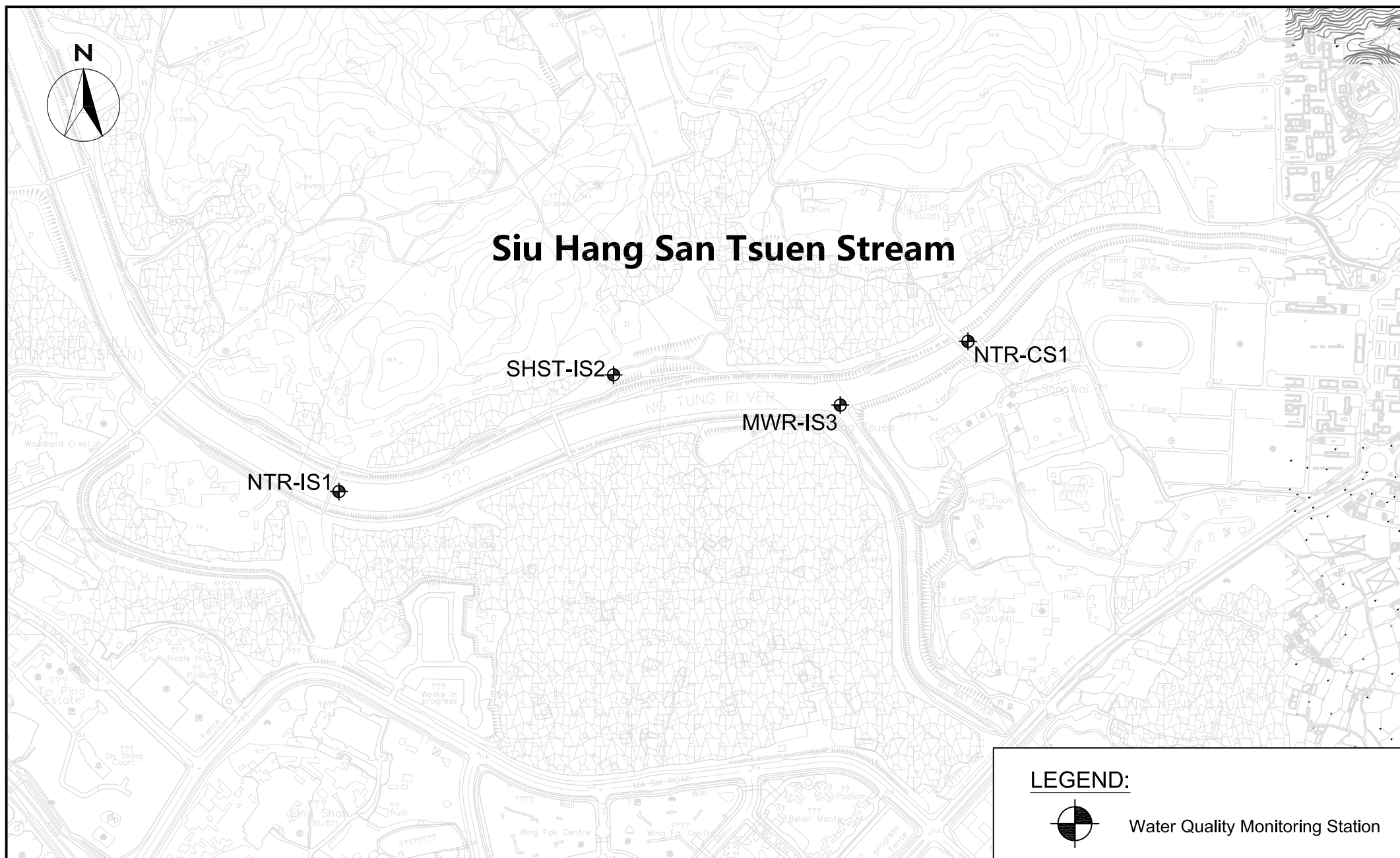
Water Quality Monitoring Station

WELLAB 匯力
consulting . testing . research

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

Location of Additional Water Quality Monitoring Stations at River Beas

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CHECK	KL	DRAWN	NL	
PROJECT No.	WMA20002	FIGURE NO.	5	REV —

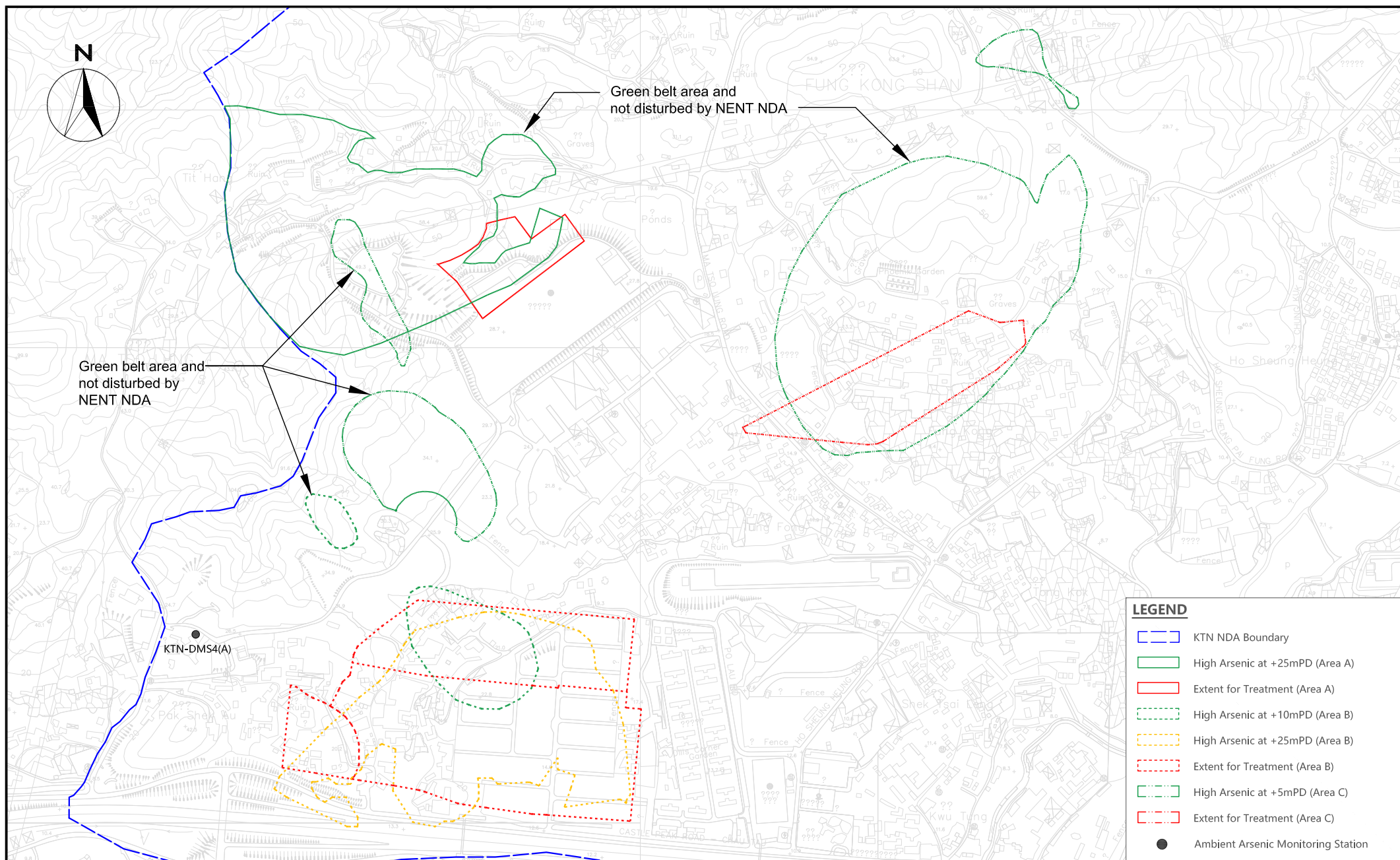


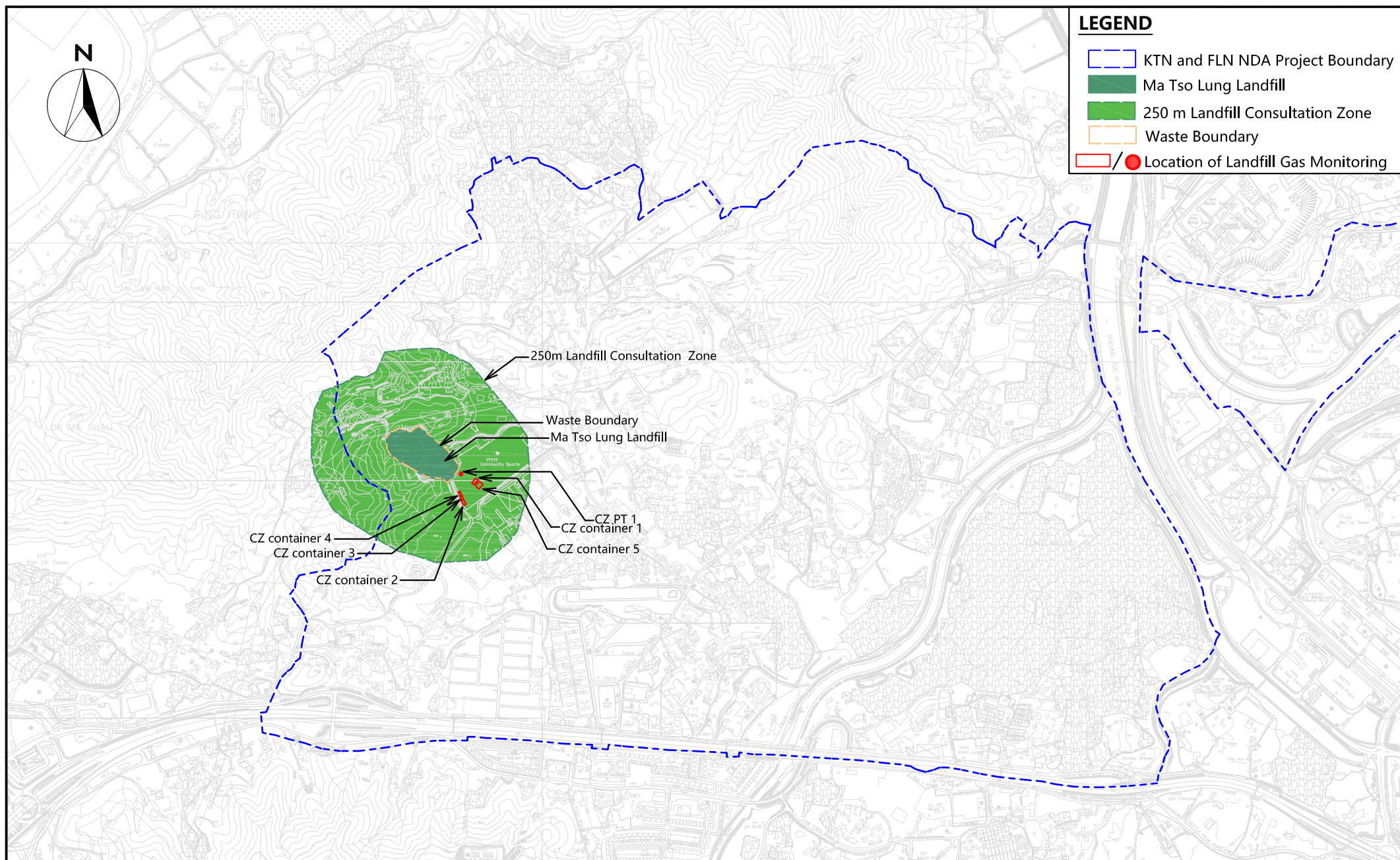
LEGEND:

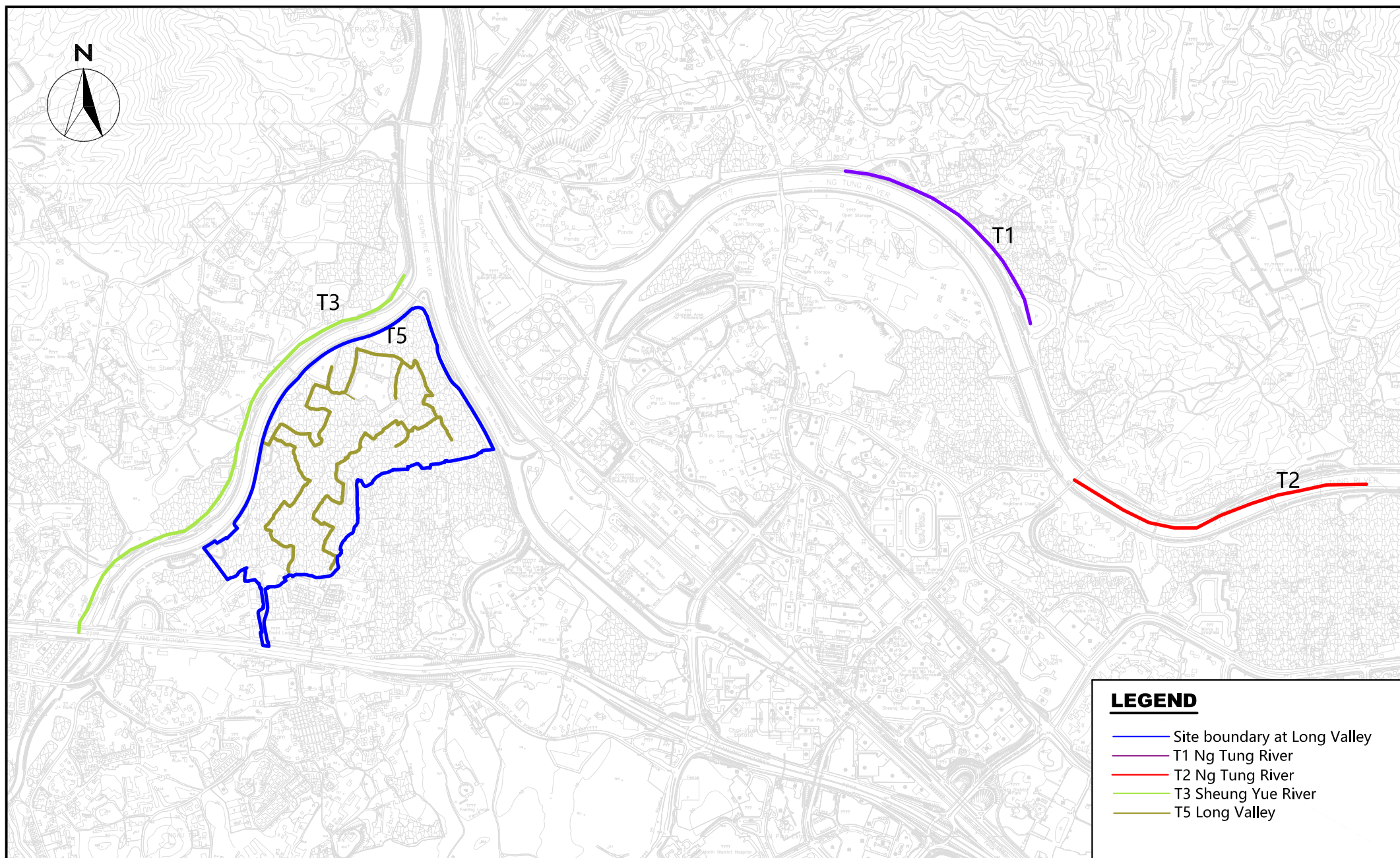


Water Quality Monitoring Station

SCALE	A4 @ 1:20000	DATE	FEB 2021
CHECK	KL	DRAWN	NL
PROJECT No.	WMA20002	FIGURE NO.	6
		REV	—











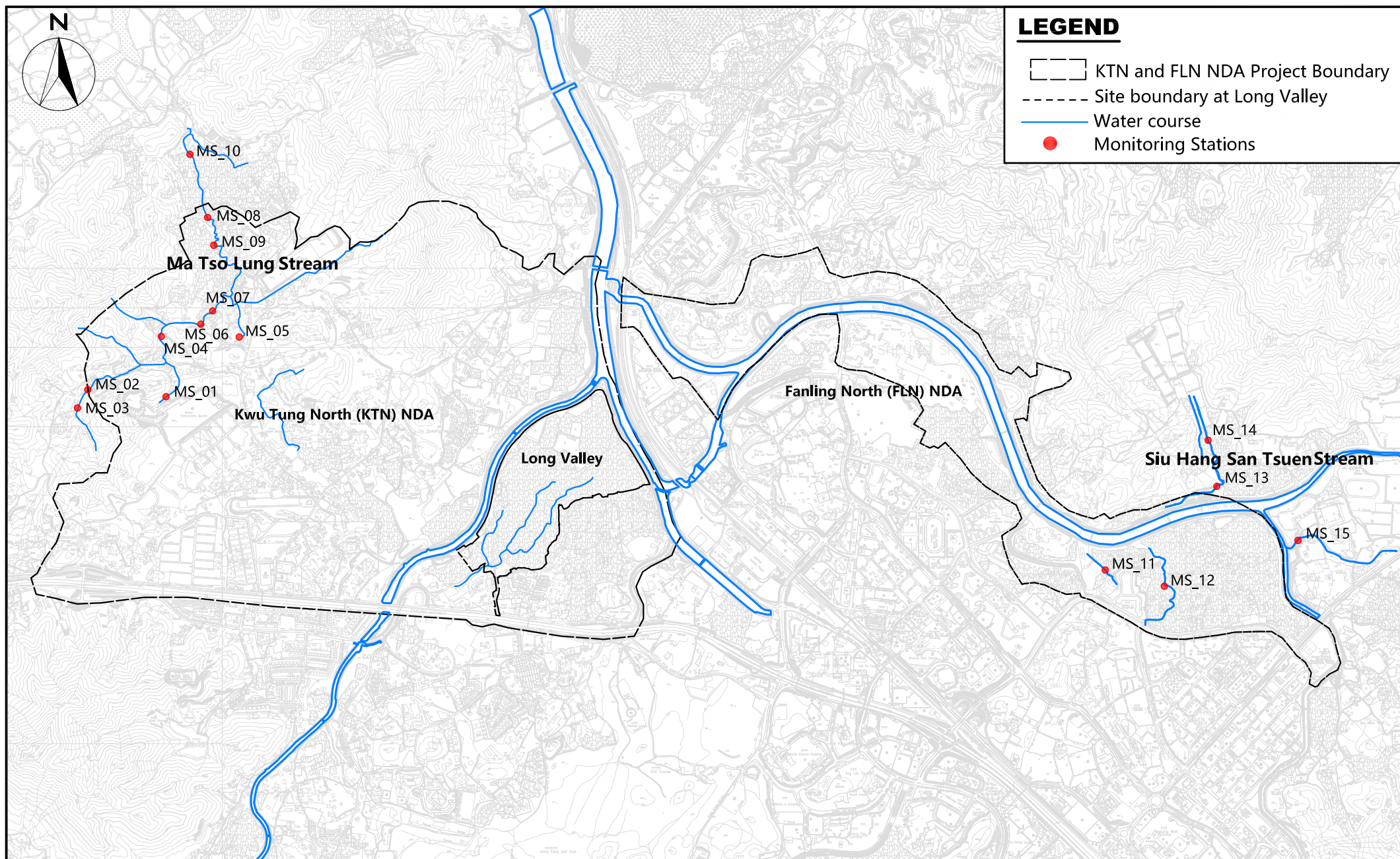
LEGEND

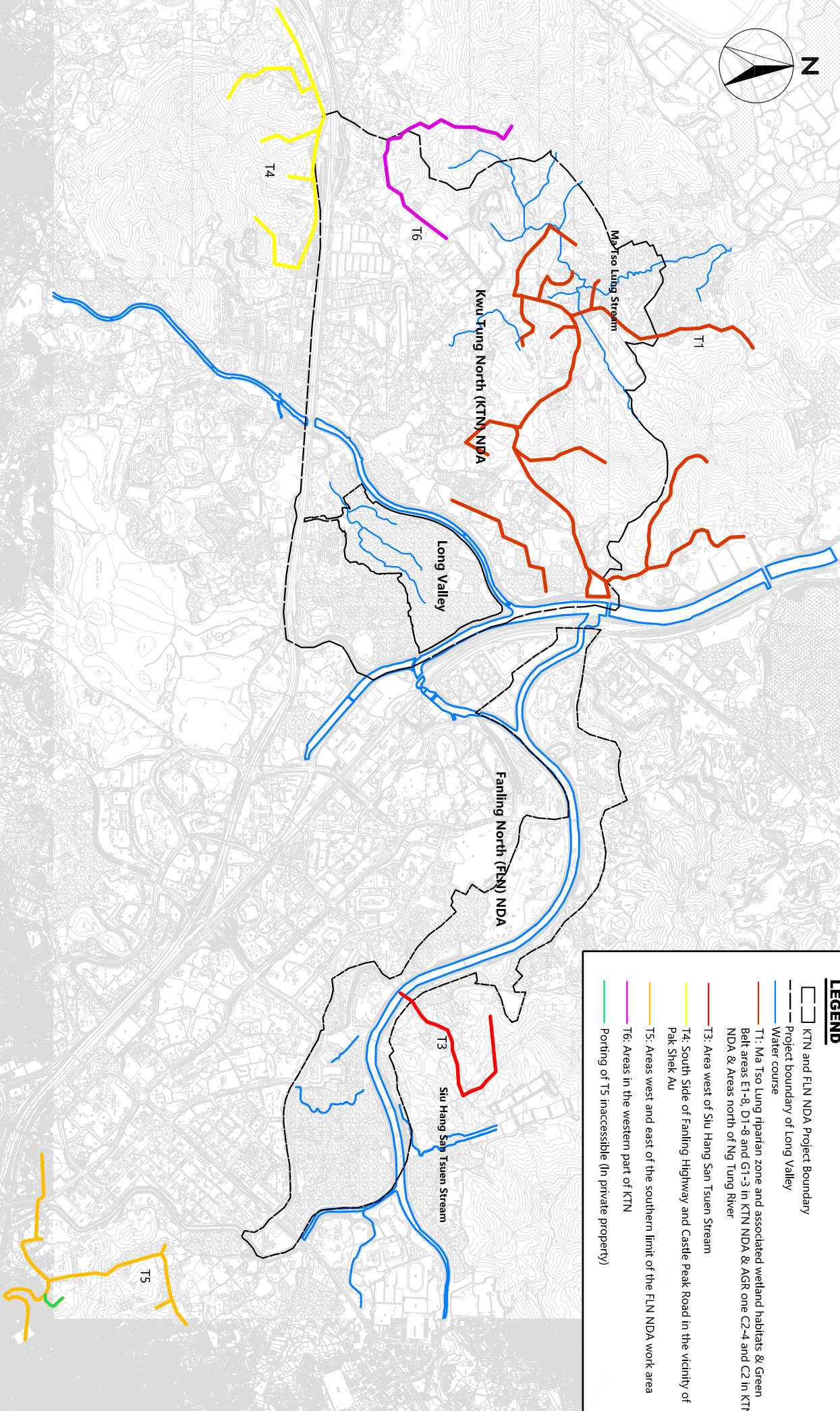
- Site boundary at Long Valley
- T1 Ng Tung River
- T2 Ng Tung River
- T3 Sheung Yue River
- T5 Long Valley



LEGEND

-  KTN and FLN NDA Project Boundary
-  Site boundary at Long Valley
-  Water course
-  Monitoring Stations





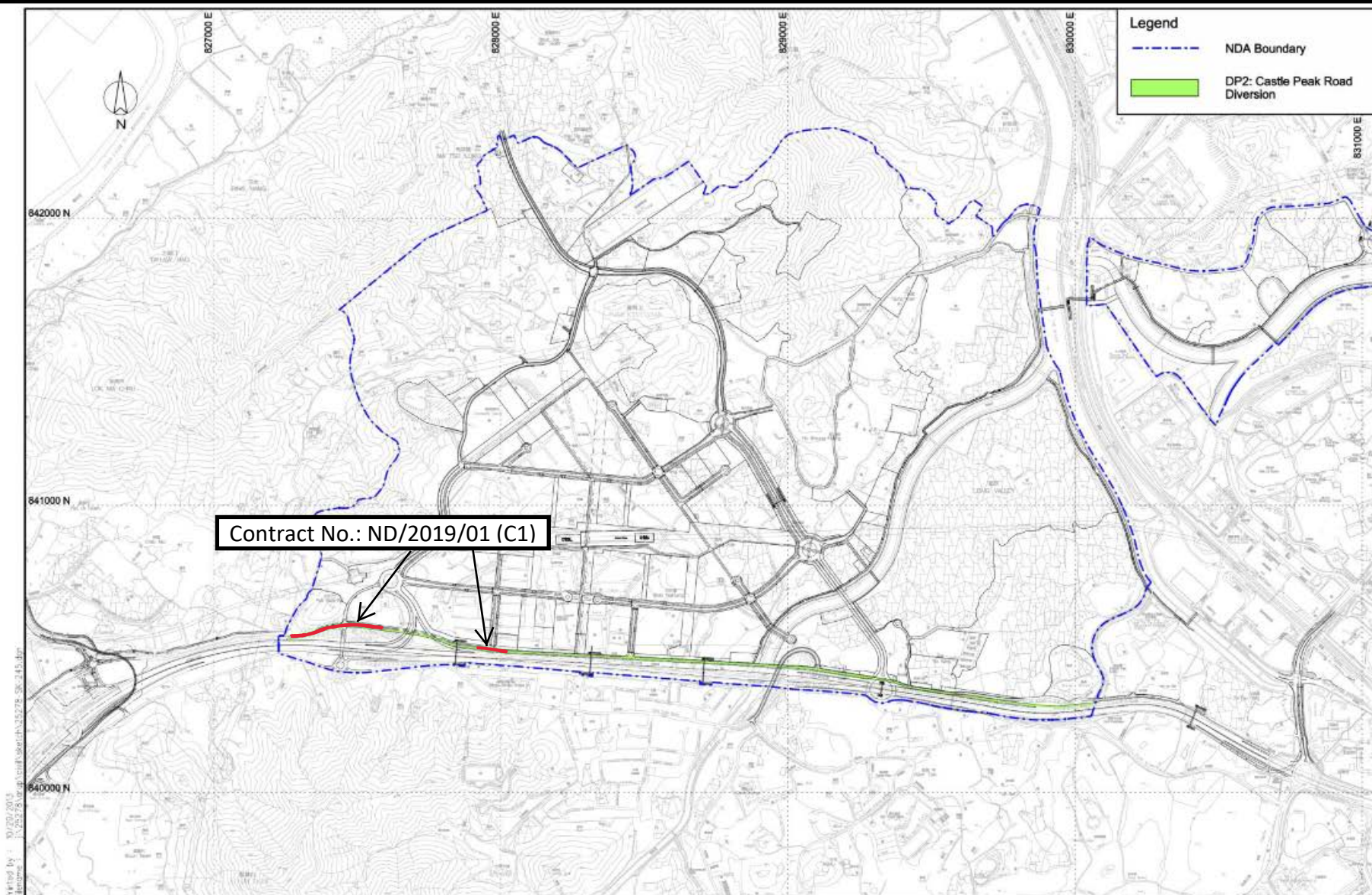
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction
Phase for the First Phase Development of KTN and FLN NDAs
Location of Transect Route of Ecological Sensitive Habitats
(Non-Aquatic Fauna) Transects (T1, T3-T6)

SCALE	A4 @ 1:70000	DATE	JUL 2021
CHECK	KL	DRAWN	ML
PROJECT No.	WMA20002	FIGURE NO.	11
		REV	—

Figure 12

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)

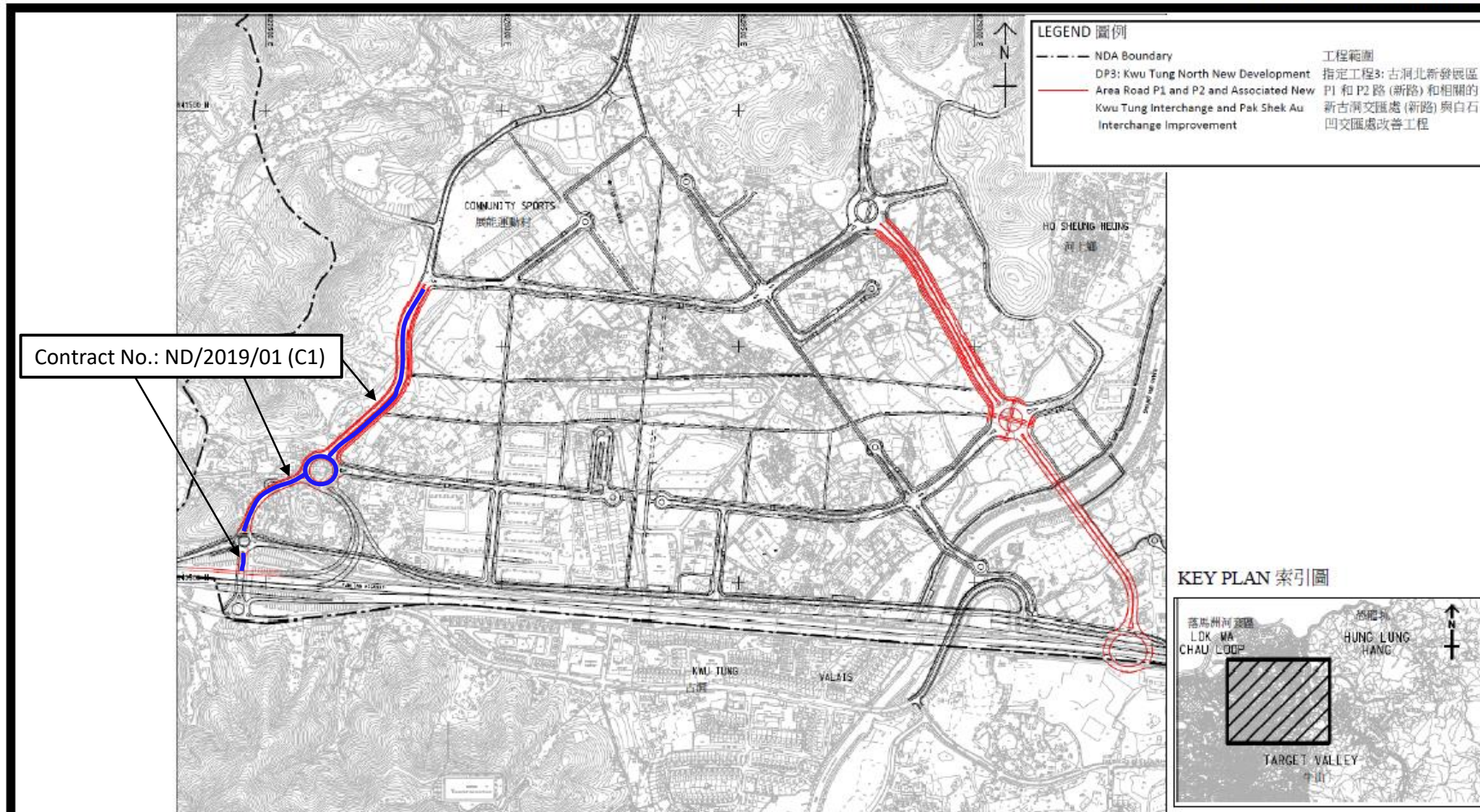
**Environmental Permit No:
EP-466/2013/A**



Figure 13

Site Layout Plan of Contract ND/2019/01

under EP-467-2013-A



Project Title: Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement
工程名稱: 古洞北新發展區P1和P2路 (新路) 和相關的新古洞交匯處 (新路) 與白石凹交匯處改善工程

Environmental Permit No:
EP-467/2013/A
環境許可證編號:
EP-467/2013/A



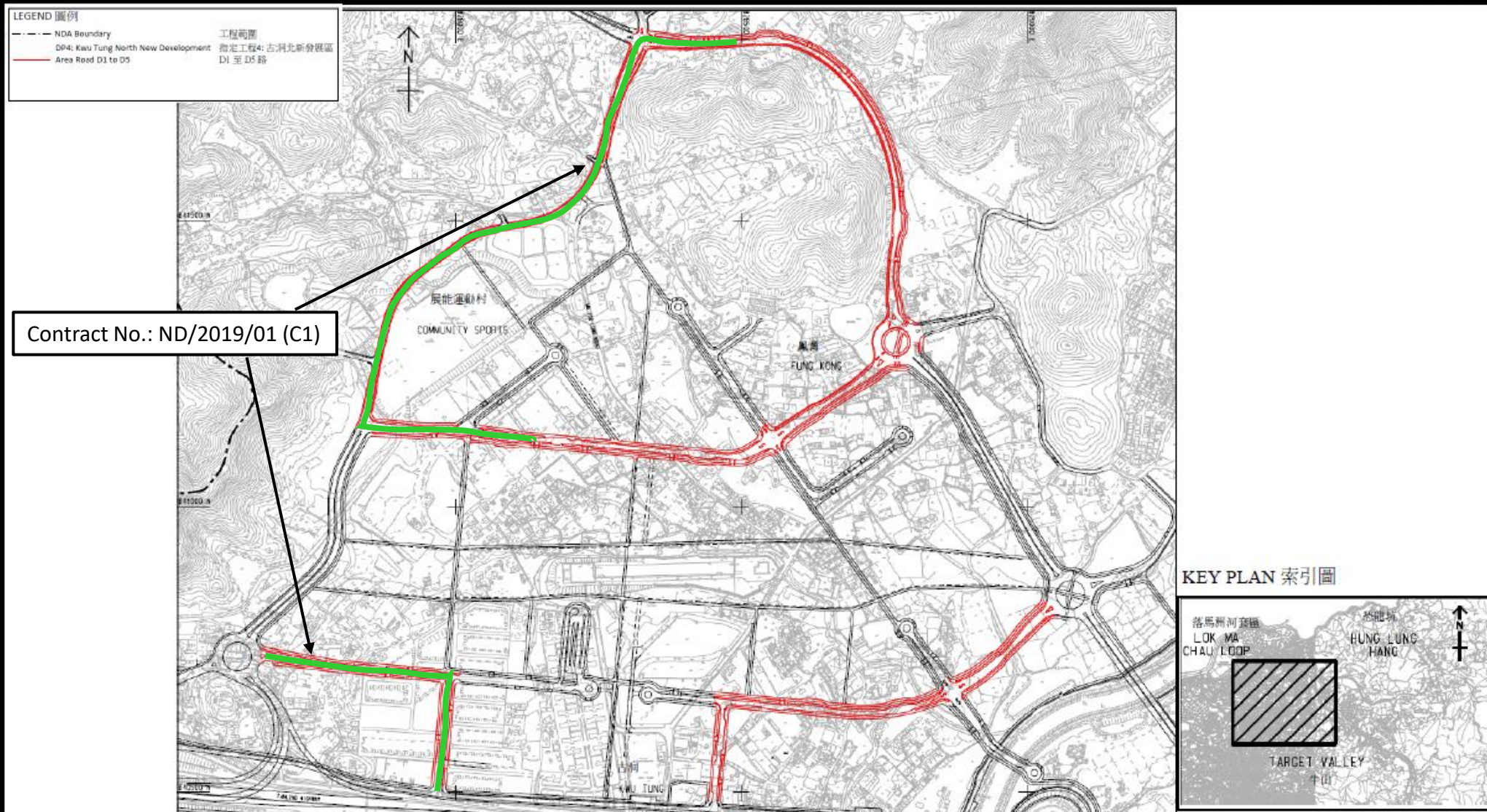
Figure 1: Location Plan for Interchange Improvement (Indicative)
 (This figure was prepared based on Figure 1.2 of VEP application (No.: VEP-523/2016))

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)

Figure 14

Site Layout Plan of Contract ND/2019/01

under EP-468-2013-A



Project Title: Kwu Tung North New Development Area Road D1 to D5
工程名稱: 古洞北新發展區D1至D5路

Environmental Permit No:
 EP-468/2013/A
環境許可證編號:
 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))

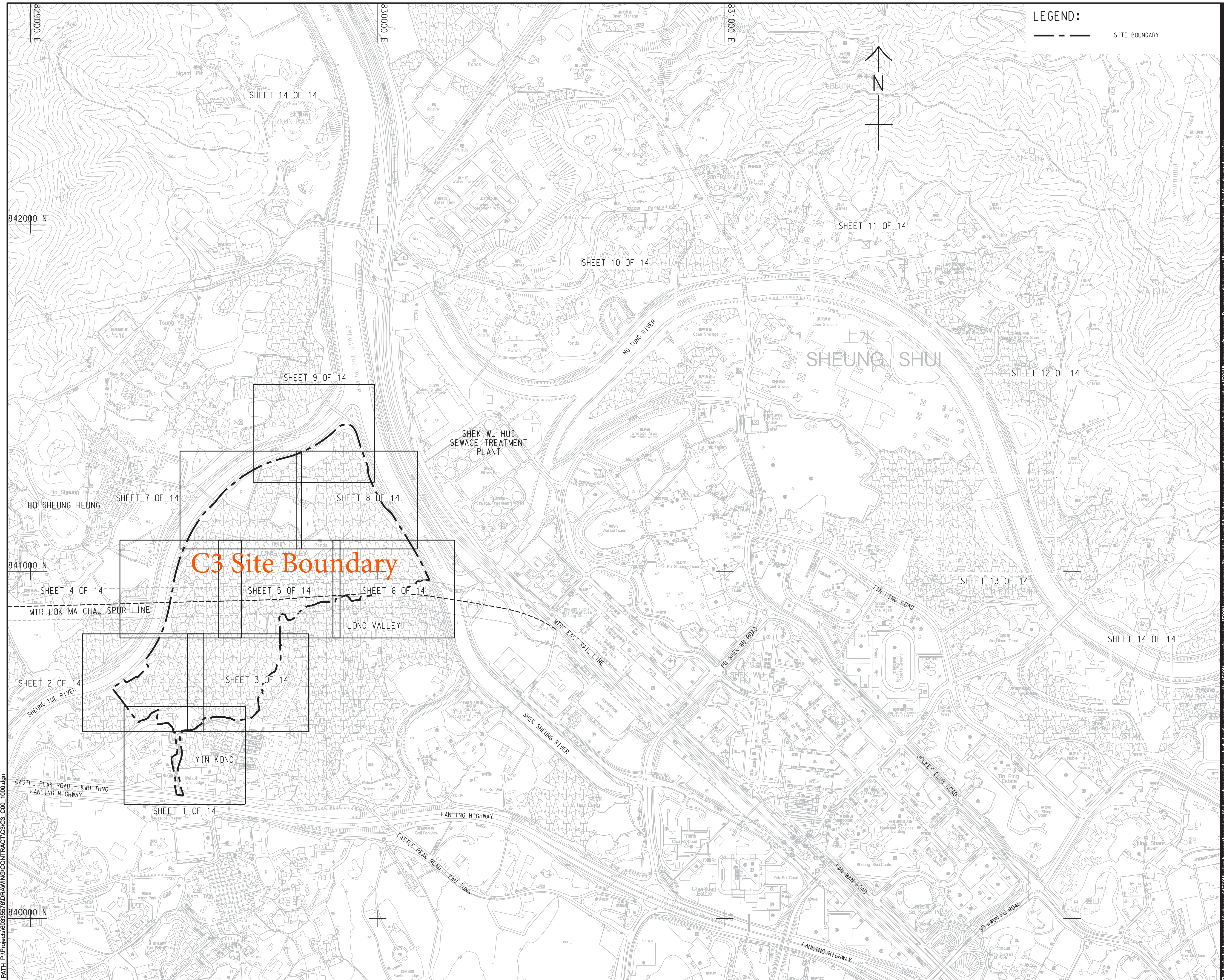
圖1：工程項目位置 (示意圖)

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

Figure 15

Site Layout Plan of Contract ND/2019/03

under EP-468-2013-A




Title of Designated Project
Kwu Tung North New
Development Area Road
D1 to D5



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Civil Engineering and
Development Department

AECOM Asia Company Ltd.
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ISSUE/REVISION			
-	JUN-19	TENDER DRAWING	 CYCH
IR/	DATE	DESCRIPTION	CHK.

SCALE 比例	DIMENSION UNIT 尺寸單位
A1 1 : 5000	METRES

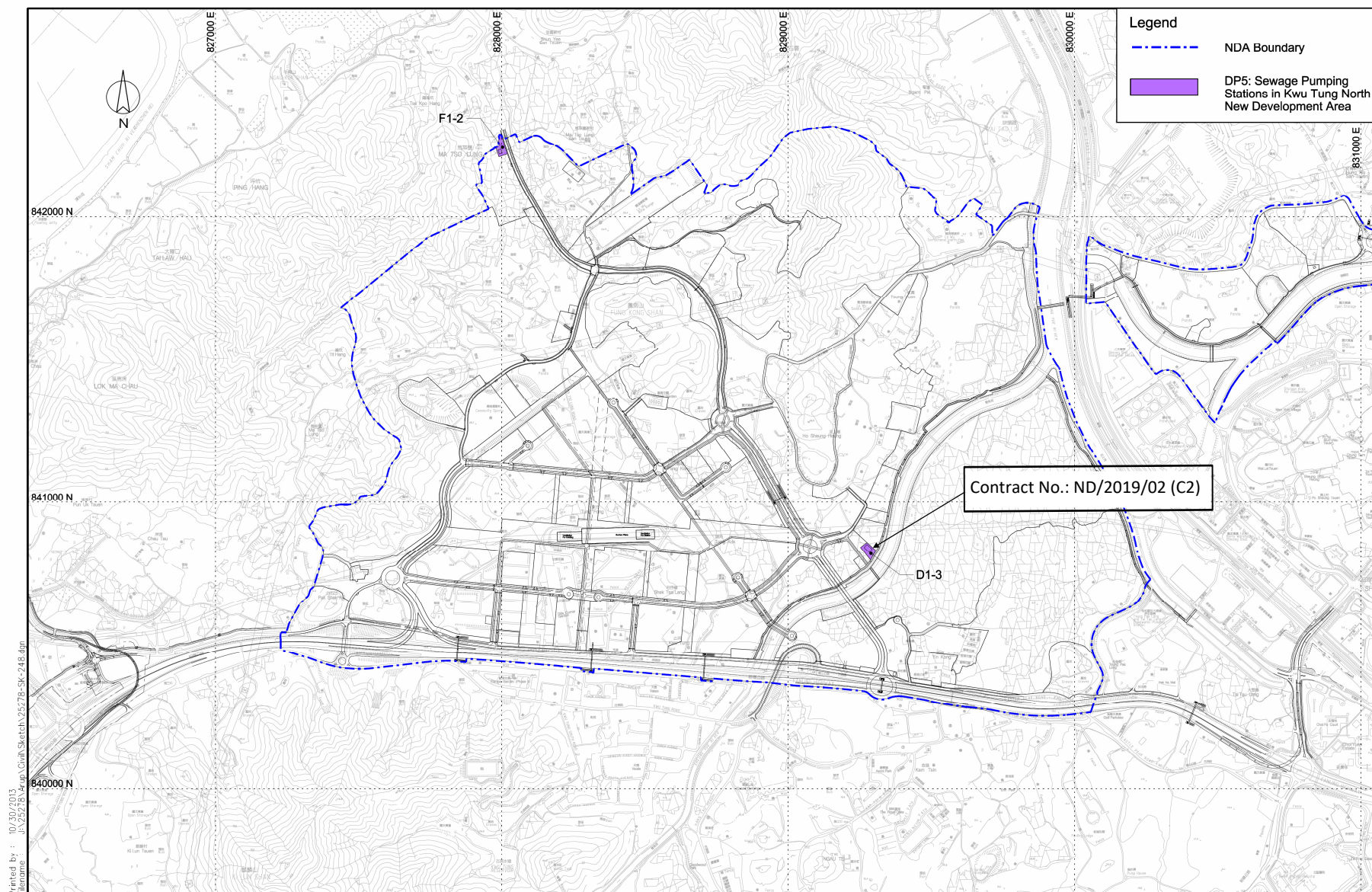
KEY PLAN OF GENERAL LAYOUT

60335576/C3/C00/1000

Figure 16

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)

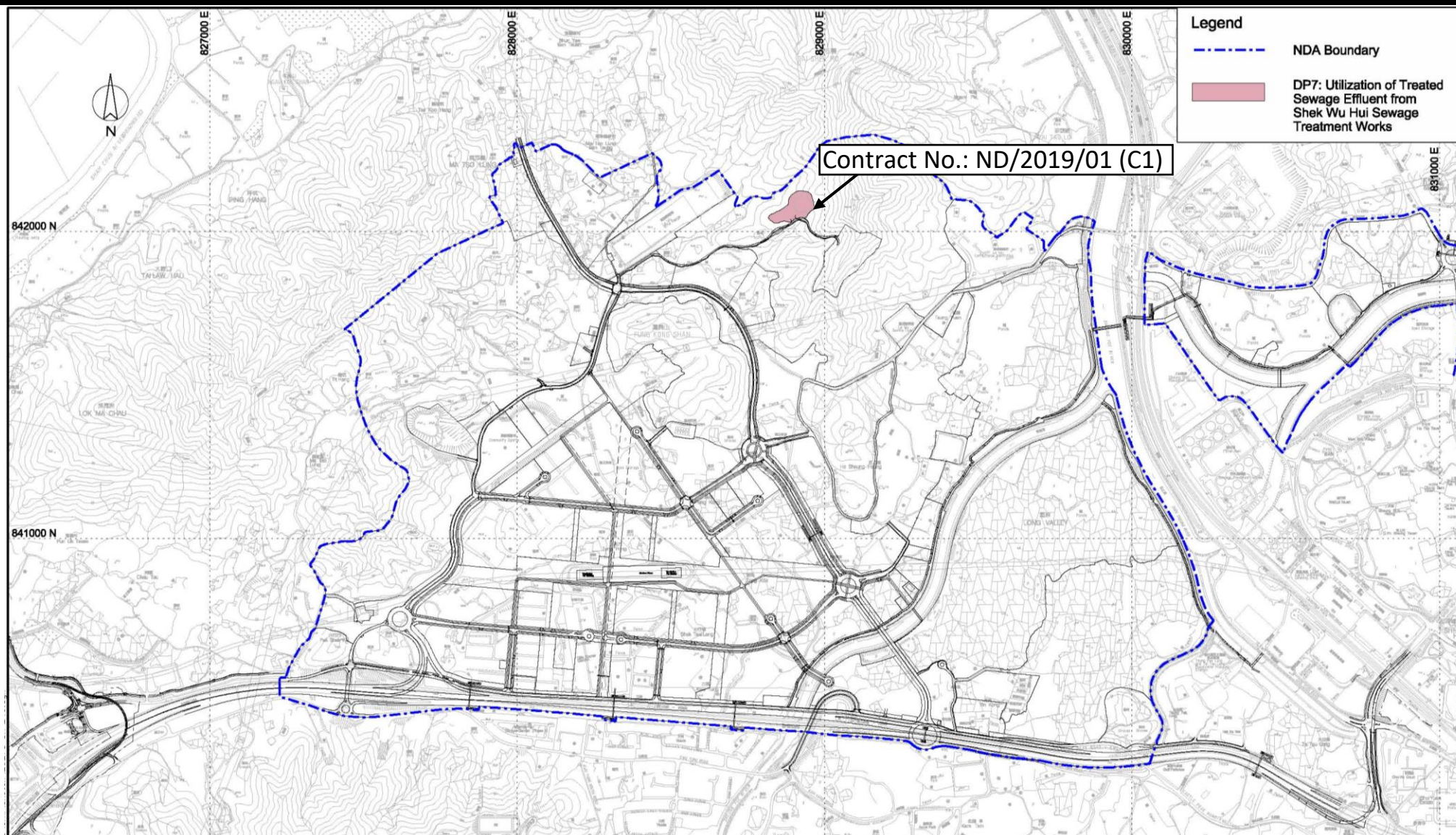
**Environmental Permit No:
EP-469/2013**



Figure 17

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)

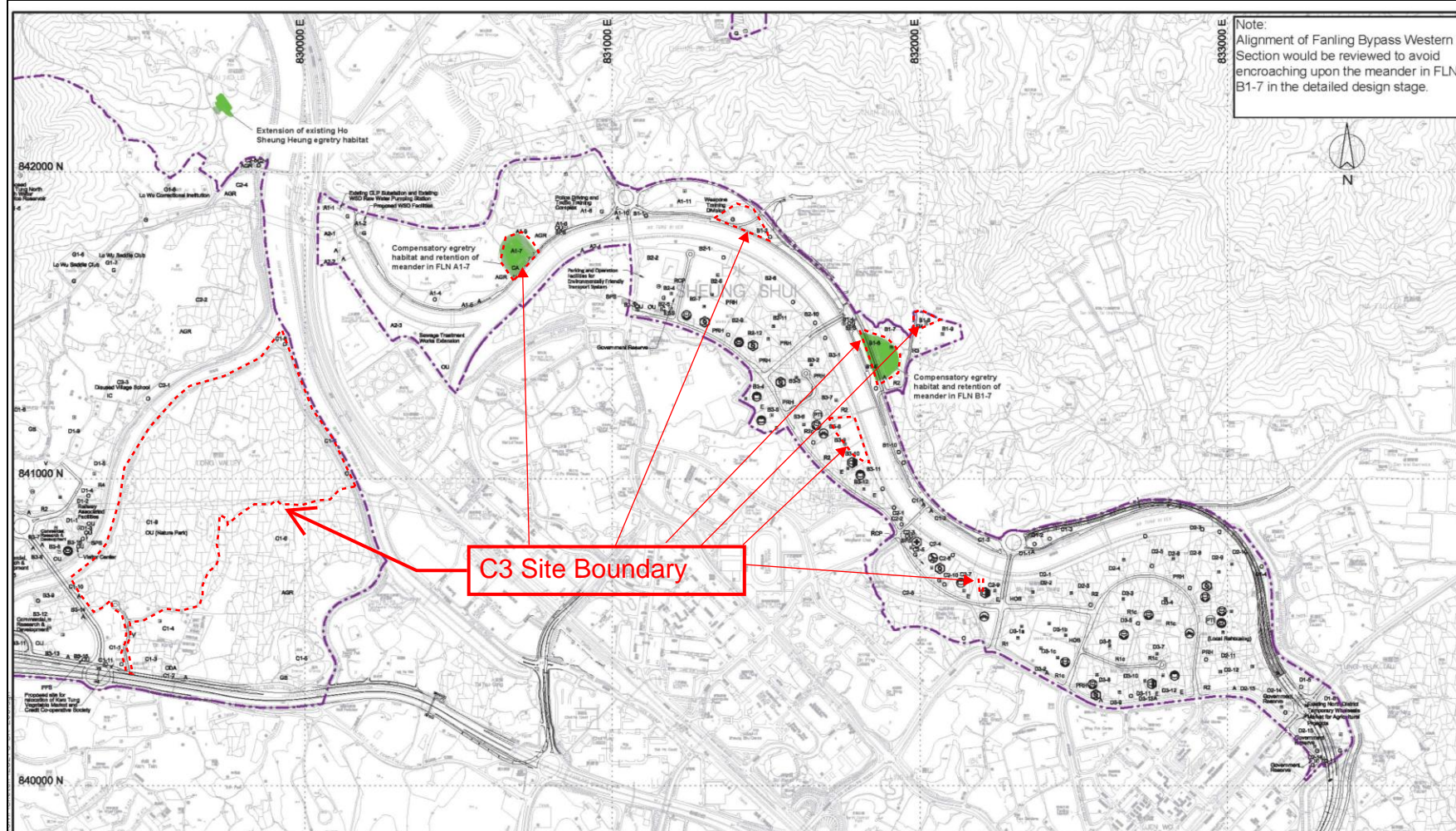
**Environmental Permit No:
EP-470/2013/A**



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 Egretty 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

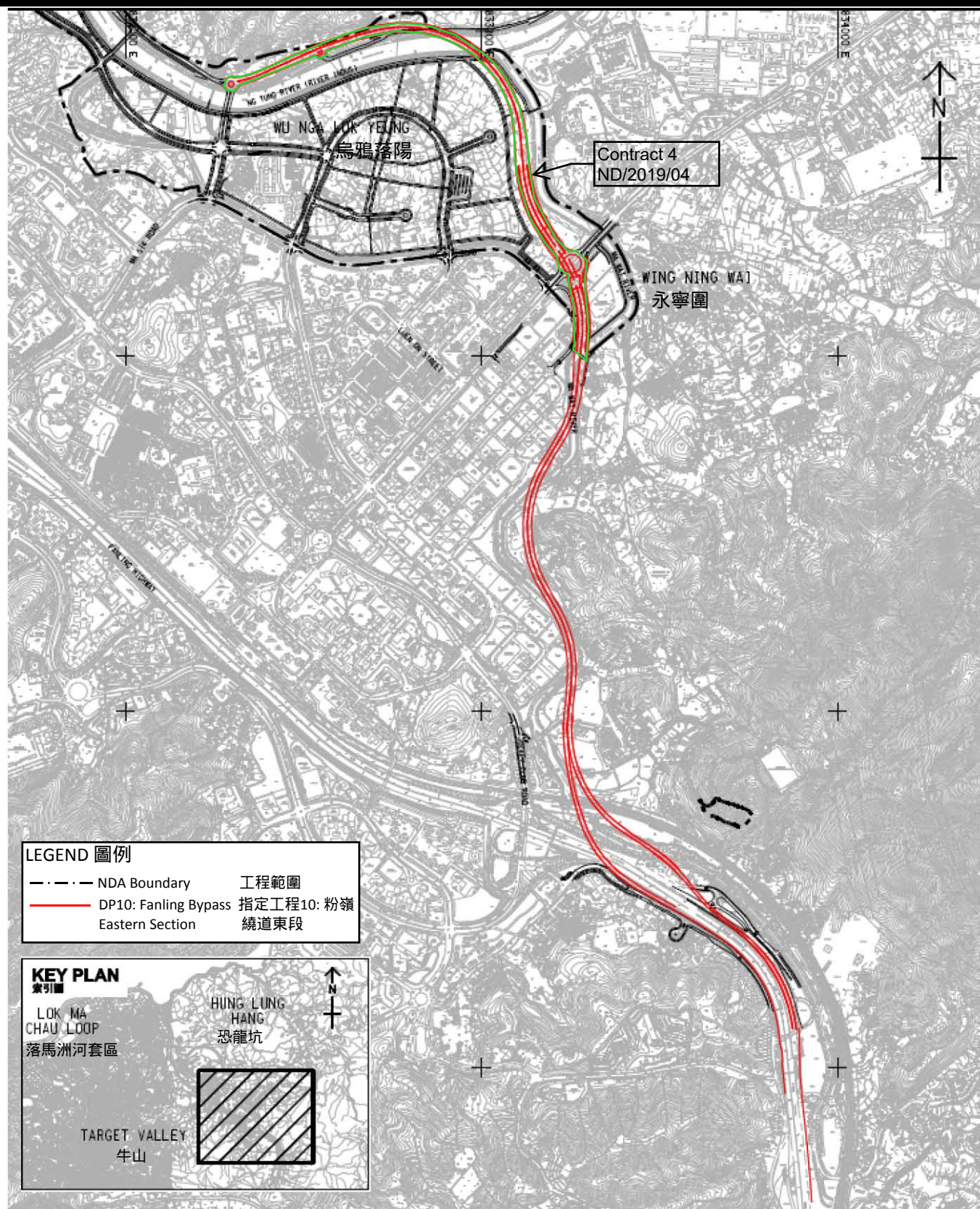
環境許可證編號: EP-473/2013/A



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:

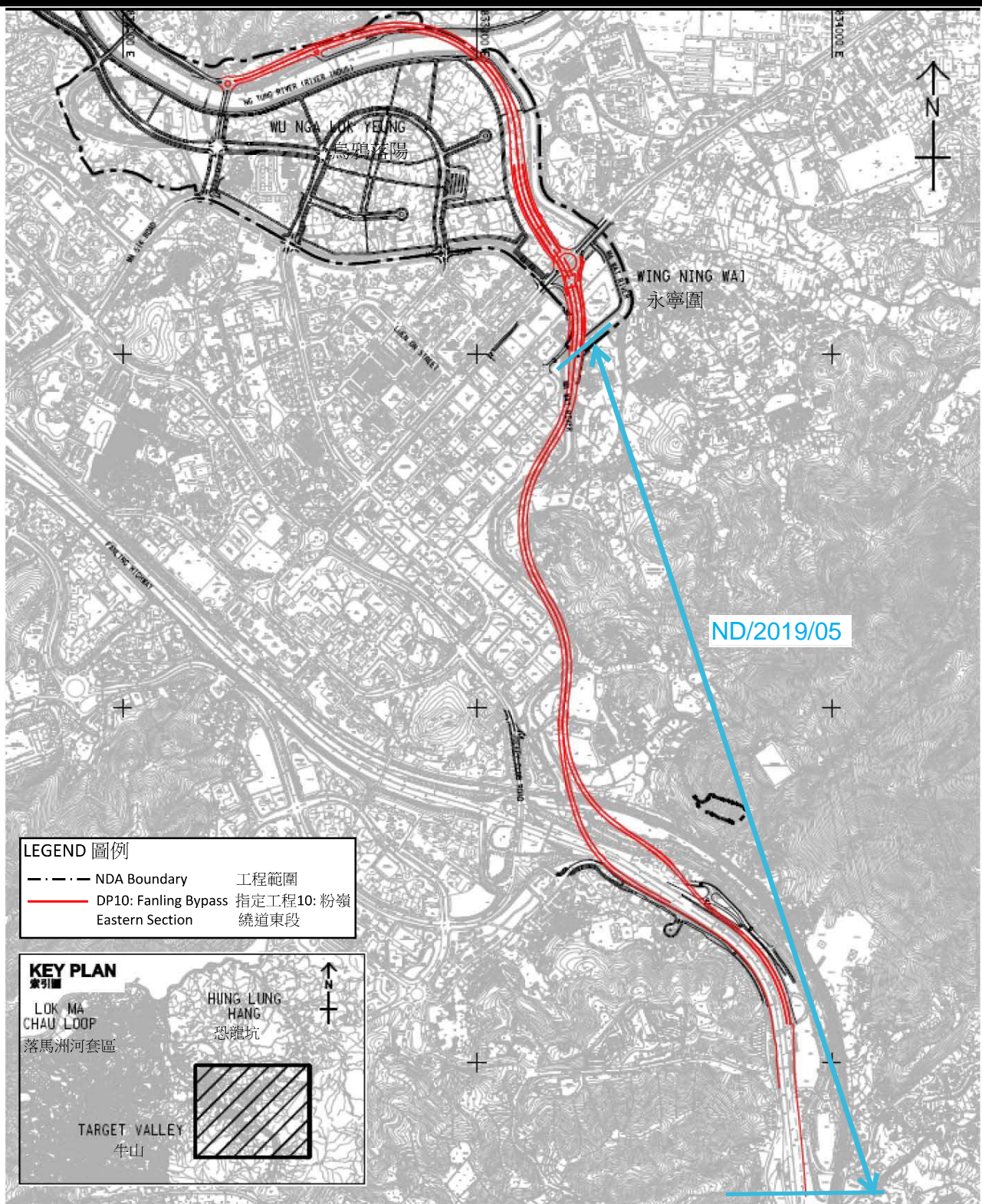
EP-473/2013/A



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

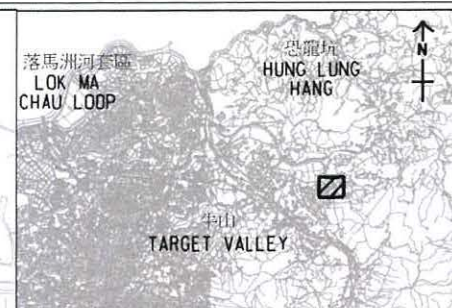
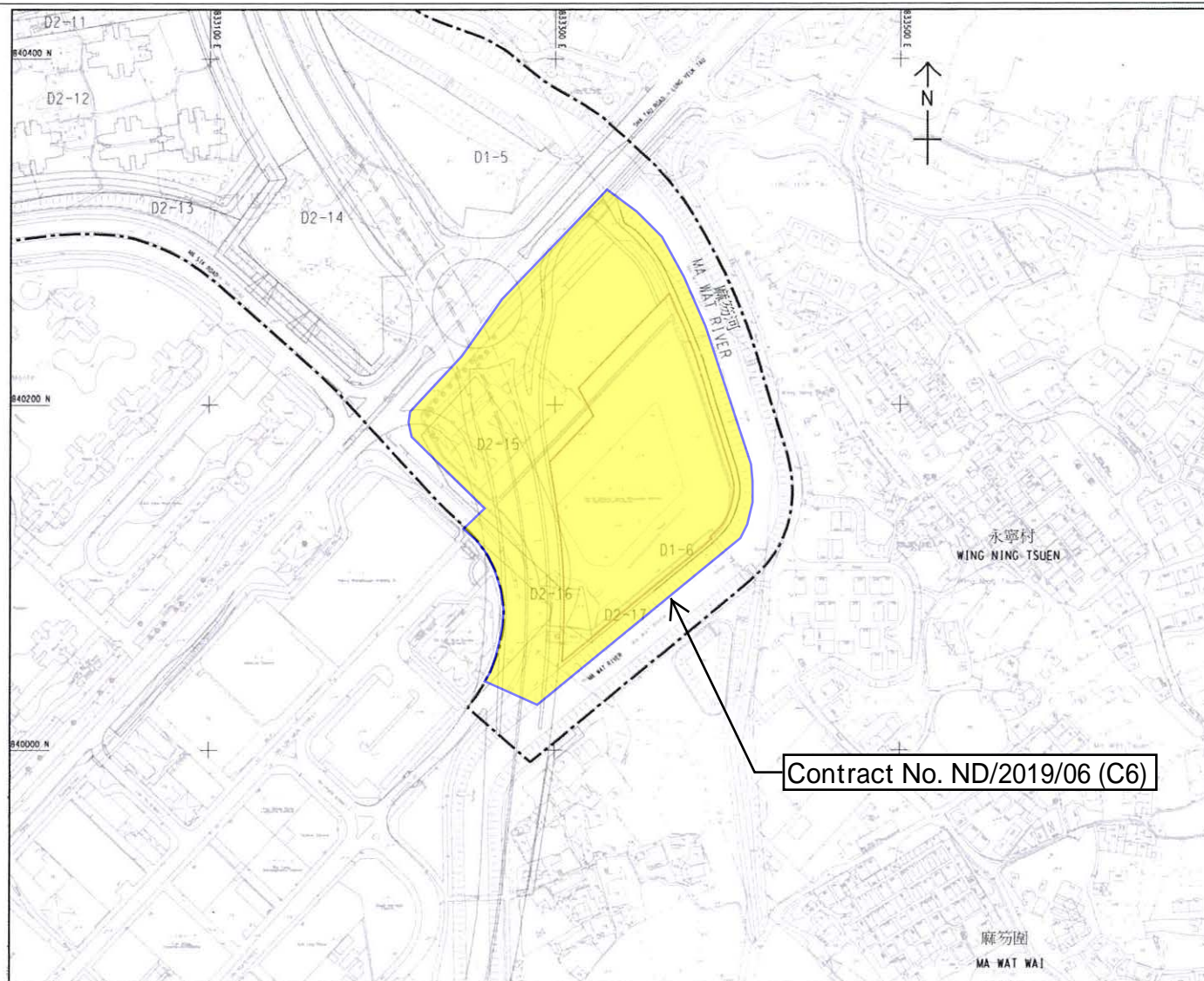
EP-473/2013/A



Figure 21

Site Layout Plan of Contract ND/2019/06

under EP-475-2013-A



圖例:

LEGEND:

- 新發展區項目邊界
NDA PROJECT BOUNDARY
- 最新位置邊界
LATEST SITE BOUNDARY

Contract No. ND/2019/06 (C6)



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）

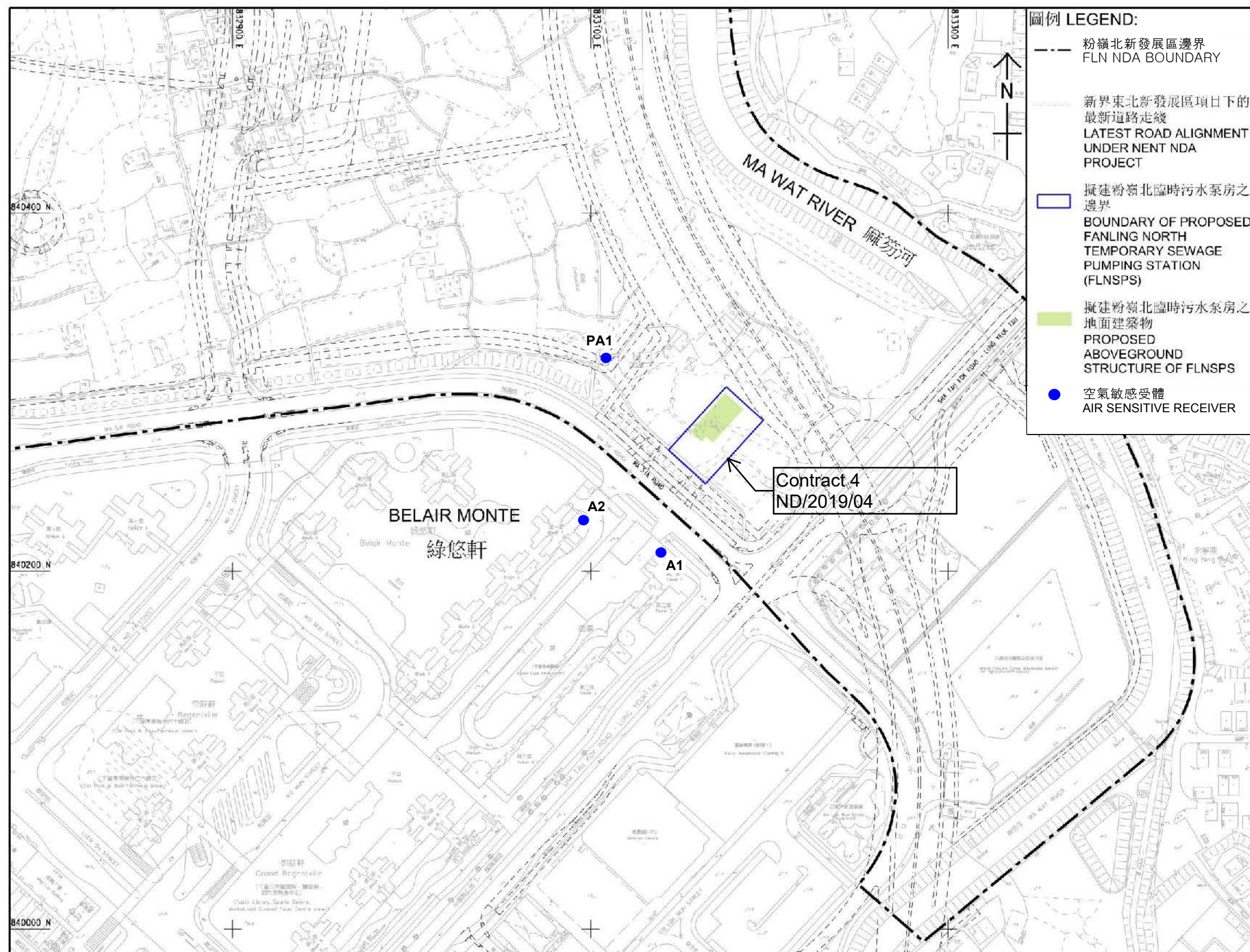
(This figure was prepared based on Figure 1.1 of VEP application (No.: VEP-516/2016))
 (本圖是根據申請更改環境許可證(編號 VEP-516/2016) 圖 1.1 編制)



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

Construction Programme of ND/2019/01

Activity ID		Activity Name		Remaining Duration	Start	Finish	Total Float	Calendar	May 2023					June 2023					July 2023				August 2023				
									23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27
Revised Programme (2023-05-25) Rev.0 for Edward																											
6.0 - Prelimiaries and General Requirements																											
6.2 - General Submissions																											
GS-1310		Application of Water Supply to WSD		30	25-May-23	23-Jun-23	-58	CD(7d)																			
GS-1290		Preparation and Submission of Fully Corodinated BIM		978	21-Aug-20 A	26-Jan-26*	10	CD(7d)																			
GS-1230		Submission of Major Method Statements		42	06-Dec-19 A	05-Jul-23	469	CD(7d)																			
7.0 Construction																											
Section 1																											
Portion 10a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to MWSC)																											
KD1 - Provision of Site Access and EVA to MWSC																											
Civil Works																											
Road D1 (Stage 2) Castle Peak road junction																											
S1K1-2036		Road works - Formation & Sub base		0	01-Mar-23 A	29-Apr-23 A		WD(6d)																			
S1K1-2040		Road works - Laying bituminous paving		0	02-May-23 A	05-May-23 A		WD(6d)																			
S1K1-2038		Road works - Road kerb		0	22-Apr-23 A	29-Apr-23 A		WD(6d)																			
Smart Road Lightings System Installation																											
S1K1-3040		Testing and Commissioning (T&C) for road lighting system		0	18-Apr-23 A	19-May-23 A		CD(7d)																			
Remaining Road works in Area H																											
S1P10a-4000		DCS Works by Others (Anticipated Commencement Date 19-May-2023)		150	25-May-23	21-Oct-23	808	CD(7d)																			
S1P10a-2200		Footpath Construction - RD L1 North Side - Laying Paving Blocks		0	06-Mar-23 A	06-May-23 A		WD(6d)																			
S1P10a-2190		Footpath Construction - RD L1 North Side - Site Formation		0	27-Jan-23 A	02-May-23 A		WD(6d)																			
S1P10a-2170		Footpath Construction - RD L1 South Side - Laying Paving Blocks		0	22-Apr-23 A	25-Apr-23 A		WD(6d)																			
S1P10a-2140		Footpath Construction Rd D1 East Side (Stage 1) - Laying Paving Blocks		0	13-Feb-23 A	02-May-23 A		WD(6d)																			
S1P10a-2250		Footpath Construction Rd D1 East Side (Stage 2)- Laying Paving Blocks Inside Section		0	05-May-23 A	09-May-23 A		WD(6d)																			
S1P10a-2256		Footpath Construction Rd D1 East Side (Stage 2)- Laying Paving Blocks Outside Section		0	15-May-23 A	18-May-23 A		WD(6d)																			
S1P10a-2240		Footpath Construction Rd D1 East Side (Stage 2)- Site Formation Inside Section		0	29-Apr-23 A	04-May-23 A		WD(6d)																			
S1P10a-2254		Footpath Construction Rd D1 East Side (Stage 2)- Site Formation Outside Section		0	10-May-23 A	13-May-23 A		WD(6d)																			
S1P10a-2230		Footpath Construction Rd D1 West Side (Stage 2) - Laying Paving Blocks		0	08-May-23 A	13-May-23 A		WD(6d)																			
S1P10a-2220		Footpath Construction Rd D1 West Side (Stage 2) - Site Formation		0	29-Apr-23 A	06-May-23 A		WD(6d)																			
S1P10a-2012		Road D1 & L1 Cycle Track - Laying bitumen		0	26-Apr-23 A	03-May-23 A		WD(6d)																			
S1P10a-2005		Road D1 Cycle Track - Road Formation (Stage 2)		0	02-May-23 A	08-May-23 A		WD(6d)																			
S1P10a-2018		Road Works - Irrigation System Installation		60	24-Jun-23	02-Sep-23	492	WD(6d)																			
Section 3																											
Portion 1a in Area E (Soil Treatment & Interface with HKHS's Contractors)																											
Soil Treatment																											
S3P1a-2020		Backfilling to the formation levels		48	10-Jul-23	02-Sep-23	693	WD(6d)																			
S3P1a-2010		Remove soil (original assumed 17334m3) (1/ 13 EGI completed, interim soil to be excavated / treated : 1260m3 / 400m3)		36	01-Mar-23 A	08-Jul-23	471	WD(6d)																			
Section 4A																											
Portion 1b in Area D1 (Soil Treatment & Interface with HD's Contractors)																											
Soil Treatment																											
S4AP1b-2070		ErectChain Link Fence		0	20-Feb-23 A	26-Apr-23 A		WD(6d)																			

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	May 2023					June 2023					July 2023					August 2023				
							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
	S4AP1b-2065	New Feature KS56 - Hydroseeding	0	25-Mar-23 A	25-Apr-23 A		WD(6d)																			
	S4AP1b-2030	New Feature KS57 - Construct Slope	0	01-Dec-22 A	26-Apr-23 A		WD(6d)																			
Section 4B																										
Portion 1c in Area D2 (Soil Treatment & Interface with HD's Contractors)																										
Soil Treatment																										
	S4BP1c-2050	Erect Chain Link Fence	0	20-Feb-23 A	26-Apr-23 A		WD(6d)																			
	S4BP1c-2045	New Feature KS56 - Hydroseeding	0	25-Mar-23 A	25-Apr-23 A		WD(6d)																			
Section 6A																										
Portion 1e in Area G1 (Soil Treatment & Forming Hammerhead)																										
Soil Treatment																										
	S6AP1e-2030	Erect Chain Link Fence	12	10-Jul-23	22-Jul-23	-14	WD(6d)																			
	S6AP1e-2020	Site formation Works	36	25-May-23	08-Jul-23	-67	WD(6d)																			
Portion 15 in Area G1 (Soil Treatment)																										
Preparation work/Tree Survey/Site Clearance/GI																										
	S6AP15-1020	Site clearance	12	25-May-23	08-Jun-23	-67	WD(6d)																			
Soil Treatment																										
	S6AP15-2030	Erect Chain Link Fence	12	10-Jul-23	22-Jul-23	-14	WD(6d)																			
	S6AP15-2020	Site formation Works	24	09-Jun-23	08-Jul-23	-14	WD(6d)																			
Section 8																										
Portion 2 in Area A (Soil Treatment & Construction of Pak Shek Au Junction)																										
Preparation work																										
	S8P2-1018	Remaining Site clearance	26	25-May-23	26-Jun-23	-423	WD(6d)																			
Soil Treatment																										
	S8P2-2020	Backfilling to the formation levels	48	27-Jun-23	22-Aug-23	-285	WD(6d)																			
	S8P2-2010	Remove soil (original assumed 6898m3) (0/1 EGI completed, interim soil to be excavated / treated : 0m3/0m3) Clean Soil	26	25-May-23*	26-Jun-23	-747	WD(6d)																			
Civil Work																										
Construction of Pak Shek Au Junction																										
	S8P2-4100	Cutslope with soil nail construction at existing slope KS34	180	27-Jun-23	30-Jan-24	-423	WD(6d)																			
	S8P2-4110	Expose existing UU & ELS for Drainage & Water Main	26	30-Jun-22 A	26-Jun-23	-420	WD(6d)																			
	S8P2-4130	Road & Drain Construction Stage 1 - Construction of drainage, Watermain (0 / 11 MH Completed)	218	25-May-23	16-Feb-24	-429	WD(6d)																			
Portion 1a in Area A (Soil Treatment, Slope, Retaining Wall, Noise Barrier, Drainage & Roadwork)																										
Preparation work																										
	S8P1a-1004	Approval & Acceptance of Tree Felling Application	0	10-Sep-22 A	17-May-23 A		CD(7d)																			
	S8P1a-1040	Arsenic Treatment Plan	36	25-May-23	08-Jul-23	-366	WD(6d)																			
	S8P1a-1015	Ground investigation (4 / 7 GI completed)	18	05-Nov-22 A	15-Jun-23	-440	WD(6d)																			
	S8P1a-1030	Prepare Arsenic Assessment Report	36	25-May-23	08-Jul-23	-366	WD(6d)																			
	S8P1a-1010	Site clearance & Tree Felling	36	05-Oct-22 A	08-Jul-23	-440	WD(6d)																			
	S8P1a-1025	Verification of Ground Condition & Design Review by Project Manager	60	16-Jun-23	14-Aug-23	-546	CD(7d)																			
Soil Treatment																										
	S8P1a-2020	Backfilling to the formation levels	35	17-Aug-23	26-Sep-23	-344	WD(6d)																			
	S8P1a-2010	Remove soil (original assumed 10988m3) (0 / 6 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	33	10-Jul-23	16-Aug-23	-366	WD(6d)																			
Civil Work																										
	S8P1a-7050	Construction of Drainage SMH KT 1103 to 1108 (0 / 6 M/H complete)	72	03-May-23 A	19-Aug-23	-57	WD(6d)																			
	S8P1a-7060	Construction of Sewerage FMH KT 3.01A to 3.01B (0 / 2 M/H complete)	48	21-Aug-23	17-Oct-23	-57	WD(6d)																			
	S8P1a-4000	DCS Works by Others (Anticipated Start Date 1-Jul-2023)	150	01-Jul-23*	27-Nov-23	-252	CD(7d)																			



Build King – Richwell Engineering
Joint Venture

Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2023-05)


Data Date: 25-May-23Run Date: 30-May-2023

Project ID: ND201901-RP-4
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REVISED PROGRAMME (2023-05)

Date	Revision	Checked	Approved
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Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2023-05)

Data Date: 25-May-23 Run Date: 30-May-2023


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REVISED PROGRAMME (2023-05)			
Date	Revision	Checked	Approved
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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27
	S8P9b-3030.06	Road W1 (CH100 to CH310) - Backfilling to Formation Level	48	03-Jul-23	26-Aug-23	-137	WD(6d)																		
	S8P9b-3030.04	Road W1 (CH100 to CH310) - Pressure test for Fresh & Flushing watermain	24	03-Jul-23	29-Jul-23	-113	WD(6d)																		
	S8P9b-3030.02	Road W1 (CH250 to CH310) - Laying Watermain	30	18-Apr-23 A	30-Jun-23	-137	WD(6d)																		
	S8P9b-3001.02	Slopeworks for new feature KS19 - U channel, Berm, Maintenance Access & Handrail Construction	24	02-Dec-22 A	23-Jun-23	-247	WD(6d)																		
Portion 8a in Area A (Soil Treatment, Reservoirs, Slope, Drainage & Roadwork)																									
Preparation work/Tree Survey/Site Clearance/GI																									
	S8P8a-1035	Remaining Ground investigation (0 / 1 GI completed) to Fresh Water Service Reservoir	12	25-May-23	08-Jun-23	-218	WD(6d)																		
Forming Site Access and Site Formation																									
Stage 1 General Excavation near Flushing Water Servie Reservior (Excavation Volume 52834 m3)																									
	S8P8a-1160	General excavation for remaining of Road W1	30	11-Jun-20 A	30-Jun-23	-236	WD(6d)																		
KD8 - complete all works for fresh water and flushing water services reservoirs, pipe laying & road																									
Construction of Kwu Tung North Flushing Water Service Reservoir (KTN FLWSR)																									
Civil Works																									
	S8K8-1040	Backfilling (6559m3)	108	18-Jul-23	23-Nov-23	0	WD(6d)																		
	S8K8-1038	Install Watermain inside Chambers	43	22-Feb-23 A	17-Jul-23	0	WD(6d)																		
	S8K8-1100	Tank No. 1 - Fill up Tank No. 1 for Water Tightness Test	22	18-Apr-23 A	20-Jun-23	0	WD(6d)																		
	S8K8-1110	Tank No. 1 - Water Tightness Test	14	21-Jun-23	04-Jul-23	0	CD(7d)																		
	S8K8-1120	Tank No. 2 - Fill up Tank No. 2 for Water Tightness Test	30	05-Jul-23	08-Aug-23	0	WD(6d)																		
	S8K8-1130	Tank No. 2 - Water Tightness Test	14	09-Aug-23	22-Aug-23	0	CD(7d)																		
	S8K8-1140	Whole Structure - Fill up Tank No.1 & 2 for Water Tightness Test	30	23-Aug-23	26-Sep-23	0	WD(6d)																		
E&M Works																									
	S8K8-2010	Design and Approval for E&M works for KTN FLWSR	24	01-Feb-21 A	17-Jun-23	0	CD(7d)																		
	S8K8-2050	Installation of E&M equipment for KTN FLWSR	218	21-Jul-23	15-Apr-24	-42	WD(6d)																		
	S8K8-2030	Procurement of E&M equipment for KTN FLWSR	70	15-Aug-22 A	02-Aug-23	0	CD(7d)																		
	S8K8-2020	Submission and Approval of E&M plants & materials for KTN FLWSR	48	01-Feb-21 A	11-Jul-23	0	CD(7d)																		
	S8K8-2040	Supply, Factory Acceptance Test (FAT) & Delivery of E&M equipment for KTN FLWSR	120	25-May-23	17-Oct-23	-42	WD(6d)																		
Construction of Kwu Tung North Freshwater Service Reservoir (KTN FWSR)																									
Civil Works																									
	S8K8-1030	Back Filling for Construction of Inlet Chamber	0	03-Apr-23 A	09-May-23 A		WD(6d)																		
	S8K8-1000.76	Baffle Wall - GL 10 / D-J	6	03-Jun-23	09-Jun-23	-47	WD(6d)																		
	S8K8-1000.70	Baffle Wall - GL 10 / J-P	7	29-Apr-23 A	02-Jun-23	-47	WD(6d)																		
	S8K8-1000.60	Columns (114 of 120 nos complete)	12	28-Jun-22 A	08-Jun-23	-46	WD(6d)																		
	S8K8-1000.62	Columns (4 nos)	12	13-Jul-23	26-Jul-23	-47	WD(6d)																		
	S8K8-1032	Construction of Inlet Chamber	48	02-Jun-23	29-Jul-23	-32	WD(6d)																		
	S8K8-1000.46	Cover Slab - No. 15 Stage 3	12	28-Jun-23	12-Jul-23	-47	WD(6d)																		
	S8K8-3038	Install Watermain inside Chambers	100	17-Aug-23	14-Dec-23	-47	WD(6d)																		
	S8K8-1002.80	Remove Tower Crane	8	17-Jun-23	27-Jun-23	-47	WD(6d)																		
	S8K8-1002.44	Roof - bay 2	18	16-Jan-23 A	16-Jun-23	-47	WD(6d)																		
	S8K8-1002.46	Roof - bay 3	0	29-Mar-23 A	20-May-23 A		WD(6d)																		
	S8K8-1002.48	Roof - bay 4	10	02-May-23 A	06-Jun-23	-38	WD(6d)																		
	S8K8-1002.56	Roof - bay 5	18	27-Jul-23	16-Aug-23	-47	WD(6d)																		
	S8K8-3040.10	Tank No. 1 - Fill up Tank No. 1 for Water Tightness Test & Water Sterility Test	42	17-Aug-23	06-Oct-23	-38	WD(6d)																		
	S8K8-1028	Temp Works for Inlet Chamber Construction	6	10-May-23 A	01-Jun-23	-32	WD(6d)																		
	S8K8-3048	Up Hill Recieving Pit - Construct Temp Road & Platform for Road W5 Cut Slope & Temp Soil Nail	30	20-May-23 A	30-Jun-23	-458	WD(6d)																		
	S8K8-3050	Up Hill Recieving Pit - Road W5 Cut Slope & Temp Soil Nail	60	03-Jul-23	09-Sep-23	-458	WD(6d)																		
	S8K8-1002.20	Wall - No. 12	0	02-Mar-23 A	04-May-23 A		WD(6d)																		



Build King – Richwell Engineering
Joint Venture

Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2023-05)


Data Date: 25-May-23Run Date: 30-May-2023

Project ID: ND201901-RP-4
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REVISED PROGRAMME (2023-05)

Date	Revision	Checked	Approved
30-May-23	Rev.0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	May 2023					June 2023					July 2023					August 2023					
							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27		
	S8K8-1002.28	Wall - No. 1T	0	03-Feb-23 A	22-May-23 A		WD(6d)																				
	S8K8-1002.12	Wall - No. 8	0	04-Apr-23 A	28-Apr-23 A		WD(6d)																				
	S8K8-1002.14	Wall - No. 9	0	04-Apr-23 A	16-May-23 A		WD(6d)																				
E&M Works																											
	S8K8-4010	Design and Approval for E&M works for KTN FWSR	30	20-Dec-21 A	23-Jun-23	-77	CD(7d)																				
	S8K8-4030	Procurement of E&M equipment for KTN FWSR	54	15-Aug-22 A	15-Sep-23	-107	CD(7d)																				
	S8K8-4020	Submission and Approval of E&M plants & materials for KTN FWSR	60	15-Mar-22 A	23-Jul-23	-107	CD(7d)																				
	S8K8-4040	Supply, Factory Acceptance Test (FAT) & Delivery of E&M equipment for KTN FWSR	140	19-Jun-23	04-Dec-23	-88	WD(6d)																				
Remaining pipe laying work and roadworks within Road W1																											
	S8K8-4100	Road W1 - Construction of Drainage Manhole SMH KT 8105 to 8103 (0 / 8 M/H complete)	115	15-May-23 A	11-Oct-23	-215	WD(6d)																				
	S8K8-4200	Road W2 - Construction of Drainage Manhole SMH KT 8104A to 8002 (0 / 6 M/H complete)	115	03-May-23 A	11-Oct-23	-18	WD(6d)																				
Remaining Civil Work in Portion 8a Area A																											
	S8P8a-6000	Backfill to level of utilities laying (SMH KT 7011A to 7009)	0	11-Jan-23 A	15-May-23 A		WD(6d)																				
	S8P8a-2562	Construction of retaining wall KW06 bay 1 - bay 7 (bays 0/7 completed)	104	05-Aug-23	07-Dec-23	-319	WD(6d)																				
	S8P8a-2602	Construction of retaining wall KW05 bay 7 - bay 16 (Base Slab 4/10 bays completed, Stem Wall 3/10 bays completed)	53	12-Nov-22 A	28-Jul-23	-313	WD(6d)																				
	S8P8a-2662	Construction of retaining wall KW11 bay 1 - bay 11 (Base Slab 11/11 bays completed, Stem Wall 8/11 bays completed)	24	16-Jun-22 A	23-Jun-23	-104	WD(6d)																				
	S8P8a-2600	Excavation for retaining wall KW05 bay 7 - bay 16 (bays 10/10 completed)	0	01-Nov-22 A	17-May-23 A		WD(6d)																				
	S8P8a-2560	Excavation for retaining wall KW06 bay 1 - bay 7 (bays 0/7 completed)	100	25-May-23	21-Sep-23	-319	WD(6d)																				
	S8P8a-5020	Road A5 - New Formed Sloping Ground KS52 Compact fill	11	25-Apr-23 A	07-Jun-23	-155	WD(6d)																				
	S8P8a-5040	Road A5 - New Formed Sloping Ground KS52 Compact fill - Hydsroseedng	12	08-Jul-23	21-Jul-23	-59	WD(6d)																				
	S8P8a-5030	Road A5 - Road Works	24	08-Jun-23	07-Jul-23	-155	WD(6d)																				
	S8P8a-6020	Road W1 - Backfilling to Formation Level For Drainage Construction SMH KT 7016 to 7015	48	29-Jul-23	22-Sep-23	-293	WD(6d)																				
	S8P8a-6001	Road W1 - Construction of Drainage Manhole SMH KT 7006B to 7001 (0 / 8 M/H complete)	115	25-Apr-23 A	11-Oct-23	-195	WD(6d)																				
	S8P8a-6006	Road W1 - Construction of Drainage Manhole SMH KT 7011A to 7009 (0 / 5 M/H complete)	104	25-May-23	26-Sep-23	-236	WD(6d)																				
	S8P8a-5050	Road W1 - New Formed Slope KS50 Compact fill	48	22-Jul-23	15-Sep-23	-59	WD(6d)																				
Portion 8b in Area A (Soil Treatment & Install Watermains by Trenchless / Open Trench Method)																											
Soil Treatment																											
	S8P8b-2020	Backfilling to the formation levels	60	25-May-23	05-Aug-23	-379	WD(6d)																				
	S8P8b-2010	Remove soil (original assumed 11724m3) (0 / 8 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3) Clean	0	25-Apr-23 A	25-Apr-23 A		WD(6d)																				
Construction of Watermains																											
Construction of watermains by trenchless method																											
	S8P8b-4012.22	GPR & Micrometernor Survey, Reporting & Approval	30	27-Dec-22 A	30-Jun-23	-431	WD(6d)																				
	S8P8b-4012.24	Ground Treatment	134	03-Jul-23	08-Dec-23	-431	WD(6d)																				
	S8P8b-4120	Up Hill Pipe Jacking - 2100 dia Pipe Sleeve For Flushing Water	210	16-Aug-23	02-May-24	-406	WD(6d)																				
	S8P8b-4110	Up Hill Pipe Jacking - 2500 dia Pipe Sleeve For Fresh Water	210	19-Jul-23	02-Apr-24	-454	WD(6d)																				
	S8P8b-4100	Up Hill Pipe Jacking Pit - Mobilization and Set Up Pipe Jacking Equipment	39	15-Apr-23 A	12-Jul-23	-449	WD(6d)																				
Construction of watermains by open trench method																											
	S8P8b-5002.02	DSD Maintenance Road - Implement TTA for Stage 2 - CHY 1047 to 1143	12	28-Jul-23	10-Aug-23	-312	WD(6d)																				
	S8P8b-5002	DSD Maintenance Road - Stage 1 Laying flushing water main - CHY 1143 to 1233	52	04-Mar-23 A	27-Jul-23	-312	WD(6d)																				
	S8P8b-5004	DSD Maintenance Road - Stage 2 Laying flushing water main - CHY 1047 to 1143	110	11-Aug-23	20-Dec-23	-312	WD(6d)																				
	S8P8b-5006.04	Government Land - Laying Flushing water main - CHY 921 to 931	24	28-Jul-23*	24-Aug-23	-214	WD(6d)																				
	S8P8b-5006.06	Government Land - Laying Flushing water main - CHY 987 to 1040	52	25-May-23*	27-Jul-23	-214	WD(6d)																				
	S8P8b-7120	Ho Sheung Heung Road Fresh water main - Combine Chamber Construction (CHO 752 to 775)	55	29-Apr-23 A	31-Jul-23	-361	WD(6d)																				
	S8P8b-7110	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 752 to 793)	5	15-Apr-23 A	31-May-23	-361	WD(6d)																				
	S8P8b-7102	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 550 to 553)	48	18-Jul-23	11-Sep-23	-458	WD(6d)																				
	S8P8b-7100	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 553 to 569)	24	17-Jun-23	17-Jul-23	-458	WD(6d)																				
	S8P8b-7090	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 569 to 603)	0	02-Mar-23 A	04-May-23 A		WD(6d)																				



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Critical Work

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Milestone

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	May 2023					June 2023					July 2023					August 2023					
							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27		
	S8P8b-7130	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling(CHO 720 to 760)	48	01-Aug-23	25-Sep-23	-361	WD(6d)																				
	S8P8b-7094	Preparation & Implement TTA (CHO 553 to 569)	6	10-Jun-23	16-Jun-23	-457	WD (6d)																				
	S8P8b-7092	Preparation, Submission, Approval of TTA (CHO 553 to 569)	13	05-May-23 A	09-Jun-23	-457	WD (6d)																				
Section 9																											
Portion 12 in Area F (Soil Treatment & Interface with EMSD's Contractors)																											
Soil Treatment																											
	S9P12-3030	Approval of CIA, Tunnel Monitoring Proposal and Analysis	23	18-May-23 A	16-Jun-23	-555	CD(7d)																				
	S9P12-3050	Excavate to Formation Level (after set up for Tunnel Monitoring)	48	26-Jul-23	19-Sep-23	-448	WD(6d)																				
	S9P12-3040	Installation of Tunnel Monitoring Instrumentation	36	12-Jun-23	25-Jul-23	-448	WD(6d)																				
	S9P12-3020	Prepare & Submit CIA, Tunnel Monitoring Proposal and Analysis	0	15-Jul-22 A	17-May-23 A		WD(6d)																				
Section 10B																											
Portion 15 in Area J1 (Soil Treatment)																											
Preparation work/Tree Survey/Site Clearance/GI																											
	S10BP7-1020	Site clearance	6	25-May-23	01-Jun-23	-67	WD(6d)																				
Soil Treatment																											
	S10BP7-2030	Erect Chain Link Fence	6	24-Jun-23	30-Jun-23	-67	WD(6d)																				
	S10BP7-2020	Site formation Works	18	02-Jun-23	23-Jun-23	-67	WD(6d)																				
Section 11																											
Portion 6b in Area B (Soil Treatment & Operation of HAC Soil Treatment Plant)																											
Operation and Dismantling of the Soil Treatment Plant																											
	S11P6b-3010	Provide treatment to high arsenic-containing soil	507	03-Dec-20 A	08-Feb-25*	0	WD(6d)																				
	S11P6b-3000	Provide treatment to Imported high arsenic-containing soil (Estimated Qty 90,000m3)	454	01-Mar-23 A	30-Nov-24	0	WD(6d)																				
Section 12A																											
Portion 10b in Area L1 (Soil Treatment, Drainage & Roadwork)																											
Soil Treatment																											
	S12P10b-2020	Backfilling to the formation levels	42	25-Mar-23 A	15-Jul-23	735	WD(6d)																				
Civil Work																											
	S12P10b-3014	Laying Underground Fresh & Flushing Watermains	48	21-Aug-23	17-Oct-23	132	WD(6d)																				
	S12P10b-3010	Underground Primary Drainage & Sewerage (1 / 1 SM/H, 0 / 1 FMH) Before DCS Works	24	13-Oct-21 A	23-Jun-23	132	WD(6d)																				
	S12P10b-3012	Underground Secondary Drainage work (0 / 2 SM/H)	48	24-Jun-23	19-Aug-23	132	WD(6d)																				
Section 13																											
Portion 2 in Area N (Soil Treatment, Slope, Drainage & Pak Shek Au Junction)																											
Soil Treatment																											
	S13P2-2020	Backfilling to the formation levels	19	20-Jan-23 A	16-Jun-23	0	WD(6d)																				
	S13P2-2010	Remove soil (original assumed 10854m3) (0 / 3 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	0	24-Aug-22 A	13-May-23 A		WD(6d)																				
Civil Works																											
	S13P2- 6050	East Quadrant - Tree Felling, Slope KS39, Drainge & Road Works	67	03-Jul-23	18-Sep-23	0	WD(6d)																				
	S13P2- 4048	West Quadrant- Installation of smart road lightings system	13	22-May-23 A	09-Jun-23	0	WD(6d)																				
	S13P2- 4034.00	West Quadrant- Backfill to Formation Level	8	08-Jun-23	16-Jun-23	0	WD(6d)																				
	S13P2- 4034.06	West Quadrant- Construction of Footpath	3	24-Jun-23	27-Jun-23	0	WD(6d)																				
	S13P2- 4020.06	West Quadrant- Construction of Footpath & Installation of smart road lighting system	13	01-Apr-23 A	09-Jun-23	0	WD(6d)																				
	S13P2- 4030	West Quadrant- Construction of Retaining Wall KW37 & reconstruction of existing slope	0	20-Feb-23 A	23-May-23 A		WD(6d)																				
	S13P2- 4032	West Quadrant- Construction of road Drainage (Remaining - 3 / 5 MH completed)	11	11-Jan-23 A	07-Jun-23	0	WD(6d)																				
	S13P2- 4034.04	West Quadrant- Construction of Road Kerb	3	20-Jun-23	23-Jun-23	0	WD(6d)																				
	S13P2- 4020.04	West Quadrant- Construction of Road Kerb (Adjacent to Roundabout)	0	14-Mar-23 A	15-May-23 A		WD(6d)																				



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Critical Work

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Milestone

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							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27		
	S13P2- 4034.02	West Quadrant- Construction of Road Sub base	3	20-Jun-23	23-Jun-23	0	WD(6d)																				
	S13P2- 4020.02	West Quadrant- Construction of Road Sub base (Adjacent to Roundabout)	0	01-Mar-23 A	25-May-23 A		WD(6d)																				
	S13P2- 4034.08	West Quadrant- Laying Bitumen & Road Marking	3	28-Jun-23	30-Jun-23	0	WD(6d)																				
Portion 1a in Area N (Soil Treatment, Drainage & Roadwork)																											
Soil Treatment																											
	S13P1a-2020	Backfilling to the formation levels	80	21-Jul-23	25-Oct-23	176	WD(6d)																				
	S13P1a-2010	Remove soil (original assumed 14182m3) (0 / 4 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	46	25-May-23*	20-Jul-23	158	WD(6d)																				
Civil Work																											
	S13P1a-3012	Underground Primary Drainage work SMH KT1013 - KT1015 (0 / 5 MH Completed)	144	20-Apr-23 A	15-Nov-23	158	WD(6d)																				
Portion 7 in Area N (Soil Treatment, Drainage & Roadwork)																											
Civil Work																											
Underground Utilities																											
	S13P7-4000	DCS Works by Others	48	10-Feb-23 A	11-Jul-23	483	CD(7d)																				
	S13P7-4010	Underground drainage After DCS Works (0 / 6 M/H completed)	72	12-Jul-23	05-Oct-23	472	WD(6d)																				
	S13P7-3014	Underground road lighting ducts	150	12-Aug-23	09-Feb-24	393	WD(6d)																				
	S13P7-3012	Underground sewage (0 / 4 M/H completed)	150	12-Jul-23	09-Jan-24	394	WD(6d)																				
	S13P7-3013	Underground watermains	156	12-Jul-23	16-Jan-24	394	WD(6d)																				
Portion 1b in Area N (Soil Treatment, Drainage & Roadwork)																											
Civil Work																											
	S13P1b-3012	Construction of Sewerage (1 / 1 MH complete)	10	30-Dec-22 A	06-Jun-23	192	WD(6d)																				
	S13P1b-3010	Construction of Underground Drainage (4 / 5 MH complete)	0	10-Jun-22 A	04-May-23 A		WD(6d)																				
	S13P1b-4000	DCS Works by Others (Anticipated Commencement Date 19-May-2023)	90	07-Jun-23*	04-Sep-23	233	CD(7d)																				
Portion 6a & 5 in Area N (Soil Treatment, Noise Barrier, Drainage & Roadwork)																											
Soil Treatment																											
	S13P6a-2020	Backfilling to the formation levels	60	03-Jul-23	09-Sep-23	985	WD(6d)																				
	S13P6a-2010	Remove soil (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil	30	25-May-23*	30-Jun-23	477	WD(6d)																				
Civil Work																											
	S13P6a-4000	DCS Works by Others (Anticipated Commencement Date 16-Jul-2023)	90	16-Jul-23*	13-Oct-23	256	CD(7d)																				
	S13P6a-3012	Drainage works across DJ watermain (CNE 060, EC-1086)	160	25-May-23	04-Dec-23	10	WD(6d)																				
Portion 1c in Area N (Soil Treatment, Drainage & Roadwork)																											
Civil Work																											
	S13P1c-3010	Construct Underground Drainage (13 / 13 MH completed)	0	10-Jun-22 A	15-May-23 A		WD(6d)																				
	S13P1c-3010.04	Construct Underground Sewerage (3 / 4 MH completed)	17	07-Oct-22 A	14-Jun-23	223	WD(6d)																				
	S13P1c-4000	DCS Works by Others (Anticipated Commencement Date 19-May-2023)	90	15-Jun-23*	12-Sep-23	273	CD(7d)																				
	S13P1c-3010.06	Laying of Fresh Watermain CH I & Flushing Watermain CH DA	60	10-May-23 A	24-Nov-23	218	WD(6d)																				
Portion 9a in Area N (Soil Treatment, Noise Barrier, Drainage & Roadwork)																											
Civil Work																											
	S13P9a-3012	Construct Underground Sewerage	24	15-May-23 A	23-Jun-23	388	WD(6d)																				
	S13P9a-3060	DCS Works by Others (Anticipated Commencement Date 18-Jul-2023)	120	18-Jul-23*	14-Nov-23	1	CD(7d)																				
Section 14																											
Portion 10a in Area H1 (Soil Treatment, UU Diversion & Construction Access to MWSC)																											
KD5 - Provision of construction access in Area H1 and between Area H1 and Multi-Welfare Services Com																											
Civil Work																											
	S14P7T-3020	Construct temporary noise barrier along Castle Peak Road in Area H1 & Remaining Area T3	24	02-Jun-23*	30-Jun-23	-59	WD(6d)																				
Portion 7 in Area P (Soil Treatment & KD3 - Tree Felling, General Site Clearance)																											



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							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
KD3 - Tree felling, general site clearance (including the berm removal / levelling and general site																										
Soil Treatment																										
S14P7P-2020	Backfill with treated soil	140	18-Aug-23	03-Feb-24	519	WD(6d)																				
S14P7P-2010	Remove soil (original assumed 17368m3) (2 / 2 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	70	25-May-23*	17-Aug-23	519	WD(6d)																				
Portion 7 in Area S3 (Soil Treatment & Operation of HAC Soil Treatment Plant)																										
KD4 - Setting up and T&C of the High Arsenic-containing Soil Treatment Plant																										
S14P7S3-2010	Set up, testing and commissioning high arsenic-containing soil treatment plant (KD4) (CSD for Treated soil Stock pile)	4	06-Oct-20 A	30-May-23	185	WD(6d)																				
Operation and Dismantling of the Soil Treatment Plant																										
S14P7S3-3010	Stock Pile of Treated Soil	390	20-Nov-20 A	19-Sep-24	185	WD(6d)																				
Soil Treatment																										
S14P7S3-4030	Backfilling to the formation level (Grid SA2AG4)	0	01-Apr-23 A	06-May-23 A		WD(6d)																				
Portion 7 in Area T1, T2, T3 (Soil Treatment & Temp. Noise Barrier along Castle Peak Road)																										
Preparation work/Tree Survey/Site Clearance/GI																										
S14P7T-1012	Ground investigation (0 / 1 GI completed) (Area T1)	30	03-Jul-23	05-Aug-23	716	WD(6d)																				
S14P7T-1020	Site clearance (Area T1)	30	25-May-23	30-Jun-23	716	WD(6d)																				
S14P7T-1024	Tree felling works (Area T1)	30	04-Jul-23	07-Aug-23	716	WD(6d)																				
KD9 - Complete the temporary noise barriers along Castle Peak Road in Area T1, T2, T3, H, H1, I, J																										
S14P7T-3010	Construct temporary noise barrier along Castle Peak Road in Area T1 (50m) & Remaining Area T2 (To be deleted)	24	25-May-23	23-Jun-23	-53	WD(6d)																				
Portion 1b in Area S2 (Soil Treatment)																										
Soil Treatment																										
S14P1b-2020	Site Formation Works & Erecting Hoarding	24	03-Apr-23 A	23-Jun-23	753	WD(6d)																				
Portion 1c & 9a in Area S2 (Soil Treatment)																										
Soil Treatment																										
S14P1c-2020	Backfilling to the formation levels	24	27-Jan-23 A	23-Jun-23	753	WD(6d)																				
Portion 6a in Area S2 (Soil Treatment)																										
Preparation work/Tree Survey/Site Clearance/GI																										
S14P6a-1050	Arsenic Treatment Plan	36	10-Jul-23	19-Aug-23	411	WD(6d)																				
S14P6a-1040	Prepare Arsenic Assessment Report	36	25-May-23	08-Jul-23	411	WD(6d)																				
Portion 6b in Area S2 (Soil Treatment)																										
Preparation work/Tree Survey/Site Clearance/GI																										
S14P6b-1050	Arsenic Treatment Plan	30	02-May-22 A	30-Jun-23	453	WD(6d)																				
S14P6b-1040	Prepare Arsenic Assessment Report	30	02-May-22 A	30-Jun-23	453	WD(6d)																				
S14P6b-1017	Tree felling	30	25-May-23	30-Jun-23	453	WD(6d)																				
Portion 1f in Area R (Soil Treatment & Construction of Interim CLC)																										
Preparation work/Tree Survey/Site Clearance/GI																										
S14P1f-1050	Arsenic Treatment Plan	36	10-Jul-23	19-Aug-23	471	WD(6d)																				
S14P1f-1040	Prepare Arsenic Assessment Report	36	25-May-23	08-Jul-23	471	WD(6d)																				
Interim Community Liaison Centre (CLC)																										
S14P1f-2040	Dismantling of interim CLC	12	25-May-23	08-Jun-23	471	WD(6d)																				
Portion 9c in Area S1 (Soil Treatment)																										
Preparation work/Tree Survey/Site Clearance/GI																										
S14P9c-1014	Tree felling	15	19-Jul-21 A	12-Jun-23	378	WD(6d)																				
Portion 13 in Area S4 (Soil Treatment)																										
Preparation work/Tree Survey/Site Clearance/GI																										



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Critical Work

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Milestone

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								23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
	S14P13-1012	Approval & Acceptance of Tree felling Application	28	23-May-23 A	28-Jun-23	31	WD(6d)																				
	S14P13-1030	Environmental ground investigation and laboratory test (2 / 7 EGI completed)	14	10-Feb-23 A	10-Jun-23	45	WD(6d)																				
	S14P13-1070	Notificatioan and Approval of Asbestos Abatement Programme	0	18-Apr-23 A	17-May-23 A		CD(7d)																				
	S14P13-1020	Remaining Site clearance & Tree felling	70	03-Jul-23	21-Sep-23	29	WD(6d)																				
	S14P13-1080	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	18	15-Mar-23 A	15-Jun-23	41	WD(6d)																				
	S14P13-1014	Site clearance	30	15-May-23 A	30-Jun-23	29	WD(6d)																				
	S14P13-1010	Tree survey and prepare tree felling and transplant report	0	09-Jan-23 A	22-May-23 A		WD(6d)																				
Cycle Track from Area H to Area N																											
Underground Utilities underneath Cycle Track																											
	S14CT-1010	Construct Underground Drainage in Portion 7 (0 / 6 MH completed)	90	12-Jun-23	26-Sep-23	15	WD(6d)																				
	S14CT-1028	Laying Underground Watermain in Portion 5 - Stage 1	90	25-May-23*	09-Sep-23	179	WD(6d)																				
	S14CT-1044	Laying Underground Watermain in Portion 9a	72	12-May-23 A	19-Aug-23	452	WD(6d)																				
Portion 1b (Soil Treatment & Civil Works)																											
Soil Treatment																											
	S14P1b-1202	Remove soil (original assumed 4992m3) (0 / 4 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	34	26-Jul-23	02-Sep-23	423	WD(6d)																				
Civil Works																											
	S14P1b-1314	Laying Underground Watermain	12	16-Jun-23*	30-Jun-23	650	WD(6d)																				
Portion 3 (Soil Treatment & Civil Works)																											
Civil Works																											
	S14P3-1304	Pressure test for Fresh & Flushing watermains	30	21-Aug-23	23-Sep-23	675	WD(6d)																				
	S14P3-1300	Underground Drainage (0 / 1 MH completed)	12	16-Dec-22 A	08-Jun-23	608	WD(6d)																				
	S14P3-1302	Underground Fresh & Flushing watermains (around 100m)	60	09-Jun-23	19-Aug-23	608	WD(6d)																				
Portion 5 (Soil Treatment & Civil Works)																											
Soil Treatment																											
	S14P5-1202	Backfilling to the formation levels	0	27-Feb-23 A	11-May-23 A		WD(6d)																				
Civil Works																											
	S14P5-1300	Underground Drainage (0 / 2 MH completed)	30	16-Dec-22 A	30-Jun-23	509	WD(6d)																				
	S14P5-1302	Underground Fresh & Flushing watermains (around 100m)	60	03-Jul-23	09-Sep-23	509	WD(6d)																				
Portion 1e (Soil Treatment)																											
Soil Treatment																											
	S14P1e-2080	Backfilling to the formation levels	90	07-Jul-23	21-Oct-23	653	WD(6d)																				
	S14P1e-2070	Remove soil (original assumed 860m3) (0 / 1 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	34	25-May-23	06-Jul-23	473	WD(6d)																				
Portion 7 (Soil Treatment & Civil Works)																											
	S14P7-6080	Construct Haul Road for MTR Access (PMI 273)	14	20-May-23 A	10-Jun-23	15	WD(6d)																				
Additional Land U2																											
	S14ALU2-3020	Approval & Acceptance of Tree felling Application	28	23-May-23 A	21-Jun-23	825	CD(7d)																				
	S14ALU2-4010	Construction of 525 mm Stepped Channel	72	08-Jul-23	29-Sep-23	670	WD(6d)																				
	S14ALU2-3030	Site clearance & Tree felling	12	23-Jun-23	07-Jul-23	670	WD(6d)																				
	S14ALU2-3010	Tree survey and prepare tree felling and transplant report	0	15-Mar-23 A	22-May-23 A		WD(6d)																				
Section 15																											
	S15-1000	Presevation and protection of tree	931	06-Dec-19 A	10-Dec-25	27	CD(7d)																				
Section 18 (Subject to excision)																											
	S18-1030	Watermain laying work in Portion 3	72	03-Jul-23	23-Sep-23	-78	WD(6d)																				
	S18-1040	Watermain laying work in Portion 5	140	20-Sep-21 A	14-Oct-24	-94	WD(6d)																				
	S18-1050	Watermain laying work in Portion 6a & 6b	150	18-Jul-22 A	20-Jun-24	-163	WD(6d)																				



Build King – Richwell Engineering
Joint Venture

Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	May 2023					June 2023					July 2023					August 2023				
							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
S18-1075	Watermain laying work in Portion 8a	350	15-Jun-23	17-Aug-24	-100	WD(6d)																				
S18-1070	Watermain laying work in Portion 9b	236	12-Jan-23 A	14-Feb-25	-290	WD(6d)																				
Section 20 (Subject to excision)																										
Construction of Pedestrian Subway cum Cycle Track Stage 2 (South of Castle Peak Road)																										
Civil and Structural Works																										
S20S2-7510	Bay No. 1 - Excavation, Blinding & Waterproofing	10	25-May-23	06-Jun-23	-335	WD(6d)																				
S20S2-7520	Bay No. 1 - RC Structure	30	07-Jun-23	13-Jul-23	-335	WD(6d)																				
S20S2-7462	Bay No. 10 - RC Structure (Walls)	24	17-Jun-23	17-Jul-23	-190	WD(6d)																				
S20S2-7482	Bay No. 11 - RC Structure (Walls)	19	03-Apr-23 A	16-Jun-23	-190	WD(6d)																				
S20S2-7810	Bay No. 14 - Excavation, Blinding & Waterproofing	15	02-Aug-23	18-Aug-23	-420	WD(6d)																				
S20S2-7820	Bay No. 14 - RC Structure	48	19-Aug-23	16-Oct-23	-420	WD(6d)																				
S20S2-7530	Bay No. 2 - Excavation, Blinding & Waterproofing	10	19-Jun-23	30-Jun-23	-325	WD(6d)																				
S20S2-7540	Bay No. 2 - RC Structure	30	14-Jul-23	17-Aug-23	-335	WD(6d)																				
S20S2-7550	Bay No. 3 - Excavation, Blinding & Waterproofing	10	26-Jul-23	05-Aug-23	-325	WD(6d)																				
S20S2-7560	Bay No. 3 - RC Structure	30	18-Aug-23	21-Sep-23	-335	WD(6d)																				
S20S2-7730	Bay No. 4 - Excavation, Blinding & Waterproofing	10	27-Jun-23	08-Jul-23	-420	WD(6d)																				
S20S2-7740	Bay No. 4 - RC Structure	30	10-Jul-23	12-Aug-23	-301	WD(6d)																				
S20S2-7790	Bay No. 5 - Excavation, Blinding & Waterproofing	10	10-Jul-23	20-Jul-23	-420	WD(6d)																				
S20S2-7800	Bay No. 5 - RC Structure	24	21-Jul-23	17-Aug-23	-420	WD(6d)																				
S20S2-7750	Bay No. 6 - Excavation, Blinding & Waterproofing	10	02-Aug-23	12-Aug-23	-301	WD(6d)																				
S20S2-7760	Bay No. 6 - RC Structure	30	14-Aug-23	16-Sep-23	-301	WD(6d)																				
S20S2-7504	Bay No. 9a - Excavation, Blinding & Waterproofing	10	25-May-23	06-Jun-23	-157	WD(6d)																				
S20S2-7506	Bay No. 9a - RC Structure (Base Slab)	30	07-Jun-23	13-Jul-23	-157	WD(6d)																				
S20S2-7508	Bay No. 9a - RC Structure (Walls)	30	22-Aug-23	25-Sep-23	-190	WD(6d)																				
S20S2-7500	Bay No. 9b - RC Structure (Base Slab)	0	14-Apr-23 A	11-May-23 A		WD(6d)																				
S20S2-7502	Bay No. 9b - RC Structure (Walls)	30	18-Jul-23	21-Aug-23	-190	WD(6d)																				
S20S2-7320	ELS, Excavation & UU suspension works for subway	72	28-Apr-22 A	19-Aug-23	-325	WD(6d)																				
E&M, Lift Installation and Finishing Work for Pedestrian Subway																										
S20ELF-1010	Design and Approval for Lift, Lighting and E&M works	72	25-Oct-22 A	04-Aug-23	469	CD(7d)																				
S20ELF-1020	Submission and Approval of Lighting, E&M plants & materials	54	17-Feb-23 A	27-Sep-23	469	CD(7d)																				
Section 21 (Subject to excision)																										
Portion 1b in Area M (Soil Treatment)																										
Preparation work																										
S21P1b-1012	Approval & Acceptance of Tree felling Application	30	03-Jul-23	05-Aug-23	276	WD(6d)																				
S21P1b-1020	Site Clearance & Tree Felling	60	07-Aug-23	17-Oct-23	276	WD(6d)																				
S21P1b-1010	Tree survey and prepare tree felling and transplant report	30	25-May-23	30-Jun-23	276	WD(6d)																				
Portion 1d in Area M (Soil Treatment & Demolition of Existing CLC)																										
Preparation work																										
S21P1d-1012	Approval & Acceptance of Tree felling Application	30	03-Jul-23	05-Aug-23	276	WD(6d)																				
S21P1d-1020	Site Clearance & Tree Felling	60	07-Aug-23	17-Oct-23	276	WD(6d)																				
S21P1d-1010	Tree survey and prepare tree felling and transplant report	30	25-May-23	30-Jun-23	276	WD(6d)																</				



Build King – Richwell Engineering
Joint Venture

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Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

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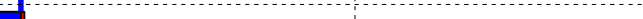




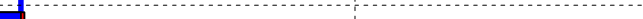




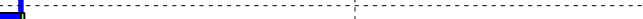














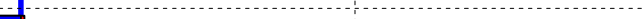









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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	May 2023					June 2023					July 2023					August 2023				
							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
8.0 - PMI / CE																										
PC-1012	Change to the Area of Area M (PMI 160, CE 168)	0	22-Dec-21 A	25-May-23	341	CD(7d)																				
PC-1013	Quotation for Additional Drainage & Sewerage Works at Portion 10a (PMI 202)	0	25-Jul-22 A	19-May-23 A		CD(7d)																				
9.0 - Major EWN / CNE																										
EC-1120	Additional Reqm'ts for Demolition of Temp Structures Existing Sawmill Area S2 Portion 1C (CNE 091) (CE 259)	0	25-Oct-22 A	25-May-23	626	CD(7d)																				
EC-1129	Additional Requirements for all the Lifting Operations within the Working Areas (EWN 086)	0	13-Feb-23 A	25-May-23	1075	WD(6d)																				
EC-1111	Additional Requirements for the Construction of Traffic Signal System at the Junction of Road D1 and L1 (CNE 085)	0	30-Jul-22 A	19-May-23 A		CD(7d)																				
EC-1089	Additional Sewerage Pipes clash with the Proposed Watermains along Road D4 and D5 (EWN 065)	0	27-Apr-22 A	25-May-23	-215	CD(7d)																				
EC-1087	Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b)	0	20-Apr-22 A	25-May-23	-566	CD(7d)																				
EC-1067	Conflict between Drainage Works and Existing Twin DN2200 Dongjiang Water Mains (CNE 051) (CE 150)	0	29-Nov-21 A	25-May-23	-506	CD(7d)																				
EC-1068	Conflict between Drainage Works and Water Mains in Road W1 (CNE 052)	0	02-Dec-21 A	25-May-23	-171	CD(7d)																				
EC-1130	Conflict between the Existing Underground Utilities with the Proposed Pak Shek Au Pedestrian Subway (CNE 097)	0	03-Jan-23 A	25-May-23	-374	WD(6d)																				
EC-1107	Delay Diversion/Modification of Ext. CLP Cables & Facilities w/in Vicinity of Pak Shek Au at 1a & 2 (EWN 078) (CNE 102)	0	18-Aug-22 A	25-May-23	-414	CD(7d)																				
EC-1140	Delay in completion of works by various Utilities Undertakings for Opening of Road D1 at Portion 10a of the Site (CNE 110)	0	19-Apr-23 A	19-May-23 A		WD(6d)																				
EC-1079	Delay in Supply of Precast Concrete Pipe due to the Severe Outbreak of Omicron (EWN 056)	0	16-Feb-22 A	25-May-23	1323	CD(7d)																				
EC-1045	Delay in the Access to and Use of Portion 1b of the Site (CNE 033) (CE 107)	0	06-Jul-21 A	25-May-23	341	CD(7d)																				
EC-1046	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0	06-Jul-21 A	25-May-23	-688	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-May-23	-275	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-May-23	-413	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-May-23	-275	CD(7d)																				
EC-1102	Delay to the Relocation of Existing Fire Hydrant in Ma Tso Lung Road at Portion 9b of the Site (EWN 077)	0	19-Jul-22 A	25-May-23	-275	CD(7d)																				
EC-1099	Delayed to the Removal and or Diversion of Existing CLP Cable and Facilities in Portion 9b of the Site (EWN 073)	0	31-Mar-22 A	25-May-23	-506	CD(7d)																				
EC-1039	Design Change on Road W1 (EWN 025)	0	22-Mar-21 A	25-May-23	-131	CD(7d)																				
EC-1088	Design Changes to the Permanent Street Lighting Works (CNE 074)	0	04-Mar-22 A	25-May-23	1323	CD(7d)																				
EC-1050	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0	17-Sep-21 A	25-May-23	-506	CD(7d)																				
EC-1042	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0	21-May-21 A	25-May-23	-76	CD(7d)																				
EC-1137	Discrepancies between BQ and Contract Dwg's Cycle Track Subway Mass Concrete Fill for protection of WP Membrane (CNE 1	0	28-Feb-23 A	25-May-23	-190	WD(6d)																				
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	19-May-23 A		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	19-May-23 A		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-May-23	-427	CD(7d)																				
EC-1030	Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022)	0	19-Oct-20 A	25-May-23	-923	CD(7d)																				
EC-1064	Extra Time on Production and Delivery of Road Lighting Products (EWN 51)	0	13-Dec-21 A	25-May-23	-76	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-May-23	168	CD(7d)																				
EC-1026	Handling of Unlawful Occupied Property Affected by the Works (CNE No. 014)	0	21-Aug-20 A	25-May-23	1323	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-May-23	1323	CD(7d)																				
EC-1106	Indemant Weather in June 2022 (CNE 080) (CE 216)	0	02-Jun-22 A	25-May-23	1323	CD(7d)																				
EC-1112	Indement Weather in August 2022 (CNE 087) (CE 236)	0	03-Aug-22 A	25-May-23	1323	CD(7d)																				
EC-1108	Indement Weather in July 2022 (CNE 082) (CE 227)	0	02-Jul-22 A	25-May-23	1323	CD(7d)																				
EC-1104	Indement Weather in May 2022 (CNE 078) (CE 212)	0	11-May-22 A	25-May-23	1323	CD(7d)																				
EC-1116	Indement Weather in October 2022 (CNE 093) (CE 273)	0	07-Oct-22 A	25-May-23	1323	CD(7d)																				
EC-1114	Indement Weather in September 2022 (CNE 089) (CE 244)	0	19-Sep-22 A	25-May-23	1323	CD(7d)																				
EC-1056	Indement Weather on 8th October 2021 (CNE 036) (CE 163)	0	08-Oct-21 A	25-May-23	1323	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-May-23	-343	CD(7d)																				
EC-1086	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWs) (CNE 060)	0	31-Mar-22 A	25-May-23	-506	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-May-23	-328	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-May-23	-68	CD(7d)																				
EC-1070	Insufficient Width of Road W1 for Accommodation of All Underground Utilities (CNE 056)	0	04-Jan-22 A	25-May-23	-131	CD(7d)																				

 <p>Build King – Richwell Engineering Joint Venture</p>	<p>Planned Work</p> <p>Critical Work</p> <p>Actual Work</p> <p>Milestone</p> <p>Milestone Critical</p> <p>Summary LOE</p> <p>Summary LOE Critical</p>	<p align="center">ND/2019/01 - 3 Month Rolling Programme (2023-05)</p> <p align="center">Data Date: 25-May-23 Run Date: 30-May-2023</p>	<p>Project ID: ND201901-RP-4</p> <p>Lauyout: ND201901-3MRP with logo</p> <p>Page 11 of 13</p>	REVISED PROGRAMME (2023-05)			
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							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
EC-1038	Late Access to and Use of Site of Portion 1e (EWN 024) (CNE 25) (CE 075)	0	06-Apr-21 A	25-May-23	-84	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	19-May-23 A		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-May-23	1323	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	19-May-23 A		CD(7d)																				
EC-1005	Late Possession of Site of Portion 3 (CNE No. 005) (CE 015)	0	06-Apr-20 A	25-May-23	-97	CD(7d)																				
EC-1015	Late Possession of Site of Portions 1d & 11a (CNE No. 009) (CE 026)	0	06-Jul-20 A	25-May-23	335	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-May-23	-413	CD(7d)																				
EC-1003	Late Possession of Site of Portions 9c (CNE No. 003) (CE 013)	0	06-Apr-20 A	25-May-23	-16	CD(7d)																				
EC-1131	Late Provision of Add Work Area for the Construction of Drainages and Slopes Outside Site Boundary Portion 9b (CNE 098)	0	03-Jan-23 A	25-May-23	-60	WD(6d)																				
EC-1018	Opening of Cycle Track at Portion 2 and 10a (EWN No. 017) (CNE No. 022)	0	04-Aug-20 A	25-May-23	-923	CD(7d)																				
EC-1014	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016) (CNE No. 022)	0	23-Dec-19 A	25-May-23	-923	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-May-23	-57	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-May-23	1323	CD(7d)																				
EC-1094	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0	23-May-22 A	25-May-23	-111	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-May-23	1323	CD(7d)																				
EC-1128	Potential Delay due to Shortage Supply of Manpower after Chinese New Year 2023 (EWN 085)	0	18-Jan-23 A	25-May-23	1075	WD(6d)																				
EC-1124	Potential Delay due to the Increased Difficulties and Uncertainties in Conc Supply in Coming Years (EWN 084) (CNE 100)	0	14-Dec-22 A	25-May-23	1323	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-May-23	-427	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-May-23	-427	CD(7d)																				
EC-1053	Potential Delay on Production and Supply of Precast Concrete Pipes (EWN 040) (CNE 047)	0	06-Oct-21 A	25-May-23	145	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-May-23	-61	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-May-23	1323	CD(7d)																				
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-May-23	55	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-May-23	1323	CD(7d)																				
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-May-23	-144	CD(7d)																				
EC-1071	Revised Construction Drawings of Fresh Water Service Reservoir (CNE 067, 067a)	0	14-Dec-21 A	25-May-23	-59	CD(7d)																				
EC-1138	Revised Drawings for the Construction of Street Furniture in various Positions of the Site (CNE 108)	0	15-Mar-23 A	25-May-23	1075	WD(6d)																				
EC-1132	Revised Drawings for the Noise Barrier NB02 in Portion 6a of the Site (CNE 101)	0	03-Jan-23 A	25-May-23	-53	WD(6d)																				
EC-1119	Revised Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)	0	19-Oct-22 A	25-May-23	443	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-May-23	-413	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-May-23	1323	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-May-23	1323	CD(7d)																				
EC-1139	Strong Objection for a Grave on the Construction Works in the vicinity of the Road P1-1 and Roundabout C3 at 1 (CNE 109)	0	20-Mar-23 A	25-May-23	-345	WD(6d)																				
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-May-23	-454	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-May-23	-467	CD(7d)																				
EC-1061	Suspension of Concretes Supply due to Cement Shortage (EWN 045) (CNE 046)	0	02-Nov-21 A	25-May-23	1323	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-May-23	-57	CD(7d)																				
EC-1028	Suspension of Works at Part of Portion 2 (CNE No. 016) (EWN No. 019)	0	31-Aug-20 A	25-May-23	-923	CD(7d)																				
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-May-23	-427	CD(7d)																				
EC-1022	Suspension of Works at Part of Portions 9c (CNE no. 010) (CE 030)	0	21-Jul-20 A	25-May-23	-16	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-May-23	626	CD(7d)																				
EC-1059	The footing detail for Roadside Directional Sign ADS30 at Portion 5 (EWN 043)	0	22-Oct-21 A	25-May-23	1323	CD(7d)																				
EC-1105	Tropical Cyclone Warning Signal No.8 from 1st to 2nd July 2022 (CNE 079) (CE 214)	0	01-Jul-22 A	25-May-23	1323	CD(7d)																				
EC-1113	Tropical Cyclone Warning Signal No.8 from 24th to 25th August 2022 (CNE 086) (CE 232)	0	24-Aug-22 A	25-May-23	1323	CD(7d)																				
EC-1121	Tropical Cyclone Warning Signal No.8 from 2nd to 3rd November 2022 (CNE 094) (CE 274)	0	02-Nov-22 A	25-May-23	1323	CD(7d)																				
EC-1058	Tropical Cyclone Warning Signal No.8 on 13th October 2021 (CNE 040) (CE 165)	0	12-Oct-21 A	25-May-23	1323	CD(7d)																				
EC-1057	Tropical Cyclone Warning Signal No.8 on 9th October 2021 (CNE 039) (CE 164)	0	09-Oct-21 A	25-May-23	1323	CD(7d)																				
EC-1134	Unavailability for Provision of Access to and Use of Portions 15 of the Site (CNE 104)	0	06-Jan-23 A	25-May-23	-67	WD(6d)																				



Build King – Richwell Engineering Joint Venture

Planned Work

Critical Work

Actual Work

Milestone

Milestone Critical

Summary LOE

Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2023-05)

Data Date: 25-May-23

Run Date: 30-May-2023

Project ID: ND201901-RP-4

Layout: ND201901-3MRP with logo

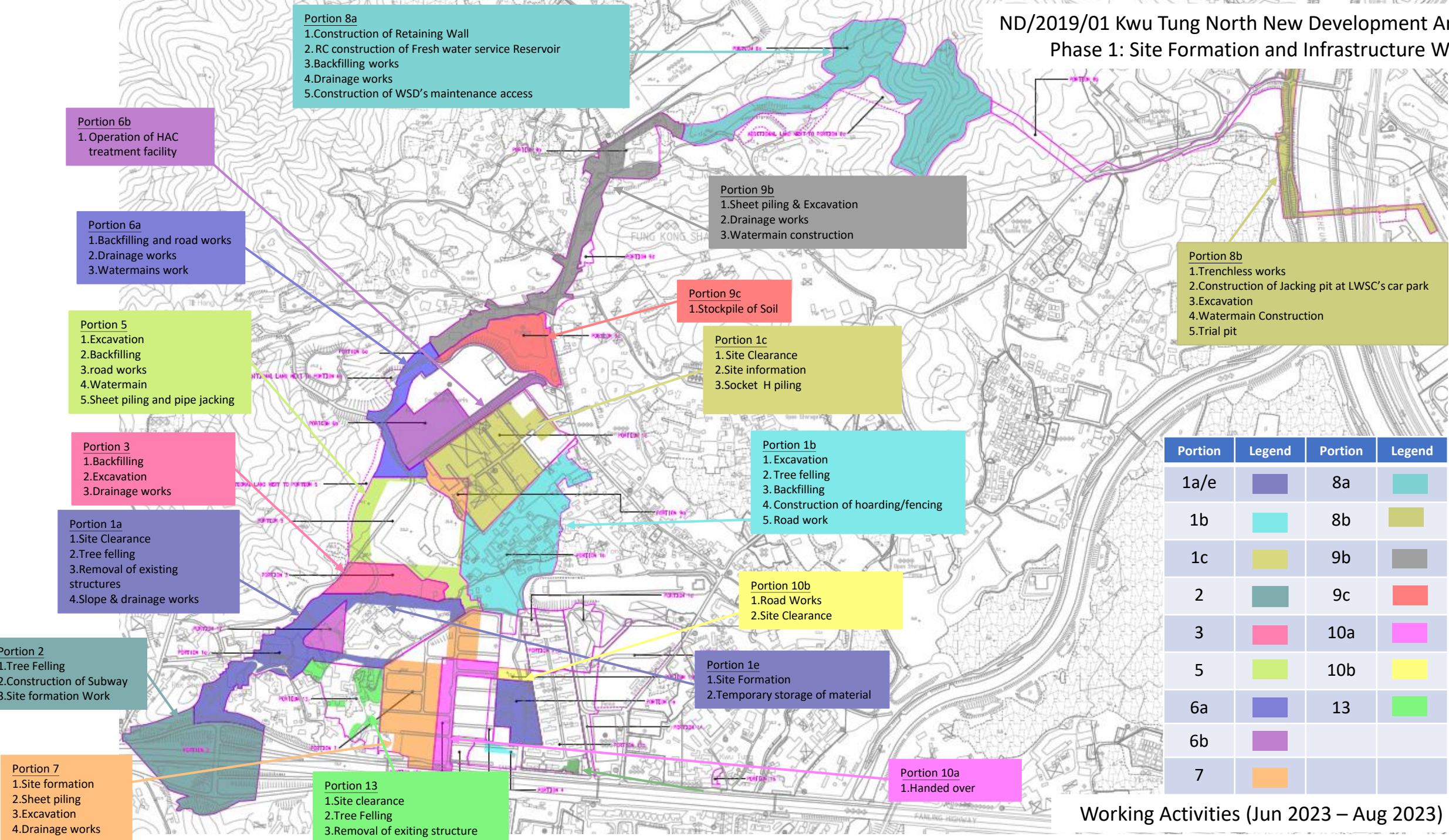
Page 12 of 13

REVISED PROGRAMME (2023-05)

Date	Revision	Checked	Approved
30-May-23	Rev.0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar		May 2023					June 2023					July 2023					August 2023				
							23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27		
<div></div>	EC-1072	Unavailability of Vehicular Access and Movement towards Receiving Pit (CNE 068)	0	29-Dec-21 A	25-May-23	-534	CD(7d)																				
	EC-1135	Unexpected Long Approval Process for Tech Submission for Construction Works in MTRC Zone Portion 12, 1a and 1b (EWN 09	0	29-Mar-23 A	25-May-23	-404	WD(6d)																				
	EC-1127	Unrecognized Construction Works for Newly Underground Cables and Facilities conducted by CLP at Portion 9b (EWN 083)	0	03-Jan-23 A	25-May-23	-398	WD(6d)																				
	EC-1051	Unstable Supply of Cement for HAC Soil Treatment (EWN 036, 038) (CNE 049)	0	27-Sep-21 A	25-May-23	484	CD(7d)																				
	EC-1075	Works affected by the Sever Outbreak of Omicron (CNE 073) (EWN 058)	0	25-Feb-22 A	25-May-23	1323	CD(7d)																				

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



Portion	Legend	Portion	Legend
1a/e		8a	
1b		8b	
1c		9b	
2		9c	
3		10a	
5		10b	
6a		13	
6b			
7			

Working Activities (Jun 2023 – Aug 2023)

Construction Programme of ND/2019/02

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
ND-2019-02 KTNDA Phase 1:Roads and Drains between Kwu Tung North New Development & Shek		2484	1399	10-Apr-20 A	27-Jan-27	3					
Contract Data		0	0	31-Mar-23	31-Mar-23	307					
Completion Obligation		0	0	31-Mar-23	31-Mar-23	307					
Specified Parts of the works		0	0	31-Mar-23	31-Mar-23	307					
CD-1230	Portion10 (1323 days after starting date)- Works in P10 excl. switch back to permanent sewerage system	0	0		31-Mar-23*	307	0				
Programme Data		2484	1399	10-Apr-20 A	27-Jan-27	3					
Preliminaries		2311	1399	30-Sep-20 A	27-Jan-27	3					
Subletting		0	0	31-Mar-23	31-Mar-23	-18					
ABWF		0	0	31-Mar-23	31-Mar-23	-18					
Package 6		0	0	31-Mar-23	31-Mar-23	-18					
SC-1195-107	Award of subcontract - ABWF works (Package 6 - Fences, Handrail, Guardrail, Parapet & Gate)	0	0		31-Mar-23*	-88					
SC-1195-117	Award of subcontract - ABWF works (Package 6 - Roller Shutter)	0	0		31-Mar-23*	-18					
SC-1195-207	Award of subcontract - ABWF works (Package 6 - Steel Door)	0	0		31-Mar-23*	-84					
SC-1195-6	Award of subcontract - ABWF works (Package 6 - Skylight)	0	0		31-Mar-23*	-109					
SC-1195-87	Award of subcontract - ABWF works (Package 6 - Fall Arrest System)	0	0		31-Mar-23*	-18					
SC-1195-97	Award of subcontract - ABWF works (Package 6 - Sundries Metal Works)	0	0		31-Mar-23*	-34					
Others		0	0	31-Mar-23	31-Mar-23	-36					
SC-1250	Award of subcontract - Ground Investigation Works of Portion 11	0	0		31-Mar-23*	-36					
Statutory Submission		137	137	03-May-23	13-Oct-23	-1					
MTRC		137	137	03-May-23	13-Oct-23	-1					
Method Statement Submission and Approval		72	72	03-May-23	27-Jul-23	4					
MTRC-1000	Preparation of Method Statement for pipe jacking work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0				
MTRC-1010	Approval of Method Statement for pipe jacking work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0				
MTRC-1020	Preparation of material and plants for pipe jacking work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0				
MTRC-1030	Approval of material and plants for pipe jacking work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0				
MTRC-1040	Preparation of contingency plan for pipe jacking work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0				
MTRC-1050	Approval of contingency plan for pipe jacking work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0				
MTRC-1060	Preparation of Method Statement for manhole construction work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0				
MTRC-1070	Approval of Method Statement for manhole construction work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0				
Pre-condition Survey & Report		28	28	30-Jun-23	02-Aug-23	-1					
MTRC-1110	Preparation of Pre-condition Survey report before construction work underneath East Rail Line	14	14	30-Jun-23*	17-Jul-23	-1	0				
MTRC-1120	Approval of Pre-condition report before construction work underneath East Rail Line	14	14	18-Jul-23	02-Aug-23	-1	0				
Notification of commencement of works		60	60	03-Aug-23	13-Oct-23	-1					
MTRC-1130	Preparation and Submission of Written Notice to MTRCL for the notification of commencement of works	60	60	03-Aug-23	13-Oct-23	-1	0				
BIM Submission		1056	540	30-Oct-21 A	20-Sep-24	-53					
BIM1045	Preparation and Submission of BIM Model for Bar Bending Schedule	782	190	30-Oct-21 A	06-Oct-23	38					
BIM1047	Preparation and Submission of BIM Model for updating CSD and CBWD	1171	540	01-Nov-21 A	20-Sep-24	-53					
Site Offices & Preliminaries		2311	1399	30-Sep-20 A	27-Jan-27	0					
Temporary office for RE		1739	825	30-Sep-20 A	02-Jul-25	169					
SP-1000b	Maintenance of container office	1739	825	30-Sep-20 A	02-Jul-25	169	0				
Temporary office for Contractor		1430	1399	16-Feb-23 A	27-Jan-27	0					
SP-1010a	Erection of container office in WA1	90	78	16-Feb-23 A	16-Jun-23	0	0				
SP-1010b	Maintenance of container office	1321	1321	17-Jun-23	27-Jan-27	0	0				
E&M Submission		561	406	27-Oct-22 A	09-May-24	996					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

Project Start: 03-Feb-20

Project End: 30-Jan-27

Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

Revision

Monthly Update Programme (May-2023)

Checked

EW

Approved

EW

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
Visitor Centre		294	166	27-Oct-22 A	16-Oct-23	992					
BS Shop Drawings Submission (Visitor Centre)		78	51	21-Feb-23 A	30-May-23	1107					
CSD/ CBWD		78	51	21-Feb-23 A	30-May-23	1107					
CSD		34	34	31-Mar-23	10-May-23	1124					
Basement (CSF 495)		34	34	31-Mar-23	10-May-23	-85					
CSD-VC1100	CSD Preparation and submission for Visitor Centre (Rev.3)	21	21	31-Mar-23	24-Apr-23	-85	0				
CSD-VC1110	PM review & 4th round comment	13	13	25-Apr-23	10-May-23	-85	0				
G/F (CSF 758)		24	24	31-Mar-23	27-Apr-23	1134					
CSD-VC1200	CSD Preparation and submission for Visitor Centre (Rev.3)	24	24	31-Mar-23	27-Apr-23	1134	0				
1/F (CSF 1027)		30	30	31-Mar-23	05-May-23	-51					
CSD-VC1160	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	31-Mar-23	05-May-23	-51	0				
R/F (CSF 1046)		30	30	31-Mar-23	05-May-23	-37					
CSD-VC1190	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	31-Mar-23	05-May-23	-37	0				
CBWD		78	51	21-Feb-23 A	30-May-23	-74					
Basement (CSF-508)		51	51	31-Mar-23	30-May-23	-74					
CBW-VC1290	CSD Preparation and submission for Visitor Centre (Rev.4)	30	30	31-Mar-23*	05-May-23	-74	0				
CBW-VC1300	PM review & 5th round comment	21	21	06-May-23	30-May-23	-74	0				
G/F (CSF 537)		58	31	21-Feb-23 A	06-May-23	-58					
CBW-VC1350	CBW Preparation and submission for Visitor Centre (Rev.4)	21	15	21-Feb-23 A	17-Apr-23	-58					
CBW-VC1360	PM review & 5th round comment	16	16	18-Apr-23	06-May-23	-58					
R/F (CSF 1097)		26	26	31-Mar-23	29-Apr-23	-235					
CBW-VC1440	CBW Preparation and submission for Visitor Centre (Rev.1)	26	26	31-Mar-23*	29-Apr-23	-235	0				
MVAC (CSF 451)		30	30	31-Mar-23	05-May-23	-88					
MVAC-VC1095	PM review & 2nd round comment	30	30	31-Mar-23*	05-May-23	-88	0				
PV Panel (CSF-909)		18	18	31-Mar-23	20-Apr-23	20					
ABWF-P3-1730	Shop Drawing Submission - PV Panel - 4th submission to PM & review	18	18	31-Mar-23*	20-Apr-23	20	0				
BS Materials Submission & Procurement (Visitor Centre)		294	166	27-Oct-22 A	16-Oct-23	-82					
PD (CSF-607)		96	15	19-Nov-22 A	17-Apr-23	14					
PD-VC1030	Procurement & Delivery of Submersible Pump (16wks)	85	15	19-Nov-22 A	17-Apr-23	14	0				
FS (CSF-980)		166	166	31-Mar-23	16-Oct-23	-112					
FS-VC1040	Sprinkler Pump & Local Control Panel - 3rd submission to PM	21	21	31-Mar-23*	24-Apr-23	-112	0				
FS-VC1050	Procurement & Delivery of Sprinkler Pump & Local Control Panel (24wks)	145	145	25-Apr-23	16-Oct-23	-112	0				
MVAC (CSF-676)		42	42	31-Mar-23	19-May-23	42					
MVAC-VC1130	AC Split Type - 3rd submission to PM & approval	21	21	31-Mar-23	24-Apr-23	42	0				
MVAC-VC1140	Procurement & Delivery of - AC Split Type (12wks)	21	21	25-Apr-23	19-May-23	42	0				
ELE		110	14	27-Oct-22 A	15-Apr-23	14					
Genset (CSF-620)		96	9	12-Nov-22 A	10-Apr-23	19					
ELE-VC1030	Procurement & Delivery of - Genset (16wks)	85	9	12-Nov-22 A	10-Apr-23	19	0				
Switchboard (CSF-879)		96	14	27-Oct-22 A	15-Apr-23	-33					
ELV-VC1070	Procurement & Delivery of Switchboard (16wks)	85	14	27-Oct-22 A	15-Apr-23	-33	0				
ELV		105	78	16-Jan-23 A	03-Jul-23	-30					
PABX System (CSF-1086)		105	78	16-Jan-23 A	03-Jul-23	-30					
ELE-VC1060	PABX System - 2nd submission to PM and approval	22	8	16-Jan-23 A	08-Apr-23	-30	0				
ELE-VC1070	Procurement & Delivery of - PABX System (10wks)	70	70	10-Apr-23	03-Jul-23	-30	0				

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

Project Start: 03-Feb-20

Project End: 30-Jan-27

Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

Revision

Monthly Update Programme (May-2023)

Checked

EW

Approved

EW

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
Lift (CSF-539)		132	52	03-Dec-22 A	31-May-23	-45					
LT-VC1050	Lift and Equipment - 2nd submission to PM & approval	30	30	31-Mar-23*	05-May-23	-45	0				
LT-VC1060	Procurement & Delivery of - Lift Car and Equipment	117	52	03-Dec-22 A	31-May-23	-45	0				
Sewerage Pumping Station		335	335	23-Feb-23 A	09-May-24	823					
PMI Issuance		0	0	31-Mar-23	31-Mar-23	-64					
SPS-PMI-1000	Confirmation for the Flow Rate of Pump at SPS from 1000L/s to 1500L/s	0	0		31-Mar-23*	-64	0				
BS Shop Drawings Submission (SPS)		66	66	31-Mar-23	16-Jun-23	1092					
CSD (CSF 1267)		14	14	01-Apr-23	17-Apr-23	1143					
CSD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Apr-23	17-Apr-23	1143	0				
CBWD		65	65	01-Apr-23	16-Jun-23	1092					
CBW-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (CBWD)	30	30	01-Apr-23	06-May-23	1092	0				
CBW-SPS1010	Sewage Pumping Station - 1st round comment by PM & review	21	21	08-May-23	31-May-23	1092	0				
CBW-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0				
Conduit Layout		65	65	01-Apr-23	16-Jun-23	1092					
CL-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (Conduit Layout)	30	30	01-Apr-23	06-May-23	1092	0				
CL-SPS1010	Sewage Pumping Station - 1st round comment by PM & review	21	21	08-May-23	31-May-23	1092	0				
CL-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0				
MVAC		65	65	01-Apr-23	16-Jun-23	1092					
MVAC-SPS1010	Shop Drawing Preparation and submission for Sewage Pumping Station (MVAC)	30	30	01-Apr-23	06-May-23	1092	0				
MVAC-SPS1020	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0				
MVAC-SPS1030	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0				
FS		65	65	01-Apr-23	16-Jun-23	1092					
FS-SPS1010	Shop Drawing Preparation and submission for Sewage Pumping Station (FS)	30	30	01-Apr-23	06-May-23	1092	0				
FS-SPS1020	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0				
FS-SPS1030	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0				
PD		65	65	01-Apr-23	16-Jun-23	1092					
PD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (PD)	30	30	01-Apr-23	06-May-23	1092	0				
PD-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0				
PD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0				
SPS Design		65	65	01-Apr-23	16-Jun-23	1092					
SD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (SPS Design)	30	30	01-Apr-23	06-May-23	1092	0				
SD-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0				
SD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0				
ELE (CSF-1182)		14	14	01-Apr-23	17-Apr-23	1143					
ELE-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Apr-23	17-Apr-23	1143	0				
ELV		65	65	01-Apr-23	16-Jun-23	1092					
ELV-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (ELV)	30	30	01-Apr-23	06-May-23	1092	0				
ELV-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0				
ELV-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0				
Chemical Dosing System (CSF-1173)		14	14	31-Mar-23	15-Apr-23	282					
ELV-SPS1120	Sewage Pumping Station - 2nd submission to PM & approval	14	14	31-Mar-23*	15-Apr-23	282	0				
BS Materials Submission & Procurement (SPS)		335	335	23-Feb-23 A	09-May-24	823					
Subletting		26	26	01-Apr-23	02-May-23	-64					
SWP-SPS1560	Subletting Procedure for Material Procurement	26	26	01-Apr-23	02-May-23	-64	0				

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

Project Start: 03-Feb-20

Project End: 30-Jan-27

Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

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Monthly Update Programme (May-2023)

Checked

EW

Approved

EW

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
SWP		335	335	23-Feb-23 A	09-May-24	823					
Surge Analysis		60	60	03-May-23	13-Jul-23	1071					
SWP-SPS1400	Preparation and Submission of Surge Analysis Report	60	60	03-May-23*	13-Jul-23	1071	0				
Submersible Pump (40wks)		308	308	03-May-23	09-May-24	-41					
SWP-SPS1000	Material Submission - Submersible Pump	25	25	03-May-23	31-May-23	-41	0				
SWP-SPS1010	Submersible Pump - 1st round comment by PM & review	30	30	01-Jun-23	07-Jul-23	-41	0				
SWP-SPS1020	Submersible Pump - 2nd submission to PM & approval	21	21	08-Jul-23	01-Aug-23	-41	0				
SWP-SPS1030	Procurement & Delivery of Submersible Pump (40wks)	232	232	02-Aug-23	09-May-24	-41	0				
Motorized Gate Valve,Check Valve and Actuator (36wks)		286	286	03-May-23	12-Apr-24	-29					
SWP-SPS1040	Material Submission - Motorized Gate Valve,Check Valve and Actuator	25	25	03-May-23*	31-May-23	-29	0				
SWP-SPS1050	Motorized Gate Valve,Check Valve and Actuator - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-29	0				
SWP-SPS1060	Motorized Gate Valve,Check Valve and Actuator - 2nd submission to PM & approval	22	22	05-Jul-23	29-Jul-23	-29	0				
SWP-SPS1070	Procurement & Delivery of Motorized Gate Valve,Check Valve and Actuator (36wks)	212	212	31-Jul-23	12-Apr-24	-29	0				
Lifting Appliance (36wks)		286	286	03-May-23	12-Apr-24	-47					
SWP-SPS1160	Material Submission - Lifting Appliance	25	25	03-May-23*	31-May-23	-47	0				
SWP-SPS1170	Lifting Appliance - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-47	0				
SWP-SPS1180	Lifting Appliance - 2nd submission to PM & approval	22	22	05-Jul-23	29-Jul-23	-47	0				
SWP-SPS1190	Procurement & Delivery of Lifting Appliance (36wks)	212	212	31-Jul-23	12-Apr-24	-47	0				
Mechanical raked bar screen (36wks) (CSF-1318)		235	235	23-Feb-23 A	08-Feb-24	57					
SWP-SPS1330	Mechanical raked bar screen - 1st round comment by PM & review	27	1	23-Feb-23 A	03-May-23	57	0				
SWP-SPS1340	Mechanical raked bar screen - 2nd submission to PM & approval	22	22	04-May-23	29-May-23	57	0				
SWP-SPS1350	Procurement & Delivery of Mechanical raked bar screen (36wks)	212	212	30-May-23	08-Feb-24	57	0				
LMCP for Deodourisation System (36wks)		286	286	03-May-23	12-Apr-24	-54					
SWP-SPS1360	Material Submission - LMCP for Deodourisation System	25	25	03-May-23*	31-May-23	-54	0				
SWP-SPS1370	LMCP for Deodourisation System - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-54	0				
SWP-SPS1380	LMCP for Deodourisation System - 2nd submission to PM & approval	22	22	05-Jul-23	29-Jul-23	-54	0				
SWP-SPS1390	Procurement & Delivery of LMCP for Deodourisation System (36wks)	212	212	31-Jul-23	12-Apr-24	-54	0				
DI Pipe and fittings (30 wks)		250	250	03-May-23	29-Feb-24	7					
SWP-SPS1080	Material Submission - DI Pipe and fittings	25	25	03-May-23*	31-May-23	7	0				
SWP-SPS1090	DI Pipe and fittings - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	7	0				
SWP-SPS1100	DI Pipe and fittings - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	7	0				
SWP-SPS1110	Procurement & Delivery of DI Pipe and fittings (30wks)	177	177	29-Jul-23	29-Feb-24	7	0				
Penstock and Stop Log (30wks)		198	198	31-Mar-23	23-Nov-23	146					
SWP-SPS1140	Penstock and Stop Log - 2nd submission to PM & approval	21	21	31-Mar-23	24-Apr-23	146	0				
SWP-SPS1150	Procurement & Delivery of Penstock and Stop Log(30 wks)	177	177	25-Apr-23	23-Nov-23	146	0				
Deodourisation System (30wks) (CSF-1094)		198	198	31-Mar-23	23-Nov-23	61					
SWP-SPS1220	Deodourisation System - 2nd submission to PM & approval	21	21	31-Mar-23*	24-Apr-23	61	0				
SWP-SPS1230	Procurement & Delivery of Deodourisation System (30wks)	177	177	25-Apr-23	23-Nov-23	61	0				
Odour Ductwork (30wks)		250	250	03-May-23	29-Feb-24	-64					
SWP-SPS1240	Material Submission - Odour Ductwork	25	25	03-May-23*	31-May-23	-64	0				
SWP-SPS1250	Odour Ductwork - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-64	0				
SWP-SPS1260	Odour Ductwork - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	-64	0				
SWP-SPS1270	Procurement & Delivery of Odour Ductwork (30wks)	177	177	29-Jul-23	29-Feb-24	-64	0				
Sensors and Instruments (30wks)		250	250	03-May-23	29-Feb-24	17					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

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Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID		Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				P
									May	Jun	Jul	Aug	
	SWP-SPS1280	Material Submission - Sensors and Instruments	25	25	03-May-23*	31-May-23	17	0	<div></div>				
	SWP-SPS1290	Sensors and Instruments - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	17	0		<div></div>			
	SWP-SPS1300	Sensors and Instruments - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	17	0			<div></div>		
	SWP-SPS1310	Procurement & Delivery of Sensors and Instruments (30wks)	177	177	29-Jul-23	29-Feb-24	17	0				<div></div>	
Chemical Dosing System (30wks)			250	250	03-May-23	29-Feb-24	19						
	SWP-SPS1520	Material Submission - Chemical Dosing System	25	25	03-May-23*	31-May-23	19	0	<div></div>				
	SWP-SPS1530	Chemical Dosing System - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	19	0		<div></div>			
	SWP-SPS1540	Chemical Dosing System - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	19	0			<div></div>		
	SWP-SPS1550	Procurement & Delivery of Chemical Dosing System (30wks)	177	177	29-Jul-23	29-Feb-24	19	0				<div></div>	
Davit (24wks)			200	200	03-May-23	28-Dec-23	39						
	SWP-SPS1480	Material Submission - Davit	25	25	03-May-23*	31-May-23	39	0	<div></div>				
	SWP-SPS1490	Davit - 1st round comment by PM & review	30	30	01-Jun-23	07-Jul-23	39	0		<div></div>			
	SWP-SPS1500	Davit - 2nd submission to PM & approval	21	21	08-Jul-23	01-Aug-23	39	0			<div></div>		
	SWP-SPS1510	Procurement & Delivery of Davit (24wks)	124	124	02-Aug-23	28-Dec-23	39	0				<div></div>	
A-frame (20wks)			193	193	03-May-23	19-Dec-23	46						
	SWP-SPS1440	Material Submission - A-frame	25	25	03-May-23*	31-May-23	46	0	<div></div>				
	SWP-SPS1450	A-frame - 1st round comment by PM & review	30	30	01-Jun-23	07-Jul-23	46	0		<div></div>			
	SWP-SPS1460	A-frame - 2nd submission to PM & approval	21	21	08-Jul-23	01-Aug-23	46	0			<div></div>		
	SWP-SPS1470	Procurement & Delivery of A-frame (20wks)	117	117	02-Aug-23	19-Dec-23	46	0				<div></div>	
PD (16wks)			170	170	03-May-23	22-Nov-23	122						
	PD-SPS1110	Material Submission - Sand Filter and Activated Carbon Filter	25	25	03-May-23*	31-May-23	122	0	<div></div>				
	PD-SPS1120	Sand Filter and Activated Carbon Filter - 1st round comment by PM & review	28	28	01-Jun-23	05-Jul-23	122	0		<div></div>			
	PD-SPS1130	Sand Filter and Activated Carbon Filter - 2nd submission to PM & approval	21	21	06-Jul-23	29-Jul-23	122	0			<div></div>		
	PD-SPS1140	Procurement & Delivery of Sand Filter and Activated Carbon Filter (16wks)	96	96	31-Jul-23	22-Nov-23	122	0				<div></div>	
FS (24wks)			53	53	01-Aug-23	03-Oct-23	-6						
	FS-SPS1070	Material Submission - Local Control Panel	25	25	01-Aug-23*	29-Aug-23	-6	0				<div></div>	
	FS-SPS1080	Local Control Panel - 1st round comment by PM & review	28	28	30-Aug-23	03-Oct-23	-6	0				<div></div>	
MVAC (12wks)			146	146	03-May-23	25-Oct-23	66						
	MVAC-SPS1040	Material Submission - AC Unit split type	25	25	03-May-23*	31-May-23	66	0	<div></div>				
	MVAC-SPS1050	AC Unit split type - 1st round comment by PM & review	28	28	01-Jun-23	05-Jul-23	66	0		<div></div>			
	MVAC-SPS1060	AC Unit split type - 2nd submission to PM & approval	21	21	06-Jul-23	29-Jul-23	66	0			<div></div>		
	MVAC-SPS1070	Procurement & Delivery of AC Unit split type (12wks)	72	72	31-Jul-23	25-Oct-23	66	0				<div></div>	
ELE (16wks)			170	170	03-May-23	22-Nov-23	42						
	ELE-SPS1060	Material Submission - PV System	25	25	03-May-23*	31-May-23	42	0	<div></div>				
	ELE-SPS1070	PV System - 1st round comment by PM & review	28	28	01-Jun-23	05-Jul-23	42	0		<div></div>			
	ELE-SPS1080	PV System - 2nd submission to PM & approval	21	21	06-Jul-23	29-Jul-23	42	0			<div></div>		
	ELE-SPS1090	Procurement & Delivery of PV System (16wks)	96	96	31-Jul-23	22-Nov-23	42	0				<div></div>	
Footbridge FK2 Road lighting			30	7	01-Feb-23 A	07-Apr-23	-148						
Electrical schematic (CSF-445)			30	7	01-Feb-23 A	07-Apr-23	-148						
	RD-ES1040	Footbridge Electrical Schematic - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
EL System - Electrical and lighting layout (CSF-494)			30	7	01-Feb-23 A	07-Apr-23	-148						
	RD-EL1040	Electrical and lighting layout - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
Materials Submission (CSF-693)			30	7	01-Feb-23 A	07-Apr-23	-148						
	RD-MS1040	Material Submission - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
	Drawing Submission of Road Lighting Layout (CSF-703)	30	7	01-Feb-23 A	07-Apr-23	-148					
RD-RL 1040	Road Lighting Layout - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0				
	Lux Simulation Report (CSF-717)	30	7	01-Feb-23 A	07-Apr-23	-148					
RD-LUX1040	Lux Simulation Report - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0				
	Internal Arrangement of PB-01 (CSF-726)	30	7	01-Feb-23 A	07-Apr-23	-148					
RD-PB1040	Internal Arrangement drawings of PB-01 - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0				
	Irrigation System (CSF-634)	102	75	03-Feb-23 A	28-Jun-23	-128					
IS-1030	Irrigation System drawings - 1st submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD	48	27	03-Feb-23 A	02-May-23	-128	0				
IS-1040	Irrigation System drawings - Re-submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD and approval	48	48	03-May-23	28-Jun-23	-128	0				
	ABWF Submission and Mock Up	214	187	22-Dec-22 A	10-Nov-23	82					
	Visitor Centre	214	187	22-Dec-22 A	10-Nov-23	40					
	ABWF Shop Drawing / Method Statement / ITP Submission	132	132	31-Mar-23	04-Sep-23	95					
	Package 1	65	65	31-Mar-23	15-Jun-23	-61					
	Tile Setting Out Drawing / Block Wall Frame Shop Drawings	65	65	31-Mar-23	15-Jun-23	-61					
ABWF-P1-1190	Shop Drawing / Method Statement / ITP Submission	30	30	31-Mar-23*	05-May-23	-61	0				
ABWF-P1-1195	Shop Drawing / Method Statement / ITP Submission - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-61	0				
ABWF-P1-1200	2nd submission to PM & approval	14	14	31-May-23	15-Jun-23	-61	0				
	Package 3	72	72	31-Mar-23	24-Jun-23	58					
	Suspended Ceiling	53	53	31-Mar-23	01-Jun-23	-104					
ABWF-P3-1055	Shop Drawing / Method Statement / ITP Submission - Suspended Ceiling	26	26	31-Mar-23*	29-Apr-23	-104	0				
ABWF-P3-1060	Suspended Ceiling - 1st round comment by PM & review	15	15	02-May-23	18-May-23	-104	0				
ABWF-P3-1080	Suspended Ceiling - 2nd submission to PM & approval	12	12	19-May-23	01-Jun-23	-104	0				
	Raised Flooring	72	72	31-Mar-23	24-Jun-23	-54					
ABWF-P3-1475	Shop Drawing / Method Statement / ITP Submission - Raised Flooring	30	30	31-Mar-23*	05-May-23	-54	0				
ABWF-P3-1480	Raised Flooring - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-54	0				
ABWF-P3-1500	Raised Flooring - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-54	0				
	Plastic Laminate Wall Panels	72	72	31-Mar-23	24-Jun-23	-27					
ABWF-P3-1505	Shop Drawing / Method Statement / ITP Submission - Plastic Laminate Wall Panel	30	30	31-Mar-23*	05-May-23	-27	0				
ABWF-P3-1510	Plastic Laminate Wall Panel - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-27	0				
ABWF-P3-1530	Plastic Laminate Wall Panel - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-27	0				
	Thermal Insulation Board	72	72	31-Mar-23	24-Jun-23	-100					
ABWF-P3-1535	Shop Drawing / Method Statement / ITP Submission - Thermal insulation Board	30	30	31-Mar-23*	05-May-23	-100	0				
ABWF-P3-1540	Thermal insulation Board - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-100	0				
ABWF-P3-1560	Thermal insulation Board - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-100	0				
	Glass Wall	56	56	31-Mar-23	05-Jun-23	-118					
ABWF-P3-1565	Shop Drawing / Method Statement / ITP Submission - Glass Wall	21	21	31-Mar-23*	24-Apr-23	-118	0				
ABWF-P3-1570	Glass Wall - 1st round comment by PM & review	21	21	25-Apr-23	19-May-23	-118	0				
ABWF-P3-1590	Glass Wall - 2nd submission to PM & approval	14	14	20-May-23	05-Jun-23	-118	0				
	Movable Partition	72	72	31-Mar-23	24-Jun-23	20					
ABWF-P3-1595	Shop Drawing / Method Statement / ITP Submission - Movable Partition	30	30	31-Mar-23*	05-May-23	20	0				
ABWF-P3-1600	Movable Partition - 1st round comment by PM & review	21	21	06-May-23	30-May-23	20	0				
ABWF-P3-1620	Movable Partition - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	20	0				
	Timber Deck	72	72	31-Mar-23	24-Jun-23	58					
ABWF-P3-1655	Shop Drawing / Method Statement / ITP Submission - Timber Deck	30	30	31-Mar-23*	05-May-23	58	0				

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
ABWF-P3-1660	Timber Deck - 1st round comment by PM & review	21	21	06-May-23	30-May-23	58	0				
ABWF-P3-1680	Timber Deck - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	58	0				
Roof Hatch		66	66	31-Mar-23	16-Jun-23	-23					
ABWF-P3-1698	Shop Drawing / Method Statement / ITP Submission - Roof Hatch	30	30	31-Mar-23*	05-May-23	-23	0				
ABWF-P3-1700	Roof Hatch - 1st round comment by PM & review	15	15	06-May-23	23-May-23	-23	0				
ABWF-P3-1720	Roof Hatch - 2nd submission to PM & approval	21	21	24-May-23	16-Jun-23	-23	0				
Package 4		72	72	31-Mar-23	24-Jun-23	-35					
Timber Door		58	58	31-Mar-23	07-Jun-23	-21					
ABWF-P1-1090	Shop Drawing / Method Statement / ITP Submission - Timber Door and Ironmongeries - 1st round comment by PM	14	14	06-May-23	22-May-23	-21	0				
ABWF-P4-1085	Shop Drawing / Method Statement / ITP Submission- Timber Door and Ironmongeries	30	30	31-Mar-23*	05-May-23	-21	0				
ABWF-P4-1110	Shop Drawing / Method Statement / ITP Submission - Timber Door and Ironmongeries - 2nd submission to PM & approval	14	14	23-May-23	07-Jun-23	-21	0				
Fitting & Fixtures		72	72	31-Mar-23	24-Jun-23	-83					
ABWF-P4-1625	Shop Drawing / Method Statement / ITP Submission - Fitting & Fixture	30	30	31-Mar-23*	05-May-23	-83	0				
ABWF-P4-1630	Fitting & Fixture - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-83	0				
ABWF-P4-1650	Fitting & Fixture - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-83	0				
Package 5		68	68	31-Mar-23	19-Jun-23	-36					
Window		43	43	31-Mar-23	20-May-23	-82					
ABWF-P5-1145	Shop Drawing / Method Statement / ITP Submission - Window	15	15	31-Mar-23*	17-Apr-23	-82	0				
ABWF-P5-1150	Window - 1st round comment by PM & review	14	14	18-Apr-23	04-May-23	-82	0				
ABWF-P5-1170	Window - 2nd submission to PM & approval	14	14	05-May-23	20-May-23	-82	0				
Louvre		50	50	31-Mar-23	29-May-23	-75					
ABWF-P5-1025	Shop Drawing / Method Statement / ITP Submission - Louvre	20	20	31-Mar-23*	22-Apr-23	-75	0				
ABWF-P5-1030	Shop Drawing / Method Statement / ITP Submission - Louvre - 1st round comment by PM & review	20	20	24-Apr-23	17-May-23	-75	0				
ABWF-P5-1050	Shop Drawing Submission - Louvre - 2nd submission to PM & approval	10	10	18-May-23	29-May-23	-75	0				
Aluminium Grilles		68	68	31-Mar-23	19-Jun-23	-36					
ABWF-P5-1115	Shop Drawing / Method Statement / ITP Submission- Aluminium Grilles	30	30	31-Mar-23*	05-May-23	-36	0				
ABWF-P5-1120	Shop Drawing / Method Statement / ITP Submission - Aluminium Grilles - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-36	0				
ABWF-P5-1140	Shop Drawing / Method Statement / ITP Submission - Aluminium Grilles 2nd submission to PM & approval	17	17	31-May-23	19-Jun-23	-36	0				
Package 6		132	132	31-Mar-23	04-Sep-23	95					
Fence / Handrail / Parapet		72	72	31-Mar-23	24-Jun-23	-88					
ABWF-P6-1180	Shop Drawing / Method Statement / ITP Submission - Fence / Handrail / Parapet	30	30	31-Mar-23*	05-May-23	-88	0				
ABWF-P6-1190	Fence / Handrail / Parapet - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-88	0				
ABWF-P6-1200	Fence / Handrail / Parapet - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-88	0				
Skylight		46	46	14-Apr-23	07-Jun-23	-109					
ABWF-P3-1000	Shop Drawing / Method Statement / ITP Submission - Skylight	18	18	14-Apr-23	05-May-23	-109	0				
ABWF-P3-1010	Shop Drawing / Method Statement / ITP Submission - Skylight - 1st round comment by PM & review	14	14	06-May-23	22-May-23	-109	0				
ABWF-P3-1020	Shop Drawing / Method Statement / ITP Submission - Skylight - 2nd submission to PM & approval	14	14	23-May-23	07-Jun-23	-109	0				
Roller Shutters		30	30	01-Aug-23	04-Sep-23	95					
ABWF-P3-1210	Shop Drawing / Method Statement / ITP Submission - Shutter	30	30	01-Aug-23*	04-Sep-23	95	0				
Fall Arrest system		72	72	14-Apr-23	10-Jul-23	19					
ABWF-P3-1240	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System	30	30	14-Apr-23*	19-May-23	19	0				
ABWF-P3-1250	Shop Drawing / Method Statement / ITP Submission - 1st round comment by PM & review	21	21	20-May-23	13-Jun-23	19	0				
ABWF-P3-1260	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System - 2nd submission to PM & approval	21	21	14-Jun-23	10-Jul-23	19	0				
Steel Doors		55	55	14-Apr-23	17-Jun-23	-84					

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								May	Jun	Jul	Aug
ABWF-P3-1325	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries	20	20	14-Apr-23*	08-May-23	-84	0	<div></div>			
ABWF-P3-1330	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries - 1st round comment by PM	21	21	09-May-23	01-Jun-23	-84	0	<div></div>			
ABWF-P3-1350	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries - 2nd submission to PM & approval	14	14	02-Jun-23	17-Jun-23	-84	0		<div></div>		
Sundry Metal Works (Covers / Cat Ladder / Steel Staircase)		72	72	14-Apr-23	10-Jul-23	-34					
ABWF-P4-1000	Shop Drawing / Method Statement / ITP Submission - Sundry Metal Works	30	30	14-Apr-23*	19-May-23	-34	0	<div></div>			
ABWF-P4-1010	Shop Drawing / Method Statement / ITP Submission- Sundry Metal Works - 1st round comment by PM & review	21	21	20-May-23	13-Jun-23	-34	0		<div></div>		
ABWF-P4-1020	Shop Drawing / Method Statement / ITP Submission - Sundry Metal Works - 2nd submission to PM & approval	21	21	14-Jun-23	10-Jul-23	-34	0			<div></div>	
Pacakge 7		72	72	31-Mar-23	24-Jun-23	-71					
Toilet Cubicle & Shower Cubicle		72	72	31-Mar-23	24-Jun-23	-71					
ABWF-P3-1270	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle	30	30	31-Mar-23*	05-May-23	-71	0	<div></div>			
ABWF-P3-1280	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-71	0	<div></div>			
ABWF-P3-1290	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-71	0		<div></div>		
ABWF Material Submission		214	187	22-Dec-22 A	10-Nov-23	5					
Package 1		49	49	31-Mar-23	27-May-23	-45					
Concrete Block		49	49	31-Mar-23	27-May-23	-45					
ABWF-VC3110	Material & Sample Submission - Gypsum Block	14	14	31-Mar-23*	15-Apr-23	-45	0				
ABWF-VC3120	Material & Sample Submission - Gypsum Block - 1st round comment by PM & review	21	21	17-Apr-23	11-May-23	-45	0	<div></div>			
ABWF-VC3130	Material & Sample Submission - Gypsum Block - 2nd submission to PM & approval	14	14	12-May-23	27-May-23	-45	0		<div></div>		
Package 2		76	49	09-Feb-23 A	27-May-23	-37					
Internal Wall Painting (CSF-1294)		46	19	09-Feb-23 A	21-Apr-23	-7					
ABWF-VC3010	Material & Sample Submission - Internal Wall Painting - 1st round comment by PM & review	21	5	09-Feb-23 A	05-Apr-23	-7	0				
ABWF-VC3020	Material & Sample Submission - Internal Wall Painting - 2nd submission to PM & approval	14	14	06-Apr-23	21-Apr-23	-7	0				
External Wall Painting		49	49	31-Mar-23	27-May-23	-58					
ABWF-VC3180	Material & Sample Submission - External Wall Painting	21	21	31-Mar-23*	24-Apr-23	-58	0				
ABWF-VC3190	Material & Sample Submission - External Wall Painting - 1st round comment by PM & review	14	14	25-Apr-23	11-May-23	-58	0	<div></div>			
ABWF-VC3200	Material & Sample Submission - External Wall Painting - 2nd submission to PM & approval	14	14	12-May-23	27-May-23	-58	0		<div></div>		
Package 3		214	187	22-Dec-22 A	10-Nov-23	5					
External suspended Baffle Ceiling (CSF-1103)		92	92	31-Mar-23	19-Jul-23	-93					
ABWF-VC3270	Material & Sample Submission, 2nd round comment by PM & approval	20	20	31-Mar-23	22-Apr-23	-93	0				
ABWF-VC3280	Material Procurement of External Suspended Baffle Ceiling	72	72	24-Apr-23	19-Jul-23	-93	0	<div></div>			
Movable Folding Partition (CSF-1104)		56	29	22-Dec-22 A	04-May-23	63					
ABWF-VC3670	Material & Sample Submission, 2nd round comment by PM & approval	21	8	22-Dec-22 A	08-Apr-23	63	0				
ABWF-VC3680	Material Procurement of Movable Folding Partition	21	21	10-Apr-23	04-May-23	63	0	<div></div>			
Internal Acoustic Ceiling (CSF-1105)		31	31	31-Mar-23	06-May-23	-68					
ABWF-VC3310	Material & Sample Submission, 2nd round comment by PM & approval	10	10	31-Mar-23	11-Apr-23	-68	0				
ABWF-VC3320	Material Procurement of Acoustic Ceiling	21	21	12-Apr-23	06-May-23	-68	0	<div></div>			
Raised Floor (CSF-1118)		21	21	31-Mar-23	24-Apr-23	-3					
ABWF-VC3240	Material Procurement of Raised Floor	21	21	31-Mar-23	24-Apr-23	-3	0				
Glass Wall		40	40	31-Mar-23	17-May-23	-102					
ABWF-VC3330	Material & Sample Submission - Glass Wall	15	15	31-Mar-23*	17-Apr-23	-102	0				
ABWF-VC3340	Material & Sample Submission 1st round comment by PM & review	15	15	18-Apr-23	05-May-23	-102	0	<div></div>			
ABWF-VC3350	Material & Sample Submission, 2nd round comment by PM & approval	10	10	06-May-23	17-May-23	-102	0		<div></div>		
Timber Deck		62	62	01-Jun-23	14-Aug-23	78					
ABWF-VC3370	Material & Sample Submission - Timber Deck	10	10	01-Jun-23*	12-Jun-23	68	0		<div></div>		

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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(May to Aug -23)

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	P
ABWF-VC3380	Material & Sample Submission - 1st round comment by PM & review	21	21	13-Jun-23	08-Jul-23	78	0					
ABWF-VC3390	Material & Sample Submission -, 2nd round comment by PM & approval	10	10	10-Jul-23	20-Jul-23	78	0					
ABWF-VC3400	Material Procurement of Timber Deck	21	21	21-Jul-23	14-Aug-23	78	0					
Timber Flooring		62	62	31-Mar-23	12-Jun-23	-55						
ABWF-VC3610	Material & Sample Submission - Timber Flooring	10	10	31-Mar-23*	11-Apr-23	-55	0					
ABWF-VC3620	Material & Sample Submission - 1st round comment by PM & review	21	21	12-Apr-23	06-May-23	-55	0					
ABWF-VC3630	Material & Sample Submission -, 2nd round comment by PM & approval	10	10	08-May-23	18-May-23	-55	0					
ABWF-VC3640	Material Procurement of Timber Deck	21	21	19-May-23	12-Jun-23	-55	0					
Roof Hatch		121	121	17-Jun-23	10-Nov-23	-23						
ABWF-VC3690	Material & Sample Submission - Roof Hatch	10	10	17-Jun-23	29-Jun-23	-23	0					
ABWF-VC3700	Material & Sample Submission - 1st round comment by PM & review	21	21	30-Jun-23	25-Jul-23	-23	0					
ABWF-VC3720	Material Procurement and Delivery of Roof Hatch	90	90	26-Jul-23	10-Nov-23	-23	0					
Package 4		85	85	31-Mar-23	11-Jul-23	-48						
Timber Door		70	70	31-Mar-23	21-Jun-23	-33						
ABWF-VC3410	Material & Sample Submission - Timber Doors	10	10	31-Mar-23*	11-Apr-23	-33	0					
ABWF-VC3420	Material & Sample Submission - 1st round comment by PM & review	20	20	12-Apr-23	05-May-23	-33	0					
ABWF-VC3430	Material & Sample Submission -, 2nd round comment by PM & approval	20	20	06-May-23	29-May-23	-33	0					
ABWF-VC3440	Material Procurement of Timber Doors	20	20	30-May-23	21-Jun-23	-33	0					
Fitting and Fixtures		85	85	31-Mar-23	11-Jul-23	-96						
ABWF-VC3450	Material & Sample Submission - Fitting and Fixtures	20	20	31-Mar-23*	22-Apr-23	-96	0					
ABWF-VC3460	Material & Sample Submission - 1st round comment by PM & review	21	21	24-Apr-23	18-May-23	-96	0					
ABWF-VC3470	Material & Sample Submission -, 2nd round comment by PM & approval	14	14	19-May-23	03-Jun-23	-96	0					
ABWF-VC3480	Material Procurement of - Fitting and Fixtures	30	30	05-Jun-23	11-Jul-23	-96	0					
Package 5		97	97	31-Mar-23	25-Jul-23	-65						
Windows		50	50	31-Mar-23	29-May-23	-89						
ABWF-VC3530	Material & Sample Submission - Window	20	20	31-Mar-23*	22-Apr-23	-89	0					
ABWF-VC3540	Material & Sample Submission - 1st round comment by PM & review	12	12	24-Apr-23	08-May-23	-89	0					
ABWF-VC3550	Material & Sample Submission -, 2nd round comment by PM & approval	18	18	09-May-23	29-May-23	-89	0					
Lourves		61	61	31-Mar-23	10-Jun-23	-86						
ABWF-VC3490	Material & Sample Submission - Lourves	18	18	31-Mar-23*	20-Apr-23	-86	0					
ABWF-VC3500	Material & Sample Submission 1st round comment by PM & review	15	15	21-Apr-23	09-May-23	-86	0					
ABWF-VC3510	Material & Sample Submission , 2nd round comment by PM & approval	14	14	10-May-23	25-May-23	-86	0					
ABWF-VC3520	Material Procurement of Lourves	14	14	26-May-23	10-Jun-23	-86	0					
Aluminium Grilles		97	97	31-Mar-23	25-Jul-23	-65						
ABWF-VC3570	Material & Sample Submission - Aluminium Grilles	25	25	31-Mar-23*	28-Apr-23	-65	0					
ABWF-VC3580	Material & Sample Submission 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-65	0					
ABWF-VC3590	Material & Sample Submission , 2nd round comment by PM & approval	21	21	05-Jun-23	29-Jun-23	-65	0					
ABWF-VC3600	Material Procurement of Window / Lourves	21	21	30-Jun-23	25-Jul-23	-65	0					
Mock Up		185	158	23-Feb-23 A	06-Oct-23	34						
Package 1		57	30	23-Feb-23 A	05-May-23	-53						
Plastering / Tile Adhesive		57	30	23-Feb-23 A	05-May-23	-62						
ABWF-VC1010	Mock Up 1st round comment by PM & review	10	6	23-Feb-23 A	06-Apr-23	-62	0					
ABWF-VC1020	Mock Up modification, 2nd round comment by PM & approval	10	10	07-Apr-23	18-Apr-23	-62	0					
ABWF-VC1030	Material Procurement of Plastering material / Tile Adhesive	14	14	19-Apr-23	05-May-23	-62	0					

Primary Baseline

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Remaining Work

Critical Remaining Work

Baseline Milestone

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Non-Critical Mil...

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								May	Jun	Jul	Aug	
Internal tiling works		47	30	23-Feb-23 A	05-May-23	-53						
ABWF-VC1170	Mock Up 1st round comment by PM & review	10	6	23-Feb-23 A	06-Apr-23	-53	0					
ABWF-VC1180	Mock Up modification, 2nd round comment by PM & approval	10	10	07-Apr-23	18-Apr-23	-53	0					
ABWF-VC1190	Material Procurement of Internal tiling works	14	14	19-Apr-23	05-May-23	-53	0	<div><div></div></div>				
Package 2		85	85	22-Apr-23	02-Aug-23	-37						
Internal Wall Painting		55	55	22-Apr-23	27-Jun-23	-7						
ABWF-VC1960	Fabrication of Mock Up - Internal Wall Painting	10	10	22-Apr-23	04-May-23	-7	0	<div><div></div></div>				
ABWF-VC1970	Mock Up 1st round comment by PM & review	21	21	05-May-23	29-May-23	-7	0	<div><div></div></div>				
ABWF-VC1980	Mock Up modification, 2nd round comment by PM & approval	10	10	30-May-23	09-Jun-23	-7	0		<div><div></div></div>			
ABWF-VC1990	Material Procurement for Internal Wall Painting	14	14	10-Jun-23	27-Jun-23	-7	0		<div><div></div></div>			
External Wall Painting		55	55	29-May-23	02-Aug-23	-58						
ABWF-VC3140	Fabrication of Mock Up - External Wall Painting	10	10	29-May-23	08-Jun-23	-58	0		<div><div></div></div>			
ABWF-VC3150	Mock Up 1st round comment by PM & review	21	21	09-Jun-23	05-Jul-23	-58	0		<div><div></div></div>			
ABWF-VC3160	Mock Up modification, 2nd round comment by PM & approval	10	10	06-Jul-23	17-Jul-23	-58	0			<div><div></div></div>		
ABWF-VC3170	Material Procurement for External Wall Painting	14	14	18-Jul-23	02-Aug-23	-58	0			<div><div></div></div>		
Package 3		105	105	02-Jun-23	06-Oct-23	34						
External suspended Baffle Ceiling		50	50	02-Jun-23	01-Aug-23	-104						
ABWF-VC1360	Fabrication of Mock Up - External Suspended Baffle Ceiling	10	10	02-Jun-23	13-Jun-23	-104	0		<div><div></div></div>			
ABWF-VC1370	Mock Up 1st round comment by PM & review	8	8	14-Jun-23	23-Jun-23	-104	0		<div><div></div></div>			
ABWF-VC1380	Mock Up modification, 2nd round comment by PM & approval	12	12	24-Jun-23	08-Jul-23	-104	0			<div><div></div></div>		
ABWF-VC1390	Material Procurement of External Suspended Baffle Ceiling	20	20	10-Jul-23	01-Aug-23	-104	0			<div><div></div></div>		
Internal Acoustic Ceiling		67	67	02-Jun-23	21-Aug-23	-90						
ABWF-VC1400	Fabrication of Mock Up - Acoustic Ceiling	15	15	02-Jun-23	19-Jun-23	-90	0		<div><div></div></div>			
ABWF-VC1410	Mock Up 1st round comment by PM & review	21	21	20-Jun-23	15-Jul-23	-90	0		<div><div></div></div>			
ABWF-VC1420	Mock Up modification, 2nd round comment by PM & approval	10	10	17-Jul-23	27-Jul-23	-90	0			<div><div></div></div>		
ABWF-VC1430	Material Procurement of Acoustic Ceiling	21	21	28-Jul-23	21-Aug-23	-90	0			<div><div></div></div>		
Raised Floor		62	62	26-Jun-23	06-Sep-23	-54						
ABWF-VC1080	Fabrication of Mock Up - Raised Floor	10	10	26-Jun-23	07-Jul-23	-54	0			<div><div></div></div>		
ABWF-VC1090	Mock Up 1st round comment by PM & review	21	21	08-Jul-23	01-Aug-23	-54	0			<div><div></div></div>		
ABWF-VC1100	Mock Up modification, 2nd round comment by PM & approval	10	10	02-Aug-23	12-Aug-23	-54	0			<div><div></div></div>		
ABWF-VC1110	Material Procurement of Raised Floor	21	21	14-Aug-23	06-Sep-23	-54	0			<div><div></div></div>		
Glass Wall		102	102	06-Jun-23	06-Oct-23	-118						
ABWF-VC3030	Fabrication of Mock Up - Glass Wall	10	10	06-Jun-23	16-Jun-23	-118	0		<div><div></div></div>			
ABWF-VC3040	Mock Up 1st round comment by PM & review	14	14	17-Jun-23	05-Jul-23	-118	0		<div><div></div></div>			
ABWF-VC3050	Mock Up modification, 2nd round comment by PM & approval	6	6	06-Jul-23	12-Jul-23	-118	0			<div><div></div></div>		
ABWF-VC3060	Material Procurement of Glass Wall	72	72	13-Jul-23	06-Oct-23	-118	0			<div><div></div></div>		
Timber Deck		62	62	26-Jun-23	06-Sep-23	58						
ABWF-VC3070	Fabrication of Mock Up - Timber Deck	10	10	26-Jun-23	07-Jul-23	58	0		<div><div></div></div>			
ABWF-VC3080	Mock Up 1st round comment by PM & review	21	21	08-Jul-23	01-Aug-23	58	0		<div><div></div></div>			
ABWF-VC3090	Mock Up modification, 2nd round comment by PM & approval	10	10	02-Aug-23	12-Aug-23	58	0			<div><div></div></div>		
ABWF-VC3100	Material Procurement of Timber Deck	21	21	14-Aug-23	06-Sep-23	58	0			<div><div></div></div>		
Package 4		70	70	23-Jun-23	13-Sep-23	-33						
Timber Door		70	70	23-Jun-23	13-Sep-23	-33						
ABWF-VC1520	Fabrication of Mock Up - Timber Doors	10	10	23-Jun-23	05-Jul-23	-33	0		<div><div></div></div>			

Primary Baseline

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Critical Remaining Work

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								May	Jun	Jul	Aug	
ABWF-VC1530	Mock Up 1st round comment by PM & review	20	20	06-Jul-23	28-Jul-23	-33	0					
	ABWF-VC1540	Mock Up modification, 2nd round comment by PM & approval	20	20	29-Jul-23	21-Aug-23	-33	0				
	ABWF-VC1550	Material Procurement of Timber Doors	20	20	22-Aug-23	13-Sep-23	-33	0				
Fitting and Fixtures		45	45	12-Jul-23	01-Sep-23	-96						
ABWF-VC1640	Fabrication of Mock Up - Fitting and Fixtures	10	10	12-Jul-23	22-Jul-23	-96	0					
ABWF-VC1650	Mock Up 1st round comment by PM & review	21	21	24-Jul-23	16-Aug-23	-96	0					
ABWF-VC1660	Mock Up modification, 2nd round comment by PM & approval	14	14	17-Aug-23	01-Sep-23	-96	0					
Package 5		37	37	30-May-23	13-Jul-23	-89						
Windows / Lourves		37	37	30-May-23	13-Jul-23	-89						
ABWF-VC1800	Fabrication of Mock Up - Window / Lourves	10	10	30-May-23	09-Jun-23	-89	0					
ABWF-VC1810	Mock Up 1st round comment by PM & review	7	7	10-Jun-23	17-Jun-23	-89	0					
ABWF-VC1820	Mock Up modification, 2nd round comment by PM & approval	6	6	19-Jun-23	26-Jun-23	-89	0					
ABWF-VC1830	Material Procurement of Window / Lourves	14	14	27-Jun-23	13-Jul-23	-89	0					
Package 6		97	97	08-Jun-23	03-Oct-23	19						
Skylight		43	43	08-Jun-23	29-Jul-23	-109						
ABWF-VC1200	Fabrication of Mock Up - Skylight	10	10	08-Jun-23	19-Jun-23	-109	0					
ABWF-VC1210	Mock Up 1st round comment by PM & review	6	6	20-Jun-23	27-Jun-23	-109	0					
ABWF-VC1220	Mock Up modification, 2nd round comment by PM & approval	6	6	28-Jun-23	05-Jul-23	-109	0					
ABWF-VC1230	Material Procurement of Skylight	21	21	06-Jul-23	29-Jul-23	-109	0					
Fall Arrest System		71	71	11-Jul-23	03-Oct-23	19						
ABWF-VC1480	Fabrication of Mock Up - Fall Arrest System	10	10	11-Jul-23	21-Jul-23	19	0					
ABWF-VC1490	Mock Up 1st round comment by PM & review	21	21	22-Jul-23	15-Aug-23	19	0					
ABWF-VC1500	Mock Up modification, 2nd round comment by PM & approval	10	10	16-Aug-23	26-Aug-23	19	0					
ABWF-VC1510	Material Procurement of Fall Arrest System	30	30	28-Aug-23	03-Oct-23	19	0					
Timber Wall / Fences		62	62	26-Jun-23	06-Sep-23	-88						
ABWF-VC1040	Fabrication of Mock Up - Timber Wall	10	10	26-Jun-23	07-Jul-23	-88	0					
ABWF-VC1050	Mock Up 1st round comment by PM & review	21	21	08-Jul-23	01-Aug-23	-88	0					
ABWF-VC1060	Mock Up modification, 2nd round comment by PM & approval	10	10	02-Aug-23	12-Aug-23	-88	0					
ABWF-VC1070	Material Procurement of Timber Wall	21	21	14-Aug-23	06-Sep-23	-88	0					
Package 7		46	46	26-Jun-23	18-Aug-23	-71						
Toilet Cubicle & Shower Cubicle		46	46	26-Jun-23	18-Aug-23	-71						
ABWF-VC2040	Fabrication of Mock Up - Toilet and Shower Cubicles	12	12	26-Jun-23	10-Jul-23	-71	0					
ABWF-VC2050	Mock Up 1st round comment by PM & review	6	6	11-Jul-23	17-Jul-23	-71	0					
ABWF-VC2060	Mock Up modification, 2nd round comment by PM & approval	14	14	18-Jul-23	02-Aug-23	-71	0					
ABWF-VC2070	Material Procurement of Toilet and Shower Cubicles	14	14	03-Aug-23	18-Aug-23	-71	0					
Sewerage Pumping Station		125	125	24-Apr-23	19-Sep-23	124						
ABWF Shop Drawings Submission		100	100	24-Apr-23	21-Aug-23	50						
Recycled Composite Wood		76	76	24-Apr-23	24-Jul-23	74						
ABWF-SPS1040	Shop Drawing Submission - Recycled Composite Wood	25	25	24-Apr-23*	23-May-23	74	0					
ABWF-SPS1050	Recycled Composite Wood - 1st round comment by PM & review	30	30	24-May-23	28-Jun-23	74	0					
ABWF-SPS1060	Recycled Composite Wood - 2nd submission to PM & approval	21	21	29-Jun-23	24-Jul-23	74	0					
Window and Lourves		76	76	09-May-23	07-Aug-23	-27						
ABWF-SPS1170	Shop Drawing Submission - Window and Lourves	25	25	09-May-23*	06-Jun-23	-27	0					
ABWF-SPS1180	Shop Drawing Submission Window and Lourves - 1st round comment by PM & review	30	30	07-Jun-23	13-Jul-23	-27	0					

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								May	Jun	Jul	Aug		
ABWF	ABWF-SPS1190	Shop Drawing Submission Window and Lourves - 2nd submission to PM & approval		21	21	14-Jul-23	07-Aug-23	-27	0				
	Claddings		76	76	23-May-23	21-Aug-23	9						
	ABWF-SPS1200	Shop Drawing Submission - Claddings		25	25	23-May-23*	20-Jun-23	9	0				
	ABWF-SPS1210	Shop Drawing Submission Claddings - 1st round comment by PM & review		30	30	21-Jun-23	27-Jul-23	9	0				
	ABWF-SPS1220	Shop Drawing Submission Claddings - 2nd submission to PM & approval		21	21	28-Jul-23	21-Aug-23	9	0				
	ABWF Material Submission & Procurement		87	87	10-May-23	21-Aug-23	149						
	Recycled Composite Wood		76	76	23-May-23	21-Aug-23	50						
	ABWF-SPS1110	Material Submission - Recycled Composite Wood		25	25	23-May-23*	20-Jun-23	50	0				
	ABWF-SPS1120	Material Submission - Recycled Composite Wood - 1st round comment by PM & review		30	30	21-Jun-23	27-Jul-23	50	0				
	ABWF-SPS1130	Material Submission - Recycled Composite Wood - 2nd submission to PM & approval		21	21	28-Jul-23	21-Aug-23	50	0				
	Fences and Gates		76	76	23-May-23	21-Aug-23	88						
	ABWF-SPS1230	Material Submission - Fences and Gates		25	25	23-May-23*	20-Jun-23	88	0				
	ABWF-SPS1240	Material Submission - Fences and Gates - 1st round comment by PM & review		30	30	21-Jun-23	27-Jul-23	88	0				
	ABWF-SPS1250	Material Submission - Fences and Gates - 2nd submission to PM & approval		21	21	28-Jul-23	21-Aug-23	88	0				
	Window and Lourves		76	76	10-May-23	08-Aug-23	-28						
	ABWF-SPS1260	Material Submission - Windows and Lourves		25	25	10-May-23*	07-Jun-23	-28	0				
	ABWF-SPS1270	Material Submission - Windows and Lourves - 1st round comment by PM & review		30	30	08-Jun-23	14-Jul-23	-28	0				
	ABWF-SPS1280	Material Submission - Windows and Lourves - 2nd submission to PM & approval		21	21	15-Jul-23	08-Aug-23	-28	0				
	Claddings		76	76	23-May-23	21-Aug-23	9						
	ABWF-SPS1290	Material Submission - Claddings		25	25	23-May-23*	20-Jun-23	9	0				
	ABWF-SPS1300	Material Submission - Claddings - 1st round comment by PM & review		30	30	21-Jun-23	27-Jul-23	9	0				
	ABWF-SPS1310	Material Submission - Claddings - 2nd submission to PM & approval		21	21	28-Jul-23	21-Aug-23	9	0				
	Shutters		76	76	23-May-23	21-Aug-23	149						
	ABWF-SPS1350	Material Submission - FRR Shutters		25	25	23-May-23*	20-Jun-23	149	0				
	ABWF-SPS1360	Material Submission - FRR Shutters - 1st round comment by PM & review		30	30	21-Jun-23	27-Jul-23	149	0				
	ABWF-SPS1370	Material Submission - FRR Shutters - 2nd submission to PM & approval		21	21	28-Jul-23	21-Aug-23	149	0				
	Mock Up		36	36	09-Aug-23	19-Sep-23	50						
	Recycled Composite Wood		25	25	22-Aug-23	19-Sep-23	50						
	ABWF-SPS1070	Fabrication of Mock Up - Recycled Composite Wood		25	25	22-Aug-23	19-Sep-23	50	0				
	Window and Lourves		25	25	09-Aug-23	06-Sep-23	-28						
	ABWF-SPS1420	Fabrication of Mock Up - Window and Lourvres		25	25	09-Aug-23	06-Sep-23	-28	0				
	Claddings		25	25	22-Aug-23	19-Sep-23	9						
	ABWF-SPS1460	Fabrication of Mock Up - Claddings		25	25	22-Aug-23	19-Sep-23	9	0				
	Footbridge FK2		76	76	31-Mar-23	29-Jun-23	-144						
	ABWF Shop Drawings Submission		76	76	31-Mar-23	29-Jun-23	-144						
	Footbridge Deck Paving		62	62	31-Mar-23	12-Jun-23	-170						
	ABWF-FK2-1000	Shop Drawing Submission - Footbridge Deck Paving		20	20	31-Mar-23*	22-Apr-23	-170	0				
	ABWF-FK2-1010	Shop Drawing Submission - Footbridge Deck Paving - 1st round comment by PM & review		21	21	24-Apr-23	18-May-23	-170	0				
	ABWF-FK2-1020	Shop Drawing Submission - Footbridge Deck Paving - 2nd submission to PM & approval		21	21	19-May-23	12-Jun-23	-170	0				
	Handrail		76	76	31-Mar-23	29-Jun-23	-164						
ABWF-FK2-1060	Shop Drawing Submission - Handrail		25	25	31-Mar-23*	28-Apr-23	-164	0					
ABWF-FK2-1070	Shop Drawing Submission - Handrail - 1st round comment by PM & review		30	30	29-Apr-23	03-Jun-23	-164	0					
ABWF-FK2-1080	Shop Drawing Submission - Handrail - 2nd submission to PM & approval		21	21	05-Jun-23	29-Jun-23	-164	0					
Ramp Staircase Finishes		76	76	31-Mar-23	29-Jun-23	-144							

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23
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3 Month Rolling Programme
(May to Aug -23)

Date	Revision	Checked	Approved
31-May-23	Monthly Update Programme (May-2023)	EW	EW

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	
ABWF	ABWF-FK2-1090	Shop Drawing Submission - Ramp Staircase Finishes	25	25	31-Mar-23*	28-Apr-23	-144	0				
	ABWF-FK2-1100	Shop Drawing Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-144	0				
	ABWF-FK2-1110	Shop Drawing Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-144	0				
	ABWF Material Submission & Procurement		76	76	31-Mar-23	29-Jun-23	-144					
	Footbridge Deck Paving		76	76	31-Mar-23	29-Jun-23	-184					
	ABWF-FK2-1030	Material Submission - Footbridge Deck Paving	25	25	31-Mar-23*	28-Apr-23	-184	0				
	ABWF-FK2-1040	Material Submission - Footbridge Deck Paving - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-184	0				
	ABWF-FK2-1050	Material Submission - Footbridge Deck Paving - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-184	0				
	Handrail		76	76	31-Mar-23	29-Jun-23	-164					
	ABWF-FK2-1120	Material Submission - Handrail	25	25	31-Mar-23*	28-Apr-23	-164	0				
	ABWF-FK2-1130	Material Submission - Handrail - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-164	0				
	ABWF-FK2-1140	Material Submission - Handrail - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-164	0				
	Ramp Staircase Finishes		76	76	31-Mar-23	29-Jun-23	-144					
	ABWF-FK2-1150	Material Submission - Ramp Staircase Finishes	25	25	31-Mar-23*	28-Apr-23	-144	0				
	ABWF-FK2-1160	Material Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-144	0				
	ABWF-FK2-1170	Material Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-144	0				
	Landscape Works Submission		109	109	31-Mar-23	08-Aug-23	-76					
	Landscape Method Statement Submission		64	64	31-Mar-23	14-Jun-23	-31					
LA-SPS1090	Method Statement of Planting and Soil Mixing - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0					
LA-SPS1100	Method Statement of Planting and Soil Mixing - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0					
LA-SPS1110	Method Statement of Planting and Soil Mixing - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0					
Landscape Material Submission & Test Report		64	64	31-Mar-23	14-Jun-23	-31						
Plant Specimen & Origin		64	64	31-Mar-23	14-Jun-23	-31						
LA-SPS1000	Plant Nursery and Specimen Photos - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0					
LA-SPS1010	Plant Nursery and Specimen Photos - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0					
LA-SPS1020	Plant Nursery and Specimen Photos - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0					
Soil Mix		64	64	31-Mar-23	14-Jun-23	-31						
LA-SPS1030	Soil Mix Test Report - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0					
LA-SPS1040	Soil Mix Test Report - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0					
LA-SPS1050	Soil Mix Test Report - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0					
Soil Conditioners		64	64	31-Mar-23	14-Jun-23	-31						
LA-SPS1060	Soil Conditioners Test Report & Samples - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0					
LA-SPS1070	Soil Conditioners Test Report & Samples - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0					
LA-SPS1080	Soil Conditioners Test Report & Samples - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0					
Landscape Design Submission		109	109	31-Mar-23	08-Aug-23	-205						
LA-SPS1160	Landscape Design Submission for FK2 - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-205	0					
LA-SPS1165	Landscape Design Submission for FK2 - 1st submission to PM & review	21	21	04-May-23	27-May-23	-205	0					
LA-SPS1170	Landscape Design Submission for FK2 - 2nd submission to PM & approval	21	21	29-May-23	21-Jun-23	-166	0					
LA-SPS1180	Landscape Design Submission for FK2 - Submission to Govt Dept for approval	60	60	29-May-23	08-Aug-23	-205	0					
Works in Section 2		1421	526	10-Apr-20 A	24-Dec-24	0						
Portion 2 - Road & Drains		1326	526	03-Aug-20 A	24-Dec-24	0						
Pre-construction works		1326	526	03-Aug-20 A	24-Dec-24	0						
P2-1070	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4					
ELS		81	54	02-Feb-23 A	02-Jun-23	33						

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

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3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

Revision

Monthly Update Programme (May-2023)

Checked

EW

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID		Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
									May	Jun	Jul	Aug
Receiving shaft at FMH_KT1.32A			81	54	16-Feb-23 A	02-Jun-23	-29					
P2-7190	Set up TTA at Castle Peak Road Carriageway (westbound)	25	15	16-Feb-23 A	17-Apr-23	-29	0					
P2-7200	ELS for inspection shaft at FMH_KT1.32A	38	38	18-Apr-23	01-Jun-23	-29	6					
P2-7210	Install decking at KT1.32A	1	1	02-Jun-23	02-Jun-23	-29	0					
Combined shaft for SMH_KT6005A & FMH_KT1.33A			40	13	02-Feb-23 A	14-Apr-23	71					
P2-4005	ELS of combined pit for SMH_KT6005A & FMH_KT1.33A	38	12	02-Feb-23 A	13-Apr-23	71	6					
P2-4010	Install decking at KT1.33A & release TTA	1	1	14-Apr-23	14-Apr-23	71	0					
Combined shaft for SMH_KT6003B & FMH_KT1.27A			40	40	03-Apr-23	20-May-23	-1					
P2-8225	Site Possession (Assume 03-Apr-2023)	0	0		03-Apr-23*	-1	0					
P2-8230	Set up TTA at Castle Peak Road Carriageway	2	2	04-Apr-23	05-Apr-23	-1	0					
P2-8235	ELS of combined pit for SMH_KT6003B & FMH_KT1.27A	38	38	06-Apr-23	20-May-23	-1	0					
Combined shaft for SMH_KT6004A & FMH_KT1.29A			39	39	04-Apr-23	19-May-23	45					
P2-3000	Set up TTA at Castle Peak Road Carriageway	1	1	04-Apr-23	04-Apr-23	-1	0					
P2-3010	ELS of combined pit for SMH_KT6004A & FMH_KT1.29A	38	38	05-Apr-23	19-May-23	45	1					
Pipe Jacking			146	146	06-Apr-23	26-Sep-23	-22					
(KT1.30A to KT1.32A) (IL: 3.8-3.,6mPD) 800mm dia			59	59	03-Jun-23	12-Aug-23	-29					
P2-3170	Set up and assembly of TBM (0.8m dia.)	38	38	03-Jun-23	19-Jul-23	-29	0					
P2-3180	Pipe Jacking from FMH_KT1.30A to FMH_KT1.32A (20m, 3m/day)	7	7	20-Jul-23	27-Jul-23	-29	1					
P2-3185	Removal of TBM (0.8m dia.) from FMH_KT1.32A	14	14	28-Jul-23	12-Aug-23	-29	0					
(KT1.29A to KT1.27A) (IL: 4.1-4.6mPD) 800mm dia			38	38	14-Aug-23	26-Sep-23	-26					
P2-8205	Set up and Assembly of TBM (0.8m dia.)	38	38	14-Aug-23	26-Sep-23	-26	2					
(KT1.33A to KT1.32A) (IL: 3.6mPD) 1500mm dia			38	38	14-Aug-23	26-Sep-23	-29					
P2-4020	Set up and assembly of TBM (1.5m dia.)	38	38	14-Aug-23	26-Sep-23	-29	2					
(KT6003A to KT6003B) (IL: 6.0-5.7mPD) 2100mm dia			87	87	06-Apr-23	19-Jul-23	-1					
P2-8260	Set up and Assembly TBM (2.1m dia.) at SMH_KT6003A	38	38	06-Apr-23	20-May-23	-1	1					
P2-8265	Pipe Jacking from SMH_KT6003A to SMH_KT6003B (85m, 3m/day)	28	28	22-May-23	23-Jun-23	-1	1					
P2-8270	Removal of TBM (2.1m dia.) at SMH_KT6003B	21	21	24-Jun-23	19-Jul-23	-1	0					
(KT6004A to KT6003B) (IL: 5.3-5.7mPD) 2100mm dia			38	38	20-Jul-23	01-Sep-23	-1					
P2-8275	Set up and Assembly TBM (2.1m dia.) at SMH_KT6004A	38	38	20-Jul-23	01-Sep-23	-1	2					
Portion 3 - Road & Drains			1326	526	03-Aug-20 A	24-Dec-24	0					
Pre-construction works			1326	526	03-Aug-20 A	24-Dec-24	0					
P3-1060	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4					
Sewer Pipeline Installation (KT1.33A to KT1.41A)			169	142	14-Feb-23 A	15-Sep-23	296					
KT1.39A - KT1.40A (99m) (Pipe Jacking by CE-074)			169	142	14-Feb-23 A	15-Sep-23	296					
P3-6040	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.40A) (99m ~3m/d)	33	17	14-Feb-23 A	19-Apr-23	296	2					
P3-6050	TBM reach the sheet pile at receiving pit	1	1	20-Apr-23	20-Apr-23	296	0					
P3-6060	Pre- treatment grouting, setup the exit ring, cutting sheet pile	7	7	21-Apr-23	28-Apr-23	296	0					
P3-6070	TBM break through, setup guide rail, lifting out the TBM, jacking the remaining pipe to designated location, air test	5	5	29-Apr-23	05-May-23	296	0					
P3-6080	Demolish & removal of the slurry pipe, power cable inside the jacking pipe,	12	12	06-May-23	19-May-23	296	0					
P3-6090	Demolish the guide rail, Breaking the thrust wall at Jacking Pit	7	7	20-May-23	27-May-23	296	0					
P3-6100	Demolish and removal the hoisting frame at Jacking Pit	3	3	29-May-23	31-May-23	296	0					
P3-6105	Construction of Manhole KT1.39A	30	30	01-Jun-23	07-Jul-23	296	2					
P3-6107	Backfilling to at grade level KT1.39A	30	30	08-Jul-23	11-Aug-23	296	2					
P3-6110	Construction of Manhole KT1.40A	30	30	01-Jun-23	07-Jul-23	326	2					

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Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
P3-6120	Backfilling to at grade level KT1.40A	30	30	12-Aug-23	15-Sep-23	296	2				
KT1.36A - KT1.33A (23m) (Open Cut by CE-068)		108	108	31-Mar-23	07-Aug-23	310					
P3-5030	Sheet Pile Installation of combined shaft (KT1.33A & KT6005A)	7	7	31-Mar-23	07-Apr-23	310	2				
P3-5040	Soft Excavation to 1st strut level	3	3	08-Apr-23	11-Apr-23	310	2				
P3-5040.1	Installation of strut S1	5	5	12-Apr-23	17-Apr-23	310	2				
P3-5050	Soft Excavation to 2nd strut level	4	4	18-Apr-23	21-Apr-23	310	2				
P3-5050.1	Installation of strut S2	5	5	22-Apr-23	27-Apr-23	310	2				
P3-5070	Soft Excavation to F.L ; (approx. 8.5m depth)	6	6	28-Apr-23	05-May-23	310	2				
P3-6130	Sheet pile installation of Trench for 800 dia. and 2100 dia. pipe installation	10	10	06-May-23	17-May-23	310	2				
P3-6140	Soft Excavation to to 1st Strut Level	6	6	18-May-23	24-May-23	310	2				
P3-6150	Install 1st Level Strut	7	7	25-May-23	01-Jun-23	310	2				
P3-6160	Soft Excavation to to 2nd Strut Level	6	6	02-Jun-23	08-Jun-23	310	2				
P3-6170	Install 2nd Level Strut	7	7	09-Jun-23	16-Jun-23	310	2				
P3-6200	Excavate to FEL	6	6	17-Jun-23	24-Jun-23	310	2				
P3-6210	Bedding & 800 Dia. Concrete Pipe Laying	6	6	26-Jun-23	03-Jul-23	310	2				
P3-6220	Backfill to base level of 2100 dia pipe, bedding and pipe laying	15	15	04-Jul-23	20-Jul-23	310	2				
P3-6230	Backfill to formation and reinstatement	15	15	21-Jul-23	07-Aug-23	310	2				
Portion 4 - Road & Drains		1326	526	03-Aug-20 A	24-Dec-24	0					
Pre-construction works		1326	526	03-Aug-20 A	24-Dec-24	0					
P4-1050	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4				
Rising Main Installation by Open Cut (CHB 50 to 493 & CHB515 to 974)		572	162	27-Sep-22 A	11-Oct-23	364					
Gang 1		314	162	27-Sep-22 A	11-Oct-23	0					
Rising Main CHB255 to CHB371 (116M) Gang 1-1		225	73	27-Sep-22 A	26-Jun-23	0					
P4-3222	Bedding and Pipe Laying (Twins DN700)	126	28	27-Sep-22 A	03-May-23	0					
P4-3223	RC Works Inspection Chamber and Air Valve Chamber	126	2	27-Sep-22 A	01-Apr-23	26					
P4-3224	Backfilling of drain to at grade level	45	45	04-May-23	26-Jun-23	0					
Rising Main CHB180 to CHB255 (75M) Gang 1-2		89	89	27-Jun-23	11-Oct-23	0					
P4-6480	Sheet Pile Installation for open trench	49	49	27-Jun-23	23-Aug-23	0	3				
P4-6490	Soft Excavation to 1st strut level	57	57	27-Jul-23	03-Oct-23	0	3				
P4-6500	Installation of strut S1	58	58	01-Aug-23	09-Oct-23	0	3				
P4-6510	Soft Excavation to 2nd strut level	42	42	22-Aug-23	11-Oct-23	0	4				
Gang 2		90	29	04-Jan-23 A	04-May-23	63					
Rising Main CHB120 to CHB180 (60M) Gang 2-1		90	29	04-Jan-23 A	04-May-23	63					
P4-6065	RC Works Inspection Chamber and Air Valve Chamber	71	5	04-Jan-23 A	05-Apr-23	63					
P4-6070	Backfilling of drain to at grade level	45	5	11-Jan-23 A	05-Apr-23	63					
P4-6320	Sheet Pile Extraction	30	25	23-Feb-23 A	04-May-23	63					
Gang 3		81	14	04-Nov-22 A	15-Apr-23	231					
Rising Main CHB589 to CHB699 (88M) Gang 3-1		81	14	04-Nov-22 A	15-Apr-23	231					
P4-5665	RC Works Inspection Chamber and Air Valve Chamber	51	10	04-Nov-22 A	11-Apr-23	231					
P4-5670	Backfilling of drain to at grade level	51	14	16-Dec-22 A	15-Apr-23	231					
Gang 4		510	145	10-Dec-22 A	19-Sep-23	381					
Rising Main CHB50 to CHB120 (70M) Gang 4-1		63	2	10-Dec-22 A	01-Apr-23	-8					
P4-6145	RC Works Inspection Chamber and Air Valve Chamber	51	1	10-Dec-22 A	31-Mar-23	-8					
P4-6150	Backfilling of drain to at grade level	51	1	03-Jan-23 A	01-Apr-23	-8					

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				P
								May	Jun	Jul	Aug	
Rising Main CHB371 to CHB493 (122M) Gang 4-2		143	143	03-Apr-23	19-Sep-23	-8						
P4-6410	Sheet Pile Installation for open trench	36	36	03-Apr-23	15-May-23	-8						
P4-6420	Soft Excavation to 1st strut level	38	38	03-May-23	15-Jun-23	-8						
P4-6430	Installation of strut S1	36	36	06-May-23	16-Jun-23	-8						
P4-6440	Soft Excavation to F.L.	35	35	09-Jun-23	21-Jul-23	-8						
P4-6450	Bedding and Pipe Laying (Twins DN700)	15	15	17-Jul-23	02-Aug-23	-8						
P4-6455	RC Works Inspection Chamber and Air Valve Chamber	45	45	17-Jul-23	06-Sep-23	-8						
P4-6460	Backfilling of drain to at grade level	30	30	09-Aug-23	12-Sep-23	-8						
P4-6470	Sheet Pile Extraction	30	30	16-Aug-23	19-Sep-23	-8						
Rising Main CHB867 to CHB974 (107M) Gang 4-5		420	131	11-Feb-23 A	02-Sep-23	395						
P4-6330	Sheet Pile Installation for open trench	49	34	11-Feb-23 A	10-May-23	395						
P4-6340	Soft Excavation to 1st strut level	57	57	31-Mar-23	06-Jun-23	395						
P4-6350	Installation of strut S1	56	56	05-Apr-23	09-Jun-23	395						
P4-6360	Soft Excavation to 2nd strut level	42	42	28-Apr-23	16-Jun-23	395						
P4-6370	Installation of strut S2	44	44	11-May-23	03-Jul-23	395						
P4-6380	Soft Excavation to F.L.	39	39	20-May-23	06-Jul-23	395						
P4-6390	Bedding and Pipe Laying (Twins DN700)	20	20	24-Jun-23	18-Jul-23	395						
P4-6395	RC Works Inspection Chamber and Air Valve Chamber	45	45	24-Jun-23	16-Aug-23	403						
P4-6400	Backfilling of drain to at grade level	45	45	13-Jul-23	02-Sep-23	395						
NS 250 PE Pipe Installation (From KT6.03A to KT6.01)		86	86	15-Jul-23	26-Oct-23	4						
Sewer Pipeline FMH_KT6.03A to FMH_KT6.02A (Gang 5-1)		86	86	15-Jul-23	26-Oct-23	4						
P4-6240	Sheet Pile Installation for open trench	49	49	15-Jul-23*	09-Sep-23	4						
P4-6250	Soft Excavation to 1st strut level	57	57	14-Aug-23	20-Oct-23	4						
P4-6260	Installation of strut S1	58	58	17-Aug-23	26-Oct-23	4						
Drainage Outfall constuction by Open Cut		58	58	27-Jun-23	02-Sep-23	188						
Outfall_5105		58	58	27-Jun-23	02-Sep-23	104						
P4-OF1650	Removal of Grasscrete and concrete materials	10	10	27-Jun-23	08-Jul-23	104	0					
P4-OF1660	Excavation to formation level	3	3	10-Jul-23	12-Jul-23	104	0					
P4-OF1670	Laying of silt curtain and delivery of concrete block	5	5	13-Jul-23	18-Jul-23	104	0					
P4-OF1680	Pour Concrete Blinding	4	4	19-Jul-23	22-Jul-23	104	0					
P4-OF1690	Erect formwork for Vertical blinding for base slab shear key	5	5	27-Jul-23	01-Aug-23	104	0					
P4-OF1700	Pour Concrete shear key blinding	2	2	02-Aug-23	03-Aug-23	104	0					
P4-OF1710	Strip off formwork for shear key	1	1	04-Aug-23	04-Aug-23	104	0					
P4-OF1720	Erect formwork for Shear key	7	7	05-Aug-23	12-Aug-23	104	0					
P4-OF1730	Erect formwork for oufall base slab	1	1	14-Aug-23	14-Aug-23	104	0					
P4-OF1740	Erect formwork for oufall Wall (1st side)	3	3	15-Aug-23	17-Aug-23	104	0					
P4-OF1750	Rebar fixing for oufall base slab	2	2	18-Aug-23	19-Aug-23	104	0					
P4-OF1760	Outfall Baseslab concreting	5	5	21-Aug-23	25-Aug-23	104	0					
P4-OF1770	Dismantle Base slab Formwork	3	3	26-Aug-23	29-Aug-23	104	0					
P4-OF1780	Rebar fixing for oufall Wall	4	4	30-Aug-23	02-Sep-23	104	0					
Outfall_5104		58	58	27-Jun-23	02-Sep-23	188						
P4-OF1860	Removal of Grasscrete and concrete materials	10	10	27-Jun-23	08-Jul-23	188	0					
P4-OF1870	Excavation to formation level	3	3	10-Jul-23	12-Jul-23	188	0					
P4-OF1880	Laying of silt curtain and delivery of concrete block	5	5	13-Jul-23	18-Jul-23	188	0					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23
Project Start: 03-Feb-20
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Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

3 Month Rolling Programme
(May to Aug -23)

Date	Revision	Checked	Approved
31-May-23	Monthly Update Programme (May-2023)	EW	EW

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
P4-OF1890	Pour Concrete Blinding	4	4	19-Jul-23	22-Jul-23	188	0				
P4-OF1900	Erect formwork for Vertical blinding for base slab shear key	5	5	27-Jul-23	01-Aug-23	188	0				
P4-OF1910	Pour Concrete shear key blinding	2	2	02-Aug-23	03-Aug-23	188	0				
P4-OF1920	Strip off formwork for shear key	1	1	04-Aug-23	04-Aug-23	188	0				
P4-OF1930	Erect formwork for Shear key	7	7	05-Aug-23	12-Aug-23	188	0				
P4-OF1940	Erect formwork for oufall base slab	1	1	14-Aug-23	14-Aug-23	188	0				
P4-OF1950	Erect formwork for oufall Wall (1st side)	3	3	15-Aug-23	17-Aug-23	188	0				
P4-OF1960	Rebar fixing for oufall base slab	2	2	18-Aug-23	19-Aug-23	188	0				
P4-OF1970	Outfall Baseslab concreting	5	5	21-Aug-23	25-Aug-23	188	0				
P4-OF1980	Dismantle Base slab Formwork	3	3	26-Aug-23	29-Aug-23	188	0				
P4-OF1990	Rebar fixing for oufall Wall	4	4	30-Aug-23	02-Sep-23	188	0				
Portion 5 - Sewage Rising Main		1421	526	10-Apr-20 A	24-Dec-24	0					
Preparation Works		1421	526	10-Apr-20 A	24-Dec-24	0					
P5-5020	Relocation work of existing Board Band Cable and Street Light	109	1	02-Dec-22 A	31-Mar-23	-9	0				
P5-5030	Tree Protection and Preservation	1600	526	10-Apr-20 A	24-Dec-24	0	4				
Sewage Rising Main Installation by Open Cut (CHB1056 to CHB 1557)		232	142	10-Dec-22 A	15-Sep-23	-43					
CHB1200 - CHB1300 (100m)		108	1	10-Dec-22 A	31-Mar-23	-43					
P5-2065	RC Works Inspection Chamber and Air Valve Chamber	51	1	10-Dec-22 A	31-Mar-23	-43					
P5-2070	Backfilling to at grade level	45	1	01-Feb-23 A	31-Mar-23	-43	2				
CHB1056 - CHB1102 (46m)		95	95	01-Apr-23	24-Jul-23	-43					
P5-2300	Sheet Pile Installation for open trench	15	15	01-Apr-23	18-Apr-23	-43	2				
P5-2310	Soft Excavation to 1st strut level	15	15	05-Apr-23	21-Apr-23	-43	2				
P5-2320	Installation of strut S1	20	20	12-Apr-23	05-May-23	-43	2				
P5-2330	Soft Excavation to 2nd strut level	15	15	19-Apr-23	06-May-23	-43	2				
P5-2340	Installation of strut S2	20	20	26-Apr-23	19-May-23	-43	2				
P5-2350	Soft Excavation to F.L.	15	15	09-May-23	25-May-23	-43	2				
P5-2360	Bedding and Pipe Laying (Twins DN700)	10	10	24-May-23	03-Jun-23	-43	2				
P5-2365	RC Works Inspection Chamber and Air Valve Chamber	45	45	24-May-23	17-Jul-23	-43					
P5-2370	Backfilling to at grade level	25	25	24-Jun-23	24-Jul-23	-43	2				
CHB1102 - CHB1151 (49m)		46	46	25-Jul-23	15-Sep-23	-43					
P5-2100	Sheet Pile Installation for open trench	15	15	25-Jul-23	10-Aug-23	-43	2				
P5-2110	Soft Excavation to 1st strut level	15	15	28-Jul-23	14-Aug-23	-43	2				
P5-2120	Installation of strut S1	20	20	04-Aug-23	26-Aug-23	-43	2				
P5-2130	Soft Excavation to 2nd strut level	15	15	11-Aug-23	28-Aug-23	-43	2				
P5-2140	Installation of strut S2	20	20	18-Aug-23	09-Sep-23	-43	2				
P5-2150	Soft Excavation to F.L.	15	15	30-Aug-23	15-Sep-23	-43	2				
Sewage Rising Main Installation across Sheung Yue River by Pipejacking		253	175	24-Dec-22 A	27-Oct-23	231					
P5-3020	ELS for Launching Pit (CHB 982) (4.5m x 3.5m; 5 layers of strut)	59	15	24-Dec-22 A	17-Apr-23	68	3				
P5-3030	ELS for Receiving Pit (CHB 1046) (7m x 3.5m; 5 layers of strut)	59	1	11-Jan-23 A	18-Apr-23	68	4				
P5-3040	TBM Available for delivery to Portion 5	0	0	19-Apr-23*		68	0				
P5-3050	Set up and Assembly TBM (2.1m dia.)	36	36	19-Apr-23	31-May-23	68	2				
P5-3060	Pipe Jacking from CHB 982 to CHB 1046 (64m, 2.7m/day)	31	31	01-Jun-23	08-Jul-23	68	0				
P5-3070	Removal of TBM (2.1m dia) & Transfer to Launching Pit at Shek Sheung River	12	12	10-Jul-23	22-Jul-23	68	0				
P5-3080	Rising main pipe laying (3x80m long DN 700DI, 2.6m/day) & grouting	80	80	24-Jul-23	27-Oct-23	231	3				

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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EW

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
Portion 7 - Kwu Tung North Sewage Pumping station		1326	526	03-Aug-20 A	24-Dec-24	0					
Sewage Pumping Station		1326	526	03-Aug-20 A	24-Dec-24	0					
Site Preparation		1326	526	03-Aug-20 A	24-Dec-24	0					
P7-1040	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4				
Station Structure		159	132	25-Feb-23 A	04-Sep-23	23					
Basement to G/F Wall & G/F Slab		159	132	25-Feb-23 A	04-Sep-23	9					
+1.55mPD (1st Pour)		12	9	25-Feb-23 A	10-Apr-23	130					
P7-BF2190	Formwork and Rebar Fixing of Grid A Wall	10	8	25-Feb-23 A	08-Apr-23	130	2				
P7-BF2200	Grid A Wall Concreting (1st Pour up to +7.65mPD with Cantilever Slab)	1	1	10-Apr-23	10-Apr-23	130	2				
-2.05mPD (2nd Pour)		52	25	28-Feb-23 A	28-Apr-23	-76					
P7-BF1090	Dismantle of strut S5 & S4	14	7	28-Feb-23 A	07-Apr-23	-76	2				
P7-BF1170	Rebar fixing of basement Slab	12	12	08-Apr-23	21-Apr-23	-76	1				
P7-BF1180	Base Slab Shutters	5	5	22-Apr-23	27-Apr-23	-76	1				
P7-BF1190	Base Slab, Wall of wet well and wall Kickers for screen chamber Concreting (-2.05mPD to -0.5mPD)	1	1	28-Apr-23	28-Apr-23	-76	1				
+1.55mPD (2nd Pour)		43	43	29-Apr-23	19-Jun-23	-76					
P7-BF2000	Dismantling base slab formwork and soil backfill to -0.5mPD with testing	10	10	29-Apr-23	11-May-23	-76	2				
P7-BF2010	Dismantle of strut S3 at -0.5mPD	7	7	12-May-23	19-May-23	-76	2				
P7-BF2060	Remove Intermediate Sheet Pile separating Portion 1,2 & 3	14	14	20-May-23	05-Jun-23	-76	2				
P7-BF2070	Construct Remaining Portion of +1.55mPD B/F Slab (137m3)	12	12	06-Jun-23	19-Jun-23	-76	2				
+7.50mPD (G/F Slab)		64	64	20-Jun-23	04-Sep-23	9					
Bay 1		47	47	20-Jun-23	15-Aug-23	24					
P7-BF1401	Backfill & Dismantle of strut S2 at +2.2mPD	14	14	20-Jun-23	07-Jul-23	-76	2				
P7-BF1403	Wall Extend to +4.5mPD along Grid A & B	7	7	08-Jul-23	15-Jul-23	-76	3				
P7-BF1405	Backfill to +4.5mPD	7	7	17-Jul-23	24-Jul-23	24	5				
P7-BF1409	Dismantle of Strut S1 at +4.5mPD	7	7	25-Jul-23	01-Aug-23	24	3				
P7-BF2150	Wall & Slab Construction (along Grid B up to +7.65mPD)	12	12	02-Aug-23	15-Aug-23	24	5				
Bay 2		60	60	20-Jun-23	30-Aug-23	-29					
P7-BF1423	Backfill & Dismantle of strut S2 at +2.2mPD	14	14	20-Jun-23	07-Jul-23	-76	2				
P7-BF1425	Wall Extend to +4.5mPD along Grid B & C	10	10	08-Jul-23	19-Jul-23	-76	3				
P7-BF1437	Backfill to +4.5mPD	7	7	20-Jul-23	27-Jul-23	-29	5				
P7-BF1439	Dismantle of Strut S1 at +4.5mPD	7	7	28-Jul-23	04-Aug-23	-29	3				
P7-BF2160	Ground Beam & Slab Construction (along Grid B to D)	22	22	05-Aug-23	30-Aug-23	-29	5				
Bay 3		60	60	20-Jun-23	30-Aug-23	13					
P7-BF1433	Dismantle of strut S2 at +2.2mPD	14	14	20-Jun-23	07-Jul-23	-76	2				
P7-BF1435	Wall Extend to +4.5mPD along Grid D & F	10	10	08-Jul-23	19-Jul-23	-76	3				
P7-BF1440	Backfill to +4.5mPD	7	7	20-Jul-23	27-Jul-23	-76	5				
P7-BF1447	Dismantle of Strut S1 at +4.5mPD	7	7	28-Jul-23	04-Aug-23	-76	3				
P7-BF2170	Wall & Slab Construction (along Grid D to E)	22	22	05-Aug-23	30-Aug-23	13	5				
Bay 4		26	26	05-Aug-23	04-Sep-23	-76					
P7-BF1445	Soil backfill to +5.35mPD with testing	7	7	05-Aug-23	12-Aug-23	-76	2				
P7-BF1465	Grout Breaking of Socket H Piles (8nos)	4	4	14-Aug-23	17-Aug-23	-76	2				
P7-BF1475	Low Level Pile Head treatment and Capping Plate Installation	3	3	18-Aug-23	21-Aug-23	-76	2				
P7-BF1525	Rebar fixing of basement Slab	12	12	22-Aug-23	04-Sep-23	-76	1				
Roof Slab		16	16	16-Aug-23	02-Sep-23	24					

Primary Baseline

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Remaining Work

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Non-Critical Mil...

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3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

Revision

Monthly Update Programme (May-2023)

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EW

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
Bay 1		16	16	16-Aug-23	02-Sep-23	24					
P7-RF1000	Erection of falsework and working platform for G/F to R/F wall	6	6	16-Aug-23	22-Aug-23	24	1				
P7-RF1010	Erection of One Side Formwork for G/F to R/F Wall	5	5	23-Aug-23	28-Aug-23	24	1				
P7-RF1020	Rebar Fixing for G/F to R/F Wall	5	5	29-Aug-23	02-Sep-23	24	1				
Retaining Wall & U trough		35	35	05-Aug-23	14-Sep-23	-14					
P7-RW1209	Construction of U Trough RC Structure wall (KW08 Type B)(Wall Founding level +5.6mPD)	35	35	05-Aug-23	14-Sep-23	-14	3				
External Works		93	93	12-May-23	30-Aug-23	191					
Drainage and Site Formation		93	93	12-May-23	30-Aug-23	191					
Sewerage pipe KT1.47A to KT1.48A		16	16	12-May-23	30-May-23	268					
P7-1333	Open Trench formation for sewerage pipe KT1.47A to KT1.48A (12m long, -1.96mPD)	10	10	12-May-23	23-May-23	268	2				
P7-1336	Sewerage Pipe laying KT1.47 A to KT1.48A (12m) (DN1050)	6	6	24-May-23	30-May-23	268	3				
Rising main CHB0.0 to CHB50		30	30	19-Jul-23	22-Aug-23	163					
P7-1350	Open Trench formation for rising main CHB0.0 to CHB50 (50m long 4m Depth, 1.6-2mPD)	25	25	19-Jul-23	16-Aug-23	163	2				
P7-1360	Rising main laying (50m) (Twins DN700)	15	15	05-Aug-23	22-Aug-23	163	3				
DN1050 Overflow Pipe		15	15	14-Aug-23	30-Aug-23	154					
P7-1375	Open Trench formation for DN1050 Overflow Pipe(24m long +5.3mPD)	15	15	14-Aug-23	30-Aug-23	154	2				
Works in Section 3		1326	526	03-Aug-20 A	24-Dec-24	-259					
Portion 8 - Roads & Drains		1326	526	03-Aug-20 A	24-Dec-24	-259					
Pre-construction works		1326	526	03-Aug-20 A	24-Dec-24	-549					
P8-1055	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	-549	4				
Cycle Track and Footpath Diversion (For KT1.41A to KT1.47A Construction)		61	45	28-Feb-23 A	23-May-23	-285					
P8-5850	North Bridge Ramp Landing Completion	0	0		10-May-23	-274					
P8-5900	Cycle Track Shifting to the top of North Bridge Ramp (After North Bridge Ramp Completion)	60	45	28-Feb-23 A	23-May-23	-285					
Sewer Pipeline Installation		253	148	23-Nov-22 A	22-Sep-23	119					
KT1.40A - KT1.43.7 (50m)		69	18	23-Nov-22 A	20-Apr-23	-71					
P8-5205	Construction of Manhole KT1.43.7	21	7	23-Nov-22 A	07-Apr-23	-71					
P8-5210	Backfilling of drain to at grade level with dismantling strut	23	12	15-Dec-22 A	13-Apr-23	-71					
P8-5220	Extraction of sheet pile and reinstatement	45	18	28-Dec-22 A	20-Apr-23	-71					
KT1.43.7 - KT1.41A (60m)		178	83	05-Dec-22 A	08-Jul-23	184					
P8-9090	Sheet Pile Installation for open trench (Open Trench from 1.43.7 to 1.41A)	26	12	05-Dec-22 A	14-Apr-23	-95					
P8-9100	Soft Excavation to 1st strut level	25	19	17-Dec-22 A	22-Apr-23	184					
P8-9110	Installation of strut S1	26	26	21-Dec-22 A	29-Apr-23	184					
P8-9120	Soft Excavation to 2nd strut level	33	28	30-Jan-23 A	03-May-23	184					
P8-9130	Installation of strut S2	26	35	15-Feb-23 A	11-May-23	184					
P8-9140	Soft Excavation to F.L.	24	24	31-Mar-23	27-Apr-23	184					
P8-9150	Bedding & Pipe Laying (800 Concrete Pipe)	10	10	26-Apr-23	08-May-23	184					
P8-9155	Construction of Manhole KT1.41A	21	21	09-May-23	01-Jun-23	184	2				
P8-9160	Backfilling of drain to at grade level & Sheet Pile Extraction	30	30	02-Jun-23	08-Jul-23	184					
KT1.41A - KT1.47A (100m) (Open Cut by CE-076)		103	103	24-May-23	22-Sep-23	-285					
P8-6000	Sheet Pile Installation for open trench (after Completion of Temp. Cycle Track and Footpath)	49	49	24-May-23	21-Jul-23	-285					
P8-6010	Soft Excavation to 1st strut level	57	57	23-Jun-23	29-Aug-23	-285					
P8-6020	Installation of strut S1	58	58	27-Jun-23	02-Sep-23	-285					
P8-6030	Soft Excavation to 2nd strut level	42	42	19-Jul-23	05-Sep-23	-285					
P8-6040	Installation of strut S2	44	44	31-Jul-23	19-Sep-23	-285					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				P
								May	Jun	Jul	Aug	
P8-6050	Soft Excavation to F.L.	39	39	09-Aug-23	22-Sep-23	-285						
Drainage Outfall constuction by Open Cut		90	63	21-Feb-23 A	13-Jun-23	-116						
Outfall 5100A		69	42	21-Feb-23 A	19-May-23	-95						
P8-OF3731	Sheet Pile Installation from Outfall 5100A to SMH_KTCP5100A	20	7	21-Feb-23 A	07-Apr-23	-95	0					
P8-OF3741	ELS of open trench from Outfall 5100A to SMH_KTCP5100A	15	15	31-Mar-23	17-Apr-23	-95	0					
P8-OF3751	Drain Laying from Outfall 5100A to SMH_KTCP5100A	6	6	18-Apr-23	24-Apr-23	-95	0					
P8-OF3756	Remove remining side sheet pile & rock fill	5	5	25-Apr-23	29-Apr-23	-95	0					
P8-OF3761	Backfilling to at grade level	16	16	02-May-23	19-May-23	-95	1					
P8-OF3766	Report Completion of Drainage works	0	0		19-May-23	-95	0					
Outfall 5101		90	63	21-Feb-23 A	13-Jun-23	-116						
P8-OF3996	Rebar fixing for oufall base slab	9	2	21-Feb-23 A	01-Apr-23	-185	0					
P8-OF4006	Outfall Baseslab concreting	1	1	03-Apr-23	03-Apr-23	-185	0					
P8-OF4016	Dismantle Base slab Formwork	2	2	04-Apr-23	05-Apr-23	-185	0					
P8-OF4026	Rebar fixing for oufall Wall	1	1	06-Apr-23	06-Apr-23	-185	0					
P8-OF4036	Erect formwork for oufall Wall (2nd side)	5	5	07-Apr-23	12-Apr-23	-185	0					
P8-OF4046	Outfall Wall concreting	4	4	13-Apr-23	17-Apr-23	-185	0					
P8-OF4056	Dismantle Wall Formwork	3	3	18-Apr-23	20-Apr-23	-185	0					
P8-OF4066	Sheet Pile Installation from Outfall 5101A to SMH_KT5101A	6	6	21-Apr-23	27-Apr-23	-116	0					
P8-OF4076	ELS of open trench from Outfall 5101A to SMH_KT5101A	8	8	04-May-23	12-May-23	-116	0					
P8-OF4086	Drain Laying from Outfall 5101A to SMH_KT5101A	6	6	13-May-23	19-May-23	-116	0					
P8-OF4096	Remove remining side sheet pile & rock fill	5	5	20-May-23	25-May-23	-116	0					
P8-OF4106	Backfilling to at grade level	16	16	26-May-23	13-Jun-23	-116	1					
P8-OF4116	Report Completion of Drainage works	0	0		13-Jun-23	-116	0					
NS 250 PE Pipe Installation (From KT1.47A to KT6.03A)		88	88	03-Jul-23	14-Oct-23	-283						
P8-6900	Sheet Pile Installation for open trench	49	49	03-Jul-23*	28-Aug-23	-363						
P8-7000	Soft Excavation to 1st strut level	57	57	01-Aug-23	07-Oct-23	-363						
P8-7010	Installation of strut S1	58	58	04-Aug-23	12-Oct-23	-283						
P8-7020	Soft Excavation to 2nd strut level	42	42	25-Aug-23	14-Oct-23	-283						
Portion 9 - Footbridge		163	136	22-Feb-23 A	08-Sep-23	-184						
Footbridge Construction		163	136	22-Feb-23 A	08-Sep-23	-184						
Middle Bridge Deck		126	99	22-Feb-23 A	27-Jul-23	-195						
P9-1590	Erection of middle truss for Middle Deck construction	18	4	22-Feb-23 A	04-Apr-23	-226	5					
P9-1710	Soffit Formwork Erection	9	9	05-Apr-23	14-Apr-23	-226	2					
P9-1720	Rebar Fixing for Middle Deck (1st Pour)	16	16	15-Apr-23	04-May-23	-226	2					
P9-1730	Internal Formwork Erection for Middle Deck (1st Pour)	7	7	05-May-23	12-May-23	-226	3					
P9-1745	Concreting for Middle Deck (1st Pour)	1	1	13-May-23	13-May-23	-226	0					
P9-1746	Internal Formwork Erection for Middle Deck (2nd Pour)	16	16	15-May-23	01-Jun-23	-226	2					
P9-1747	Rebar Fixing for Middle Deck (2nd Pour)	7	7	02-Jun-23	09-Jun-23	-226	3					
P9-1748	Concreting for Middle Deck (2nd Pour)	1	1	10-Jun-23	10-Jun-23	-226	0					
P9-1750	Curing & Remove all temporary works	24	24	12-Jun-23	11-Jul-23	-226	3					
P9-1760	Backfilling the cofferdam & Remove sheet pile	14	14	12-Jul-23	27-Jul-23	-195	2					
Remaining Footbridge Works		163	136	23-Feb-23 A	08-Sep-23	-184						
Northern Footway Ramp / Staircase		61	34	23-Feb-23 A	10-May-23	-274						
P9-NR1010	RC Works for Lower Portion of ramp foundation	8	2	23-Feb-23 A	01-Apr-23	-274	5					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	P
P9-NR1020	Formwork dismantle and backfill to finishing ground level	5	5	03-Apr-23	07-Apr-23	-274	5					
P9-NR1030	RC Works for Upper portion of ramp wall, staircase and parapet and Lower ground level U Channel	7	7	08-Apr-23	15-Apr-23	-274	5					
P9-NR1040	Placing drainage materials and Compacted Fill to the void of ramp	6	6	17-Apr-23	22-Apr-23	-274	5					
P9-NR1050	Construction of Upper level U Channel	4	4	24-Apr-23	27-Apr-23	-274	5					
P9-NR1060	Laying concrete pavement layer and finishing layer	6	6	28-Apr-23	05-May-23	-274	5	<div></div>				
P9-NR1070	Installation of steel Railing	6	6	28-Apr-23	05-May-23	-274	5	<div></div>				
P9-NR1080	Installation of Gabion Wall	4	4	06-May-23	10-May-23	-274	5	<div></div>				
Southern Footway Ramp / Staircase		44	44	31-Mar-23	22-May-23	-140						
P9-SR1000	Excavate to formation level +5.2mPD	4	4	31-Mar-23	04-Apr-23	-140	5					
P9-SR1010	RC Works for Lower Portion of ramp foundation	8	8	05-Apr-23	13-Apr-23	-140	5					
P9-SR1020	Formwork dismantle and backfill to finishing ground level	5	5	14-Apr-23	19-Apr-23	-140	5					
P9-SR1030	RC Works for Upper portion of ramp wall, staircase and parapet and Lower ground level U Channel	7	7	20-Apr-23	27-Apr-23	-140	5					
P9-SR1040	Placing drainage materials and Compacted Fill to the void of ramp	6	6	28-Apr-23	05-May-23	-140	5	<div></div>				
P9-SR1050	Construction of Upper level U Channel	4	4	06-May-23	10-May-23	-140	5	<div></div>				
P9-SR1060	Laying concrete pavement layer and finishing layer	6	6	11-May-23	17-May-23	-140	5	<div></div>	<div></div>			
P9-SR1070	Installation of steel Railing	6	6	11-May-23	17-May-23	-140	5	<div></div>	<div></div>			
P9-SR1080	Installation of Gabion Wall	4	4	18-May-23	22-May-23	-140	5		<div></div>			
ABWF Works		60	60	30-Jun-23	08-Sep-23	-184						
P9-1613	Laying of footbridge deck pavings	20	20	30-Jun-23	24-Jul-23	-184	2			<div></div>		
P9-1621	Metal Parapet and Handrail Installation	20	20	25-Jul-23	16-Aug-23	-184	2				<div></div>	
P9-1631	Laying of staircase finishes	20	20	17-Aug-23	08-Sep-23	-184	2				<div></div>	
BS Works		45	45	12-Jul-23	01-Sep-23	-226						
P9-1595	Bridge Pillar Box Installation	15	15	12-Jul-23	28-Jul-23	-226	3			<div></div>		
P9-1601	Bridge Cable Laying for Lamp Post	15	15	29-Jul-23	15-Aug-23	-226	3				<div></div>	
P9-1602	Bridge Lamp Post Installation	15	15	16-Aug-23	01-Sep-23	-226	3				<div></div>	
P9-1603	South Bridge Drainage works	35	35	24-Jul-23	01-Sep-23	-226	2				<div></div>	
Works in Section 4		1605	635	03-Aug-20 A	24-Dec-24	0						
Portion 10 - Visitor Centre		1605	635	03-Aug-20 A	24-Dec-24	0						
Pre-construction works		1326	526	03-Aug-20 A	24-Dec-24	0						
P10-1040	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4	<div></div>				
Visitor Centre		281	208	17-Jan-23 A	24-Oct-23	-53						
Superstructure		139	79	17-Jan-23 A	04-Jul-23	-95						
Ground Floor to Roof Floor		139	79	17-Jan-23 A	04-Jul-23	-95						
B/F to G/F Wall and G/F Slab		55	55	28-Apr-23	04-Jul-23	-95						
Bay 4 (On Grade Slab) (Toilet)		45	45	11-May-23	04-Jul-23	-95						
P10-2110.112	Dismantle falseworks from G/F to 1/F	6	6	11-May-23	17-May-23	-85	2	<div></div>				
P10-2110.143	Laying Underground Drainage and testing	20	20	30-May-23	21-Jun-23	-95	1		<div></div>			
P10-2110.153	Backfilling of Drainages	1	1	23-Jun-23	23-Jun-23	-95	1			<div></div>		
P10-2110.173	Rebar fixing of on grade Slab	5	5	24-Jun-23	29-Jun-23	-95	1			<div></div>		
P10-2110.183	Base Slab formwork shutters	2	2	30-Jun-23	03-Jul-23	-95	1			<div></div>		
P10-2110.193	G/F On Grade Slab Concreting	1	1	04-Jul-23	04-Jul-23	-95	1			<div></div>		
Bay 5 (On Grade Slab) (Tx Room)		38	38	28-Apr-23	12-Jun-23	-86						
P10-2110.203	Dismantle falseworks from G/F to 1/F	6	6	28-Apr-23	05-May-23	-95	2	<div></div>				
P10-2110.223	Laying Underground Drainage and testing	20	20	06-May-23	29-May-23	-95	2	<div></div>				

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Critical Remaining Work

Baseline Milestone

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								May	Jun	Jul	Aug
P10-2110.233	Backfilling of Drainages	1	1	30-May-23	30-May-23	-86	1				
P10-2110.243	Rebar fixing of on grade Slab	5	5	03-Jun-23	08-Jun-23	-86	1				
P10-2110.253	Base Slab formwork shutters	2	2	09-Jun-23	10-Jun-23	-86	1				
P10-2110.263	G/F On Grade Slab Concreting	1	1	12-Jun-23	12-Jun-23	-86	1				
G/F to 1/F Wall and 1/F Slab		74	14	17-Jan-23 A	15-Apr-23	-105					
Bay 1		69	9	17-Jan-23 A	10-Apr-23	-113					
P10-2640	Rebar Fixing for G/F to 1/F Wall	3	0	17-Jan-23 A	31-Mar-23	-113	1				
P10-2670	Erection of Formwork for 1/F Slab	3	3	31-Mar-23	03-Apr-23	-113	1				
P10-2680	Rebar Fixing for 1/F Slab	3	3	04-Apr-23	06-Apr-23	-113	1				
P10-2690	1/F Slab Shutters	2	2	07-Apr-23	08-Apr-23	-113	1				
P10-2700	1/F Slab Concreting	1	1	10-Apr-23	10-Apr-23	-113	1				
Bay 2		12	12	31-Mar-23	13-Apr-23	-116					
P10-2760	Erection of Formwork for 1/F Slab	4	4	31-Mar-23	04-Apr-23	-116	1				
P10-2770	Rebar Fixing for 1/F Slab	4	4	05-Apr-23	08-Apr-23	-116	1				
P10-2780	1/F Slab Shutters	3	3	10-Apr-23	12-Apr-23	-116	1				
P10-2790	1/F Slab Concreting	1	1	13-Apr-23	13-Apr-23	-116	1				
Bay 3		41	14	24-Feb-23 A	15-Apr-23	-105					
P10-2835	G/F to 1/F Wall & Columns Concreting	7	4	24-Feb-23 A	04-Apr-23	-101	1				
P10-2840	Erection of falsework and working platform for 1/F Slab	4	4	31-Mar-23	04-Apr-23	-105	1				
P10-2850	Erection of Formwork for 1/F Slab	4	4	05-Apr-23	08-Apr-23	-105	1				
P10-2860	Rebar Fixing for 1/F Slab	3	3	10-Apr-23	12-Apr-23	-105	1				
P10-2870	1/F Slab Shutters	2	2	13-Apr-23	14-Apr-23	-105	1				
P10-2880	1/F Slab Concreting	1	1	15-Apr-23	15-Apr-23	-105	1				
1/F to +12.850mPD wall and +12.850mPD slab		24	24	11-Apr-23	09-May-23	-116					
Bay 1		19	19	11-Apr-23	03-May-23	-113					
P10-3250	Erection of props for dwarf wall	3	3	11-Apr-23	13-Apr-23	-113	1				
P10-3260	Erection of One Side Formwork for dwarf wall	2	2	14-Apr-23	15-Apr-23	-113	1				
P10-3270	Rebar Fixing for dwarf wall	2	2	17-Apr-23	18-Apr-23	-113	1				
P10-3280	Erection of remaining side formwork for dwarf wall	2	2	19-Apr-23	20-Apr-23	-113	1				
P10-3290	Concreting of drawf wall	1	1	21-Apr-23	21-Apr-23	-113	1				
P10-3300	Dismantling formwork of drawf wall	3	3	22-Apr-23	25-Apr-23	-113	1				
P10-3310	Erection of formwork for double slab	2	2	26-Apr-23	27-Apr-23	-113	1				
P10-3320	Double slab Rebar fixing	2	2	28-Apr-23	29-Apr-23	-113	1				
P10-3330	Double Slab Shutters	1	1	02-May-23	02-May-23	-113	1				
P10-3340	Double Slab Concreting	1	1	03-May-23	03-May-23	-113	1				
Bay 2		21	21	14-Apr-23	09-May-23	-116					
P10-3350	Erection of props for dwarf wall	3	3	14-Apr-23	17-Apr-23	-116	1				
P10-3360	Erection of One Side Formwork for dwarf wall	2	2	18-Apr-23	19-Apr-23	-116	1				
P10-3370	Rebar Fixing for dwarf wall	2	2	20-Apr-23	21-Apr-23	-116	1				
P10-3380	Erection of remaining side formwork for dwarf wall	2	2	22-Apr-23	24-Apr-23	-116	1				
P10-3390	Concreting of drawf wall	1	1	25-Apr-23	25-Apr-23	-116	1				
P10-3400	Dismantling formwork of drawf wall	3	3	26-Apr-23	28-Apr-23	-116	1				
P10-3410	Erection of formwork for double slab	3	3	29-Apr-23	03-May-23	-116	1				
P10-3420	Double slab Rebar fixing	3	3	04-May-23	06-May-23	-116	1				

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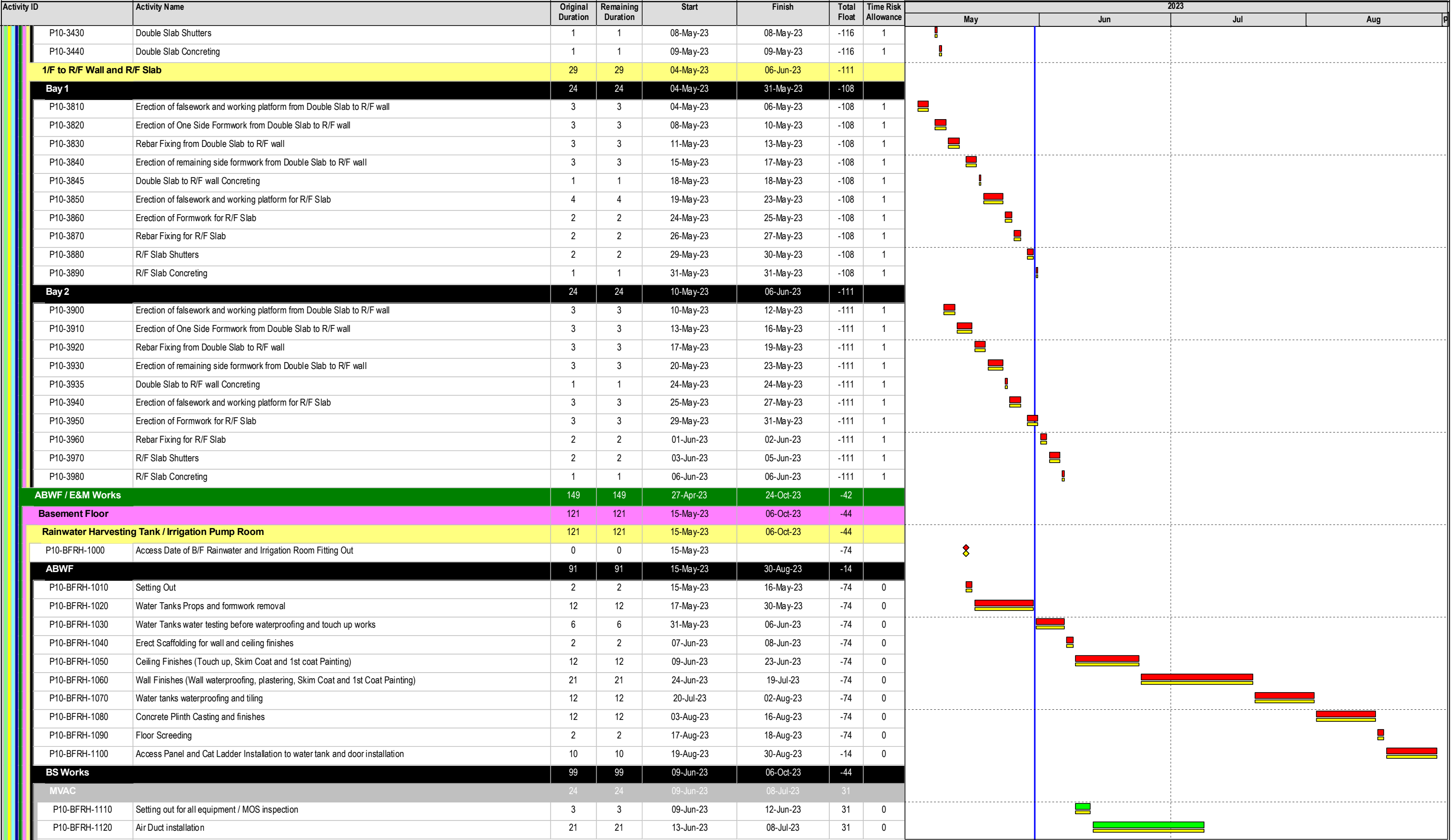
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ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui



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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	
P10-BFRH-1130	PD	75	75	09-Jun-23	06-Sep-23	-70						
	P10-BFRH-1130	setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-70	0				
	P10-BFRH-1140	Installation of inertia block, FRP water tank, pressure pipe	30	30	21-Jun-23	27-Jul-23	-70	0				
	P10-BFRH-1150	Installation of pipework, pumps, LMCP and accessories	35	35	28-Jul-23	06-Sep-23	-70	0				
	EL	99	99	09-Jun-23	06-Oct-23	-74						
	P10-BFRH-1160	Setting out for all equipment / MOS inspection	2	2	09-Jun-23	10-Jun-23	-52	0				
	P10-BFRH-1170	Installation of cable containments	15	15	12-Jun-23	29-Jun-23	-52	0				
	P10-BFRH-1180	Cable wiring	20	20	30-Jun-23	24-Jul-23	-52	0				
	P10-BFRH-1190	Installation of Lighting fitting and small power provision	40	40	19-Aug-23	06-Oct-23	-74	0				
	Sprinkler & FS Pump Room		97	97	15-May-23	06-Sep-23	-66					
	P10-BFFS-1000	Access Date of B/F Sprinkler and FS Pump Room Fitting Out	0	0	15-May-23		-66					
	ABWF	84	84	15-May-23	22-Aug-23	-53						
	P10-BFFS-1100	Water Tanks Props and formwork removal	2	2	15-May-23	16-May-23	-66	0				
	P10-BFFS-1110	Setting Out	12	12	17-May-23	30-May-23	-66	0				
	P10-BFFS-1120	Water Tanks water testing before waterproofing and touch up works	6	6	31-May-23	06-Jun-23	-66	0				
	P10-BFFS-1130	Erect Scaffolding for wall and ceiling finishes	2	2	07-Jun-23	08-Jun-23	-66	0				
	P10-BFFS-1140	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	09-Jun-23	23-Jun-23	-57	0				
	P10-BFFS-1150	Wall Finishes (Wall waterproofing, plastering, Skim Coat and 1st Coat Painting)	14	14	24-Jun-23	11-Jul-23	-57	0				
	P10-BFFS-1160	Water tanks waterproofing and tiling	12	12	12-Jul-23	25-Jul-23	-57	0				
	P10-BFFS-1170	Concrete Plinth Casting and finishes	12	12	26-Jul-23	08-Aug-23	-57	0				
P10-BFFS-1180	Floor Screeding	2	2	09-Aug-23	10-Aug-23	-57	0					
P10-BFFS-1200	Access Panel and Cat Ladder Installation to water tank and door installation	10	10	11-Aug-23	22-Aug-23	-53	0					
BS Works		88	88	25-May-23	06-Sep-23	-66						
MVAC		62	62	09-Jun-23	22-Aug-23	-53						
P10-BFFS-1010	Setting out for all equipment / MOS inspection	3	3	09-Jun-23	12-Jun-23	-12	0					
P10-BFFS-1020	Air Duct installation	18	18	02-Aug-23	22-Aug-23	-53	0					
PD		75	75	09-Jun-23	06-Sep-23	-66						
P10-BFFS-1030	Setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-66	0					
P10-BFFS-1040	Installation of inertia block, FRP water tank, pressure	30	30	21-Jun-23	27-Jul-23	-66	0					
P10-BFFS-1050	Installation of pipework, pumps, LMCP and accessories	35	35	28-Jul-23	06-Sep-23	-66	0					
EL		70	70	09-Jun-23	31-Aug-23	-61						
P10-BFFS-1060	Setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-61	0					
P10-BFFS-1070	Installation of cable containment	5	5	21-Jun-23	27-Jun-23	-61	0					
P10-BFFS-1080	Cable wiring	20	20	28-Jun-23	21-Jul-23	-61	0					
P10-BFFS-1090	Installation of Lighting fitting and small power provision	35	35	22-Jul-23	31-Aug-23	-61	0					
FS		15	15	25-May-23	10-Jun-23	-7						
P10-BFFS-1190	FS 1st Fixing	15	15	25-May-23	10-Jun-23	-7	0					
Ground Floor		149	149	27-Apr-23	24-Oct-23	-42						
Generator Room		94	94	20-May-23	08-Sep-23	-63						
P10-GFGS1000	Access Date of G/F Generator Room Fitting Out	0	0	20-May-23		-78						
ABWF		64	64	20-May-23	04-Aug-23	-78						
P10-GFGS1010	Setting Out	2	2	20-May-23	22-May-23	-78	0					
P10-GFGS1020	Erect Scaffolding for wall and ceiling finishes	2	2	23-May-23	24-May-23	-78	0					
P10-GFGS1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	25-May-23	07-Jun-23	-78	0					

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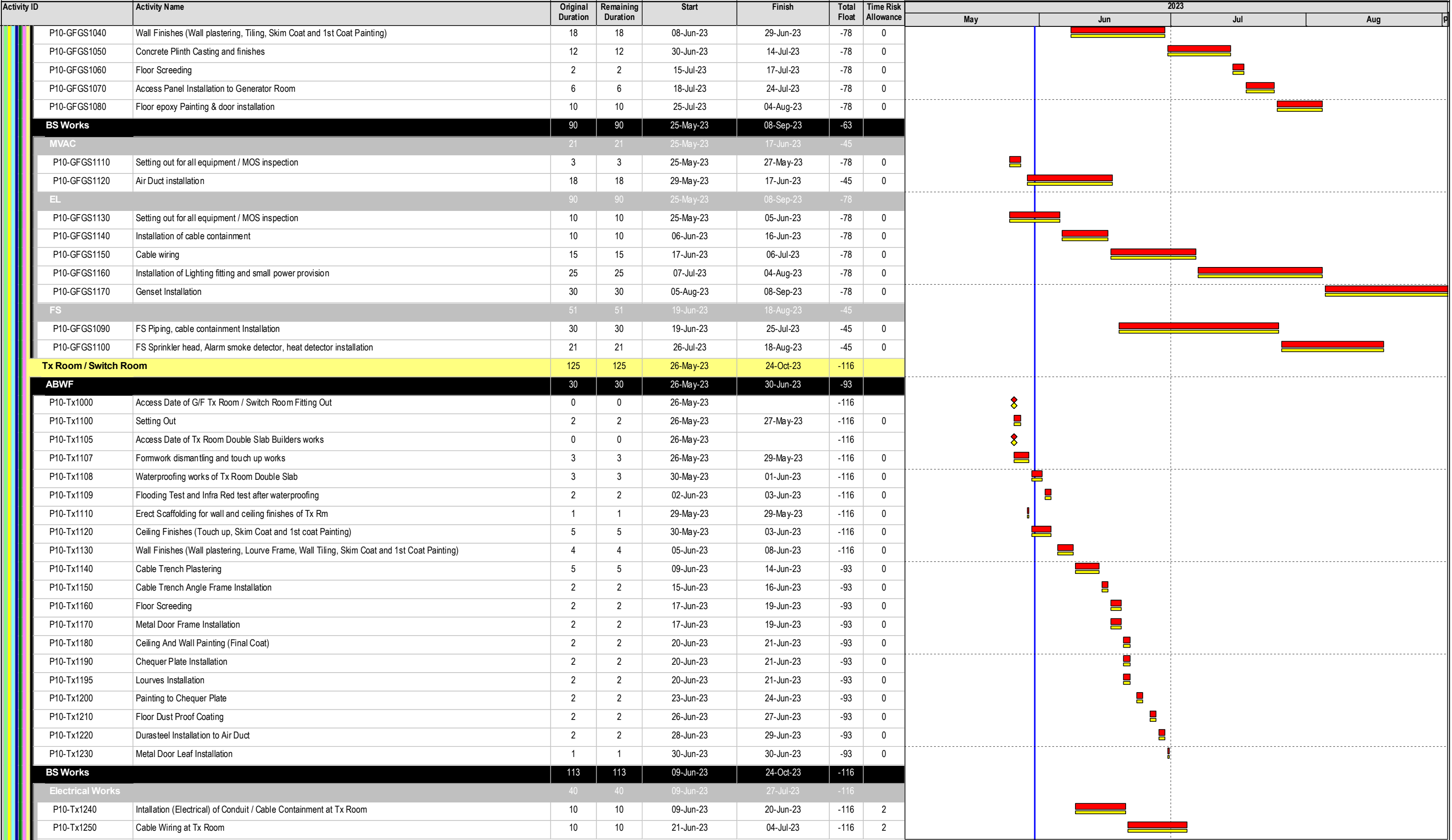
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	P
P10-Tx1260	Installation of Light Fitting at Tx Room	4	4	05-Jul-23	08-Jul-23	-116	2					
P10-Tx1270	Delivery of Cable Tray	1	1	10-Jul-23	10-Jul-23	-116	2					
P10-Tx1530	Installation of Cable Tray over ceiling	4	4	11-Jul-23	14-Jul-23	-116	2					
P10-Tx1540	Intallation (Electrical) of Conduit at Switch Room	4	4	15-Jul-23	19-Jul-23	-116	2					
P10-Tx1550	Cable Wiring at Switch Room	3	3	15-Jul-23	18-Jul-23	-112	2					
P10-Tx1560	Installation of Light Fitting at Switch Room	3	3	15-Jul-23	18-Jul-23	-112	2					
P10-Tx1570	FAT of Switchboard	1	1	19-Jul-23	19-Jul-23	-112	2					
P10-Tx1580	Delivery and assembly of Switchboard at Switch Room	1	1	20-Jul-23	20-Jul-23	-112	2					
P10-Tx1590	SAT of Switchboard	1	1	21-Jul-23	21-Jul-23	-112	2					
P10-Tx1600	Installation of MCB Board	4	4	15-Jul-23	19-Jul-23	-116	2					
P10-Tx1610	Installation of Earthing System at Tx Room and Switch Room	3	3	15-Jul-23	18-Jul-23	-116	2					
P10-Tx1620	System T&C (Electrical Works)	3	3	19-Jul-23	21-Jul-23	-116	2					
P10-Tx1630	Installation of Lighting conductors	3	3	19-Jul-23	21-Jul-23	-116	2					
P10-Tx1640	Installation of Lightning Pits	2	2	22-Jul-23	24-Jul-23	-116	2					
P10-Tx1650	Installation of Earthing Pits	2	2	25-Jul-23	26-Jul-23	-116	2					
P10-Tx1660	Earthing and Lightning T&C	1	1	27-Jul-23	27-Jul-23	-116	2					
MVAC Works		15	15	09-Jun-23	27-Jun-23	-91						
P10-Tx1680	Intallation (MVAC) of Conduit at Tx Room	2	2	09-Jun-23	10-Jun-23	-91	2					
P10-Tx1690	Cable Wiring & Cable Containment (MVAC) of Conduit at Tx Room	2	2	12-Jun-23	13-Jun-23	-91	2					
P10-Tx1700	Installation of Fan and Air Duct at Tx Room	3	3	14-Jun-23	16-Jun-23	-91	2					
P10-Tx1710	Installation of Fan Controller at Tx Room	2	2	17-Jun-23	19-Jun-23	-91	2					
P10-Tx1720	Installation of Fan and Air Duct at Switchroom	2	2	20-Jun-23	21-Jun-23	-91	2					
P10-Tx1730	Installation of LMCP at Switchroom	2	2	23-Jun-23	24-Jun-23	-91	2					
P10-Tx1740	System T&C (MVAC Works)	2	2	26-Jun-23	27-Jun-23	-91	2					
FS Works		13	13	09-Jun-23	24-Jun-23	-89						
P10-Tx1770	Intallation (FS) of Conduit at Tx Room	2	2	09-Jun-23	10-Jun-23	-89	2					
P10-Tx1780	Cable Wiring (FS) of Conduit at Tx Room	2	2	12-Jun-23	13-Jun-23	-89	2					
P10-Tx1790	Installation of Heat Detector at Tx Room	2	2	14-Jun-23	15-Jun-23	-89	2					
P10-Tx1800	Installation of (FS) Conduit at Switchroom	2	2	16-Jun-23	17-Jun-23	-89	2					
P10-Tx1810	Cable Wiring (FS) of Conduit at Switchroom	2	2	19-Jun-23	20-Jun-23	-89	2					
P10-Tx1820	Installation of Heat Detector at Switchroom	1	1	21-Jun-23	21-Jun-23	-89	2					
P10-Tx1830	Installation of AFA panel and audio / visual alarm equipment	1	1	23-Jun-23	23-Jun-23	-89	2					
P10-Tx1840	System T&C (FS Works)	1	1	24-Jun-23	24-Jun-23	-89	2					
CLP works & Statutory Inspection		73	73	28-Jul-23	24-Oct-23	-116						
P10-Tx1850	Submit WR1	1	1	28-Jul-23	28-Jul-23	-116	2					
P10-Tx2000	1st CLP Inspection of Tx Room	1	1	01-Aug-23	01-Aug-23	-116	2					
P10-Tx2010	1st Defect Rectification	4	4	02-Aug-23	05-Aug-23	-116	2					
P10-Tx2020	2nd CLP Inspection of Tx Room	1	1	07-Aug-23	07-Aug-23	-116	2					
P10-Tx2030	2nd Defect Rectification	3	3	08-Aug-23	10-Aug-23	-116	2					
P10-Tx2040	Handover Inspection with CLP	1	1	11-Aug-23	11-Aug-23	-116	2					
P10-Tx2050	CLP Installation Works	60	60	12-Aug-23	24-Oct-23	-116	2					
FS Control Room		94	94	26-May-23	14-Sep-23	-109						
P10-GFFS 1020	Access Date of G/F FS control Room Fitting Out	0	0	26-May-23		-109						
ABWF		40	40	26-May-23	13-Jul-23	-96						

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

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(May to Aug -23)

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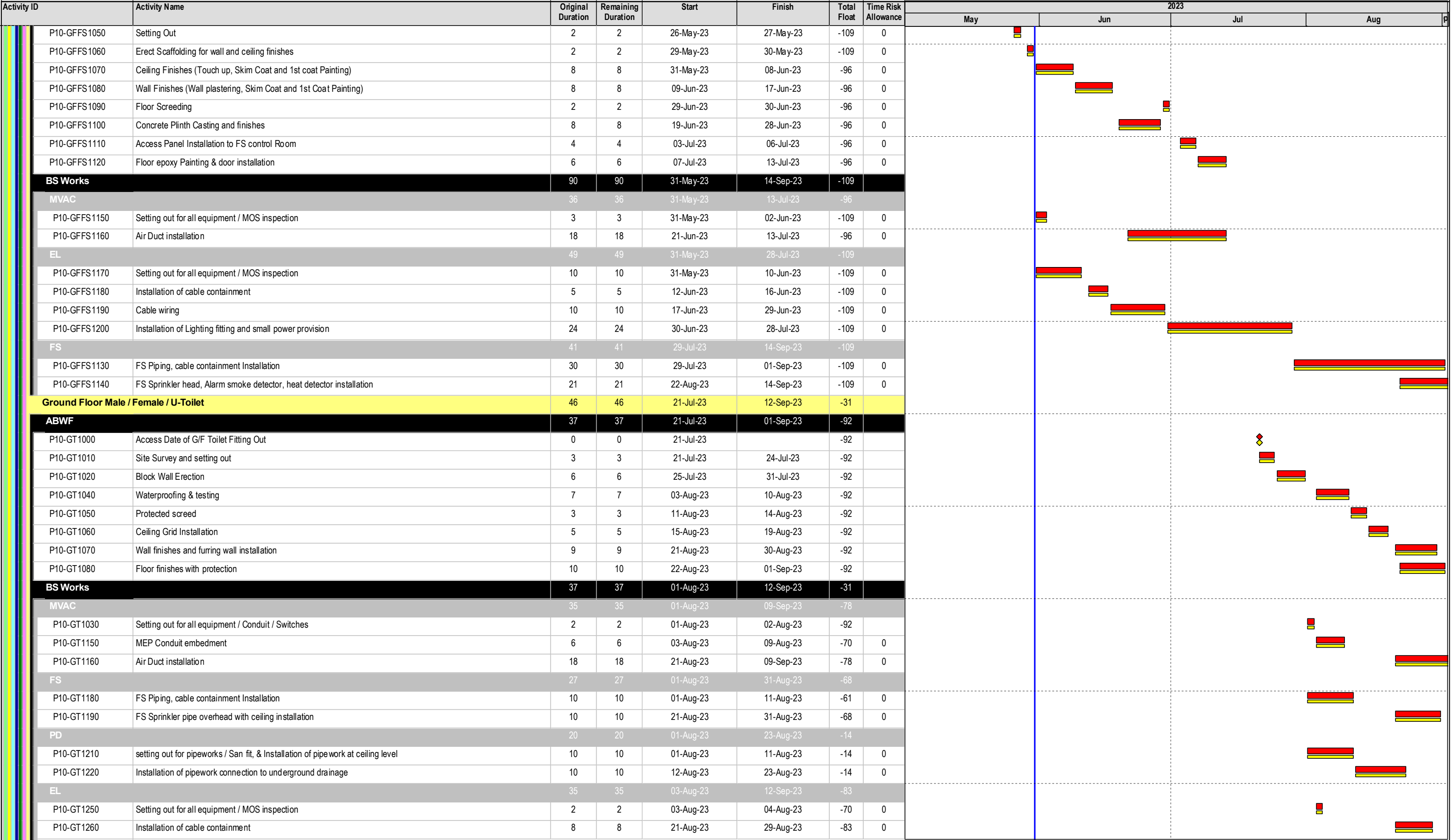
Checked

EW

Approved

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui



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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	P
P10-GT1270	Cable wiring	12	12	30-Aug-23	12-Sep-23	-83	0					
BOH		124	124	27-Apr-23	21-Sep-23	-17						
Material Recovery		104	104	08-May-23	07-Sep-23	-5						
ABWF		42	42	08-May-23	26-Jun-23	-51						
P10-GF-MR1000	Setting Out	2	2	08-May-23	09-May-23	-58	0					
P10-GF-MR1010	Erect Scaffolding for wall and ceiling finishes	2	2	10-May-23	11-May-23	-58	0					
P10-GF-MR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	12-May-23	25-May-23	-58	0					
P10-GF-MR1030	Wall Finishes (Wall plastering, tiling)	12	12	26-May-23	08-Jun-23	-58	0					
P10-GF-MR1040	Floor Screeding	2	2	09-Jun-23	10-Jun-23	-51	0					
P10-GF-MR1050	Floor quarry Tiles & door installation	12	12	12-Jun-23	26-Jun-23	-51	0					
BS Works		76	76	09-Jun-23	07-Sep-23	-5						
MVAC		21	21	09-Jun-23	05-Jul-23	-58						
P10-GF-MR1080	Setting out for all equipment / MOS inspection	3	3	09-Jun-23	12-Jun-23	-58	0					
P10-GF-MR1090	Air Duct installation	18	18	13-Jun-23	05-Jul-23	-58	0					
EL		49	49	09-Jun-23	07-Aug-23	-40						
P10-GF-MR1100	Setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-40	0					
P10-GF-MR1110	Installation of cable containment	5	5	21-Jun-23	27-Jun-23	-40	0					
P10-GF-MR1120	Cable wiring	10	10	28-Jun-23	10-Jul-23	-40	0					
P10-GF-MR1130	Installation of Lighting fitting and small power provision	24	24	11-Jul-23	07-Aug-23	-40	0					
FS		51	51	06-Jul-23	02-Sep-23	-58						
P10-GF-MR1060	FS Piping, cable containment Installation	30	30	06-Jul-23	09-Aug-23	-58	0					
P10-GF-MR1070	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	10-Aug-23	02-Sep-23	-58	0					
PD		25	25	10-Aug-23	07-Sep-23	-5						
P10-GF-MR1140	Water piping works Installation	15	15	10-Aug-23	26-Aug-23	-5	0					
P10-GF-MR1150	Surface Channel formation	10	10	28-Aug-23	07-Sep-23	-5	0					
Security Control Room		107	107	27-Apr-23	01-Sep-23	-78						
P10-GFSC1190	Access Date of G/F security control Room Fitting Out	0	0	27-Apr-23		-78						
ABWF		48	48	27-Apr-23	23-Jun-23	-61						
P10-GFSC1030	Setting Out	2	2	27-Apr-23	28-Apr-23	-78	0					
P10-GFSC1040	Erect Scaffolding for wall and ceiling finishes	2	2	29-Apr-23	02-May-23	-78	0					
P10-GFSC1050	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	9	03-May-23	12-May-23	-78	0					
P10-GFSC1060	Wall plastering	9	9	13-May-23	23-May-23	-78	0					
P10-GFSC1070	Floor Screeding	2	2	31-May-23	01-Jun-23	-61	0					
P10-GFSC1090	Wall Skim Coat and 1st Coat Painting	6	6	02-Jun-23	08-Jun-23	-61	0					
P10-GFSC1100	Floor epoxy Painting & door installation	6	6	16-Jun-23	23-Jun-23	-61	0					
BS Works		85	85	24-May-23	01-Sep-23	-78						
MVAC		26	26	24-May-23	23-Jun-23	-61						
P10-GFSC1130	Setting out for all equipment / MOS inspection	3	3	24-May-23	26-May-23	-78	0					
P10-GFSC1140	Air Duct installation	18	18	02-Jun-23	23-Jun-23	-61	0					
EL		43	43	24-May-23	14-Jul-23	-78						
P10-GFSC1150	Setting out for all equipment / MOS inspection	10	10	24-May-23	03-Jun-23	-78	0					
P10-GFSC1160	Installation of cable containment	5	5	05-Jun-23	09-Jun-23	-78	0					
P10-GFSC1170	Cable wiring	10	10	10-Jun-23	21-Jun-23	-78	0					
P10-GFSC1180	Installation of Lighting fitting and small power provision	18	18	23-Jun-23	14-Jul-23	-78	0					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	
P10-GF	FS	42	42	15-Jul-23	01-Sep-23	-78						
	P10-GFSC1110	FS Piping, cable containment Installation	21	21	15-Jul-23	08-Aug-23	-78	0				
	P10-GFSC1120	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	09-Aug-23	01-Sep-23	-78	0				
	Main Distribution Frame Room		100	100	02-May-23	28-Aug-23	-53					
	ABWF		46	46	02-May-23	24-Jun-23	-50					
	P10-GF-MDF1000	Setting Out	2	2	02-May-23	03-May-23	-53	0				
	P10-GF-MDF1010	Erect Scaffolding for wall and ceiling finishes	2	2	04-May-23	05-May-23	-53	0				
	P10-GF-MDF1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	06-May-23	19-May-23	-53	0				
	P10-GF-MDF1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	20-May-23	02-Jun-23	-53	0				
	P10-GF-MDF1040	Floor Screeding	2	2	03-Jun-23	05-Jun-23	-50	0				
	P10-GF-MDF1050	Floor epoxy Painting	10	10	13-Jun-23	24-Jun-23	-50	0				
	BS Works		72	72	03-Jun-23	28-Aug-23	-53					
	MVAC		21	21	03-Jun-23	28-Jun-23	-53					
	P10-GF-MDF1080	Setting out for all equipment / MOS inspection	3	3	03-Jun-23	06-Jun-23	-53	0				
	P10-GF-MDF1090	Air Duct installation	18	18	07-Jun-23	28-Jun-23	-53	0				
	EL		49	49	03-Jun-23	01-Aug-23	-35					
	P10-GF-MDF1100	Setting out for all equipment / MOS inspection	10	10	03-Jun-23	14-Jun-23	-35	0				
	P10-GF-MDF1110	Installation of cable containment	5	5	15-Jun-23	20-Jun-23	-35	0				
	P10-GF-MDF1120	Cable wiring	10	10	21-Jun-23	04-Jul-23	-35	0				
	P10-GF-MDF1130	Installation of Lighting fitting and small power provision	24	24	05-Jul-23	01-Aug-23	-35	0				
	FS		51	51	29-Jun-23	28-Aug-23	-53					
	P10-GF-MDF1060	FS Piping, cable containment Installation	30	30	29-Jun-23	03-Aug-23	-53	0				
	P10-GF-MDF1070	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	04-Aug-23	28-Aug-23	-53	0				
	Water Meter Cabinet		65	65	02-May-23	18-Jul-23	29					
ABWF		40	40	02-May-23	16-Jun-23	29						
P10-GF-WMC1000	Setting Out	2	2	02-May-23	03-May-23	29	0					
P10-GF-WMC1010	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	04-May-23	17-May-23	29	0					
P10-GF-WMC1020	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	18-May-23	31-May-23	29	0					
P10-GF-WMC1030	Floor Screeding	2	2	01-Jun-23	02-Jun-23	29	0					
P10-GF-WMC1040	Double Leaf Door Installation to water meter cabinet	6	6	03-Jun-23	09-Jun-23	29	0					
P10-GF-WMC1050	Floor epoxy Painting & door installation	6	6	10-Jun-23	16-Jun-23	29	0					
BS Works		25	25	17-Jun-23	18-Jul-23	29						
PD		25	25	17-Jun-23	18-Jul-23	29						
P10-GF-WMC1060	Water piping works Installation	15	15	17-Jun-23	06-Jul-23	29	0					
P10-GF-WMC1070	Water Meter Installation	10	10	07-Jul-23	18-Jul-23	29	0					
Equipment Room		100	100	26-May-23	21-Sep-23	-74						
ABWF		42	42	26-May-23	15-Jul-23	-67						
P10-GFER1000	Setting Out	2	2	26-May-23	27-May-23	-74	0					
P10-GFER1010	Erect Scaffolding for wall and ceiling finishes	2	2	29-May-23	30-May-23	-74	0					
P10-GFER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	31-May-23	13-Jun-23	-74	0					
P10-GFER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jun-23	28-Jun-23	-74	0					
P10-GFER1040	Floor Screeding	2	2	29-Jun-23	30-Jun-23	-67	0					
P10-GFER1050	Access Panel Installation	6	6	03-Jul-23	08-Jul-23	-67	0					
P10-GFER1060	Floor epoxy Painting & door installation	6	6	10-Jul-23	15-Jul-23	-67	0					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
BS Works		72	72	29-Jun-23	21-Sep-23	-74					
MVAC		21	21	29-Jun-23	24-Jul-23	-74					
P10-GFER1090	Setting out for all equipment / MOS inspection	3	3	29-Jun-23	03-Jul-23	-74	0				
P10-GFER1100	Air Duct installation	18	18	04-Jul-23	24-Jul-23	-74	0				
EL		49	49	29-Jun-23	25-Aug-23	-56					
P10-GFER1110	Setting out for all equipment / MOS inspection	10	10	29-Jun-23	11-Jul-23	-56	0				
P10-GFER1120	Installation of cable containment	5	5	12-Jul-23	17-Jul-23	-56	0				
P10-GFER1130	Cable wiring	10	10	18-Jul-23	28-Jul-23	-56	0				
P10-GFER1140	Installation of Lighting fitting and small power provision	24	24	29-Jul-23	25-Aug-23	-56	0				
FS		51	51	25-Jul-23	21-Sep-23	-74					
P10-GFER1070	FS Piping, cable containment Installation	30	30	25-Jul-23	28-Aug-23	-74	0				
P10-GFER1080	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	29-Aug-23	21-Sep-23	-74	0				
Cleaners Store		42	42	21-Jul-23	07-Sep-23	-58					
ABWF		36	36	21-Jul-23	31-Aug-23	-52					
P10-GFCS1000	Setting Out	2	2	21-Jul-23	22-Jul-23	-86	0				
P10-GFCS1010	Erect Scaffolding for wall and ceiling finishes	1	1	24-Jul-23	24-Jul-23	-86	0				
P10-GFCS1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	9	25-Jul-23	03-Aug-23	-86	0				
P10-GFCS1030	Floor Waterproofing, testing and Protective Screeding	12	12	04-Aug-23	17-Aug-23	-52	0				
P10-GFCS1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	18-Aug-23	31-Aug-23	-52	0				
BS Works		30	30	04-Aug-23	07-Sep-23	-81					
MVAC		15	15	04-Aug-23	21-Aug-23	-81					
P10-GFCS1100	Setting out for all equipment / MOS inspection	3	3	04-Aug-23	07-Aug-23	-86	0				
P10-GFCS1110	Air Duct installation	12	12	08-Aug-23	21-Aug-23	-81	0				
EL		25	25	04-Aug-23	01-Sep-23	-86					
P10-GFCS1120	Setting out for all equipment / MOS inspection	10	10	04-Aug-23	15-Aug-23	-86	0				
P10-GFCS1130	Installation of cable containment	5	5	16-Aug-23	21-Aug-23	-86	0				
P10-GFCS1140	Cable wiring	10	10	22-Aug-23	01-Sep-23	-86	0				
FS		15	15	22-Aug-23	07-Sep-23	-81					
P10-GFCS1080	FS Piping, cable containment Installation	15	15	22-Aug-23	07-Sep-23	-81	0				
PD		15	15	22-Aug-23	07-Sep-23	-81					
P10-GFCS1160	Water piping works Installation	15	15	22-Aug-23	07-Sep-23	-81	0				
Maintenance Corridor		38	38	21-Jul-23	02-Sep-23	-95					
ABWF		38	38	21-Jul-23	02-Sep-23	-95					
P10-GF-MC1020	Setting Out	2	2	21-Jul-23	22-Jul-23	-95	0				
P10-GF-MC1030	Erect Scaffolding for wall and ceiling finishes	2	2	24-Jul-23	25-Jul-23	-95	0				
P10-GF-MC1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	26-Jul-23	08-Aug-23	-95	0				
P10-GF-MC1050	Floor Waterproofing, testing and Protective Screeding	12	12	09-Aug-23	22-Aug-23	-95	0				
P10-GF-MC1060	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	10	10	23-Aug-23	02-Sep-23	-95	0				
Staircase		63	63	17-Jun-23	31-Aug-23	1					
ST-02		51	51	17-Jun-23	17-Aug-23	13					
ABWF		51	51	17-Jun-23	17-Aug-23	-17					
P10-GF-ST2-1020	Setting Out	2	2	17-Jun-23	19-Jun-23	-82	0				
P10-GF-ST2-1030	Erect Scaffolding for wall and ceiling finishes	2	2	20-Jun-23	21-Jun-23	-82	0				
P10-GF-ST2-1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	23-Jun-23	07-Jul-23	-82	0				

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Remaining Work

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Baseline Milestone

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								May	Jun	Jul	Aug	
P10-GF-ST2-1050	P10-GF-ST2-1050	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	08-Jul-23	21-Jul-23	-82	0			<div><div></div></div>	
	P10-GF-ST2-1055	Dismantle Scaffolding	1	1	22-Jul-23	22-Jul-23	-82	0			<div><div></div></div>	
	P10-GF-ST2-1060	Staircase Screeding	2	2	24-Jul-23	25-Jul-23	-82	0			<div><div></div></div>	
	P10-GF-ST2-1070	Staircase Tiling / Tactile Installation	8	8	26-Jul-23	03-Aug-23	-17	0			<div><div></div></div>	
	P10-GF-ST2-1080	Staircase Handrail installation	6	6	04-Aug-23	10-Aug-23	-17	0			<div><div></div></div>	
	P10-GF-ST2-1090	Staircase Wall Painting	6	6	11-Aug-23	17-Aug-23	-17	0			<div><div></div></div>	
	BS Works		16	16	08-Jul-23	26-Jul-23	32					
	PD		16	16	08-Jul-23	26-Jul-23	32					
	P10-GF-ST2-1000	Water piping works Installation	10	10	08-Jul-23	19-Jul-23	-23	0			<div><div></div></div>	
	P10-GF-ST2-1010	Floor Drain Installation	6	6	20-Jul-23	26-Jul-23	32	0			<div><div></div></div>	
	FS		14	14	08-Jul-23	24-Jul-23	-23					
	P10-GF-ST2-1100	FS Piping, cable containment Installation	6	6	08-Jul-23	14-Jul-23	-23	0			<div><div></div></div>	
	P10-GF-ST2-1110	FS Sprinkler head, Alarm smoke detector, heat detector installation	8	8	15-Jul-23	24-Jul-23	-23	0			<div><div></div></div>	
	ST-03		32	32	26-Jul-23	31-Aug-23	1					
	ABWF		31	31	26-Jul-23	30-Aug-23	-82					
	P10-GF-ST3-1000	Setting Out	2	2	26-Jul-23	27-Jul-23	-82	0			<div><div></div></div>	
	P10-GF-ST3-1010	Erect Scaffolding for wall and ceiling finishes	2	2	28-Jul-23	29-Jul-23	-82	0			<div><div></div></div>	
	P10-GF-ST3-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	31-Jul-23	12-Aug-23	-82	0			<div><div></div></div>	
	P10-GF-ST3-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Aug-23	26-Aug-23	-82	0			<div><div></div></div>	
	P10-GF-ST3-1035	Dismantle Scaffolding	1	1	28-Aug-23	28-Aug-23	-82	0			<div><div></div></div>	
	P10-GF-ST3-1040	Staircase Screeding	2	2	29-Aug-23	30-Aug-23	-82	0			<div><div></div></div>	
	BS Works		16	16	14-Aug-23	31-Aug-23	1					
	PD		16	16	14-Aug-23	31-Aug-23	1					
	P10-GF-ST3-1100	Water piping works Installation	10	10	14-Aug-23	24-Aug-23	-54	0			<div><div></div></div>	
	P10-GF-ST3-1110	Floor Drain Installation	6	6	25-Aug-23	31-Aug-23	1	0			<div><div></div></div>	
FS		14	14	14-Aug-23	29-Aug-23	-54						
P10-GF-ST3-1080	FS Piping, cable containment Installation	6	6	14-Aug-23	19-Aug-23	-54	0			<div><div></div></div>		
P10-GF-ST3-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	8	8	21-Aug-23	29-Aug-23	-54	0			<div><div></div></div>		
External wall and External Area		66	66	30-Jun-23	15-Sep-23	-79						
ABWF		66	66	30-Jun-23	15-Sep-23	-79						
P10-GF-EXT1000	Erection of external scaffolding	25	25	30-Jun-23	29-Jul-23	-86	3			<div><div></div></div>		
P10-GF-EXT1010	Waterproofing & Window / Louve Glazing Works	28	28	14-Jul-23	15-Aug-23	-89	6			<div><div></div></div>		
P10-GF-EXT1020	Aluminium Baffle Ceiling Grid Installation	28	28	03-Aug-23	04-Sep-23	-95	6			<div><div></div></div>		
P10-GF-EXT1030	Wooden Fence Installation	40	40	01-Aug-23	15-Sep-23	-79	6			<div><div></div></div>		
1st Floor		82	82	17-Jun-23	22-Sep-23	-18						
Zone 1		76	76	17-Jun-23	15-Sep-23	-69						
Multi Purpose Room 1 & 2		76	76	17-Jun-23	15-Sep-23	-69						
P10-1FMP-1000	Access Date of 1/FMulti Purpose Room (1&2) Fitting Out	0	0	17-Jun-23		-69		<div><div></div></div>				
ABWF		54	54	17-Jun-23	21-Aug-23	-69						
P10-1F-MP1010	Setting Out	2	2	17-Jun-23	19-Jun-23	-69	0	<div><div></div></div>				
P10-1F-MP1020	Erect Scaffolding for wall and ceiling finishes	2	2	20-Jun-23	21-Jun-23	-69	0	<div><div></div></div>				
P10-1F-MP1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	23-Jun-23	07-Jul-23	-69	0		<div><div></div></div>			
P10-1F-MP1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	08-Jul-23	21-Jul-23	-69	0		<div><div></div></div>			
P10-1F-MP1050	Floor Screeding	2	2	05-Aug-23	07-Aug-23	-69	0			<div><div></div></div>		

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023			
								May	Jun	Jul	Aug
P10-1F-MP1060	Timber Flooring	12	12	22-Jul-23	04-Aug-23	-69	0				
P10-1F-MP1070	Ceiling Grid Installation	6	6	08-Aug-23	14-Aug-23	-69	0				
P10-1F-MP1080	Plastic Laminate / Glass Partition Wall Installation	6	6	15-Aug-23	21-Aug-23	-69	0				
BS Works		60	60	08-Jul-23	15-Sep-23	-69					
MVAC		38	38	08-Jul-23	21-Aug-23	-69					
P10-1F-MP1110	Setting out for all equipment / MOS inspection	3	3	08-Jul-23	11-Jul-23	-63	0				
P10-1F-MP1120	Air Duct installation	18	18	01-Aug-23	21-Aug-23	-69	0				
EL		49	49	08-Jul-23	02-Sep-23	-63					
P10-1F-MP1130	Setting out for all equipment / MOS inspection	10	10	08-Jul-23	19-Jul-23	-63	0				
P10-1F-MP1140	Installation of cable containment	5	5	20-Jul-23	25-Jul-23	-63	0				
P10-1F-MP1150	Cable wiring	10	10	26-Jul-23	05-Aug-23	-63	0				
P10-1F-MP1160	Installation of Lighting fitting and small power provision	24	24	07-Aug-23	02-Sep-23	-63	0				
FS		40	40	01-Aug-23	15-Sep-23	-69					
P10-1F-MP1090	FS Piping, cable containment Installation	20	20	01-Aug-23	23-Aug-23	-69	0				
P10-1F-MP1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	24-Aug-23	15-Sep-23	-69	0				
Storage Room		65	65	17-Jun-23	02-Sep-23	-78					
P10-1F-SR0900	Access Date of 1/FStorage Room Fitting Out	0	0	17-Jun-23		-87					
ABWF		54	54	17-Jun-23	21-Aug-23	-69					
P10-1F-SR1000	Setting Out	2	2	17-Jun-23	19-Jun-23	-87	0				
P10-1F-SR1010	Erect Scaffolding for wall and ceiling finishes	2	2	20-Jun-23	21-Jun-23	-87	0				
P10-1F-SR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	23-Jun-23	07-Jul-23	-87	0				
P10-1F-SR1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	08-Jul-23	21-Jul-23	-87	0				
P10-1F-SR1040	Floor Screeding	2	2	05-Aug-23	07-Aug-23	-69	0				
P10-1F-SR1050	Timber Flooring	12	12	22-Jul-23	04-Aug-23	-87	0				
P10-1F-SR1060	Ceiling Grid Installation	6	6	08-Aug-23	14-Aug-23	-69	0				
P10-1F-SR1070	Plastic Laminate Installation	6	6	15-Aug-23	21-Aug-23	-69	0				
BS Works		25	25	05-Aug-23	02-Sep-23	-78					
MVAC		21	21	05-Aug-23	29-Aug-23	-76					
P10-1F-SR1100	Setting out for all equipment / MOS inspection	3	3	05-Aug-23	08-Aug-23	-87	0				
P10-1F-SR1110	Air Duct installation	18	18	09-Aug-23	29-Aug-23	-76	0				
EL		25	25	05-Aug-23	02-Sep-23	-87					
P10-1F-SR1120	Setting out for all equipment / MOS inspection	10	10	05-Aug-23	16-Aug-23	-87	0				
P10-1F-SR1130	Installation of cable containment	5	5	17-Aug-23	22-Aug-23	-87	0				
P10-1F-SR1140	Cable wiring	10	10	23-Aug-23	02-Sep-23	-87	0				
FS		20	20	09-Aug-23	31-Aug-23	-76					
P10-1F-SR1080	FS Piping, cable containment Installation	20	20	09-Aug-23	31-Aug-23	-76	0				
Zone 2		77	77	24-Jun-23	22-Sep-23	-18					
Workshop		77	77	24-Jun-23	22-Sep-23	-76					
P10-1F-WS1000	Access Date of 1/F Workshop & Printer Room Fitting Out	0	0	24-Jun-23		-80					
ABWF		42	42	24-Jun-23	12-Aug-23	-63					
P10-1F-WS1010	Setting Out	2	2	24-Jun-23	26-Jun-23	-80	0				
P10-1F-WS1020	Erect Scaffolding for wall and ceiling finishes	2	2	27-Jun-23	28-Jun-23	-80	0				
P10-1F-WS1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	29-Jun-23	13-Jul-23	-80	0				
P10-1F-WS1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jul-23	27-Jul-23	-80	0				

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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								May	Jun	Jul	Aug	P
P10-1F-WS1050	Floor Screeding	2	2	28-Jul-23	29-Jul-23	-63	0					
P10-1F-WS1070	Ceiling Grid Installation	6	6	31-Jul-23	05-Aug-23	-63	0					
P10-1F-WS1080	Plastic Laminate Installation	6	6	07-Aug-23	12-Aug-23	-63	0					
BS Works		49	49	28-Jul-23	22-Sep-23	-76						
MVAC		21	21	28-Jul-23	21-Aug-23	-70						
P10-1F-WS1110	Setting out for all equipment / MOS inspection	3	3	28-Jul-23	31-Jul-23	-80	0					
P10-1F-WS1120	Air Duct installation	18	18	01-Aug-23	21-Aug-23	-70	0					
EL		49	49	28-Jul-23	22-Sep-23	-80						
P10-1F-WS1130	Setting out for all equipment / MOS inspection	10	10	28-Jul-23	08-Aug-23	-80	0					
P10-1F-WS1140	Installation of cable containment	5	5	09-Aug-23	14-Aug-23	-80	0					
P10-1F-WS1150	Cable wiring	10	10	15-Aug-23	25-Aug-23	-80	0					
P10-1F-WS1160	Installation of Lighting fitting and small power provision	24	24	26-Aug-23	22-Sep-23	-80	0					
FS		40	40	01-Aug-23	15-Sep-23	-70						
P10-1F-WS1090	FS Piping, cable containment Installation	20	20	01-Aug-23	23-Aug-23	-70	0					
P10-1F-WS1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	24-Aug-23	15-Sep-23	-70	0					
Pantry		53	53	24-Jun-23	25-Aug-23	-51						
P10-PTRY-1000	Access Date of Pantry Fitting Out	0	0	24-Jun-23		-51						
P10-PTRY-1010	Site Survey and setting out	2	2	24-Jun-23	26-Jun-23	-51						
P10-PTRY-1020	Block Wall Erection	7	7	27-Jun-23	05-Jul-23	-51						
P10-PTRY-1030	MEP Conduit embedment	5	5	06-Jul-23	11-Jul-23	-51						
P10-PTRY-1040	Waterproofing & testing	7	7	12-Jul-23	19-Jul-23	-51						
P10-PTRY-1050	Protected screed	3	3	20-Jul-23	22-Jul-23	-51						
P10-PTRY-1060	Ceiling finishes	6	6	24-Jul-23	29-Jul-23	-51						
P10-PTRY-1070	Floor finishes	10	10	31-Jul-23	10-Aug-23	-51						
P10-PTRY-1080	Wall finishes	10	10	01-Aug-23	11-Aug-23	-51						
P10-PTRY-1090	Cabinet installation	3	3	12-Aug-23	15-Aug-23	-49						
P10-PTRY-1100	Door installation	3	3	12-Aug-23	15-Aug-23	-49						
P10-PTRY-1110	Vanity Counter Installation	6	6	12-Aug-23	18-Aug-23	-51						
P10-PTRY-1120	Sanitary fitting installation	10	10	14-Aug-23	24-Aug-23	-51						
P10-PTRY-1130	Signage, false ceiling panels, Lighting and air grille installation	6	6	16-Aug-23	22-Aug-23	-49						
P10-PTRY-1140	Inspection, T&C, cleaning	1	1	25-Aug-23	25-Aug-23	-51						
Female Toilets / Disabled Toilet / Male Toilet / Baby Care Room		73	73	24-Jun-23	18-Sep-23	-46						
ABWF		66	66	24-Jun-23	11-Sep-23	-90						
P10-1T1000	Access Date of Toilet Fitting Out	0	0	24-Jun-23		-65						
P10-1T1010	Site Survey and setting out	2	2	24-Jun-23	26-Jun-23	-65						
P10-1T1020	Block Wall Erection	7	7	27-Jun-23	05-Jul-23	-65						
P10-1T1030	MEP Conduit embedment	5	5	06-Jul-23	11-Jul-23	-65						
P10-1T1040	Waterproofing & testing	7	7	12-Jul-23	19-Jul-23	-65						
P10-1T1050	Protected screed	3	3	20-Jul-23	22-Jul-23	-65						
P10-1T1060	Ceiling Grid Installation	6	6	22-Aug-23	28-Aug-23	-90						
P10-1T1070	Floor finishes	10	10	29-Aug-23	08-Sep-23	-90						
P10-1T1080	Wall finishes	10	10	30-Aug-23	11-Sep-23	-90						
BS Works		64	64	06-Jul-23	18-Sep-23	-46						
MVAC		64	64	06-Jul-23	18-Sep-23	-87						

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	P
	P10-1T1150	Setting out for all equipment / Conduit / Switches	2	2	06-Jul-23	07-Jul-23	-52					
	P10-1T1180	MEP Conduit embedment	6	6	08-Jul-23	14-Jul-23	-52	0				
	P10-1T1190	Air Duct installation	18	18	29-Aug-23	18-Sep-23	-87	0				
	FS		56	56	06-Jul-23	08-Sep-23	-77					
	P10-1T1160	FS Piping, cable containment Installation	10	10	06-Jul-23	17-Jul-23	-41	0				
	P10-1T1170	FS Sprinkler pipe overhead with ceiling installation	10	10	29-Aug-23	08-Sep-23	-77	0				
	PD		10	10	29-Aug-23	08-Sep-23	-38					
	P10-1T1240	setting out for pipeworks / San fit, & Installation of pipework at ceiling level	10	10	29-Aug-23	08-Sep-23	-38	0				
	EL		52	52	08-Jul-23	06-Sep-23	-90					
	P10-1T1200	Setting out for all equipment / MOS inspection	2	2	08-Jul-23	10-Jul-23	-52	0				
	P10-1T1205	Electrical conduit installation	12	12	11-Jul-23	24-Jul-23	-52	0				
	P10-1T1210	Installation of cable containment	8	8	29-Aug-23	06-Sep-23	-90	0				
	Senior Forestry Officer Office		77	77	24-Jun-23	22-Sep-23	-76					
	P10-1F-SFO1180	Access Date of 1/F SFO Office Fitting Out	0	0	24-Jun-23		-80					
	ABWF		42	42	24-Jun-23	12-Aug-23	-63					
	P10-1F-SFO1000	Setting Out	2	2	24-Jun-23	26-Jun-23	-80	0				
	P10-1F-SFO1010	Erect Scaffolding for wall and ceiling finishes	2	2	27-Jun-23	28-Jun-23	-80	0				
	P10-1F-SFO1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	29-Jun-23	13-Jul-23	-80	0				
	P10-1F-SFO1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jul-23	27-Jul-23	-80	0				
	P10-1F-SFO1040	Floor Screeding	2	2	28-Jul-23	29-Jul-23	-63	0				
	P10-1F-SFO1060	Ceiling Grid Installation	6	6	31-Jul-23	05-Aug-23	-63	0				
	P10-1F-SFO1070	Plastic Laminate Installation	6	6	07-Aug-23	12-Aug-23	-63	0				
	BS Works		49	49	28-Jul-23	22-Sep-23	-76					
	MVAC		21	21	28-Jul-23	21-Aug-23	-70					
	P10-1F-SFO1100	Setting out for all equipment / MOS inspection	3	3	28-Jul-23	31-Jul-23	-80	0				
	P10-1F-SFO1110	Air Duct installation	18	18	01-Aug-23	21-Aug-23	-70	0				
	EL		49	49	28-Jul-23	22-Sep-23	-80					
	P10-1F-SFO1120	Setting out for all equipment / MOS inspection	10	10	28-Jul-23	08-Aug-23	-80	0				
	P10-1F-SFO1130	Installation of cable containment	5	5	09-Aug-23	14-Aug-23	-80	0				
	P10-1F-SFO1140	Cable wiring	10	10	15-Aug-23	25-Aug-23	-80	0				
	P10-1F-SFO1150	Installation of Lighting fitting and small power provision	24	24	26-Aug-23	22-Sep-23	-80	0				
	FS		40	40	01-Aug-23	15-Sep-23	-70					
	P10-1F-SFO1080	FS Piping, cable containment Installation	20	20	01-Aug-23	23-Aug-23	-70	0				
	P10-1F-SFO1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	24-Aug-23	15-Sep-23	-70	0				
	Server Room		77	77	24-Jun-23	22-Sep-23	-76					
	P10-1F-SER1180	Access Date of 1/F Server Room Fitting Out	0	0	24-Jun-23		-80					
	ABWF		42	42	24-Jun-23	12-Aug-23	-63					
	P10-1F-SER1000	Setting Out	2	2	24-Jun-23	26-Jun-23	-80	0				
	P10-1F-SER1010	Erect Scaffolding for wall and ceiling finishes	2	2	27-Jun-23	28-Jun-23	-80	0				
	P10-1F-SER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	29-Jun-23	13-Jul-23	-80	0				
	P10-1F-SER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jul-23	27-Jul-23	-80	0				
	P10-1F-SER1040	Floor Screeding	2	2	28-Jul-23	29-Jul-23	-63	0				
	P10-1F-SER1060	Ceiling Grid Installation	6	6	31-Jul-23	05-Aug-23	-63	0				
	P10-1F-SER1070	Plastic Laminate Installation	6	6	07-Aug-23	12-Aug-23	-63	0				

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

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									May	Jun	Jul	Aug
BS Works			49	49	28-Jul-23	22-Sep-23	-76					
MVAC			21	21	28-Jul-23	21-Aug-23	-70					
P10-1F-SER1100	Setting out for all equipment / MOS inspection		3	3	28-Jul-23	31-Jul-23	-80	0				
P10-1F-SER1110	Air Duct installation		18	18	01-Aug-23	21-Aug-23	-70	0				
EL			49	49	28-Jul-23	22-Sep-23	-80					
P10-1F-SER1120	Setting out for all equipment / MOS inspection		10	10	28-Jul-23	08-Aug-23	-80	0				
P10-1F-SER1130	Installation of cable containment		5	5	09-Aug-23	14-Aug-23	-80	0				
P10-1F-SER1140	Cable wiring		10	10	15-Aug-23	25-Aug-23	-80	0				
P10-1F-SER1150	Installation of Lighting fitting and small power provision		24	24	26-Aug-23	22-Sep-23	-80	0				
FS			40	40	01-Aug-23	15-Sep-23	-70					
P10-1F-SER1080	FS Piping, cable containment Installation		20	20	01-Aug-23	23-Aug-23	-70	0				
P10-1F-SER1090	FS Sprinkler head, Alarm smoke detector, heat detector installation		20	20	24-Aug-23	15-Sep-23	-70	0				
BOH			36	36	26-Jul-23	05-Sep-23	-3					
Staircase			36	36	26-Jul-23	05-Sep-23	-3					
ST-06			36	36	26-Jul-23	05-Sep-23	-3					
ABWF			36	36	26-Jul-23	05-Sep-23	-47					
P10-1F-ST6-1000	Setting Out		2	2	26-Jul-23	27-Jul-23	-54	0				
P10-1F-ST6-1010	Erect Scaffolding for wall and ceiling finishes		2	2	28-Jul-23	29-Jul-23	-54	0				
P10-1F-ST6-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)		12	12	31-Jul-23	12-Aug-23	-54	0				
P10-1F-ST6-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)		12	12	14-Aug-23	26-Aug-23	-47	0				
P10-1F-ST6-1050	Staircase Tiling / Tactile Installation		8	8	28-Aug-23	05-Sep-23	-47	0				
BS Works			16	16	14-Aug-23	31-Aug-23	1					
PD			16	16	14-Aug-23	31-Aug-23	1					
P10-1F-ST6-1100	Water piping works Installation		10	10	14-Aug-23	24-Aug-23	-54	0				
P10-1F-ST6-1110	Floor Drain Installation		6	6	25-Aug-23	31-Aug-23	1	0				
FS			14	14	14-Aug-23	29-Aug-23	-54					
P10-1F-ST6-1080	FS Piping, cable containment Installation		6	6	14-Aug-23	19-Aug-23	-54	0				
P10-1F-ST6-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation		8	8	21-Aug-23	29-Aug-23	-54	0				
Zone 3			34	34	09-Aug-23	16-Sep-23	-70					
Office & Office Room 1 & 2			30	30	09-Aug-23	13-Sep-23	-67					
P10-1FOF-1000	Access Date of 1/F Office Room 1 & 2 Fitting Out		0	0	09-Aug-23		-107					
ABWF			25	25	09-Aug-23	07-Sep-23	-107					
P10-1FOF-1010	Setting Out		2	2	09-Aug-23	11-Aug-23	-107	0				
P10-1FOF-1020	Erect Scaffolding for wall and ceiling finishes		2	2	11-Aug-23	14-Aug-23	-107	0				
P10-1FOF-1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)		21	21	14-Aug-23	07-Sep-23	-107	0				
BS Works			26	26	14-Aug-23	13-Sep-23	-67					
MVAC			20	20	14-Aug-23	06-Sep-23	-61					
P10-1FOF-1100	Setting out for all equipment / MOS inspection		2	2	14-Aug-23	16-Aug-23	-61	0				
P10-1FOF-1110	Air Duct installation		18	18	16-Aug-23	06-Sep-23	-61	0				
EL			26	26	14-Aug-23	13-Sep-23	-90					
P10-1FOF-1120	Setting out for all equipment / MOS inspection		2	2	14-Aug-23	16-Aug-23	-90	0				
P10-1FOF-1130	Installation of cable containment		12	12	16-Aug-23	30-Aug-23	-90	0				
P10-1FOF-1140	Cable wiring		12	12	30-Aug-23	13-Sep-23	-90	0				
FS			20	20	14-Aug-23	06-Sep-23	-91					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

Project Start: 03-Feb-20

Project End: 30-Jan-27

Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

Revision

Monthly Update Programme (May-2023)

Checked

EW

Approved

EW

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	P
P10-1FOF-1080	FS Piping, cable containment Installation	20	20	14-Aug-23	06-Sep-23	-91	0					
Main Office		28	28	16-Aug-23	16-Sep-23	-91						
P10-1FOF1010	Access Date of 1/F Main Office Fitting Out	0	0	16-Aug-23		-111						
ABWF		28	28	16-Aug-23	16-Sep-23	-111						
P10-1FOF1160	Setting Out	2	2	16-Aug-23	17-Aug-23	-111	0					
P10-1FOF1170	Erect Scaffolding for wall and ceiling finishes	2	2	18-Aug-23	19-Aug-23	-111	0					
P10-1FOF1180	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	20	20	21-Aug-23	12-Sep-23	-111	0					
P10-1FOF1190	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	20	20	25-Aug-23	16-Sep-23	-111	0					
BS Works		14	14	21-Aug-23	05-Sep-23	-81						
MVAC		2	2	21-Aug-23	22-Aug-23	-90						
P10-1F-OF1280	Setting out for all equipment / MOS inspection	2	2	21-Aug-23	22-Aug-23	-90	0					
EL		14	14	21-Aug-23	05-Sep-23	-90						
P10-1F-OF1300	Setting out for all equipment / MOS inspection	2	2	21-Aug-23	22-Aug-23	-90	0					
P10-1F-OF1310	Installation of cable containment	10	10	25-Aug-23	05-Sep-23	-90	0					
FS		10	10	21-Aug-23	31-Aug-23	-77						
P10-1F-OF1260	FS Piping, cable containment Installation	10	10	21-Aug-23	31-Aug-23	-77	0					
Zone 4		69	69	24-Jun-23	13-Sep-23	-85						
External Area		69	69	24-Jun-23	13-Sep-23	-85						
P10-1F-EXT1000	Access Date of 1/F External Area Fitting Out	0	0	24-Jun-23		-86						
ABWF		68	68	24-Jun-23	12-Sep-23	-104						
P10-1F-EXT1010	Erection of external scaffolding	25	25	24-Jun-23	24-Jul-23	-86	3					
P10-1F-EXT1020	Aluminium Baffle Ceiling Grid Installation	36	36	02-Aug-23	12-Sep-23	-104	6					
BS Works		37	37	02-Aug-23	13-Sep-23	-85						
MVAC		18	18	02-Aug-23	22-Aug-23	-89						
P10-1F-EXT1060	Setting out for all equipment / MOS inspection	3	3	02-Aug-23	04-Aug-23	-104	0					
P10-1F-EXT1070	Air Duct installation	15	15	05-Aug-23	22-Aug-23	-89	0					
EL		21	21	10-Aug-23	02-Sep-23	-76						
P10-1F-EXT1080	Setting out for all equipment / MOS inspection	6	6	10-Aug-23	16-Aug-23	-104	0					
P10-1F-EXT1090	Installation of cable containment	5	5	17-Aug-23	22-Aug-23	-89	0					
P10-1F-EXT1100	Cable wiring	10	10	23-Aug-23	02-Sep-23	-76	0					
FS		30	30	10-Aug-23	13-Sep-23	-104						
P10-1F-EXT1300	FS Piping, cable containment Installation	15	15	10-Aug-23	26-Aug-23	-104	0					
P10-1F-EXT1310	FS Sprinkler head, Alarm smoke detector, heat detector installation	15	15	28-Aug-23	13-Sep-23	-104	0					
Roof Floor		92	92	24-Jun-23	12-Oct-23	-68						
ABWF		73	73	24-Jun-23	18-Sep-23	-69						
P10-RF1000	Access Date of Roof Fitting Out	0	0	24-Jun-23		-111						
P10-RF1010	Setting Out	2	2	24-Jun-23	26-Jun-23	-111	0					
P10-RF1020	Roof RC Structure Water Testing before waterproofing	3	3	27-Jun-23	29-Jun-23	-111	0					
P10-RF1030	Remedial and touch up works before applying waterproofing	2	2	30-Jun-23	03-Jul-23	-111	0					
P10-RF1040	Applying Roof waterproofing Membrane	5	5	04-Jul-23	08-Jul-23	-111	0					
P10-RF1050	Water Testing & Infra red testing	10	10	10-Jul-23	20-Jul-23	-111	0					
P10-RF1060	Laying Insulation board with protection floor screed	6	6	21-Jul-23	27-Jul-23	-111	0					
P10-RF1070	Laying Floor finishes	18	18	25-Jul-23	14-Aug-23	-111	0					
P10-RF1080	Roof Dog House BS Installation	20	20	15-Aug-23	06-Sep-23	-76	0					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

Project Start: 03-Feb-20

Project End: 30-Jan-27

Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

Revision

Monthly Update Programme (May-2023)

Checked

EW

Approved

EW

ND/2019/02 - Kwu Tung North New Development Area Phase 1:
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	P
P10-RF1081	Roof Skylight Steelwork / Frame Installation (Top of Main Office: 4nos)	10	10	01-Aug-23	12-Aug-23	-111	0					
P10-RF1082	Roof Skylight Steelwork / Frame Installation (Top of Office Room 1 & 2: 2nos)	5	5	08-Aug-23	12-Aug-23	-107	0					
P10-RF1083	Roof Skylight Steelwork / Frame Installation (Ext. Area: 4nos)	10	10	15-Aug-23	25-Aug-23	-55	0					
P10-RF1084	Roof Skylight Glazing Installation (Top of Main Office: 4nos)	7	7	12-Aug-23	21-Aug-23	-111	0					
P10-RF1085	Roof Skylight Glazing Installation (Top of Office Room 1 & 2: 2nos)	4	4	14-Aug-23	17-Aug-23	-107	0					
P10-RF1086	Roof Skylight Glazing Installation (Ext. Area: 4nos)	6	6	26-Aug-23	01-Sep-23	-55	0					
P10-RF1095	PV Panel Installation	30	30	15-Aug-23	18-Sep-23	-76	0					
BS Works		65	65	04-Jul-23	16-Sep-23	-85						
P10-RF1150	BS 1st Fixing (Elec, Water, Irrigation piping, AC Ducting and piping)	20	20	04-Jul-23	26-Jul-23	-85	0					
P10-RF1160	BS 2nd Fixing (Elec, Water, Irrigation System connection, ACVOU Units and connection)	25	25	21-Jul-23	18-Aug-23	-85	0					
P10-RF1165	BS final Fixing	30	30	14-Aug-23	16-Sep-23	-85	0					
Landscape Works		67	67	25-Jul-23	12-Oct-23	-68						
P10-RF1115	Roof Planters Drainages, irrigation pipe, Artifical Granite Tile Installation	30	30	25-Jul-23	28-Aug-23	-63	0					
P10-RF1120	Soil Backfilling to Roof Planters	45	45	19-Aug-23	12-Oct-23	-68	0					
Lift Installation		57	57	24-Jun-23	30-Aug-23	-118						
P10-LT0900	Builder's works before handover to Cladding contractor installation	3	3	24-Jun-23	27-Jun-23	-95	3					
P10-LT1000	Lift External wall Cladding Installation	25	25	26-Jul-23	23-Aug-23	-118	2					
P10-LT1005	Erection of Scaffolding and Lift Shaft checking	3	3	24-Aug-23	26-Aug-23	-118	2					
P10-LT1007	Commence Lift Installation	0	0		26-Aug-23	-118	2					
P10-LT1010	Lift Shaft Plumbing	3	3	28-Aug-23	30-Aug-23	-118	2					
External Works		179	179	31-Mar-23	25-Sep-23	-103						
Retaining wall		96	96	11-May-23	01-Sep-23	-66						
P10-4140	Construction of U trough Structure KW-09 (6 Bays @ 7.5m / Bay)	48	48	11-May-23	07-Jul-23	-48	3					
P10-4145	Construction of Retaining Wall KW-14 (11 Bays @ 7.5m / Bay)	48	48	23-Jun-23	18-Aug-23	-66	3					
P10-4150	Backfill to +7.5mPD	30	30	29-Jul-23	01-Sep-23	-66	3					
Underground Utilities Connection		179	179	31-Mar-23	25-Sep-23	-103						
P10-2311	Underground Drainage and sewerage installation near U trough Structure KW-09	20	20	27-Apr-23	20-May-23	-90	2					
P10-2311.1	Underground sewerage Installation and Temp. Sewerage Tank connection	12	12	23-Jun-23	07-Jul-23	-18	3					
P10-2312	ELS, Trench excavation for drainage pipe (65m long, -0.72mPD to -1.03mPD)	28	28	03-Apr-23*	05-May-23	25	2					
P10-2316	Installation of 11KV Cables along sub-station from HSH Pai Lau to Vistor Centre EVA (~500m @ 2wks/50m)	120	120	31-Mar-23*	21-Aug-23	-94	1					
P10-2317	Underground Cables Laying (Under EVA)	30	30	22-Aug-23	25-Sep-23	-94	3					
P10-4160	Installation of FTNS Cables from HSH Pai Lau to Vistor Centre MDF Room (~500m @ 2wks/50m)	144	144	31-Mar-23*	18-Sep-23	-125	1					
Signage Works		48	48	05-Jul-23	29-Aug-23	-27						
P10-SG-1000	Placing Statutory Signages and ready for FS Inspection	48	48	05-Jul-23*	29-Aug-23	-27	2					
Works in Section 5		176	149	27-Feb-23 A	23-Sep-23	62						
Portion 11 - Village Resite Area		176	149	27-Feb-23 A	23-Sep-23	62						
Ground Investigation Works		49	31	28-Feb-23 A	06-May-23	-36						
P11-1010	Engineering GI x 3 nos.	12	6	28-Feb-23 A	06-Apr-23	-36	2					
P11-1015	Environmental GI & Trial Pit: 4nos. & Submission of report	31	15	28-Feb-23 A	17-Apr-23	-20	2					
P11-1020	Submission and approval of GI report	24	24	08-Apr-23	06-May-23	-36	0					
Site Formation		30	30	08-May-23	10-Jun-23	-36						
P11-1030	Excavation and Cart Away High Arsenic Content Soil (Subjected to actual GI Result) (3000m3 @100m3/d)	30	30	08-May-23	10-Jun-23	-36	4					
Drainage Works (Level: (IL +5mPD to +6.25mPD)		65	65	12-Jun-23	28-Aug-23	-36						
P11-1040	Sheet Pile installation (total length 140m with assume using type 4 sheet pile with 350pcs)	20	20	12-Jun-23	06-Jul-23	-36	2					

Primary Baseline

Actual Work

Remaining Work

Critical Remaining Work

Baseline Milestone

Critical Milestone

Non-Critical Mil...

Data Date: 31-May-23

Project Start: 03-Feb-20

Project End: 30-Jan-27

Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

3 Month Rolling Programme

(May to Aug -23)

Date

31-May-23

Revision

Monthly Update Programme (May-2023)

Checked

EW

Approved

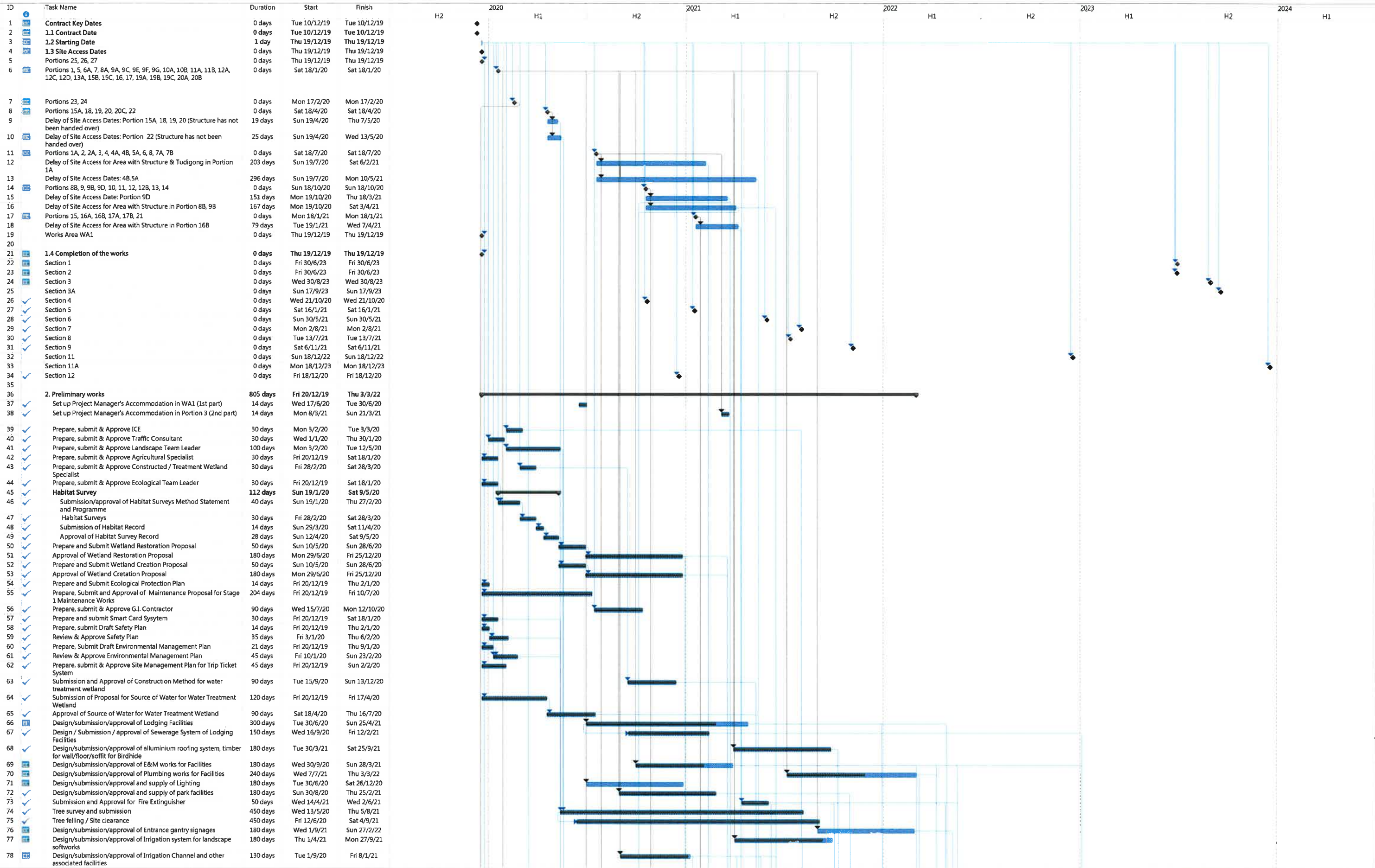
EW

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								May	Jun	Jul	Aug	Planned
P11-1042	Soft Excavation to 1st strut level	10	10	24-Jun-23	06-Jul-23	-36	2					
P11-1044	Installation of 1st level strut S1	12	12	30-Jun-23	14-Jul-23	-36	2					
P11-1046	Soft Excavation to F.L	10	10	08-Jul-23	19-Jul-23	-36	2					
P11-1048	Bedding & Pipe Laying (Twins 225 and 300mm)	12	12	15-Jul-23	28-Jul-23	-36	2					
P11-1090	Construction of Drainage Manhole M6.01	10	10	22-Jul-23	02-Aug-23	-36	2					
P11-1100	Construction of Drainage Manhole M6.02	12	12	28-Jul-23	10-Aug-23	-36	2					
P11-1110	Construction of Drainage Manhole M6.03	12	12	03-Aug-23	16-Aug-23	-36	2					
P11-1120	Construction of Drainage Manhole M6.04	12	12	09-Aug-23	22-Aug-23	-36	2					
P11-1130	Backfill to Level +6.0mPD for fresh water works	12	12	15-Aug-23	28-Aug-23	-36	2					
Outfall 6.04		30	30	29-Jul-23	01-Sep-23	81						
P11-OF0900	Sheet Pile Installation at Outfall	10	10	29-Jul-23	09-Aug-23	81	0					
P11-OF1000	Excavation to 1st strut level	3	3	10-Aug-23	12-Aug-23	81	0					
P11-OF1010	Installation 1st level strut and testing	5	5	14-Aug-23	18-Aug-23	81	0					
P11-OF1020	Excavation to 2nd strut level	4	4	19-Aug-23	23-Aug-23	81	0					
P11-OF1030	Installation 2nd level strut and testing	5	5	28-Aug-23	01-Sep-23	81	0					
Fresh Water Pipeworks (Level: (IL +6mPD to +7.0mPD)		176	149	27-Feb-23 A	23-Sep-23	-36						
P11-1033	Reply with Form WWO46 Part 3 from WSD for application of Water works (Fresh Water Works)	7	2	27-Feb-23 A	01-Apr-23	86	2					
P11-1050	Fresh water pipe works (100m)	25	25	26-Aug-23	23-Sep-23	-36	2					
Salt Water Pipeworks		7	2	27-Feb-23 A	01-Apr-23	111						
P11-1069	Reply with Form WWO46 Part 3 from WSD for application of Water works (Salt Water Works)	7	2	27-Feb-23 A	01-Apr-23	111	2					

Construction Programme of 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

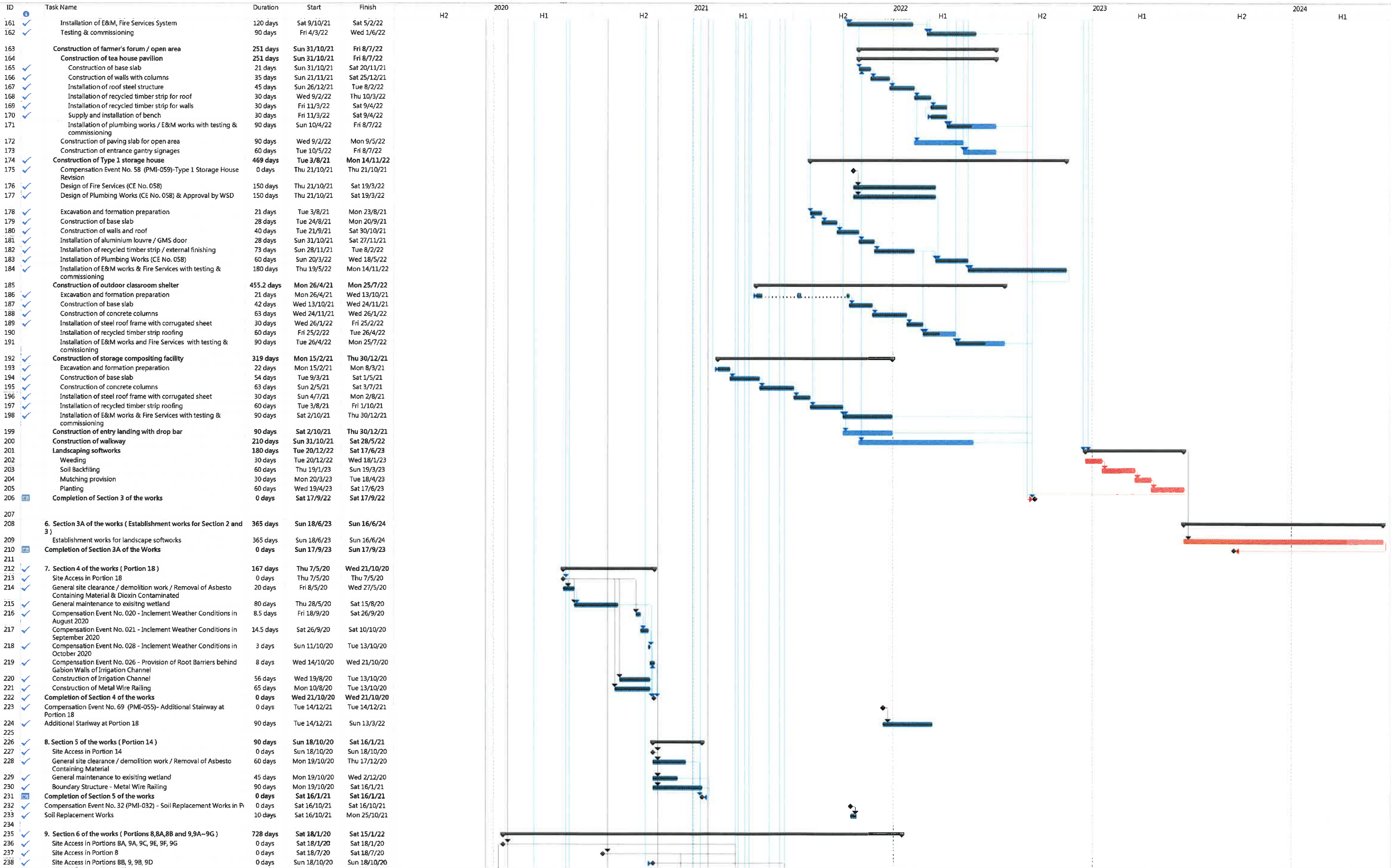


Project Programme of the Works

Revised Programme: Sep 2022	Task		Summary		Roll Up Milestone		External Tasks		Inactive Milestone		Duration-only		Start-only		External Milestone	
Data Date : 2022-9-3	Critical Task		Roll Up Task		Roll Up Progress		Project Summary		Inactive Summary		Manual Summary Rollup		Finish-only		Progress	
	Milestone		Roll Up Critical Task		Split		Group By Summary		Manual Task		Manual Summary		External Tasks		Deadline	

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

Project Programme of the Works

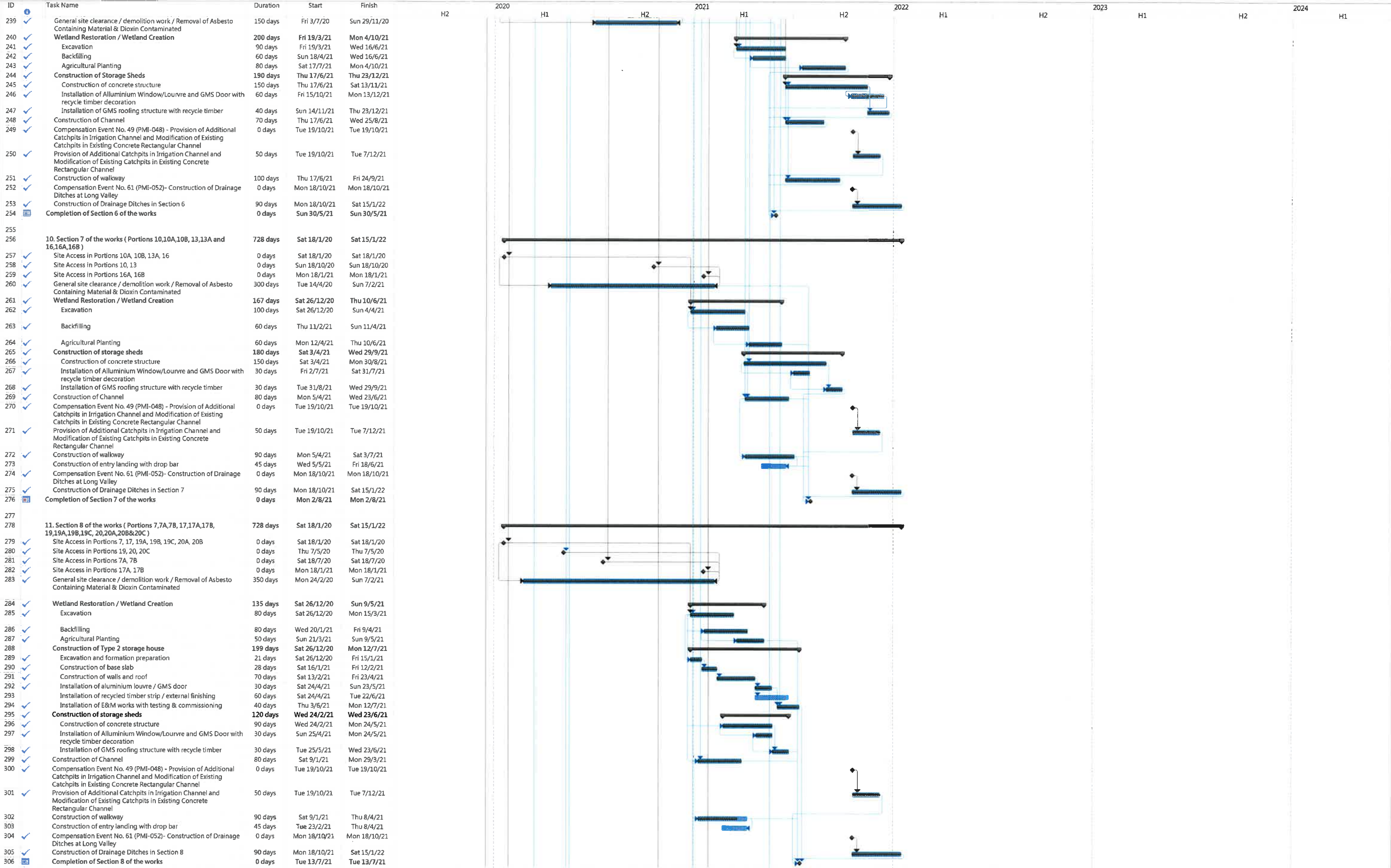


Revised Programme: Sep 2022

Data Date : 2022-9-3

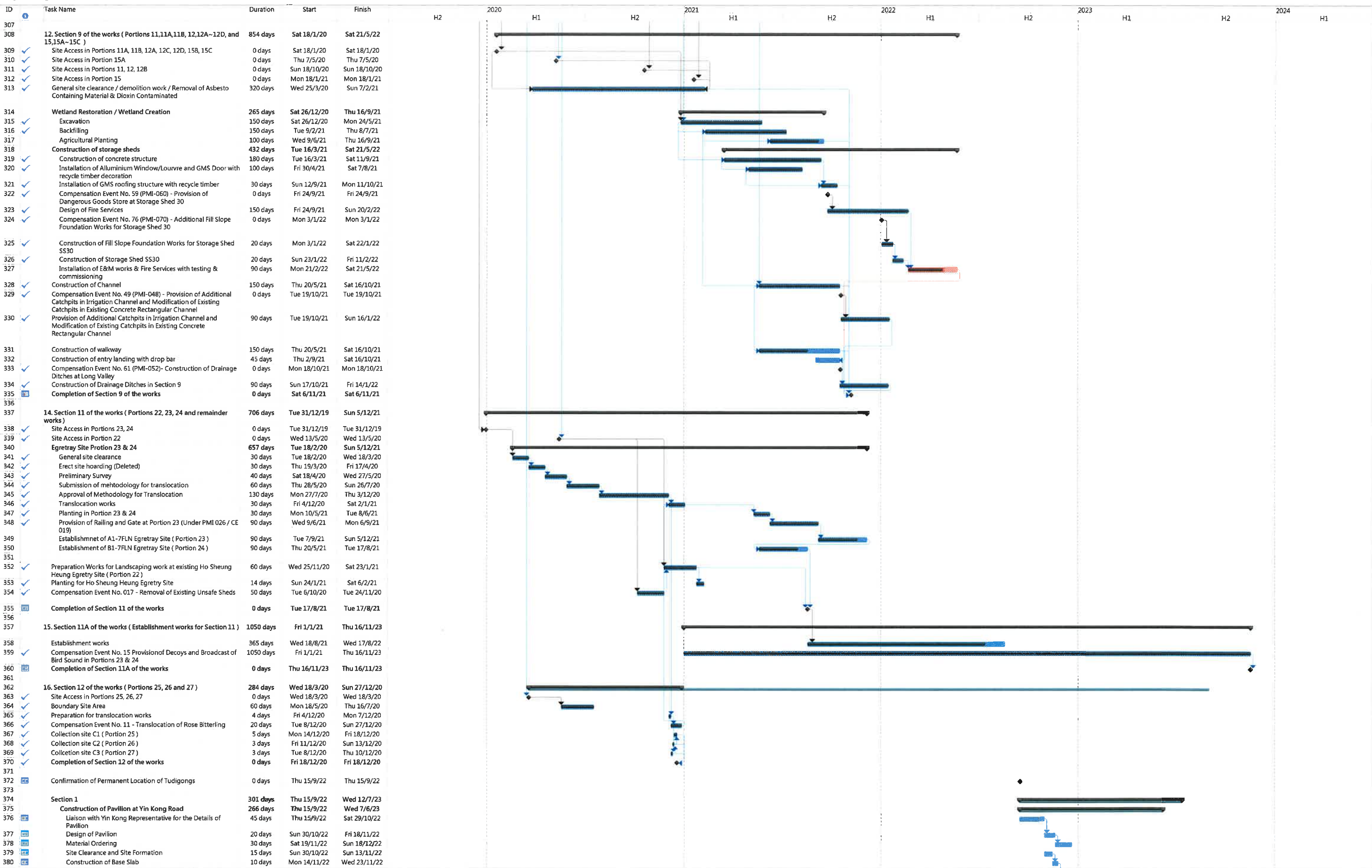
Task	Summary	Rolled Up Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	External Milestone
Critical Task	Rolled Up Task	Rolled Up Progress	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Progress
Milestone	Rolled Up Critical Task	Split	Group By Summary	Manual Task	Manual Summary	External Tasks	Deadline

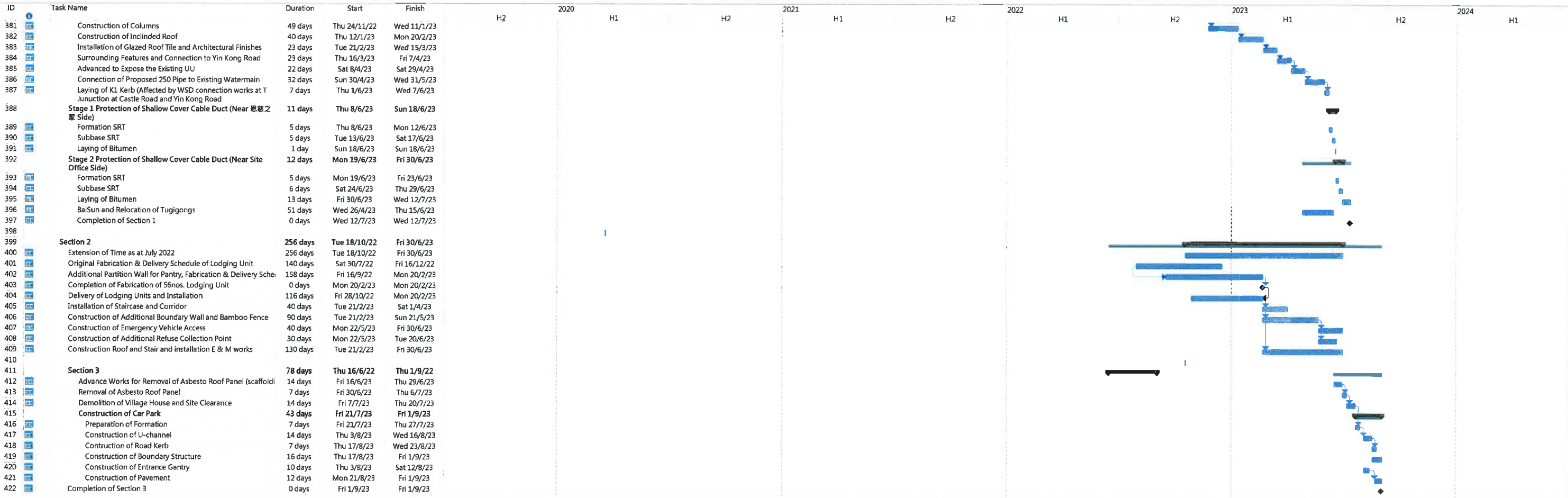
Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park
Project Programme of the Works

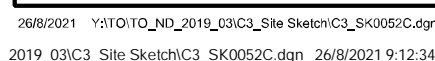


Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works





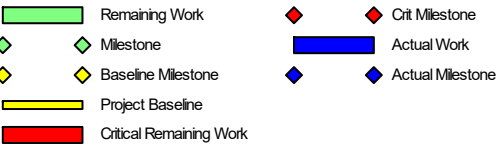
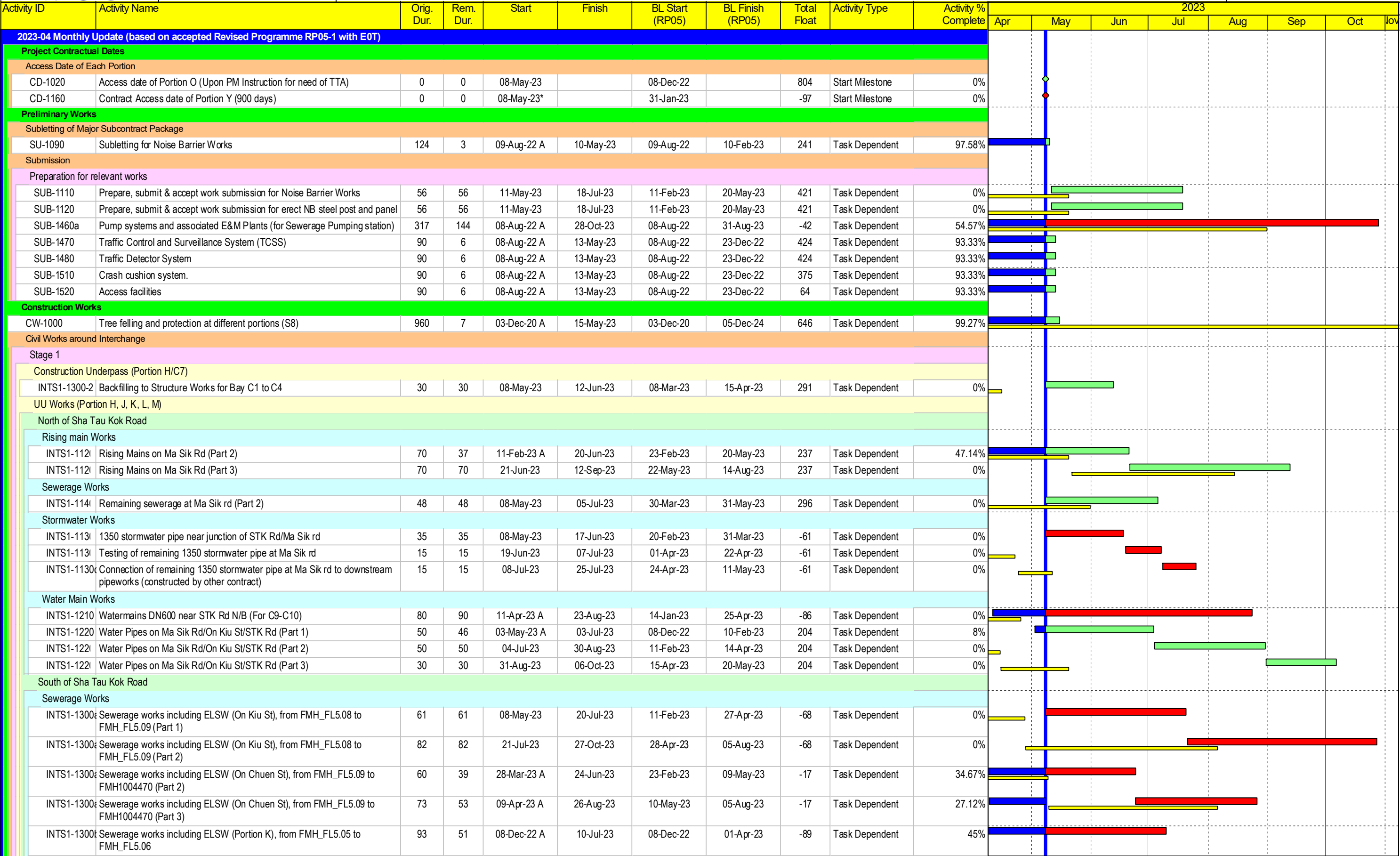


CONTRACTOR SHALL DESIGN THE CONNECTION
TO WATER TREATMENT WETLAND

PROJECT NO. 60335576		CONTRACT NO. ND/2019/03	
SCALE 1:500 (A1)		DATE 4-JUN-20	
DRAWN KLC	PREPARED DF	APPROVED PY	
SKETCH NO. ND/2019/03/R10/130/0052			REV. C

U/S M.H.	D/S M.H.	U/S G.L. (mPD)	D/S G.L. (mPD)	LENGTH (m)	GRADIENT 1 IN	U/S I.L. (mPD)	D/S I.L. (mPD)	PIPE SIZE (mm)	U/S M.H. TYPE	PIPE SHAPE	PIPE MATERIAL	BEDDING TYPE	PIPE CLASS
M4.01	M4.02	10.740	10.140	18	40.54	9.000	8.556	300	E1	CIRCLE	CONCRETE	B	120
M4.02	M4.03	10.140	9.650	22.5	46.01	8.481	7.992	375	E1	CIRCLE	CONCRETE	B	120
M4.03	M4.04	9.650	9.320	18	35.22	7.992	7.481	375	E1	CIRCLE	CONCRETE	B	120
M4.04	M4.05	9.320	9.040	18	47.62	7.406	7.028	450	E1	CIRCLE	CONCRETE	B	120
M4.05	M4.06	9.040	8.820	15	42.13	7.028	6.672	450	E1	CIRCLE	CONCRETE	B	120
M4.06	M4.07	8.820	8.510	23	119.79	6.522	6.330	600	E1	CIRCLE	CONCRETE	B	120
M4.07	M4.08	8.510	8.350	22.4	126.55	6.255	6.078	675	E1	CIRCLE	CONCRETE	B	120
M4.08	M4.09	8.350	8.200	22.4	129.48	6.078	5.905	675	E1	CIRCLE	CONCRETE	B	120
M4.09	M4.10	8.200	8.040	18.0	130	5.905	5.766	675	E1	CIRCLE	CONCRETE	B	120
M4.10	M4.11	8.040	7.965	20.0	130	5.691	5.538	750	H	CIRCLE	CONCRETE	B	120
M4.11	M4.12	7.965	7.820	12.0	130	5.538	5.445	750	H	CIRCLE	CONCRETE	B	120
M4.12	M4.13	7.820	7.780	21.0	130	5.445	5.284	750	H	CIRCLE	CONCRETE	B	120
M4.13	M4.14	7.780	7.800	15.0	130	5.134	5.018	900	H	CIRCLE	CONCRETE	B	120
M4.14	OUTFALL	7.800	7.600	3.0	130	5.018	4.995	900	H	CIRCLE	CONCRETE	B	120
M4.13a	M4.14	7.900	7.800	21.0	40	6.000	5.475	225	E1	CIRCLE	CONCRETE	B	120

Construction Programme of ND/2019/04



Project ID: RP-RP05-1-MU04-2023

Three Months Rolling Programme (08 May 2023 to 31 August 2023)

Data Date: 08-May-23
Printed: 10-May-23 11:27
Layout: 3 MRP Layout
TASK filter: 3 Months
Lookahead.

Baseline Programme RP05

Date	Revision	Ch...	Approved
08-May-23	Data Date		



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023						
											Apr	May	Jun	Jul	Aug	Sep	Oct
INTS1-1300	Sewerage works including ELSW (STK Road), from FMH_FL5.00 to FMH_FL5.02 (Part 1)	50	63	14-Jan-23 A	21-Sep-23	03-Apr-23	06-Jun-23	-89	Task Dependent	0%							
Stormwater Works and Retaining Wall																	
INTS1-1310	Minor TTA for Retaining Wall FW32 and FW33	55	55	19-Aug-23	25-Oct-23	22-Jul-23	23-Sep-23	-20	Task Dependent	0%							
F6 after TTA2 Implemented(Southbound Temporary Road)																	
INTS1-9010a	Piling Works for Lift tower and Footbridge F6 (Part D) (total 18nos. socket H piles, 4d/pile)	72	26	03-May-23 A	07-Jun-23	20-Feb-23	19-May-23	7	Task Dependent	63.89%							
INTS1-9020	ELS for F6 Part D	90	90	08-Jun-23	22-Sep-23	20-May-23	05-Sep-23	7	Task Dependent	0%							
CLC																	
CLC-1020a	Material ordering (Other)	40	29	11-Apr-23 A	10-Jun-23	06-Feb-23	23-Mar-23	571	Task Dependent	27.5%							
CLC-1030	Steel fabrication	40	29	11-Apr-23 A	10-Jun-23	06-Feb-23	23-Mar-23	576	Task Dependent	27.5%							
CLC-1040	Builder works/Renovation works before installation of prefabricated panel	36	5	09-Apr-23 A	16-Jun-23	24-Mar-23	10-May-23	571	Task Dependent	86.11%							
CLC-1050	Installation of prefabricated panel, including E&M	42	42	17-Jun-23	07-Aug-23	11-May-23	30-Jun-23	571	Task Dependent	0%							
CLC-1060	Connection of electricity supply	6	6	08-Aug-23	14-Aug-23	03-Jul-23	08-Jul-23	571	Task Dependent	0%							
CLC-1070	Connection of water supply	6	6	08-Aug-23	14-Aug-23	03-Jul-23	08-Jul-23	571	Task Dependent	0%							
CLC-1080	Site clearance works and handover	6	6	08-Aug-23	14-Aug-23	03-Jul-23	08-Jul-23	571	Task Dependent	0%							
Stage 2																	
TTA no.2																	
Full closure of On Kui Street for Subsequent Works																	
INTS2-3040b	Necessary diversion works near the new entrance of wholesale market (for full closure of On Kui St)-Part 2	90	86	03-May-23 A	18-Aug-23	30-Mar-23	21-Jul-23	-20	Task Dependent	4.44%							
Construction of Underpass (Portion H, J, K)																	
INTS2-1090b	Sheet piling Bay C9 and C10 (after TTA2 Southbound)	34	34	24-Aug-23	04-Oct-23	12-May-23	21-Jun-23	-86	Task Dependent	0%							
UU works (Portion J)																	
INTS2-1040	UU Works - Northbound of Sha Tau Kok Road (after TTA2)-Part 1	60	38	11-Apr-23 A	21-Jun-23	18-Jan-23	31-Mar-23	26	Task Dependent	36.67%							
INTS2-1040a	UU Works - Northbound of Sha Tau Kok Road (after TTA2)-Part 2	60	60	23-Jun-23	01-Sep-23	01-Apr-23	16-Jun-23	26	Task Dependent	0%							
INTS2-1050	UU Works - Southbound Sha Tau Kok Road (after TTA2)-Part 1	60	60	02-Sep-23	14-Nov-23	17-Jun-23	28-Aug-23	26	Task Dependent	0%							
Lift Tower and Footbridge F6 (Portion J)																	
Part A (Cable D)																	
INTS2-3000c	F6 Column works C01, C02 & S01 (2 pier), 1WF	60	60	08-May-23	19-Jul-23	01-Sep-23	13-Nov-23	203	Task Dependent	0%							
INTS2-3010	F6 elevation structure (C01 to C02) (KD3)	90	90	20-Jul-23	04-Nov-23	14-Nov-23	04-Mar-24	203	Task Dependent	0%							
Part B (Some part After Cable D)																	
INTS2-1060	Piling for Footbridge F6 (Part B2) and lift (constrained by CLP 11kV cables), 32 nos., 2WF	64	7	05-Sep-22 A	26-Jul-23	05-Sep-22	28-Jun-23	-41	Task Dependent	89.06%							
INTS2-1060a	ELS for pile cap and pier (7 locations)	90	90	27-Jul-23	11-Nov-23	29-Jun-23	14-Oct-23	-41	Task Dependent	0%							
Part D																	
INTS2-1080	Construction of Footbridge F6 columns P06 after TTA no.2 (6nos piles)(Part D)	24	24	08-May-23	05-Jun-23	20-Feb-23	18-Mar-23	143	Task Dependent	0%							
INTS2-1080a	Construction of Footbridge F6 columns P06 after TTA no.2 (ELS, 1 cap, 1 column)(Part D)	66	66	06-Jun-23	23-Aug-23	20-Mar-23	10-Jun-23	143	Task Dependent	0%							
Stage 3																	
TTA no.3																	
INTS3-0010	Design, submit, processing & approval for TTA no.3	180	158	18-Apr-23 A	14-Nov-23	20-Feb-23	26-Sep-23	90	Task Dependent	12.22%							
Construction of Depressed road (Portion H & F)																	
Depressed Road A																	
Original Contract Design																	
UTR-1020	U trough A (total: 93 nos. socket-H piles, 4 day/pile, 2 workfronts)	0	0	09-May-23	09-May-23	07-Jan-23	28-Sep-23	136	Task Dependent	0%							
UTR-1030	Sheet Piling	40	1	29-Nov-22 A	08-May-23	29-Nov-22	06-Jan-23	136	Task Dependent	97.5%							
UTR-1030a	Excavation and ELS Installation	50	23	03-Mar-23 A	05-Jun-23	29-Sep-23	29-Nov-23	136	Task Dependent	55%							
UTR-1060	Construction of U-trough A (11 bays, 15m/bay, 30d/bay,2workfronts)	165	162	25-Apr-23 A	16-Dec-23	30-Nov-23	24-Jun-24	136	Task Dependent	2%							
Depressed Road B																	
B1-B3																	

	Remaining Work		Crit Milestone
	Milestone		Actual Work
	Baseline Milestone		Actual Milestone
	Project Baseline		
	Critical Remaining Work		

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											Apr	May	Jun	Jul	Aug	Sep	Oct
UTR-1000	U trough B (27 nos. socket-H piles, 4 day/pile, 1 workfronts) for B1 to B3	108	108	08-May-23	13-Sep-23	08-Dec-22	24-Apr-23	-3	Task Dependent	0%							
UTR-1000a	Sheet pile installation for U-trough B (B1-B3)	60	2	13-Jun-22 A	13-Sep-23	13-Jun-22	24-Apr-23	33	Task Dependent	96.67%							
B4-B10																	
UTR-1050a	ELS for U-trough B (B4 - B10, 7 bays, 2 workfronts)_Part 1 (Sheet pile)	110	4	13-Jun-22 A	02-Apr-24	13-Jun-22	11-Dec-23	-72	Task Dependent	96.36%							
Remaining Works at Depressed road and Slip Road at both side of Depressed Road B																	
Slip Road from Interchange to Fanling Highway																	
UTR-1140	Excavation or Installation of sheet pile for retaining wall FW9/10	25	12	08-Feb-23 A	20-May-23	08-Dec-22	09-Jan-23	-105	Task Dependent	54%							
UTR-3100	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 1	50	38	06-Mar-23 A	22-Aug-23	03-Apr-23	06-Jun-23	4	Task Dependent	24.3%							
UTR-3100a	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 2	48	48	23-Aug-23	19-Oct-23	07-Jun-23	03-Aug-23	4	Task Dependent	0%							
Slip Road from Fanling Highway to Interchange																	
UTR-3010	FW-10(~75m, ~10bay, 15d/bay, 2 team) (before 11kV)	60	60	20-May-23	02-Aug-23	10-Jan-23	23-Mar-23	-105	Task Dependent	0%							
Sewage Pumping Station in Portion N (After TTA2 Northbound)																	
Statutory Submission																	
SPS-105	Submission and approval of WWO 542	365	146	08-Aug-22 A	30-Sep-23	08-Aug-22	07-Aug-23	80	Task Dependent	60%							
Excavation and ELS																	
SPS-1009	Sheet pile installation - SP1 (82 nos) and SP2 (105 nos) @ 10 nos/d (use 2 vibro hammer)	19	16	08-Feb-23 A	25-May-23	18-Jan-23	11-Feb-23	-80	Task Dependent	15.79%							
SPS-1010	Excavate (+8.70mPD to +7.35mPD) to and Install L1 ELS @ +7.850 mPD;	14	14	28-Jun-23	14-Jul-23	15-Mar-23	30-Mar-23	-80	Task Dependent	0%							
SPS-1010a	Install Dewatering Wells (DW1 ~ DW4) and Observation Wells (OW1 ~ OW	12	12	27-May-23	09-Jun-23	13-Feb-23	25-Feb-23	-80	Task Dependent	0%							
SPS-1010b	Pumping Test + Report	7	7	10-Jun-23	17-Jun-23	27-Feb-23	06-Mar-23	-80	Task Dependent	0%							
SPS-1010c	Submit Pumping Test Report and Obtain Consent for Excavation	7	7	19-Jun-23	27-Jun-23	07-Mar-23	14-Mar-23	-80	Task Dependent	0%							
SPS-1010d	Excavate (+7.35mPD to +5.325mPD for Sheet Pile SP3 Installation (Approx. Vol = 695 m3 @ 300 m3/day	2	2	15-Jul-23	17-Jul-23	31-Mar-23	01-Apr-23	-80	Task Dependent	0%							
SPS-1010e	Sheet Pile Installation - SP3 (41 nos @ 5 nos/day/rig (use 1 vibro hammer)	8	8	18-Jul-23	26-Jul-23	03-Apr-23	15-Apr-23	-80	Task Dependent	0%							
SPS-1010f	Excavate (+5.325mPD to 4.35mPD) and Install L2 ELS at +4.850 mPD (Qty:203m3 @ 250m3/d)	10	10	27-Jul-23	07-Aug-23	17-Apr-23	27-Apr-23	-80	Task Dependent	0%							
SPS-1010g	Excavate (+4.35mPD to +1.35mPD) and Install L3 ELS at +1.850 mPD; (Qty: 624m3 @ 250m3/d)	12	12	08-Aug-23	21-Aug-23	28-Apr-23	12-May-23	-80	Task Dependent	0%							
SPS-1010h	Excavate (+1.35mPD to -1.65mPD) and Install L4 ELS at +1.850 mPD; (Qty: 624m3 @ 250m3/d)	12	12	22-Aug-23	04-Sep-23	13-May-23	27-May-23	-80	Task Dependent	0%							
SPS-1010i	Excavate (-1.65mPD to -3.985 mPD) to FEL (Qty: 485m3 @ 175m3/d)	3	3	05-Sep-23	07-Sep-23	29-May-23	31-May-23	-80	Task Dependent	0%							
Transformer Room, Switch Room																	
Tx and Switch Rooms - Structures																	
SPS-1020-01	Construct Base Slab for Tx Room and Switch Room	15	15	27-Jul-23	12-Aug-23	17-Apr-23	04-May-23	142	Task Dependent	0%							
SPS-1020-02	Construct Wall and Columns for Tx Room and Switch Room	18	18	14-Aug-23	02-Sep-23	05-May-23	25-May-23	142	Task Dependent	0%							
SPS-1020-03	Construct Roof Slab (Erect falsework, scaffolding, formworks, Rebars and Concreting)	18	18	04-Sep-23	23-Sep-23	27-May-23	16-Jun-23	142	Task Dependent	0%							
ABWF and E&M Works (Remaining Parts of Sewage PS)																	
SPS-1035	E&M, BS and ABWF Procurement	227	106	07-Nov-22 A	11-Sep-23	07-Nov-22	14-Aug-23	27	Task Dependent	53.3%							
Reprovision of On Luk Mun Street Playground (S3)																	
Sublet and Design for Skateboard Park																	
OLMSP-100a	DDA (including preparation of submission and approval)	27	27	08-May-23	08-Jun-23	01-Feb-23	03-Mar-23	-67	Task Dependent	0%							
OLMSP-100a	Mock up and other submission	73	73	09-Jun-23	04-Sep-23	04-Mar-23	03-Jun-23	-67	Task Dependent	0%							
Sublet and Design for Ancillary and Services Block																	
OLMSP-100t	Submission & Consent (ASD & LCSD)	75	49	20-Apr-23 A	25-Jun-23	20-Jan-23	04-Apr-23	-102	Task Dependent	34.67%							
Works in Portion K1																	
Permanent Access between Wholesale Market and STK Road																	
OLMSP-500a	Construction of remaining permanent access, water main & UUs	30	20	08-Dec-22 A	31-May-23	08-Dec-22	14-Jan-23	55	Task Dependent	33.33%							
OLMSP-500b	Dismantle existing water main supply to wholesale market (for subsequent construction of Depressed Rd B - Bay 4-10)	30	30	01-Jun-23	07-Jul-23	16-Jan-23	22-Feb-23	55	Task Dependent	0%							
New Skateboard Park																	
Site Formation and UUs																	



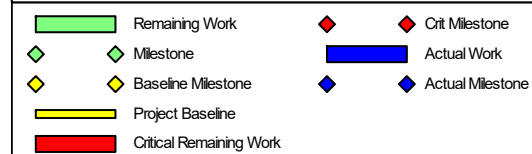
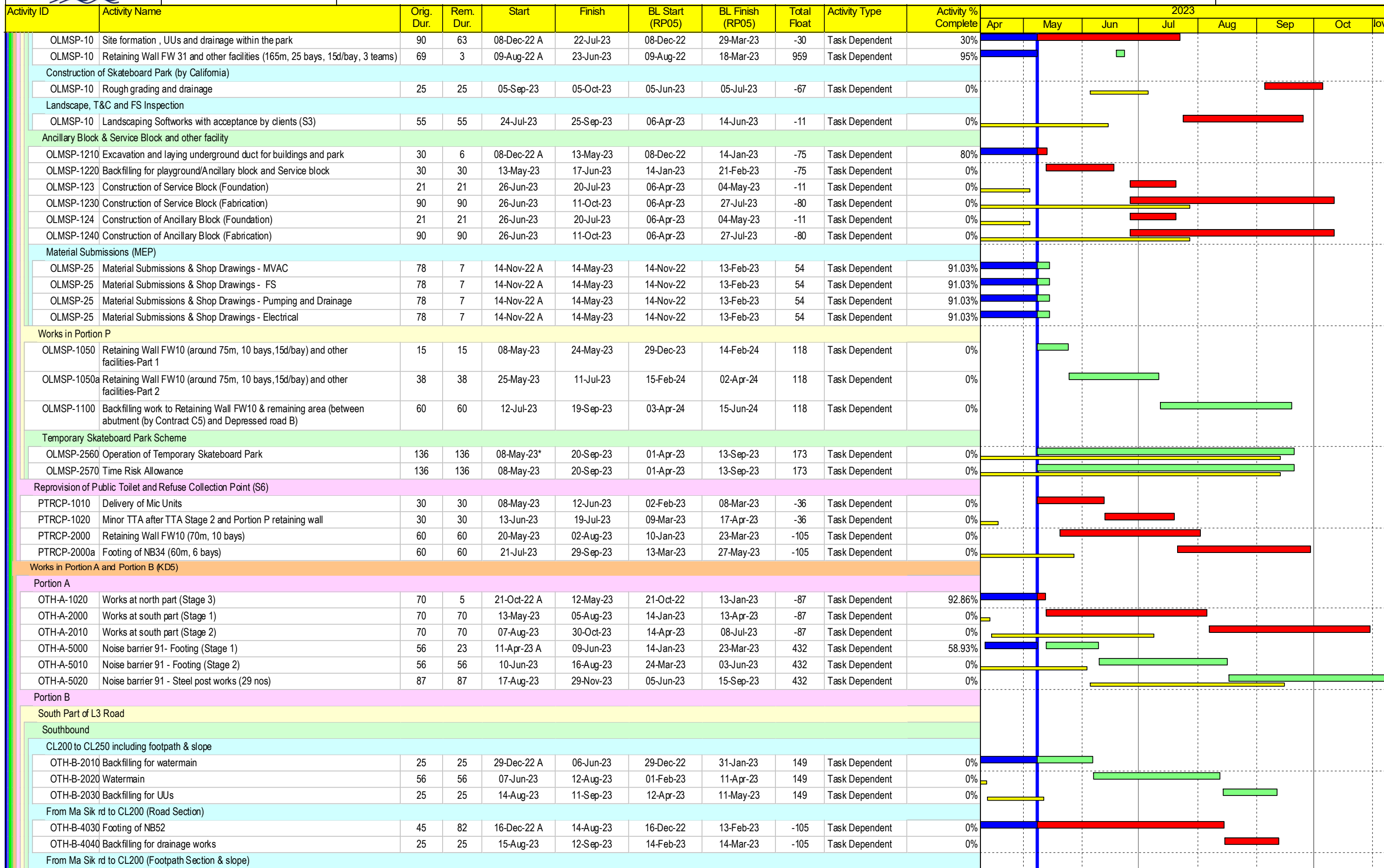
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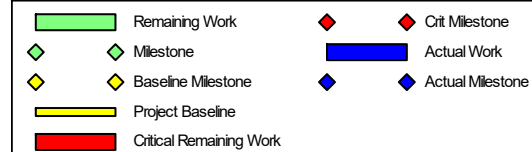
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											Apr	May	Jun	Jul	Aug	Sep	Oct
OTH-B-3000	Backfilling for watermain	25	25	29-Dec-22 A	06-Jun-23	29-Dec-22	31-Jan-23	149	Task Dependent	0%							
OTH-B-3010	Watermain	56	56	07-Jun-23	12-Aug-23	01-Feb-23	11-Apr-23	149	Task Dependent	0%							
OTH-B-3020	Backfilling for UUs	25	25	14-Aug-23	11-Sep-23	12-Apr-23	11-May-23	149	Task Dependent	0%							
Works within Portions Q, R, S,T, U, V, X and Y (S4)																	
Portion R																	
Stage 4 (Area 3)																	
OTH-1044-1b	Relocate gully	12	11	23-Dec-22 A	19-May-23	23-Dec-22	09-Jan-23	9	Task Dependent	8.33%							
OTH-1044-1d	Construct pedestrain crossing and road kerb	16	16	20-May-23	08-Jun-23	30-Jan-23	16-Feb-23	9	Task Dependent	0%							
OTH-1044-1e	Construct street furniture	12	12	09-Jun-23	23-Jun-23	17-Feb-23	02-Mar-23	9	Task Dependent	0%							
OTH-1044-1f	Construct carriageway pavement	15	15	24-Jun-23	12-Jul-23	03-Mar-23	20-Mar-23	9	Task Dependent	0%							
OTH-1044-1g	Road marking	1	1	13-Jul-23	13-Jul-23	21-Mar-23	21-Mar-23	9	Task Dependent	0%							
OTH-1044-1h	Enabling traffic signal system	14	14	14-Jul-23	29-Jul-23	22-Mar-23	11-Apr-23	9	Task Dependent	0%							
Stage 5 (Area 2, after Stage 3)																	
OTH-1045-1	Install temporary lighting system	10	10	08-May-23	18-May-23	09-Mar-23	20-Mar-23	-23	Task Dependent	0%							
OTH-1045-1a	Install temporary traffic signal system	10	10	08-May-23	18-May-23	09-Mar-23	20-Mar-23	-23	Task Dependent	0%							
OTH-1045-1b	Demolish centre divider	17	17	19-May-23	08-Jun-23	21-Mar-23	13-Apr-23	-23	Task Dependent	0%							
OTH-1045-1c	Construct new centre divider, relocate lighting	30	30	09-Jun-23	15-Jul-23	14-Apr-23	19-May-23	-23	Task Dependent	0%							
OTH-1045-1d	Relocate traffic signal post	10	10	09-Jun-23	20-Jun-23	14-Apr-23	25-Apr-23	-4	Task Dependent	0%							
OTH-1045-1e	Construct pedestrain crossing	16	16	21-Jun-23	11-Jul-23	26-Apr-23	15-May-23	-4	Task Dependent	0%							
OTH-1045-1f	Construct carriageway pavement	15	15	17-Jul-23	02-Aug-23	20-May-23	07-Jun-23	-23	Task Dependent	0%							
OTH-1045-1g	Enabling public lighting	14	14	03-Aug-23	18-Aug-23	08-Jun-23	24-Jun-23	-23	Task Dependent	0%							
OTH-1045-1h	Road marking	1	1	19-Aug-23	19-Aug-23	26-Jun-23	26-Jun-23	-23	Task Dependent	0%							
OTH-1045-1i	Enabling traffic system	14	14	21-Aug-23	05-Sep-23	27-Jun-23	13-Jul-23	-23	Task Dependent	0%							
Stage 6 (Area 4)																	
OTH-1046-1a	Overall resurfacing	60	60	06-Sep-23	17-Nov-23	10-Aug-23	20-Oct-23	-23	Task Dependent	0%							
Portion Q																	
Area 1																	
OTH-1031b	Site formation works, ELSW, RW40 (Bay 4-7) and backfill	80	16	08-Jul-22 A	25-May-23	08-Jul-22	03-Jan-23	1	Task Dependent	80%							
OTH-1031c	Site formation works, ELSW, RW40 (Bay 1-3) and backfill	60	9	08-Sep-22 A	06-Jun-23	08-Sep-22	14-Jan-23	1	Task Dependent	85%							
OTH-1031e	Construct new pavement at carriageway, reinstate cycle track	21	21	07-Jun-23	03-Jul-23	08-Feb-23	03-Mar-23	1	Task Dependent	0%							
OTH-1031f	Street furniture	30	30	04-Jul-23	07-Aug-23	04-Mar-23	12-Apr-23	1	Task Dependent	0%							
OTH-1031g	Road marking	1	1	08-Aug-23	08-Aug-23	13-Apr-23	13-Apr-23	1	Task Dependent	0%							
OTH-1031h	Overall resurfacing	60	60	09-Aug-23	19-Oct-23	14-Apr-23	26-Jun-23	1	Task Dependent	0%							
Area 2																	
OTH-1032a	Demolish existing pavement, relocate gully	21	7	13-Jul-22 A	15-May-23	13-Jul-22	30-Dec-22	42	Task Dependent	66.67%							
OTH-1032b	Construct new pavement at carriageway, reinstate public lighting	21	18	30-Jul-22 A	06-Jun-23	30-Jul-22	21-Jan-23	42	Task Dependent	14.29%							
OTH-1032c	Relocate traffic signal post	10	10	07-Jun-23	17-Jun-23	26-Jan-23	06-Feb-23	42	Task Dependent	0%							
OTH-1032d	Road marking	1	1	19-Jun-23	19-Jun-23	07-Feb-23	07-Feb-23	42	Task Dependent	0%							
Area 3																	
OTH-1033	Modify existing pavement traffic island	28	28	08-Dec-22 A	09-Jun-23	08-Dec-22	12-Jan-23	39	Task Dependent	0%							
OTH-1033a	Relocate traffic signal post	10	10	10-Jun-23	21-Jun-23	13-Jan-23	27-Jan-23	39	Task Dependent	0%							
OTH-1033b	Road marking	1	1	23-Jun-23	23-Jun-23	28-Jan-23	28-Jan-23	39	Task Dependent	0%							
Portion U																	
Area 2																	
OTH-1070-2a	Demolish existing central divider	30	2	03-Mar-23 A	09-May-23	23-May-23	28-Jun-23	66	Task Dependent	95%							
OTH-1070-2b	Construct new central divider	30	30	09-May-23	14-Jun-23	29-Jun-23	03-Aug-23	66	Task Dependent	0%							
OTH-1070-2c	Relocate public lighting	20	20	14-Jun-23	10-Jul-23	04-Aug-23	26-Aug-23	66	Task Dependent	0%							
OTH-1070-2d	Relocate traffic signal post	20	20	10-Jul-23	02-Aug-23	28-Aug-23	19-Sep-23	66	Task Dependent	0%							
OTH-1070-2e	Road marking	1	1	02-Aug-23	03-Aug-23	20-Sep-23	20-Sep-23	66	Task Dependent	0%							
Area 3																	
OTH-1070-3a	Construct retaining wall and top slab (Part 1)	90	72	19-Dec-22 A	02-Aug-23	19-Dec-22	13-Apr-23	-114	Task Dependent	20%							

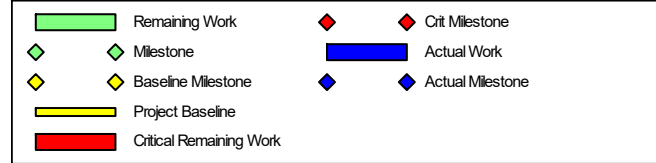
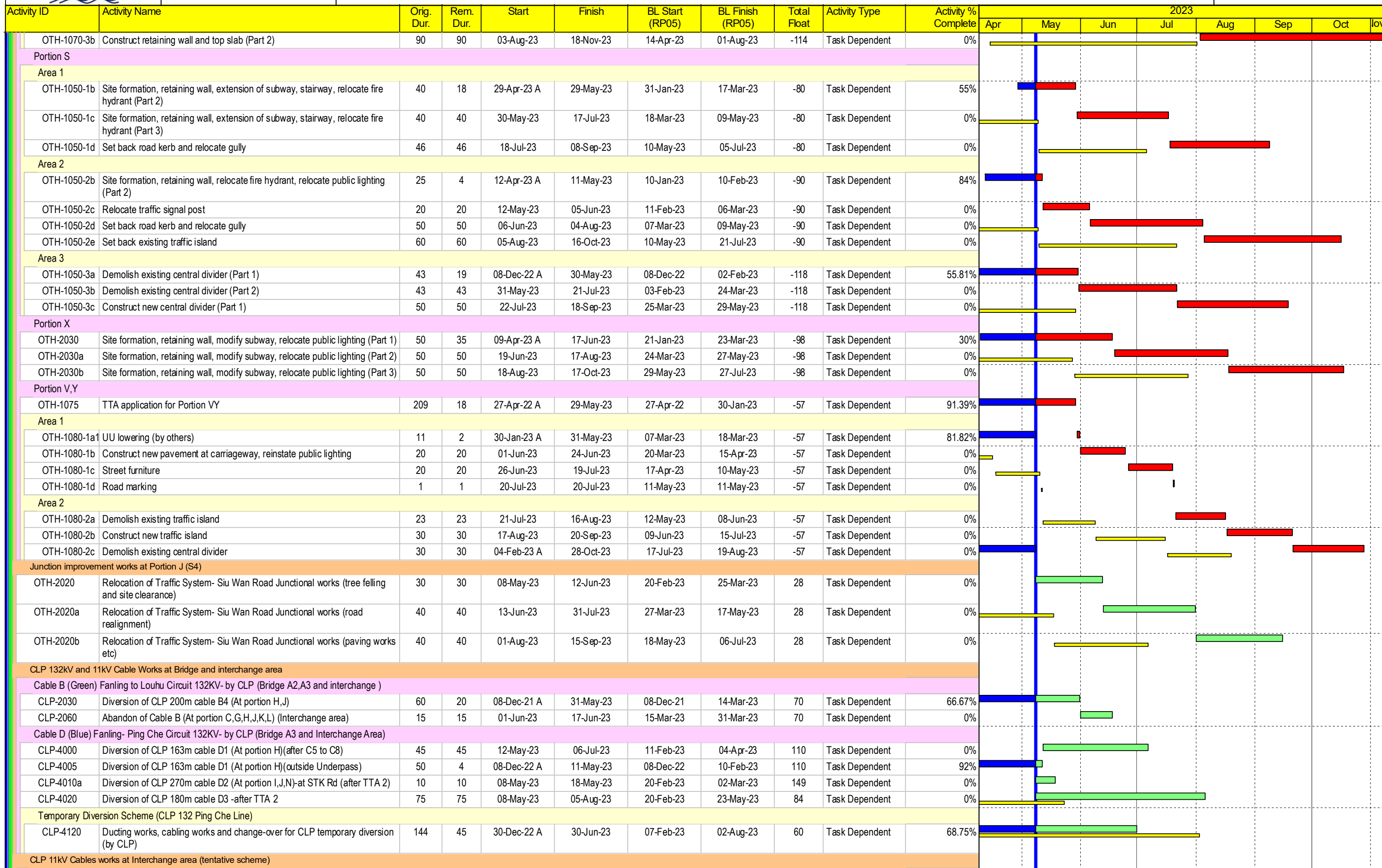


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											Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
CLP-5010	Laying new 11kV cables(255m) F6 & underpass area (Portion J/H)(after C5 to C8)	60	14	08-Dec-22 A	23-May-23	08-Dec-22	22-Feb-23	9	Task Dependent	76.67%								
CLP-5020	Abandon 11kV cables in F6 & underpass area (portion K/H) (after C5 to C8)	15	15	24-May-23	10-Jun-23	23-Feb-23	11-Mar-23	9	Task Dependent	0%								
CLP-5030	Laying new 11kV cables(520m) F6 & underpass & U-Through B area (port	60	60	02-Aug-23	13-Oct-23	24-Mar-23	08-Jun-23	-66	Task Dependent	0%								
CLP-5050	Laying new 11kV cables(400m) at STK Road and MS Road (portion J)(afte	60	44	18-Apr-23 A	29-Jun-23	20-Feb-23	05-May-23	-41	Task Dependent	26.67%								
CLP-5060	Abandon 11kV cables at STK Rad and MS Road (portion J)	15	15	30-Jun-23	18-Jul-23	06-May-23	23-May-23	-41	Task Dependent	0%								
Towngas (By others)																		
TG-1000	IPA gas main laying (after C5 to C8)	45	45	08-May-23	30-Jun-23	08-Dec-22	04-Feb-23	-7	Task Dependent	0%								
TG-1010	MP gas main laying-stage 1 (after C5 to C8)	45	45	08-May-23	30-Jun-23	08-Dec-22	04-Feb-23	-67	Task Dependent	0%								
TG-1020	MP gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	46	46	03-Jul-23	24-Aug-23	06-Feb-23	30-Mar-23	-67	Task Dependent	0%								
TG-1030	MP gas main laying-stage 3 (Portion P, near Playground)	52	52	02-Aug-23	04-Oct-23	24-Mar-23	30-May-23	-43	Task Dependent	0%								
TG-1040	LBG gas main laying-stage 1 (after C5 to C8)	47	47	08-May-23	04-Jul-23	08-Dec-22	07-Feb-23	-60	Task Dependent	0%								
TG-1050	LBG gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	37	37	25-Aug-23	10-Oct-23	21-Apr-23	05-Jun-23	-105	Task Dependent	0%								
TG-1060	LBG gas main laying-stage 3 (Portion P, near Playground)	51	51	02-Aug-23	03-Oct-23	24-Mar-23	29-May-23	-42	Task Dependent	0%								
Telecom (By others)																		
HGC/HKBN/HKBNESHK/PCCW																		
TL-1000	HGC/HKBN/HKBNES/PCCW diversion -stage 1 (after C5-C8)	50	28	11-Apr-23 A	09-Jun-23	08-Dec-22	10-Feb-23	10	Task Dependent	44%								
TL-1010	HGC/HKBN/HKBNES/PCCW diversion -stage 2 (after TTA)	49	33	18-Apr-23 A	15-Jun-23	20-Feb-23	21-Apr-23	5	Task Dependent	32.65%								
TL-1020	HGC/HKBN/HKBNES/PCCW diversion -stage 3 (after RW9, near existing market and new playground)	100	51	11-Apr-23 A	08-Jul-23	08-Dec-22	14-Apr-23	24	Task Dependent	49%								
TL-1030	HGC/HKBN/HKBNES/PCCW diversion -stage 4 (near Portion M)	75	67	18-Apr-23 A	27-Jul-23	20-Feb-23	23-May-23	8	Task Dependent	10.67%								
TL-1040	PCCW diversion-stage 5 (near the toilet and RCP)	50	28	11-Apr-23 A	09-Jun-23	08-Dec-22	10-Feb-23	-4	Task Dependent	44%								
TL-1050	PCCW diversion-stage 6 (near the On Luk Min St playground, assume access is granted on 1 Aug 22)	75	75	02-Aug-23	01-Nov-23	24-Mar-23	27-Jun-23	-72	Task Dependent	0%								
Towngas/telecom																		
TL-3000	Towngas telecom diversion -stage 1 (after C5 to C8)	50	50	08-May-23	07-Jul-23	08-Dec-22	10-Feb-23	-12	Task Dependent	0%								
TL-3010	HGC/HKBN/HKBNES diversion -stage 2 (after TTA)	49	49	08-May-23	06-Jul-23	20-Feb-23	21-Apr-23	-11	Task Dependent	0%								
Bridge F(MS)																		
Stage 5 Pile Cap & Piers construction and ELS installation & Excavation in N.side																		
BWFW-5030	Remove the temporary fill in the cofferdam at pier F-03 area	20	20	27-Jul-23	18-Aug-23	29-May-23	20-Jun-23	312	Task Dependent	0%								
Stage 6 Falsework Erection and Abutment Construction in N.side																		
BWFW-6000b	Submission and approval of temporary bearing	0	0	08-May-23	08-May-23	08-Oct-22	07-Feb-23	243	Task Dependent	0%								
BWFW-6000d	Bearing installation at F-04 (Temporary bearing)	12	12	08-May-23	20-May-23	08-Feb-23	21-Feb-23	243	Task Dependent	0%								
BWFW-6000e	Replace bearing with permanent bearing at F-04 (after decking btw F-03 ar	28	28	11-Aug-23	12-Sep-23	13-Jun-23	17-Jul-23	546	Task Dependent	0%								
BWFW-6010	Erect falsework for bridge deck construction between pier F-03 and abutme	14	3	20-Apr-23 A	13-May-23	03-Mar-23	18-Mar-23	249	Task Dependent	80%								
BWFW-6010a	Erect falsework for bridge deck construction between pier F-03 and abutment F-04M (near F-03)	14	3	20-Apr-23 A	10-May-23	14-Jan-23	02-Feb-23	249	Task Dependent	80%								
Stage 7 Bridge Deck Construction & Formation work ard abutment in N.side																		
BWFW-7020	Bridge deck construction between pier F-03 and abt F-04M	53	53	22-May-23	25-Jul-23	20-Mar-23	25-May-23	243	Task Dependent	0%								
BWFW-7020a	Submission and approval of post tension method statement and material	90	21	08-Dec-22 A	01-Jun-23	08-Dec-22	29-Mar-23	287	Task Dependent	76.67%								
BWFW-7030	Post tensioning slab tendons (include 7 days for required concrete strength) F-03 to F-04M	14	14	26-Jul-23	10-Aug-23	27-May-23	12-Jun-23	243	Task Dependent	0%								
BWFW-7040	Remove false work	7	7	11-Aug-23	18-Aug-23	13-Jun-23	20-Jun-23	243	Task Dependent	0%								
Stage 8 Cofferdam modification and Formation in Both sides																		
South side																		
New scheme in wet season																		
BWFW-808C	Install decking for bored piling at Pier F-02 (Stage 1)	40	40	08-May-23	24-Jun-23	23-Feb-23	14-Apr-23	138	Task Dependent	0%								
BWFW-808C	Install decking for bored piling at Pier F-02 (Stage 2)	40	40	26-Jun-23	11-Aug-23	15-Apr-23	02-Jun-23	138	Task Dependent	0%								
North side																		



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Three Months Rolling Programme (08 May 2023 to 31 August 2023)

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Lookahead.

Baseline Programme RP05			
Date	Revision	Ch...	Approved
08-May-23	Data Date		



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023							
											Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
BWFW-8000	Shift the cofferdam toward the current slope toe, reinstall geotextile and silt curtain inside and outside the cofferdam	6	6	19-Aug-23	25-Aug-23	21-Jun-23	28-Jun-23	312	Task Dependent	0%								
BWFW-8010	Excavate the slope to riverbed level	12	12	26-Aug-23	08-Sep-23	29-Jun-23	13-Jul-23	312	Task Dependent	0%								
Stage 9 Piling works for pier F-02 and abutment F-01M in S.side																		
BWFW-9020	Bored pile construction at abutment pier F-02 (2 nos, 15d/ bored, 1 set machine)	30	30	12-Aug-23	15-Sep-23	03-Jun-23	10-Jul-23	138	Task Dependent	0%								
BWFW-9030a	Interface coring, sonic test, and grouting for bored pile construction at abutment F-01M	36	36	08-May-23	19-Jun-23	16-May-23	28-Jun-23	235	Task Dependent	0%								
Stage 11 Abutment construction in S.side																		
BWFW-11000	Install sheet pile using vibration hammer to form ELS system for the pile cap F-01	47	47	08-May-23	04-Jul-23	16-May-23	12-Jul-23	164	Task Dependent	0%								
BWFW-11010	ELS and install wailing and strut F-01	60	60	05-Jul-23	12-Sep-23	13-Jul-23	20-Sep-23	164	Task Dependent	0%								
Bridge Works (A1,A2,A3,G,F4)																		
Site Clearance & Additional GI and Predrilling Works																		
BWGIPW-1040	Site clearance & additional GI and Pre-drilling works: Bridge G	53	5	25-Oct-21 A	22-May-23	25-Oct-21	20-Mar-23	10	Task Dependent	90.57%								
Construction of Bridge Foundation																		
Construction of Bridge A3 Foundation (Team 2) (~30m depth)																		
BWBF-1340b	Pier A3-01r (2nos. pile, 20d/pile, 1no. workfront)*	40	40	08-May-23	24-Jun-23	14-Feb-23	31-Mar-23	-23	Task Dependent	0%								
Rising Main Diversion at Bridge A3																		
BWBF-1350	Stage 3 - Rising main diversion works (Between A3-03 and Abutment A3-0	60	15	01-Feb-23 A	24-May-23	01-Feb-23	15-Apr-23	983	Task Dependent	75%								
Construction of Bridge G Foundation (Team 3) (~20m depth)																		
BWBF-1110	ELS for Abt G-06 and G-05	30	30	17-May-23	21-Jun-23	09-Mar-23	17-Apr-23	-15	Task Dependent	0%								
BWBF-1120	Abt G-06 (6nos. pile, 15d/pile, 1 no. workfront)	90	90	23-Jun-23	09-Oct-23	18-Apr-23	04-Aug-23	-15	Task Dependent	0%								
BWBF-1180	ELS for G-02 to G-04	8	8	08-May-23*	16-May-23	02-Feb-23	08-Mar-23	-15	Task Dependent	0%								
BWBF-1210	Pier G-04 (2nos. pile, 15d/pile, 1 no. workfront)	30	30	17-May-23	21-Jun-23	13-Mar-23	20-Apr-23	12	Task Dependent	0%								
BWBF-1220	Pier G-03 (2nos. pile, 15d/pile, 1 no. workfront)	30	30	23-Jun-23	28-Jul-23	21-Apr-23	27-May-23	12	Task Dependent	0%								
BWBF-1240	Pier G-02 (2nos. pile, 15d/pile, 1 no. workfront)	30	30	29-Jul-23	01-Sep-23	29-May-23	04-Jul-23	12	Task Dependent	0%								
BWBF-1270	Pier G-01a/b (4nos. pile, 15d/pile, 1no. workfront)	60	60	02-Sep-23	14-Nov-23	05-Jul-23	12-Sep-23	12	Task Dependent	0%								
Construction of Footbridge F4 Foundation																		
BWBF-1360	Footbridge F4-01 (6nos. socket-H, 4d/pile, 1no. workfront)	24	24	13-Jun-23	12-Jul-23	30-Mar-23	02-May-23	193	Task Dependent	0%								
BWBF-1360a	ELS for Footbridge F4-01	30	30	08-May-23	12-Jun-23	19-Jan-23	25-Feb-23	193	Task Dependent	0%								
BWBF-1370	Footbridge F4-02 (6nos. socket-H, 4d/pile, 1no. workfront)	24	24	20-Jul-23	16-Aug-23	03-May-23	31-May-23	200	Task Dependent	0%								
BWBF-170a	ELS for Footbridge F4-02	30	30	13-Jun-23	19-Jul-23	27-Feb-23	01-Apr-23	200	Task Dependent	0%								
ELS of Bridge Pier																		
ELS of Bridge A1 Foundation																		
BWBE-1010	ELS for Pier A1-02	30	8	23-Apr-23 A	16-May-23	24-Dec-22	03-Feb-23	259	Task Dependent	73.33%								
BWBE-1030	ELS for Pier A1-04	30	4	30-Mar-23 A	11-May-23	05-Jan-23	11-Feb-23	143	Task Dependent	86.67%								
BWBE-1050	ELS for Pier A1-01M	30	30	17-May-23	21-Jun-23	04-Feb-23	10-Mar-23	289	Task Dependent	0%								
ELS of Bridge A2 Foundation																		
BWBE-2000	Excavation & strut for Pier A2-02	15	3	12-Apr-23 A	11-Jul-23	19-Apr-23	06-May-23	-79	Task Dependent	80%								
ELS of Bridge A3 Foundation																		
BWBE-3000	ELS for Pier A3-01l	30	8	12-Apr-23 A	16-May-23	07-Jan-23	14-Feb-23	-11	Task Dependent	73.33%								
BWBE-3020	ELS for Pier A3-03r	30	30	08-May-23	12-Jun-23	14-Feb-23	20-Mar-23	-33	Task Dependent	0%								
BWBE-3030	ELS for Pier A3-03l	30	48	12-Apr-23 A	05-Jul-23	14-Feb-23	20-Mar-23	-51	Task Dependent	0%								
BWBF-1340a	ELS for Pier A3-01r	30	30	26-Jun-23	31-Jul-23	01-Apr-23	11-May-23	-23	Task Dependent	0%								
ELS of Bridge G Foundation																		
BWBE-4020	ELS for Pier G-04	30	30	23-Jun-23	28-Jul-23	21-Apr-23	27-May-23	162	Task Dependent	0%								
BWBE-4030	ELS for Pier G-03	30	30	29-Jul-23	01-Sep-23	29-May-23	04-Jul-23	222	Task Dependent	0%								
BWBE-4040	ELS for Pier G-02	30	30	02-Sep-23	09-Oct-23	05-Jul-23	08-Aug-23	162	Task Dependent	0%								
ELS of Bridge F4 Foundation																		
BWBE-5000	ELS for Pier F4-01	20	20	13-Jul-23	04-Aug-23	03-May-23	25-May-23	193	Task Dependent	0%								
BWBE-5010	ELS for Pier F4-02	20	20	17-Aug-23	08-Sep-23	01-Jun-23	24-Jun-23	200	Task Dependent	0%								

	Remaining Work		Crit Milestone
	Milestone		Actual Work
	Baseline Milestone		Actual Milestone
	Project Baseline		
	Critical Remaining Work		

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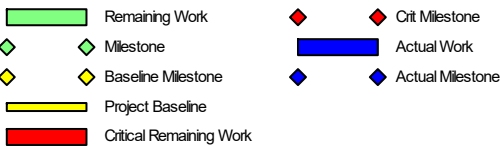
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Baseline Programme RP05			
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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023									
											Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
Pile cap of Bridge																				
Pile cap of Bridge A1 Foundation																				
BWBC-1010	Pile cap for Abt A1-02 (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	17-May-23	21-Jun-23	04-Feb-23	10-Mar-23	259	Task Dependent	0%										
BWBC-1030	Pile cap for Abt A1-04 (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	12-May-23	16-Jun-23	13-Feb-23	18-Mar-23	143	Task Dependent	0%										
BWBC-1050	Pile cap for Abt A1-01M (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	23-Jun-23	28-Jul-23	11-Mar-23	19-Apr-23	289	Task Dependent	0%										
Pile cap of Bridge A2 Foundation																				
BWBC-2000	Pile cap for A2-02a/b (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	12-Jul-23	15-Aug-23	08-May-23	12-Jun-23	-79	Task Dependent	0%										
Pile cap of Bridge A3 Foundation																				
BWBC-3000	Pile cap for A3-01l (2nos. pile cap, 30d/cap, 1nos. workfronts)	30	30	17-May-23	21-Jun-23	15-Feb-23	21-Mar-23	-11	Task Dependent	0%										
BWBC-3000a	Pile cap for A3-01r (1nos. pile cap, 30d/cap, 1 workfronts)	30	30	01-Aug-23	04-Sep-23	12-May-23	16-Jun-23	-23	Task Dependent	0%										
BWBC-3020	Pile cap for A3-03r (1no. pile cap, 30d/cap, 1no. workfront)	30	30	13-Jun-23	19-Jul-23	21-Mar-23	28-Apr-23	-33	Task Dependent	0%										
BWBC-3030	Pile cap for A3-03l (1no. pile cap, 30d/cap, 1no. workfront)	30	30	06-Jul-23	09-Aug-23	21-Mar-23	28-Apr-23	-51	Task Dependent	0%										
Pile cap of Bridge G Foundation																				
BWBC-4020	Pile cap for G-03 (1no. pile cap, 30d/cap, 1no. workfront)	30	30	02-Sep-23	09-Oct-23	05-Jul-23	08-Aug-23	222	Task Dependent	0%										
BWBC-4030	Pile cap for G-04 (1no. pile cap, 30d/cap, 1no. workfront)	30	30	29-Jul-23	01-Sep-23	29-May-23	04-Jul-23	162	Task Dependent	0%										
Pile cap of Bridge F4 Foundation																				
BWBC-5000	Pile cap for F4-01 (1no. pile cap, 30d/cap, 1no. workfront)	30	30	05-Aug-23	08-Sep-23	27-May-23	03-Jul-23	193	Task Dependent	0%										
Construction of Bridge Substructure																				
Construction of Bridge A1 Substructure																				
BWBS-1050	Pier A1-06a/b (2nos. column, 30d/column, 1 no. workfront)	60	56	20-Jan-23 A	14-Jul-23	21-Jan-23	04-Apr-23	61	Task Dependent	6.67%										
BWBS-1090	Pier A1-03a/b (2nos. column, 30d/column, 1 no. workfront)	60	52	09-Apr-23 A	31-Aug-23	21-Jun-23	31-Aug-23	200	Task Dependent	13.33%										
BWBS-1130	Pier A1-04a/b (2nos. column, 30d/column, 1 no. workfront)	60	60	15-Jul-23	22-Sep-23	06-Apr-23	20-Jun-23	121	Task Dependent	0%										
BWBS-1150	Pier A1-05a/b (2nos. column, 30d/column, 1 no. workfront)	60	45	02-May-23 A	30-Jun-23	06-Apr-23	20-Jun-23	132	Task Dependent	25%										
BWBS-1220	Abt A1-01M (1no. abutment, ~60 d/abutment, 1no. workfront)	60	60	01-Sep-23	13-Nov-23	01-Sep-23	13-Nov-23	260	Task Dependent	0%										
Construction of Bridge A2 Substructure																				
BWBS-1020	Pier A2-02a/b (2nos. column, 30d/column, 1no. workfronts)	60	60	16-Aug-23	27-Oct-23	13-Jun-23	23-Aug-23	-29	Task Dependent	0%										
BWBS-1060	Pier A2-01a/b (2nos. column, 30d/column, 1no. workfronts)	60	60	08-May-23	19-Jul-23	01-Mar-23	15-May-23	-81	Task Dependent	0%										
BWBS-1085	Pier A2-03l (1 no. column, 50d/column, portal, 1no. workfront)	50	50	08-May-23	07-Jul-23	15-Feb-23	18-Apr-23	-79	Task Dependent	0%										
Construction of Bridge A3 Substructure																				
BWBS-1010	Abt 03-06M (1no. abutment, 60d/abutment, 1no. workfront)	60	8	08-Dec-22 A	16-May-23	08-Dec-22	22-Feb-23	-72	Task Dependent	86.67%										
BWBS-1030	Pier A3-05a/b (2nos. column, 30d/column, 1no. workfront)	60	26	22-Jul-22 A	07-Jun-23	22-Jul-22	26-Oct-22	-47	Task Dependent	56.67%										
BWBS-1170	Pier A3-02 in nullah (1no. column, 60d/column, 1no. workfront)	60	54	09-Apr-23 A	12-Jul-23	23-Feb-23	09-May-23	-17	Task Dependent	10%										
BWBS-1195	Pier A3-01l (1 no. column, 50d/column, portal, 1no. workfront)- Stage 1	50	50	05-Aug-23	04-Oct-23	22-Mar-23	24-May-23	-47	Task Dependent	0%										
BWBS-1210	Pier A3-03r (1 no. column, 50d/column, portal, 1no. workfront)-stage 1	50	50	10-Aug-23	09-Oct-23	29-Apr-23	29-Jun-23	-51	Task Dependent	0%										
BWBS-1215	Pier A3-04a/b (2nos. column, 30d/column, 1no. workfront)	60	48	29-Sep-22 A	04-Aug-23	29-Sep-22	16-Dec-22	-47	Task Dependent	20%										
Construction of Bridge G Substructure																				
BWBS-1250	Pier G-04 (1no. column, 30d/column, 1no. workfront)	30	30	02-Sep-23	09-Oct-23	05-Jul-23	08-Aug-23	162	Task Dependent	0%										
Construction of Bridge Deck																				
Construction of Bridge A1 Deck																				
BWBD-1062	Falsework Erection for A1 cast in-situ pier segments-stage 1 (A1-03)	15	15	01-Sep-23	18-Sep-23	01-Sep-23	18-Sep-23	200	Task Dependent	0%										
BWBD-1063	Falsework Erection for A1 cast in-situ pier segments-stage 1 (A1-06)	15	15	15-Jul-23	01-Aug-23	06-Apr-23	26-Apr-23	61	Task Dependent	0%										
BWBD-1066	Falsework Erection for A1 cast in-situ pier segments-stage 2 (A1-05)	15	15	03-Jul-23	19-Jul-23	21-Jun-23	10-Jul-23	132	Task Dependent	0%										
BWBD-1073	Bridge A1 cast in-situ pier segments A1-06*	90	90	02-Aug-23	17-Nov-23	27-Apr-23	14-Aug-23	61	Task Dependent	0%										
BWBD-1076	Bridge A1 cast in-situ pier segments A1-05	90	90	20-Jul-23	04-Nov-23	11-Jul-23	26-Oct-23	132	Task Dependent	0%										
Construction of Bridge A2 Deck																				
Construction of Pier Segment																				
BWBD-1022a	Bridge A2 cast pier segments at A2-03r	90	90	08-May-23	23-Aug-23	07-Jan-23	29-Apr-23	-86	Task Dependent	0%										
BWBD-1023	Falsework Erection for A2 cast in-situ pier segments-A2-03l	23	23	08-Jul-23	03-Aug-23	19-Apr-23	16-May-23	-69	Task Dependent	0%										
BWBD-1023a	Bridge A2 cast pier segments at A2-03l	90	90	24-Aug-23	09-Dec-23	13-Jun-23	27-Sep-23	-86	Task Dependent	0%										
BWBD-1024	Falsework Erection for A2 cast in-situ pier segments-A2-05	23	23	08-May-23	03-Jun-23	22-Feb-23	20-Mar-23	-102	Task Dependent	0%										
BWBD-1024a	Bridge A2 cast pier segments at A2-05*	90	90	05-Jun-23	19-Sep-23	21-Mar-23	12-Jul-23	-102	Task Dependent	0%										



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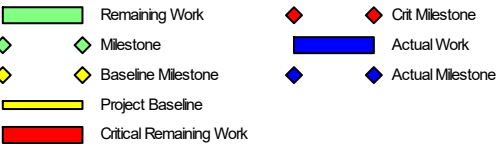
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Baseline Programme RP05

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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023						
											Apr	May	Jun	Jul	Aug	Sep	Oct
BWBD-1026	Falsework Erection for A2 cast in-situ pier segments-A2-01	23	23	20-Jul-23	15-Aug-23	16-May-23	12-Jun-23	-81	Task Dependent	0%							
BWBD-1026a	Bridge A2 cast pier segments at A2-01	90	90	16-Aug-23	01-Dec-23	13-Jun-23	27-Sep-23	-81	Task Dependent	0%							
BWBD-1027	Falsework Erection for A2 cast in-situ pier segments-A2-04	23	20	29-Apr-23 A	31-May-23	29-Mar-23	28-Apr-23	17	Task Dependent	13.04%							
BWBD-1027a	Bridge A2 cast pier segments at A2-04	90	90	01-Jun-23	15-Sep-23	29-Apr-23	16-Aug-23	17	Task Dependent	0%							
Construction of Bridge A3 Deck																	
Construction of Pier Segment																	
BWBD-1081	Falsework Erection for A3 cast in-situ segments (A3-04)	10	10	05-Aug-23	16-Aug-23	17-Dec-22	30-Dec-22	-37	Task Dependent	0%							
BWBD-1081a	Bridge A3 cast in-situ segments (A3-04)	90	90	17-Aug-23	02-Dec-23	31-Dec-22	24-Apr-23	-37	Task Dependent	0%							
BWBD-1082	Falsework Erection for A3 cast in-situ segments (A3-05)	10	10	08-Jun-23	19-Jun-23	27-Oct-22	07-Nov-22	274	Task Dependent	0%							
BWBD-1082a	Bridge A3 cast in-situ segments (A3-05)	90	90	20-Jun-23	06-Oct-23	08-Nov-22	19-Dec-22	274	Task Dependent	0%							
BWBD-1083	Falsework Erection for A3 cast in-situ segments (A3-06)	21	21	17-May-23	10-Jun-23	23-Feb-23	06-Mar-23	-72	Task Dependent	0%							
BWBD-1083a	Bridge A3 cast in-situ segments (A3-06)*	90	90	12-Jun-23	26-Sep-23	07-Mar-23	27-Jun-23	-72	Task Dependent	0%							
BWBD-1087	Falsework Erection for A3 cast in-situ segments (A3-02)	10	10	13-Jul-23	24-Jul-23	10-May-23	20-May-23	-17	Task Dependent	0%							
U-trough 1-4																	
UT1-1000	U-trough 1 and near by road works and FW-18 (after Bored pile G-06)	80	80	23-Jun-23	25-Sep-23	18-Apr-23	24-Jul-23	-15	Task Dependent	0%							
UT3-1000	U-trough 3 and near by road works (after F4-02 H pile)	80	80	24-Aug-23	28-Nov-23	15-Jun-23	18-Sep-23	193	Task Dependent	0%							



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Three Months Rolling Programme (08 May 2023 to 31 August 2023)

Data Date: 08-May-23
Printed: 10-May-23 11:27
Layout: 3 MRP Layout
TASK filter: 3 Months Lookahead.

Baseline Programme RP05			
Date	Revision	Ch...	Approved
08-May-23	Data Date		



AECOM

PROJECT

DEVELOPMENT OF
KWU TUNG NORTH AND
FANLING NORTH
NEW DEVELOPMENT
AREAS, PHASE 1

CONTRACT TITLE:

FANLING NORTH NEW
DEVELOPMENT AREA, PHASE 1:
FANLING BYPASS
EASTERN SECTION
(SHEK WU SAN TSUEN NORTH
TO LUNG YEUK TAU)

CLIENT

土木工務拓展署
Civil Engineering and
Development Department

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

2018/04/24

ISSUE/REVISION

NO.	DATE	DESCRIPTION	BY	CHK.
1	NOV-18	TENDER DRAWING	RP/CM	

STATUS

SCALE	DIMENSION UNIT
A1 1:7000	METRES
KEY PLAN	

PROJECT NO.

60335578

CONTRACT NO.

ND/2019/04

SHEET TITLE

KEY PLAN AND LOCATION PLAN

SHEET NUMBER

60335578/C5A/C00/1000

Construction Programme of ND/2019/05

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish	May 2023						June 2023					July 2023				August 2023				
					23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
Detail Programme Revision 16 (DRAFT)																								
4.0 - Bridge Construction																								
4.4 - Bridge B1																								
4.4.1 - Substructure Portion I and 1A																								
B1-0014	B1 - Abutment B1-01M Wall	36	01-Mar-23 A	13-Jun-23																				
B1-0014a	B1 - Abutment B1-01M Backfilling	36	14-Jun-23	27-Jul-23																				
4.4.4 - Bridge Deck																								
B1-0060	B1-02 Portal Beam - Falsework	15	01-Nov-22 A	18-May-23																				
B1-0061	B1-02 Portal Beam - Construction	56	19-May-23	26-Jul-23																				
4.5 - Bridge B2																								
4.5.1 - Substructure																								
B2-0205	B2-03 ELS - Excavation	24	22-Mar-23 A	30-May-23																				
B2-0210	B2-03 Pile Cap	30	31-May-23	06-Jul-23																				
B2-0220	B2-03 Column	30	07-Jul-23	10-Aug-23																				
B2-0245	B2-02 ELS - Excavation	8	02-Mar-23 A	10-May-23																				
B2-0250	B2-02 Pile Cap	30	11-May-23	15-Jun-23																				
B2-0260	B2-02 Column	30	16-Jun-23	22-Jul-23																				
B2-0280	B2-01 ELS - Sheetpiles	18	16-Jun-23	08-Jul-23																				
B2-0285	B2-01 ELS - Excavation	30	10-Jul-23	12-Aug-23																				
4.6 - Bridge C1																								
4.6.2 - Pier																								
C1-1155	Pier C1-02 N/B Backfilling	18	02-May-23	22-May-23																				
C1-1172	Pier C1-01M N/B Pier Head (Typ 4)	20	13-Feb-23 A	24-May-23																				
C1-1175	Pier C1-01M N/B Backfilling	12	25-May-23	08-Jun-23																				
C1-1315	Pier C1-02 S/B Backfilling	18	02-May-23	22-May-23																				
C1-1335	Pier C1-01M S/B Backfilling	12	02-May-23	15-May-23																				
4.6.3 - Portal Beam																								
C1-3011	C1-01M Portal Beam - Falsework Erection	30	09-Jun-23	15-Jul-23																				
C1-3020	C1-01M Install Bearing	18	02-May-23	22-May-23																				
C1-3111	C1-02 Portal Beam - Falsework Erection	24	17-Jun-23	17-Jul-23																				
4.7 - Bridge C2																								
4.7.2 - Pier																								
C2-1452	Pier C2-03 N/B Pier Head (Typ 1)	6	24-Apr-23 A	08-May-23																				
C2-1455	Pier C2-03 N/B Backfilling	18	09-May-23	30-May-23																				
C2-1475	Pier C2-03 S/B Backfilling	12	02-May-23	15-May-23																				
C2-1482	Pier C2-04M N/B ELS - Excavation	12	17-Apr-23 A	15-May-23																				
C2-1485	Pier C2-04M N/B Pile Cap	18	16-May-23	06-Jun-23																				
C2-1490	Pier C2-04M N/B Column	24	07-Jun-23	06-Jul-23																				
4.7.3 - Cross Head																								
C2-1752	C2-01 Cross Head Falseworks	30	14-Jul-23	17-Aug-23																				
C2-1805	C2-02 Cross Head Construction	36	27-Mar-23 A	13-Jun-23																				
C2-1808	C2-02 Cross Head Remove Temp Works	24	14-Jun-23	13-Jul-23																				
4.7.4 - Bridge Deck																								
C2-2300	C2-03 S/B Segment on Pier by Crane	36	23-Jun-23	04-Aug-23																				
C2-2310	C2-03 N/B Segment on Pier by Crane	36	23-Jun-23	04-Aug-23																				
4.8 - Bridge C3																								
4.8.3 - Pier																								
C3-1225	Pier C3-01b Backfilling	18	02-May-23	22-May-23																				
C3-1425	Pier C3-03a Backfilling	24	17-Jun-23	17-Jul-23																				

Actual Work

Non-critical

Critical

Milestone

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

Three-Month Rolling Programme

Project ID : DPR16
Layout : 3MRP EPD
Date : 02-Jun-23 / Page 1 of 5

3MRP

Date

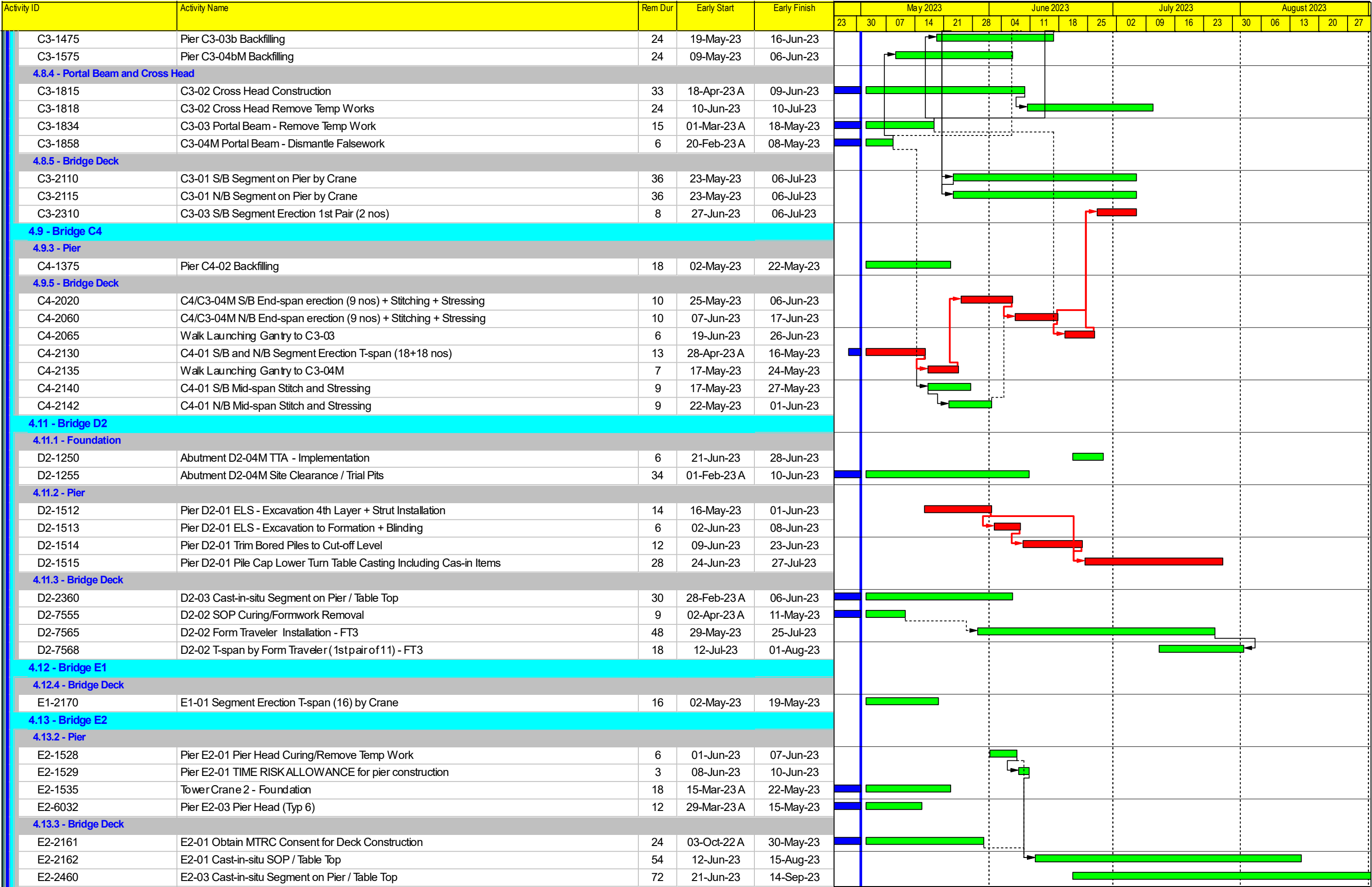
01-Jun-23

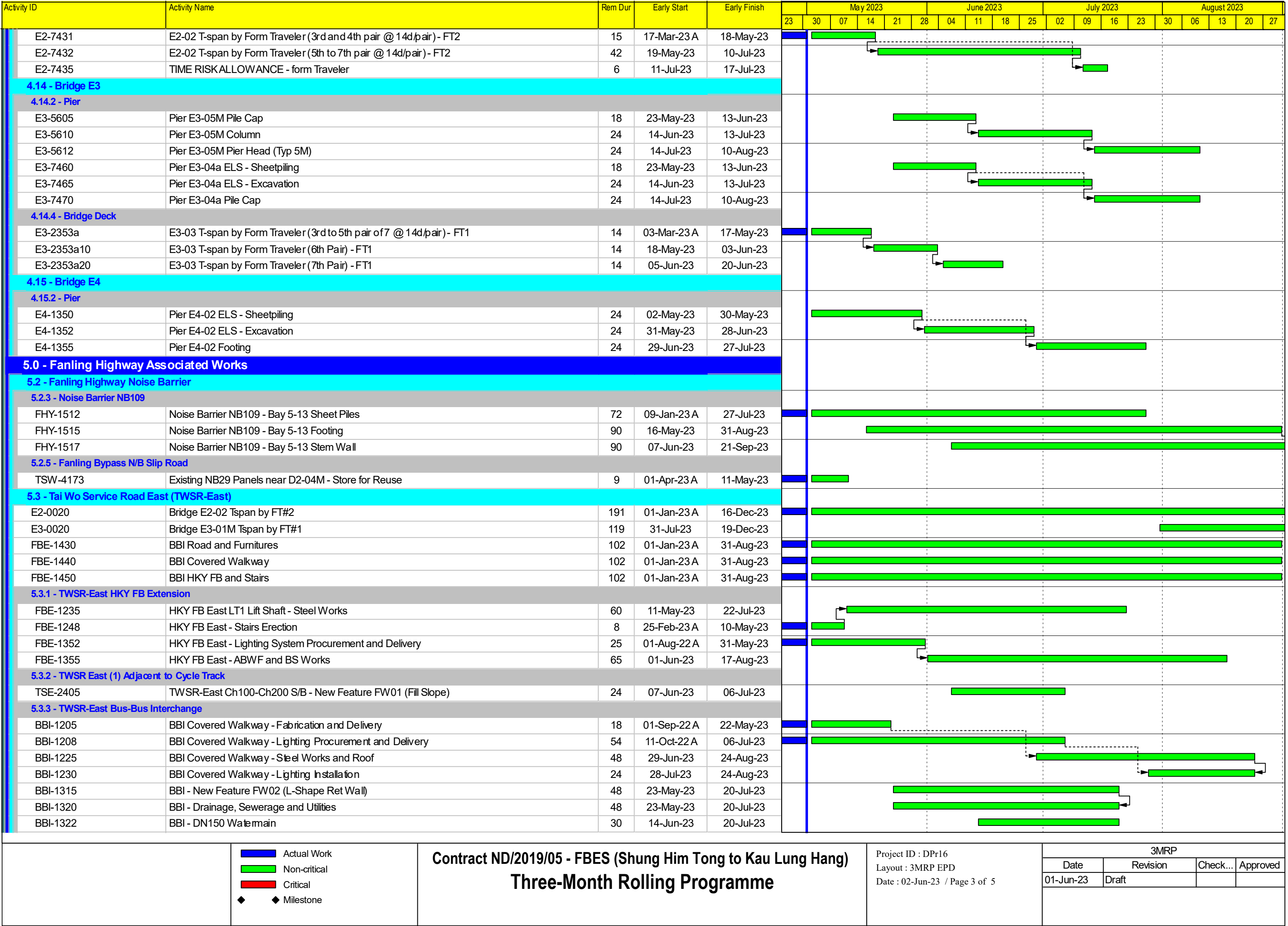
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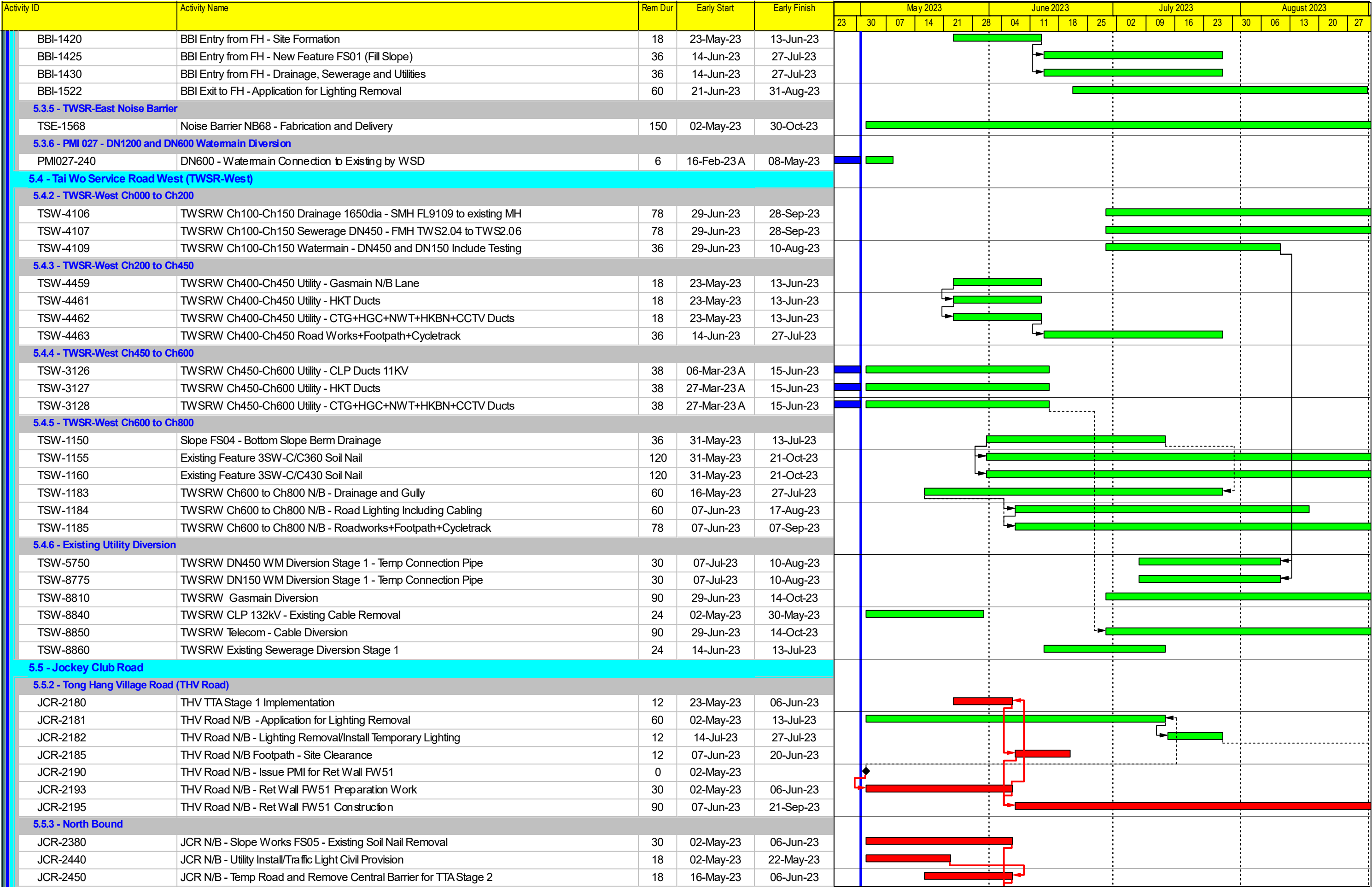
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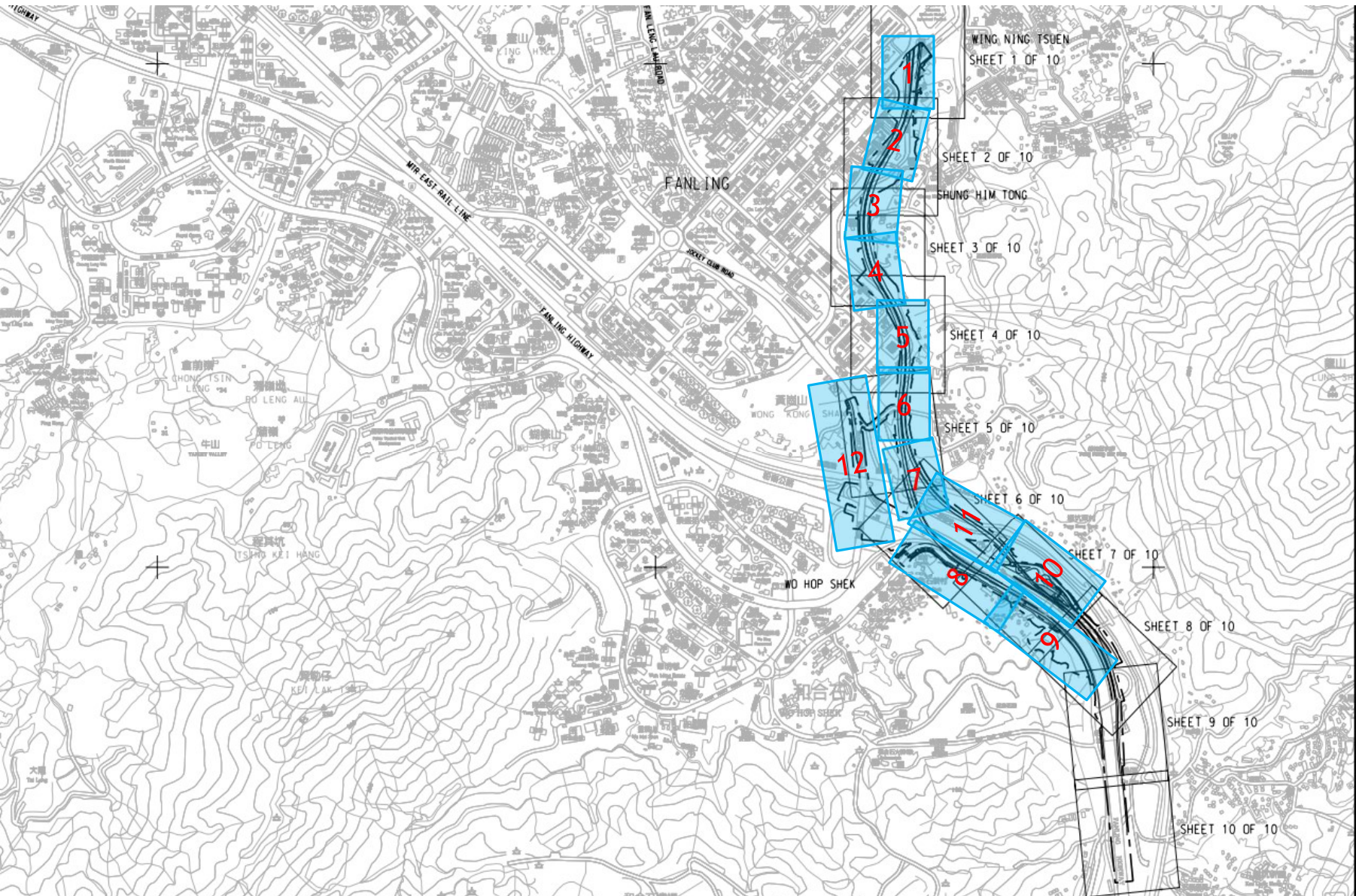
Approved







Activity ID		Activity Name	Rem Dur	Early Start	Early Finish																				
						May 2023					June 2023				July 2023				August 2023						
						23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	
	5.5.5 - South Bound																								
	JCR-2600	JCR TTA Stage 2A Implementation	9	07-Jun-23	16-Jun-23																				
	JCR-2610	JCR S/B Slow Lane - Drainage Works	24	17-Jun-23	17-Jul-23																				
	JCR-2620	JCR S/B Slow Lane - Utility Install/Road Lighting	24	17-Jun-23	17-Jul-23																				
	JCR-2630	JCR S/B Slow Lane - Road Paving/Marking	48	17-Jun-23	14-Aug-23																				
		<div>Actual Work</div> <div>Non-critical</div> <div>Critical</div> <div>◆◆ Milestone</div>	Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang) Three-Month Rolling Programme										Project ID : DPr16 Layout : 3MRP EPD Date : 02-Jun-23 / Page 5 of 5					3MRP DateRevisionCheck...Approved 01-Jun-23Draft							



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ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
1	JUN-19	TENDER DRAWING	RPCM
2			
3			
4			
5			
6			
7			
8			
9			
10			

STATUS

SCALE

A1 : 7000

DIMENSION UNIT

METRES

KEY PLAN

PROJECT NO.

80335576

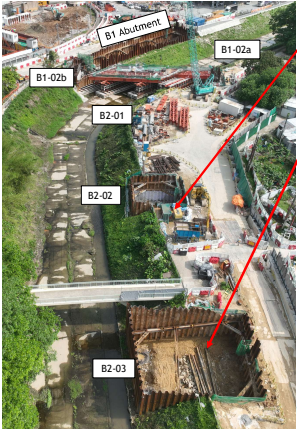
CONTRACT NO.

ND/2019/05

SHEET TITLE

KEY PLAN AND LOCATION PLAN

1 North Team



B2-02 rebar fixing works in progress

B2-02 Bored Pile Breaking Works Completed

B2-02 (Shum Him Tong)

- Bored Pile Head Breaking Completed
- B2-02 Rebar Fixing Works in Progress
- Target B2-02 Cap Concreting Date on 13/05/23
- Pile Cap - ES: 22/04/23 EF: 19/05/23
- Pile Cap - LS: 14/02/24 LF: 19/03/24
- Ahead against R15

B2-03 (Shum Him Tong)

- 2nd ELS strut layer Excavation in progress completed
- 2nd ELS strut layer strut installation in progress
- ELS Excavation - ES: 22/03/23 EF: 29/04/23
- ELS Excavation - LS: 03/01/24 LF: 26/01/24
- On Track against R15

B2-03 2nd ELS strut layer Installation in progress

1 North Team

B1-01M (On Kui St)

- Bitumen Painting, Geotextile, Mira Drain and subsoil drain installation completed
- Concrete Block Retaining Wall Installation Completed
- Backfilling in progress
- Wall - ES: 01/03/23 EF: 15/05/23
- Wall - LS: 26/02/24 LF: 06/04/24
- On track against R15

Concrete Block Retaining Wall Installation Completed

Bitumen Painting & geotextile installation completed

Backfilling in Progress

2 Pier & Portal Team

Area Highlighted - B1-02 Portal Beam

Portion 1 (On Kui St)

B1-02 Portal Beam

ES: 01/03/23 EF: 12/08/24
LS: 15/07/24 LF: 19/11/24
Target portal beam concreting by 30/06/23
On Track against R15

Steel beam erection at B1-02 portal beam construction completed on 17/05/2023

Support tower at B1-02b completed

Soffit formwork erection at B1-02 portal beam construction in progress

Additional Mega-Shor Tower 3 at B1-02 portal beam construction completed

2 Pier & Portal Team

C1-01a (Shum Him Tong)

- C1-01a pier head completed on 17/04/23
- Pier Head
- ES: 11/03/23 EF: 17/04/23
- LS: 30/12/23 LF: 13/11/23
- On Track against R15

C1-01a pier head completed on 17/04/2023

C1-01a bearing plinth completed on 17/04/2023

C1-01b pier head

- C1-01a pier head completed on 17/05/23
- Pier Head
- ES: 13/02/23 EF: 19/05/23
- LS: 23/12/23 LF: 06/01/24
- Ahead against R15

C1-01b pier head concreting completed on 17/05/2023

3 Pier & Portal Team

Portion 5 (On Lok Garden)
C2-03b
 Pier completed on 05/05/23
 - Pier + Pier Head
 - ES: 18/04/23 EF: 16/05/23
 - LS: 04/09/23 LF: 03/10/23
 - Ahead against R15

C2-03b pier head concreting completed on 05/05/23

Dismantling of steel mould at C2-03b pier head completed on 10/05/23

Dismantling of falsework at C2-03b pier head in progress

3 Pier & Portal Team

Portion 4
C2-02 cross head Construction
 - C2-02 cross head in progress
 - Cross head - ES: 14/02/23 EF: 28/04/23
 - LS: 01/11/23 LF: 23/01/24
 - Target 1st pour concreting by 11/05/23
 - Ahead against R15

Formwork erection at C2-02 cross head completed on 02/05/2023

Rebar fixing at C2-02 cross head in progress

Formwork erection at C3-02 cross head completed on 02/05/2023

4 North Team

Portion 5 (On Lok Garden)
 Temporary Haul Road to Bridge Deck
 - Detailed design in progress, preliminary schemes will be ready by 23/05/23

Concrete blocks

Steel decking

Section a-a

Section b-b

Section c-c

Section d-d

4 North Team

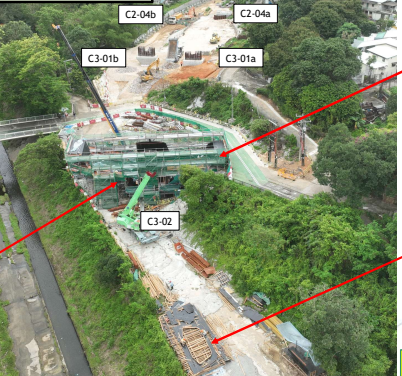


Portion 5 (On Lok Garden)
 Existing CLP poles removed.

Trench excavation for removal of CLP poles.

4

Pier & Portal Team
Area Highlighted
- Cross head - C3-02

Portion 6 (Village side)
C3-02 Cross Head Construction In Progress
Cross head - ES: 01/02/23 EF: 29/06/23
LS: 01/06/23 LF: 23/08/23
Target 1st pour concreting by 29/05/23
On track against R15

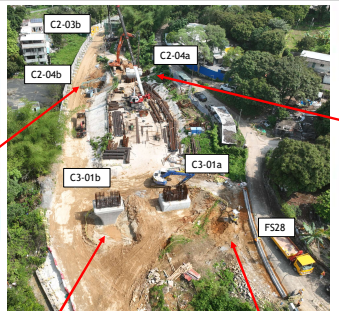








Erection of soffit at C3-02 cross head construction completed on 06/05/23

Side formwork erection at C3-02 cross head construction in progress

4

North Team

C2-04b 1st layer strut completed on 02/05/23

C2-04b blinding layer completed on 09/05/23

C3-01b backfilling to F.G.L. and pipe pile extraction completed on 24/04/23

Slope FS28 drainage construction in progress

C2-04a sheet pile extraction from 22/04/23 to 28/04/23

Portion 5 (On Lok Garden)
C2-04b
- ELS 1st layer strut completed on 02/05/23
- Excavation completed and blinding layer cast on 09/05/23
- ELS + Cap: ES: 14/03/23 EF: 06/06/23
LS: 03/05/23 LF: 04/07/23
On track against R15
C3-01b
- Backfilling to F.G.L. and pipe pile extraction completed on 24/04/23
- Backfilling: ES: 01/04/23 EF: 26/04/23
LS: 24/07/23 LF: 12/08/23
On track against R15
Slope FS28
- Drainage construction in progress

5

North Team

Portion VI (Tai Wong Yeh)
Pier C4-01a
- Backfilling to E.G.L. (+13.6mPD) in progress.
Backfilling - ES: 01/04/23 EF: 26/04/23
LS: 26/04/23 LF: 19/05/23
On track against R15





C4-01a backfilling to +12.8mPD, SRT carried out on 15/04/23. Passed

C4-01a backfilling to +13.1mPD, SRT carried out on 27/04/23. Passed

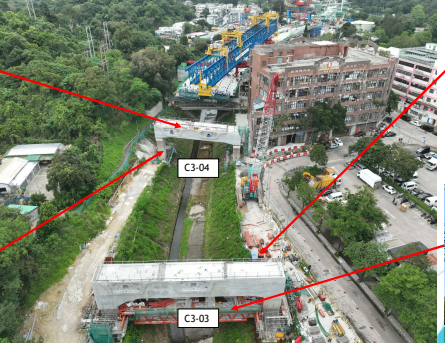




5

North Team

Pier & Portal Team
Area Highlighted
- Portal Beam - C3-04 & C3-03

Portion 6 (Village side)
C3-04 MJ Portal Beam Construction In Progress
Portal beam - ES: 20/02/23 EF: 20/04/23
LS: 21/04/23 LF: 12/05/23
Target dismantling of truss: 15 Apr 2023
Ahead against R15

Portion 6 (Village side)
C3-03 Portal Beam Construction In Progress
Portal beam - ES: 01/03/23 EF: 04/05/23
LS: 17/05/23 LF: 10/06/23
Target dismantling of truss: 15 May 2023
Ahead against R15

Dismantling of truss at C3-04 Portal Beam completed on 05/05/23

Dismantling of VST Tower at C3-04 Portal Beam completed on 10/05/23

Dismantling of soffit panel at C3-04 Portal Beam completed on

Dismantling of truss at C3-03 Portal Beam in progress

5  CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

► **Viaduct**

Launching Girder (Bridge C4)

- C4-01 T-span segments erection by LG completed on May 17
- Total 132 segments erected by LG





6 ► **North Team**



Temp Footbridge




Tong Hang Village Road Southbound Footpath

- Construction of cable duct & draw pits for traffic light, detection loop & Street light
- ES: 15/03/24 IS: 23/04/23
- LS: 15/03/24 LP: 23/04/24
- Ahead against R15

Spliced and cut of abandoned cable by CLP on 28/04/2023






Construction of ATC and E&M draw pit in progress

6  CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

► **Viaduct**

Segments Erection by Crane (Bridge E1 and D1)

- T-span segments at pier D1-01 in progress
- Precast shell on D1-02 and D1-03, Rebar fixing is in progress

6  CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

► **Viaduct**

Segments Erection by Crane (Bridge E1 and D1)

- C4-04 end span segment erection in progress




7 North Team
Area Highlighted - D2-01

Portion 8 (MTR trackside)
E2-01 Tower Crane Foundation
- Mini-piles commenced on 17/04/23 and completed on 05/05/23
- Pile cap construction target to start on 12/05/23

D2-01
- 2nd layer strut and UU hanger frame completed on 02/05/23
- Shotcreting completed on 04/05/23
- Excavation to 3rd ELS layer in progress.
- D2-01 ELS - Grouting + Excavation
- ES: 15/11/22 EF: 12/06/23
- LS: 01/04/22 LF: 12/06/23
- On track against R15

E2-01 Tower Crane mini-piles completed on 05/05/23

D2-01 2nd layer strut and UU hanger frame completed on 02/05/23.

D2-01 Excavation to 3rd ELS layer in progress.

7 Pier & Portal Team
Area Highlighted
- Rotation bridge- E2-01 pier

Rotation Bridge at Pier E2-01
Pier head Construction in Progress
- Pier head ES: 12/04/23 EF: 23/06/23
- LS: 24/05/23 LF: 28/06/23
Target pier head (2nd pour) concreting by 03/06/23
Ahead against R15

North Team

E2-01 pier head (1st pour) completed on 20/04/23

E2-01 pier head (2nd pour) in progress

Dismantling of E2-01 steel mould at pier head (1st pour) completed on 27/04/23

8 Form Traveler Team
Area Highlighted
- FT3 (D2-02 T-Span)

FT3: D2-02
- Installation of FT3 in progress
- Installation of FT3
- ES: 06/05/23 EF: 22/07/23
- LS: 19/05/23 LF: 04/08/23
- On Track against R15

Railway beam & main frame arrived site on 13/05/23

Access tower erection in progress

Railway concreting completed on 27/04/23

8 South Team - Highlight
Demolish Existing Noise Barrier(TWSRW)

Removal works carried out on 14/4 to 27/4
Total 6 Nightworks

Item	No.
PMMA Noise Panel	48
AB Panel	48
Fire Breaker	20
Steel Column	25

2023年4月27日 04:16:58

2023年4月28日 17:04:55

8 South Team - Highlight UU work at TWSRW



Excavation work of CLP 11kV joint bay for cable laying



1" and 2" circuit completed. Backfilling work of joint bays are in progress.



Removal work of existing CLP132Hv cable for gas connection work and construction work of drainage manhole (FL9110)



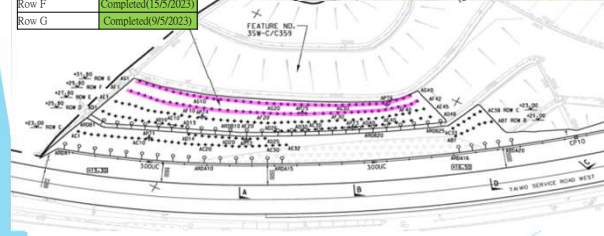
Ducts laying (Telecoms) (Between FS20 and FS20A)



250 dia. gas pipe laying (Between FS20A and FW52 - Bay 7)

9 South Team FS04 Concreting of Soil Nail Head

Row	Completed
Row B	Digging in Progress
Row C	Digging in Progress
Row D	Target 25/5/2023
Row E	Target 19/5/2023
Row F	Completed (15/5/2023)
Row G	Completed (9/5/2023)



1. FS 04 - Soil Nail
TSW 1138 (R15) ES: 01/11/22 EF: 04/05/23
LS: 19/05/23 LF: 16/06/23
• Digging work of soil nail head in progress
• Concreting of soil nail head in progress

9 South Team

1. TWSRW (CH200 to 400)
TSW - 4450 (R15) ES: 15/11/22 EF: 10/07/23
LS: 05/05/23 LF: 07/08/23
• Road work affected by UU laying work.



Trench excavation for temporary diversion work of DN 600 sewer



Trench excavation for laying water main



Construction work of U-channel at FS06



Laying sub-base layer (CH235 - CH290)



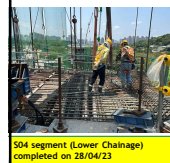
Concrete paving of new Wo Hop Shek Village entrance (Run-in)



Trench excavation for laying DN1200 (drainage)
• (Between FL9104A and FL9104B)

10 Form Traveller Team Area Highlighted - FT1 (E3-03 T - Span)

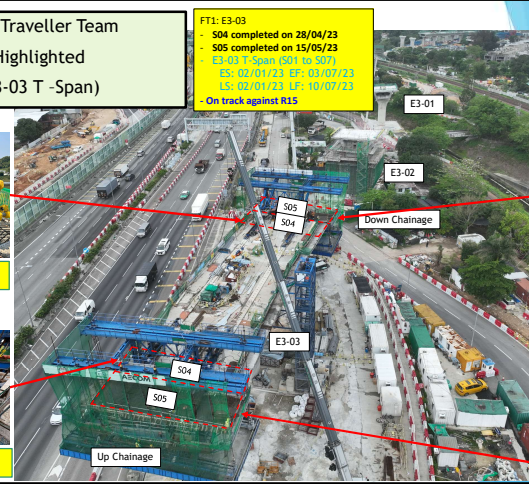
FT1: E3-03
• S04 completed on 28/04/23
• S05 completed on 15/05/23
E3-03 T - Span (2011 to 2017)
ES: 02/01/23 EF: 03/07/23
LS: 02/01/23 LF: 10/07/23
• On track against R15



S04 segment (Lower Chainage) completed on 28/04/23



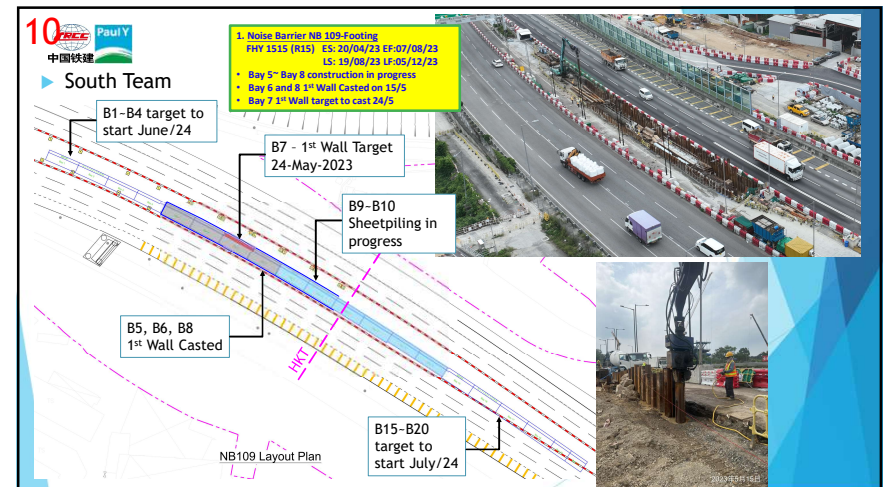
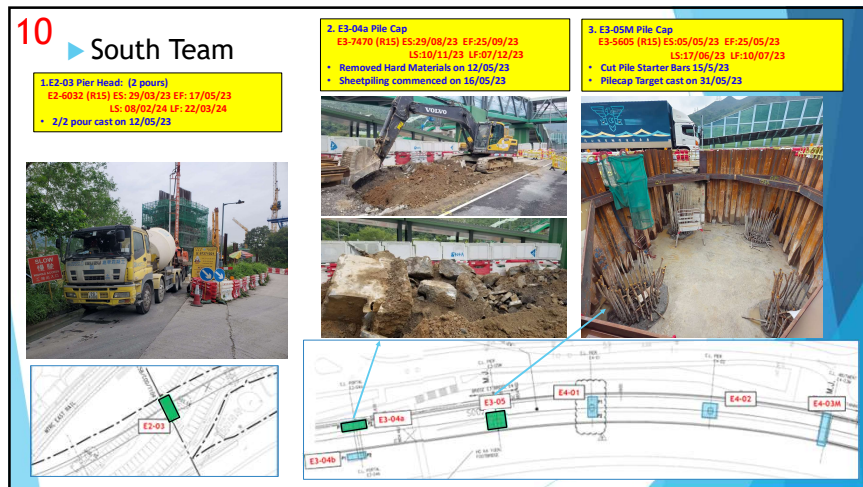
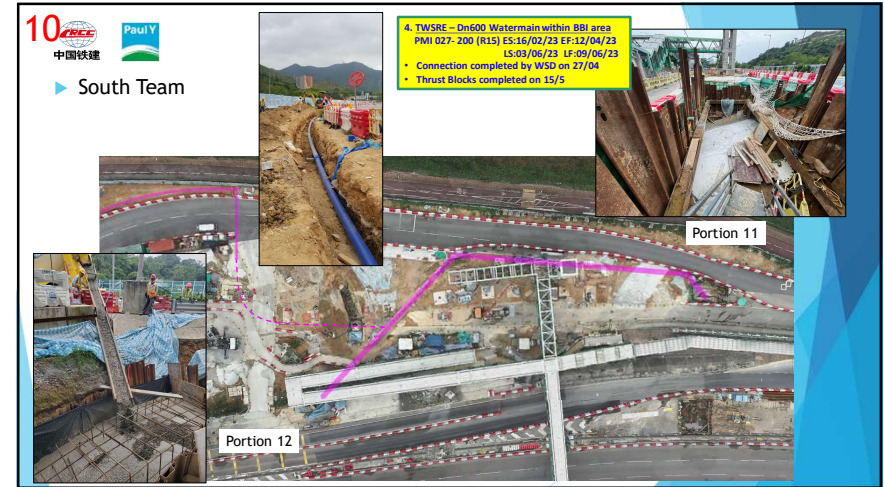
S04 segment (up Chainage) completed on 27/04/23




S05 segment (Lower Chainage) completed on 15/05/23




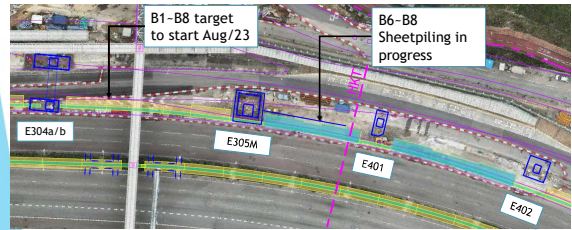
S05 segment (up Chainage) completed on 15/05/23



10  **Paul Y**
中國鐵建

► **South Team**

1. Noise Barrier NB 69
TSE-1515 (R15) ES: 17/11/23 EP: 21/12/23
LS: 05/01/24 LF: 08/02/24
• Bay 6~ Bay 8 Sheetpiling works in progress

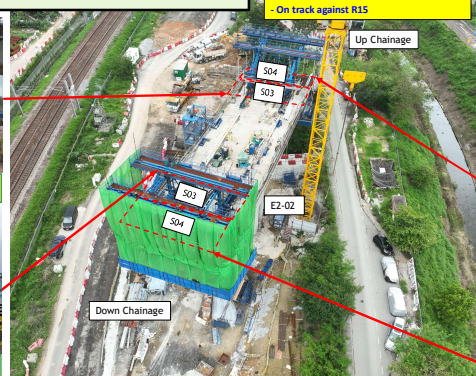
B1-B8 target to start Aug/23

B6-B8 Sheetpiling in progress

11

► **Form Traveller Team**
Area Highlighted
- FT2 (E2-02 T-Span)

FT2: E2-02
- S03 segment completed on 24/4/23
- S04 segment completed on 24/4/23
- Target concreting at S05 by 02/06/23
- E1+011.7 Span 100' to 50'14'
ES: 02/11/22 EF: 28/10/23
LS: 02/11/22 LF: 22/11/23
- On track against R15



Up Chainage

Down Chainage

S03 segment (Up Chainage) completed on 24/04/23

S03 segment (Down Chainage) completed on 24/04/23

Rebar fixing at S04 (Up Chainage) concreting completed on 17/05/23

Rebar fixing at S04 (Down Chainage) concreting completed on 17/05/23

11  **Paul Y**
中國鐵建

CEPD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

► **Viaduct**

Segment On Pier (SOP)

- E3-02 cast 2nd pour concrete on 17/04/2023
- D2-03 cast 1st pour concrete on 03/05/2023


D2-03




E3-02




12 ► **North Team**




Rockfill at CH. 110 - CH. 140 in progress



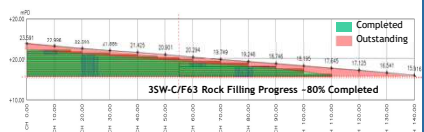
Coring of retaining wall for installation of 225 dia. pipe



Construction of stepped channel in progress



Construction of U-Channel in progress



35W-C/F63 Rock Filling Progress - 80% Completed

Jockey Club Road 35W-C/F63
- Rockfill Slope construction in progress - ~80%
Rockfill Ch 60 - 110
LS: 01/04/23 LF: 01/04/23
Rockfill Ch 0 - 50
LS: 01/04/23 LF: 01/04/23
Rock Ch 110-140
LS: 01/04/23 LF: 26/04/23
- Slippage against R15

- Construction of U-Channel in progress
- Construction of stepped channel in progress
- Rockfill at CH. 110 - CH. 140 in progress
- Coring of retaining wall for installation of 225 dia. pipe

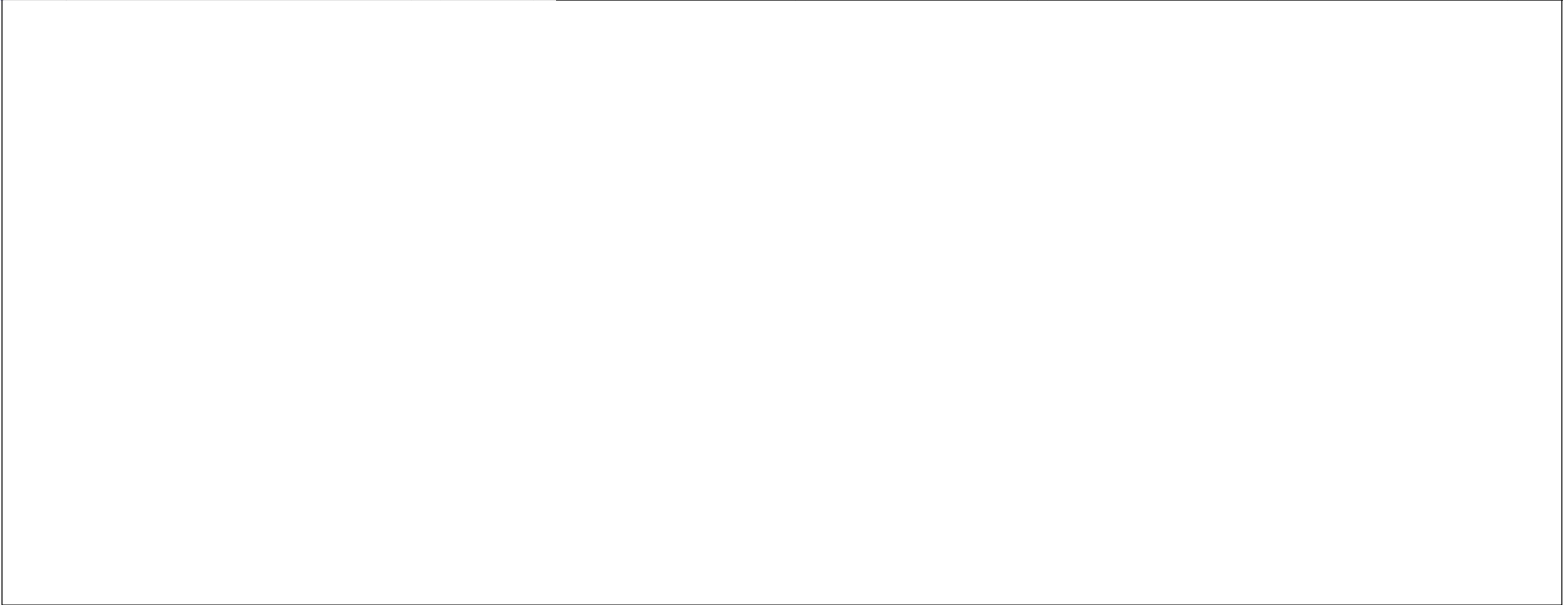
Construction Programme of ND/2019/07






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

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float		May	Jun	2023	Jul	Aug	Sep
Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works						1416	31-Aug-20 A	13-Nov-24	-91			
Key Dates and Sectional Completion of the Works						0	13-May-23	13-May-23	0			
Contractual Key Dates						0	13-May-23	13-May-23	0			
KDS1000	KD1 - Completion of all works within Portion V of the Site necessary for the opening of partial Road L1	0		13-May-23*	0			◆ KD1 - Completion of all works within Portion V of the Site necessary for the opening of partial Road L1				
Preliminaries, Contractor's Design, Method Statement Submission and Approval						425	10-Aug-22 A	05-Nov-23	-21			
General Submission						150	01-Jan-23 A	21-Jun-23	-125			
PGS1260	TTA Scheme for UU along MSK Road	150	01-Jan-23 A	21-Jun-23	-125							
Contractor's Design Submission and Approval						158	23-Nov-22 A	10-Aug-23	-6			
Permanent Works Design						158	23-Nov-22 A	10-Aug-23	-6			
PWD1030	Design for irrigation system	75	08-May-23	02-Aug-23	-22							
PWD1035	Time risk allowance for Design for irrigation system	7	03-Aug-23	10-Aug-23	-22							
PWD1040	Design for noise barrier panel	90	23-Nov-22 A	09-May-23	67							
PWD1045	Time risk allowance for Design for noise barrier panel	7	09-May-23	17-May-23	67							
Tendering and Procurement for Major Subcontractor						425	10-Aug-22 A	05-Nov-23	-21			
TDS1170	Place Order and Delivery of NB steel posts	299	10-Aug-22 A	21-Jun-23	43							
TDS1180	Place Order and Delivery of NB steel panel	364	09-Nov-22 A	05-Nov-23	-21							
Tree Works and Submission of the tree survey report and tree preservation and removal propo						80	28-Mar-22 A	15-May-23	-88			
Tree Works on Ma Sik Road						80	28-Mar-22 A	15-May-23	-88			
TWS1210	TPRP and Tree transplanting works at the side of road (9nos) (before noise barrier construction)	80	28-Mar-22 A	15-May-23	-88							
Section 1- Site Formation and Infrastructure Works in Area A						876	03-Jan-22 A	31-May-24	20			
Site Formation (Portion II- Area A 21900m2)						480	03-Jan-22 A	18-Aug-23	-154			
Site Formation Works in South Part of Portion II						480	03-Jan-22 A	18-Aug-23	-154			
S1-SF1415	Site formation works part 2 (12577m3) and Removal of temporary works, haul road and temporary accesses	75	03-Jan-22 A	16-May-23	-154							
S1-SF1417	Site formation works part 3 (12577m3) and Removal of temporary works, haul road and temporary accesses	78	16-May-23	18-Aug-23	-154							
Site Formation (Portion III- Area A 49000m2)						15	08-May-23	24-May-23	318			
S1-SF1546	Removal of existing feature 3SW-A/F85	15	08-May-23	24-May-23	318							
Box Culvert BC3 and Outfall 10						414	13-Jan-23 A	31-May-24	-114			
Box Culvert BC3 (CH168 to CH216)						31	08-May-23	13-Jun-23	-120			
S1-BC0890	Backfilling from Bay 17 to Bay 18 (2310m3)	31	08-May-23	13-Jun-23	-120							
Box Culvert BC3 (CH216 to CH264)						102	13-Mar-23 A	11-Aug-23	-169			
S1-BC1080	Construction of the box culvert side wall and top slab Bay 19	30	13-Mar-23 A	31-May-23	-199							
S1-BC1090	Construction of the box culvert side wall and top slab Bay 20	30	01-Jun-23	07-Jul-23	-199							
S1-BC1100	Construction of the box culvert side wall and top slab Bay 21	30	08-Jul-23	11-Aug-23	-199							
S1-BC1105	Excavation and construction of the box culvert base slab Bay 22	10	08-May-23	18-May-23	-99							
Box Culvert BC3 (CH264 to CH282.799) and Outfall 10						181	13-Jan-23 A	31-May-24	-114			
S1-BC1125	Construction of haul road and preparation works for Bay 23, Bay 24 and outfall 10	19	13-Jan-23 A	27-Jan-24	-65							
S1-BC1160	Excavation for construction of outfall and box culvert BC3	20	14-Mar-23 A	08-Apr-24	-89							
S1-BC1180	Laying of geotextile filter, grade 200 rockfill, polythene sheet	10	21-Mar-23 A	06-May-24	-89							
S1-BC1190	Concreting for the blinding layer	10	22-Mar-23 A	11-May-24	-89							
S1-BC1200	Construction of the base slab of Outfall 10 and box culvert Bay 23 & Bay 24	20	25-Mar-23 A	31-May-24	-89							
Drainage, Sewerage, Waterworks and Road Works						309	04-Jan-23 A	23-Jan-24	-19			
Along Ma Sik Road						50	23-Jun-23	21-Aug-23	-101			
TTA - Closure of Ma Sik Road Eastbound Slow Lane between Wo Tai Street and Site Boundary						50	23-Jun-23	21-Aug-23	-101			
S1-CS1240	Implement TTA	10	23-Jun-23	05-Jul-23	-101							
S1-CS1260	UU detection and trial pit	10	06-Jul-23	17-Jul-23	-101							
S1-CS1270	Utility works by others	30	18-Jul-23	21-Aug-23	-101							
S1-CS1293	Fresh water main works (10m) (In dry season)	30	18-Jul-23	21-Aug-23	-101							
S1-CS1295	Flushing water main works (10m) (In dry season)	30	18-Jul-23	21-Aug-23	-101							
Along Proposed Cycletrack and Footpath						309	04-Jan-23 A	23-Jan-24	-19			
Works in Portion I						198	04-Jan-23 A	08-Sep-23	92			
Works in Portion I CT73 (Ch400 to Ch649)						179	04-Jan-23 A	17-Aug-23	-2			
S1-CS1472	Irrigation system (CT73 Ch400 to Ch649 total 249m)	85	08-May-23	17-Aug-23	-251							
S1-CS1473	Fresh water main works (CT73 Ch400 to Ch649 total 249m)	85	04-Jan-23 A	05-Jun-23	-158							
S1-CS1474	Flushing water main works (CT73 Ch400 to Ch649 total 249m)	85	04-Jan-23 A	05-Jun-23	-158							
S1-CS1475	U-Channel along the Cycletrack(CT73 Ch400 to Ch649 total 249m)	85	08-May-23	17-Aug-23	-2							
Works in Portion I CT74						80	05-Jun-23	08-Sep-23	92			
S1-CS1495	Flushing water main works (CT74 Ch100 to Ch281 total 181m)	80	05-Jun-23	08-Sep-23	92							
Works in Portion II CT71 (Ch100 to Ch369.376)						85	09-Jan-23 A	28-Nov-23	24			
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	28-Nov-23	24							
Works in Portion III CT76 (Ch100 to Ch298.277)						241	03-Mar-23 A	23-Jan-24	-52			
S1-CS1575	Drainage work (SMH_FL2005 to SMH_FL2008 Remaining 154m) (CE027 Original:1nos Manhole)	80	20-Jul-23	25-Oct-23	22							
S1-CS1800	CE149 - Sewerage DN600 - Construction of working pit at FMH_FL1.19A (Jacking Pit)	32	03-Mar-23 A	18-May-23	-44							
S1-CS1810	CE149 - Sewerage DN600 - Setting up for trenchless works, construction of sewerage, dismantle TBM, construct me	195	01-Jun-23	23-Jan-24	-55							
Section 4- Site Formation and Infrastructure Works in Area D						183	04-Feb-22 A	16-Sep-23	-154			
S4-SF1050	Site clearance	40	11-Feb-22 A	29-Jul-23	-138							
S4-SF1120	Site formation works (10276m3)	80	04-Feb-22 A	16-Sep-23	-154							
Section 5- Site Formation and Infrastructure Works in Area E and Remainder of the Works						310	09-Mar-22 A	14-Oct-23	12			
Road L1						310	09-Mar-22 A	14-Oct-23	12			
Road L1 in Portion I (P700 CH175 to CH245)						50	23-Feb-23 A	28-Jun-23	-158			
S5-RD1060	Fresh water main works (168m)	50	23-Feb-23 A	28-Jun-23	-158							
S5-RD1070	Flushing water main works (168m)	50	23-Feb-23 A	28-Jun-23	-158							
Road L1 in Portion V (P600 CH100 to CH194)						247	11-Oct-22 A	14-Oct-23	-168			
S5-RD1345	Construction of drainage works (8nos Manholes 235m)	80	30-Nov-22 A	11-Jul-23	-305							
S5-RD1350	Construction of sewerage works (4nos Manholes)	46	11-Oct-22 A	25-May-23	-291							
S5-RD1360	Construction of irrigation system (184m)	80	12-Jul-23	14-Oct-23	-305							

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

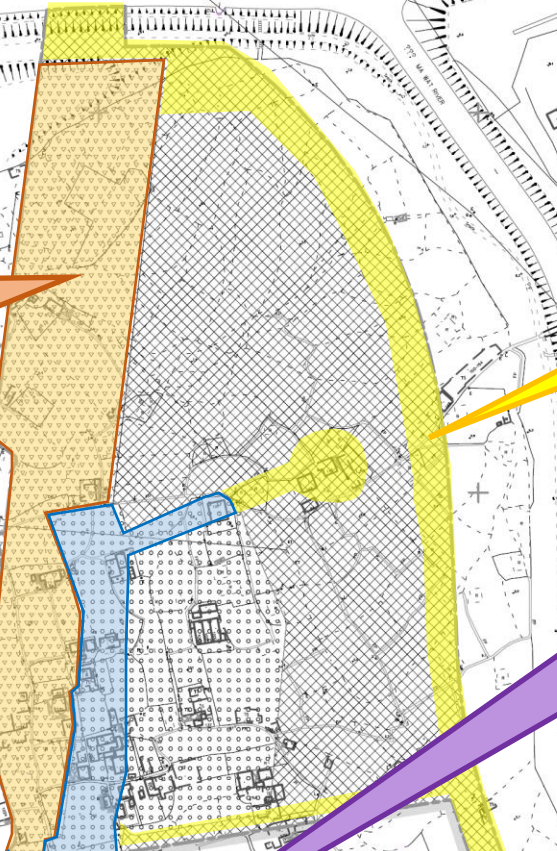
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2023				
						May	Jun	Jul	Aug	Sep
S5-RD1370	Fresh water main works (184m)	80	12-Jul-23	14-Oct-23	-305					
S5-RD1375	Flushing water main works (184m)	80	12-Jul-23	14-Oct-23	-270					
S5-RD1590	CE149 - Sewerage DN600 - Construction of Sewerage (from FL1.16 to FL1.19)	32	23-Mar-23 A	31-May-23	-55		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)		308	09-Mar-22 A	12-Oct-23	14					
S5-RD1180	Construction of drainage (17nos Manholes 630m)	85	09-Mar-22 A	20-Jul-23	5			Construction of drainage (17nos Manholes 630m)		
S5-RD1182	Construction of sewerage (16nos Manholes)	85	04-Apr-22 A	13-Jun-23	5		Construction of sewerage (16nos Manholes)			
S5-RD1185	Construction of irrigation system (489m)	70	20-Jul-23	12-Oct-23	14					
S5-RD1200	Fresh water main works (489m)	70	23-Feb-23 A	18-Sep-23	33					
S5-RD1210	Flushing water main works (489m)	70	23-Feb-23 A	18-Sep-23	33					
Road L2		80	13-Dec-22 A	11-Jul-23	5					
S5-RD1500	Construction of drainage works (13nos manholes 320m)	80	13-Dec-22 A	11-Jul-23	5		Construction of drainage works (13nos manholes 320m)			
Noise Barrier NB62		280	14-Nov-22 A	09-Oct-23	5					
S5-NB1060	Excavation and construction of base slabs and wall stems (Bay 1 - Bay 6)	70	14-Nov-22 A	28-Jul-23	-109			Excavation and construction of base slabs and wall stems (Bay 1 - Bay 6)		
S5-NB1080	Installation of noise barrier steel posts	60	28-Jul-23	09-Oct-23	5					
Noise Barrier NB63		185	18-Jan-23 A	15-Sep-23	9					
Noise Barrier NB63 (Bay 18 to Bay 21)		42	28-Jul-23	15-Sep-23	9					
S1-NB1275	Excavation and construction of base slab (Bay 18 - Bay 21)	42	28-Jul-23	15-Sep-23	9					
Noise Barrier NB63 (Bay 13 to Bay 17)		100	08-May-23	04-Sep-23	9					
S1-NB1200	Installation of sheet piles (Bay 13 - Bay 17)	50	08-May-23	07-Jul-23	-67		Installation of sheet piles (Bay 13 - Bay 17)			
S1-NB1210	Excavation and installation of lateral support (Bay13 - Bay17)	50	08-Jul-23	04-Sep-23	9					Excavation and installation of lateral support (Bay13 - Bay17)
Noise Barrier NB63 (Bay 7 to Bay 12)		131	01-Feb-23 A	23-Aug-23	-67					
S1-NB1190	Installation of Mini Piles (Bay 7 - Bay 12 16nos) (CSD) (Original: 30nos H-pile, 45days)	64	01-Feb-23 A	20-May-23	-79	Installation of Mini Piles (Bay 7 - Bay 12 16nos) (CSD) (Original: 30nos H-pile, 45days)				
S1-NB1205	Installation of sheet piles (Bay 7 - Bay 12)	40	08-Jul-23	23-Aug-23	-67			Installation of sheet piles (Bay 7 - Bay 12)		
Noise Barrier NB63 (Bay 1 to Bay 6)		177	18-Jan-23 A	06-Sep-23	-79					
S1-NB1040	Pre-drilling works (12nos) (after TTA, diversion of existing footpath and tree felling & transplanting)	60	18-Jan-23 A	10-May-23	-69	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	22-May-23	06-Sep-23	-79					Installation of Mini Piles Bay 1 to Bay 6 (32 nos) (CSD) (after trees transplanted) (Original:36nos H-pile, 72days)
Section 6- Completion of Preservation And Protection Of Existing Trees		1146	31-Aug-20 A	13-Nov-24	-75					
S6-CS1000	Preservation and protection of trees	1146	31-Aug-20 A	13-Nov-24	-75					



Portion	Legend
I	
II	
III	
IV	
V	

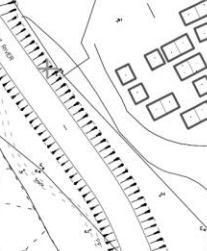
PORTION II

- C&D waste disposal
- Construction of box culvert
- Filling works



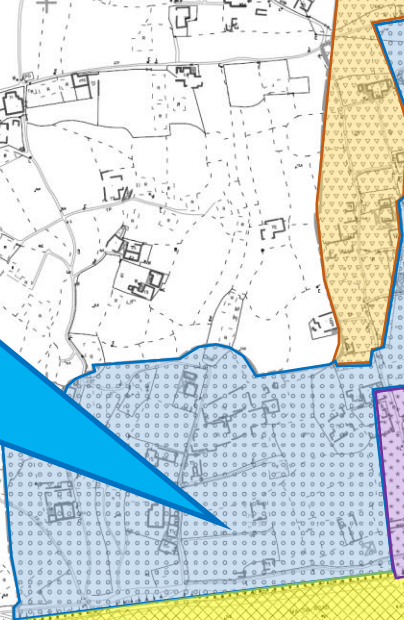
PORTION I

- C&D waste disposal
- Drainage works
- Sewerage works
- Road works
- Waterworks




PORTION IV

- Site Clearance
- Drainage works
- Sewerage works
- C&D waste disposal
- Filling works
- Mini piling works
- Construction of site haul road
- Construction of noise barrier
- Road works
- Waterworks




PORTION V

- C&D waste disposal
- Construction of noise barrier
- Construction of site haul road
- Drainage works
- Sewerage works
- Road works



PORTION III

- Drainage works
- Sewerage works



APPENDIX B
ACTION AND LIMIT LEVELS

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

Monitoring station	Action Level (ug/m ³)	Limit Level (ug/m ³)
FLN-DMS1	303	500
FLN-DMS3	301	
FLN-DMS5	279	
KTN-DMS4	297	

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

Monitoring station	Action Level (ug/m ³)	Limit Level (ug/m ³)
FLN-DMS1	150	260
FLN-DMS3	165	
FLN-DMS5A	153	
KTN-DMS4	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 or 120% of upstream control station.	20 mg/L or 99 percentile of baseline data or 130% of upstream control station.
Turbidity in NTU (depth averaged) ^{*^}	95 percentile of baseline data or 120% of upstream control station.	99 percentile of baseline data or 130% of upstream control station.
Unionized ammonia in mg/L (depth averaged) ^{*~}	95 percentile of baseline data or 120% of upstream control station.	0.021mg/L or 99 percentile of baseline data or 130% of upstream control station.

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

~ 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 20mg/L.

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

Monitoring Parameter					
Location Parameter	KTN-CS1				
	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 Parameter	KTN-IS1				
	Max	Min	Average	5 Percentile	1 Percentile
DO in mg/L	8.08	4.71	6.83	6.14	5.02
	Max	Min	Average	95 Percentile	99 Percentile
Turbidity in NTU	44.56	4.57	8.63	38.98	44.56

Suspended Solid in mg/L	35	2	6	31	35
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:

(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-4.3 Action and Limit Levels for Additional Water Quality Monitoring

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

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/m ³ – 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

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 CH ₄ 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 / dilapidated buildings#	7.5	3.0
Declared monuments/ Historical structures	3.0	

Table B-8.1 Action and Limit Levels for Avifauna Monitoring and General Site Inspection in the LVNP during Construction Phase – May

Monitoring Parameter	Action Level	Limit Level
Mean abundance of bird	286	204
Mean abundance of <i>Ardeola bacchus</i>	10	7
General site inspection	Activity likely to cause unacceptable environmental disturbance or damage	Activity causing unacceptable environmental disturbance or damage

Table B-8.2 Action and Limit Levels of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers– May

Monitoring Parameter	Action Level	Limit Level
Mean abundance of birds*	12	8
Mean abundance of <i>Ardeola bacchus</i>	5	4
*Large waterbirds: <i>Ardea alba</i> , <i>Ardea cinerea</i> , <i>Ardea intermedia</i> , <i>Egretta eulophotes</i> , <i>Egretta garzetta</i> and <i>Phalacrocorax carbo</i>		

Table B-8.3 Action and Limit Levels of Declines in Aquatic Fauna– May

Monitoring Station		Action Level (Species richness of native species)	Limit Level (Species richness of native species)
MS_01	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_02 & MS_03	Macroinvertebrates	2	1
	Fish	NA	NA
MS_04, MS_06 & MS_07	Macroinvertebrates	6	5
	Fish	2	1
MS_05	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_08, MS_09 & MS_10	Macroinvertebrates	6	4
	Fish	NA	NA
MS_11	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_12	Macroinvertebrates	NA	NA
	Fish	NA	NA

MS_13 & MS_14	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_15	Macroinvertebrates	NA	NA
	Fish	NA	NA

Table B-8.4 Action and Limit Levels of Declines in the Seasonal Non-aquatic Fauna (Herpetofauna, Butterfly and Odonates) in Ecologically Sensitive Habitats– May

Monitoring Parameter	Transect	Action Level	Limit Level
Monthly species richness of native species of herpetofauna	T1	5	4
	T3	3	2
	T4	3	2
	T5	3	2
	T6	2	1
Monthly species richness of butterflies	T1	8	6
	T3	4	3
	T4	5	4
	T5	6	4
	T6	4	3
Month species richness of native species of odonates	T1	6	4
	T3	6	5
	T4	2	1
	T5	4	3
	T6	4	3

Table B-8.5 Action and Limit Levels of Declines in the Non-seasonal Non-aquatic Fauna (Mammals) in Ecologically Sensitive Habitats– May

Monitoring Parameter	Transect	Action Level	Limit Level
Monthly species richness of native species of mammals	T1	NA	NA
	T3	NA	NA
	T4	NA	NA
	T5	NA	NA
	T6	NA	NA

**APPENDIX C
COPIES OF CALIBRATION
CERTIFCATES**

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

TSP - Total Suspended Particulates (1 hr Dust Meter)

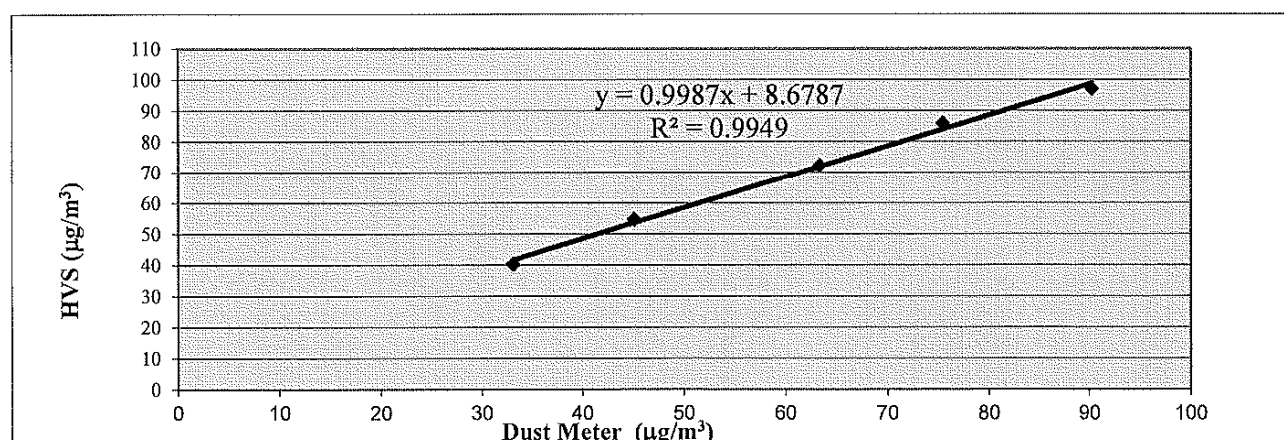
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-02	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23808	2203
Calibration Date:	3-Mar-23	3-Mar-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	33	40
2	45	55
3	63	72
4	76	86
5	90	97
Average	61.5	70.1
<p>By Linear Regression of Y on X</p> <p>Slope, mw = <u>0.9987</u> Intercept, bw = <u>8.6787</u></p> <p>Correlation coefficient* = <u>0.9975</u></p>		

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	70.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	61.5
Measuring time, (min)	60
<p>Set Correlation Factor, SCF</p> <p>SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] <u>1.140</u></p>	



QC Reviewer: Chh Mphl H22 Signature: he 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.:	38174A
Date of Issue:	2023-05-08
Date Received:	2023-05-05
Date Tested:	2023-05-05
Date Completed:	2023-05-08
Next Due Date:	2023-07-07

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)	1.178
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)

Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-02	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23808	2203
Calibration Date:	5-May-23	5-May-23
Location:	Wellab Office (Calibration Room)	

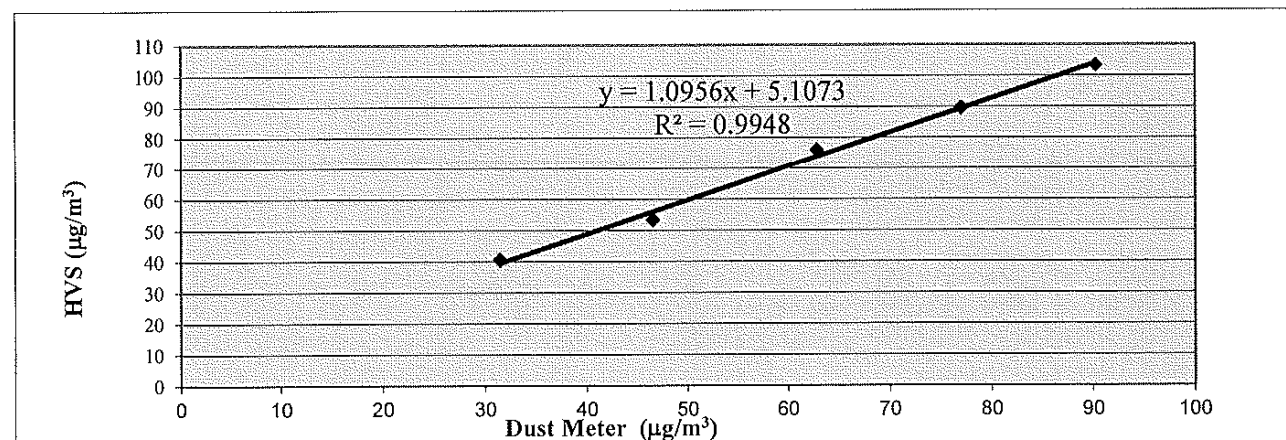
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	32	41
2	47	53
3	63	76
4	77	90
5	90	103
Average	61.7	72.7

By Linear Regression of Y on X
 Slope, mw = 1.0956 Intercept, bw = 5.1073
 Correlation coefficient* = 0.9974

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	72.7
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	61.7
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.178



QC Reviewer: Lab Man Her Signature: her Date: 5/5/2023

TEST REPORT

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

Test Report No.:	38174C
Date of Issue:	2023-05-08
Date Received:	2023-05-05
Date Tested:	2023-05-05
Date Completed:	2023-05-08
Next Due Date:	2023-07-07

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.	: X23810
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-04

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)	1.108
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)

Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-04	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23810	2203
Calibration Date:	5-May-23	5-May-23
Location:	Wellab Office (Calibration Room)	

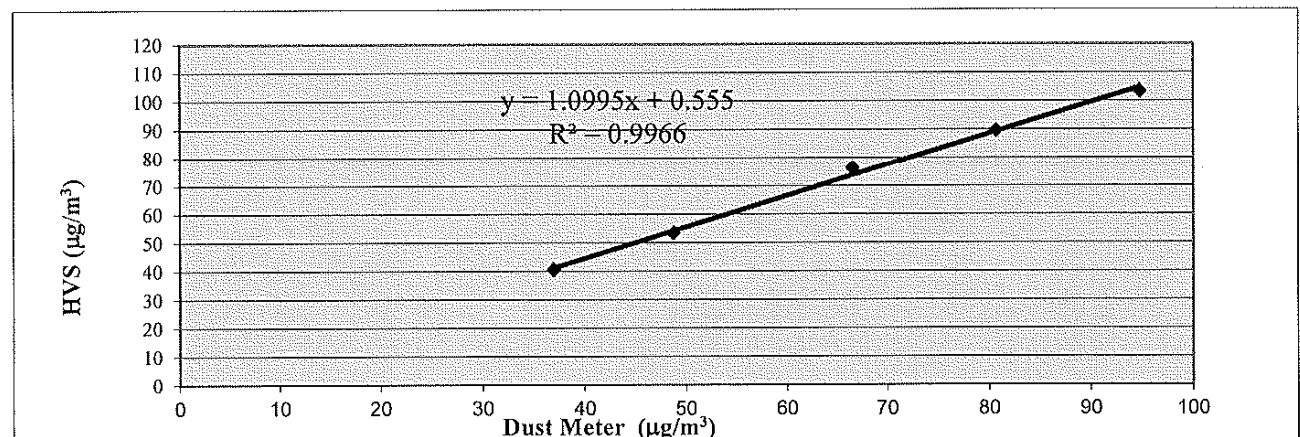
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$)	Mass concentration ($\mu\text{g}/\text{m}^3$)
	X-axis	Y-axis
1	37	41
2	49	53
3	67	76
4	81	90
5	95	103
Average	65.6	72.7

By Linear Regression of Y on X
 Slope, mw = 1.0995 Intercept, bw = 0.5550
 Correlation coefficient* = 0.9983

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	72.7
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	65.6
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = $[K = \text{High Volume Sampler} / \text{Dust Meter}, (\mu\text{g}/\text{m}^3)]$ 1.108



QC Reviewer: LBB MAN MBZ Signature: he Date: 5/5/2023

TEST REPORT

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

Test Report No.:	38139
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

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)	1.107
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)

Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-05	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24476	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

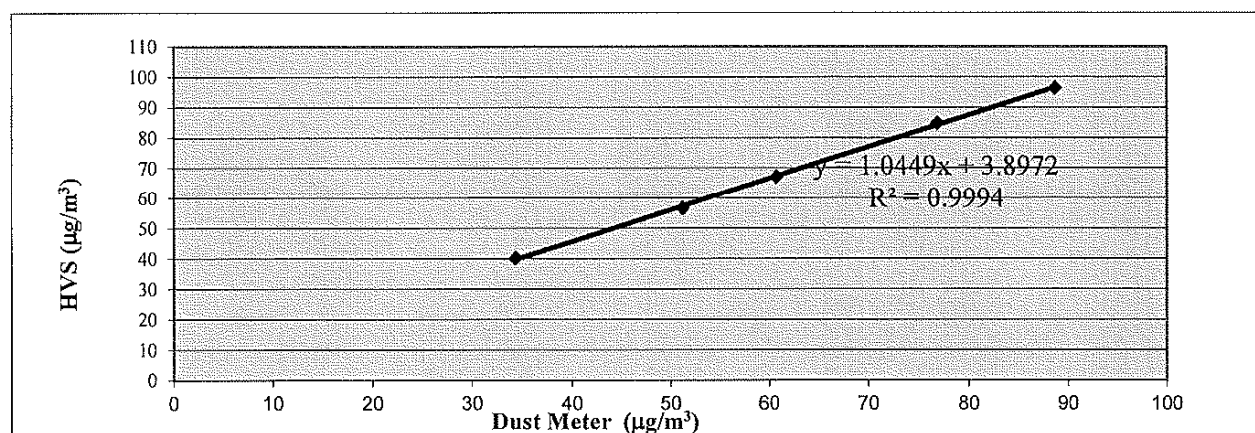
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	34	40
2	51	57
3	61	67
4	77	85
5	89	96
Average	62.4	69.1

By Linear Regression of Y on X
 Slope, mw = 1.0449 Intercept, bw = 3.8972
 Correlation coefficient* = 0.9997

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	69.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	62.4
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.107



QC Reviewer: LEE MAN LEE Signature: Lee Date: 23/4/2023

TEST REPORT

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

Test Report No.:	38139A
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24477
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-06

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.125
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)

Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-06	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24477	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

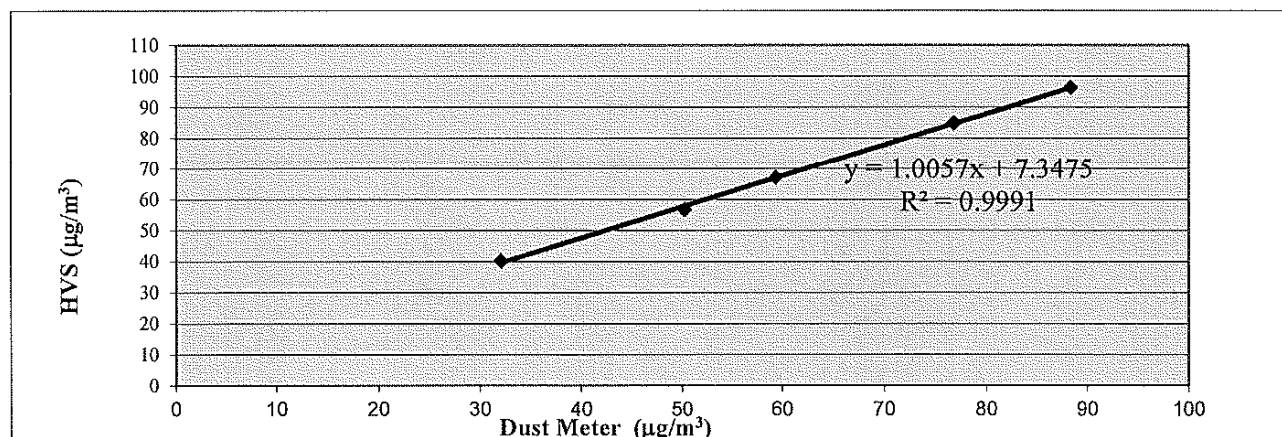
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	32	40
2	50	57
3	59	67
4	77	85
5	88	96
Average	61.4	69.1

By Linear Regression of Y on X
 Slope, mw = 1.0057 Intercept, bw = 7.3475
 Correlation coefficient* = 0.9995

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	69.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	61.4
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.125



QC Reviewer: LEE MAN HEE Signature: hee Date: 23/4/2023

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

TSP - Total Suspended Particulates (1 hr Dust Meter)

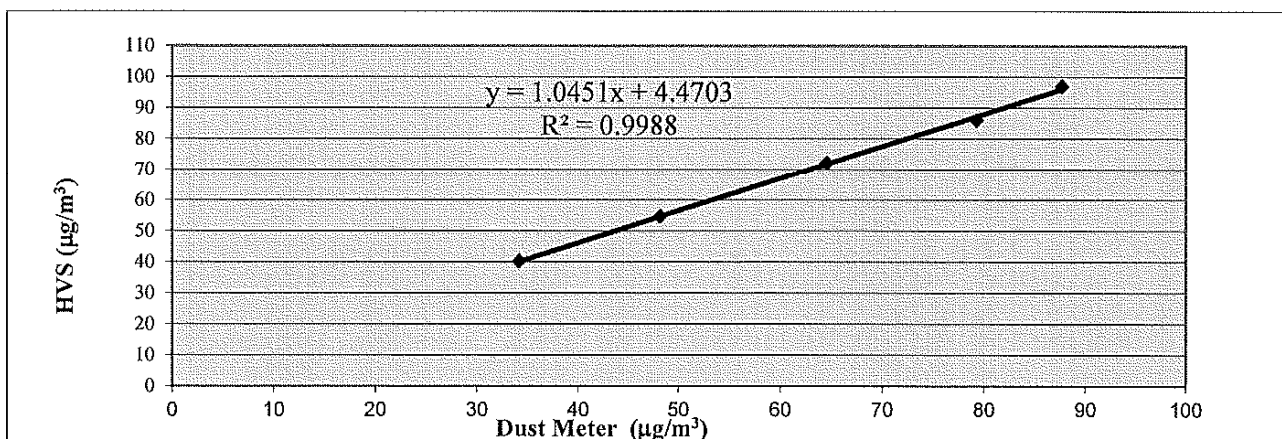
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	3-Mar-23	3-Mar-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) 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 Y on X Slope, mw = <u>1.0451</u> Intercept, bw = <u>4.4703</u> Correlation coefficient* = <u>0.9994</u>		

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	70.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	62.8
Measuring time, (min)	60
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] <u>1.116</u>	



QC Reviewer: LEE MUN HEE Signature: her Date: 4/5/2023

TEST REPORT

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

Test Report No.:	38174D
Date of Issue:	2023-05-08
Date Received:	2023-05-05
Date Tested:	2023-05-05
Date Completed:	2023-05-08
Next Due Date:	2023-07-07

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)	1.144
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)

Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	5-May-23	5-May-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	33	41
2	47	53
3	68	76
4	79	90
5	91	103
Average	63.5	72.7

By Linear Regression of Y on X

Slope, mw = 1.0980

Intercept, bw = 2.9181

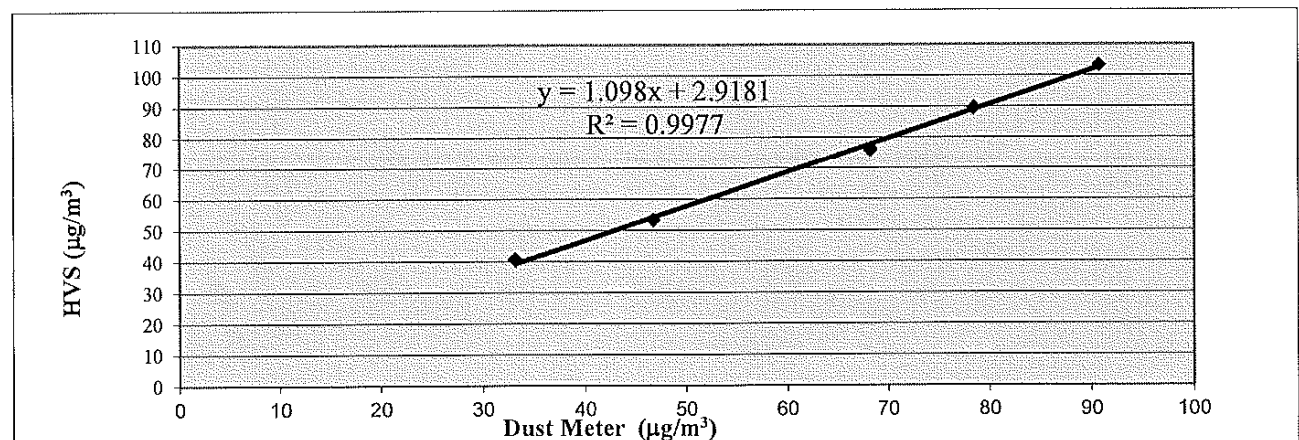
Correlation coefficient* = 0.9988

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	72.7
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	63.5
Measuring time, (min)	60

Set Correlation Factor, SCF

SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.144



QC Reviewer: LEE MON HEE

Signature: hi

Date: 5/5/2023

TEST REPORT

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

Test Report No.:	38139B
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

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)	1.132
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE

General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-08	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24479	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

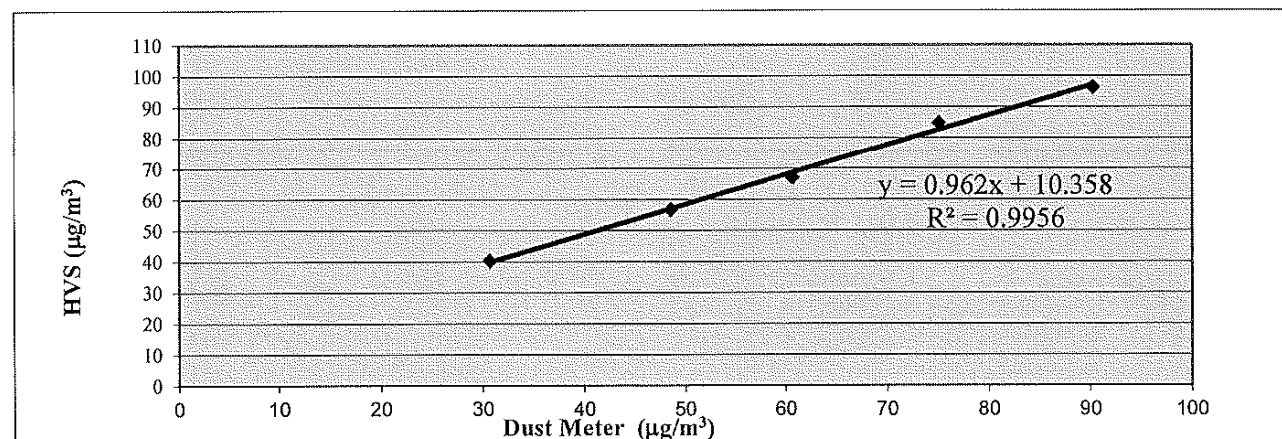
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	31	40
2	49	57
3	61	67
4	75	85
5	90	96
Average	61.1	69.1

By Linear Regression of Y on X
 Slope , mw = 0.9620 Intercept, bw = 10.3583
 Correlation coefficient* = 0.9978

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	69.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	61.1
Measuring time, (min)	60

Set Correlation Factor , SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.132



QC Reviewer: Lia Mon 4/22 Signature: hi Date: 23/4/2023

TEST REPORT

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

Test Report No.:	38139C
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23811
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-09

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.067
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
Laboratory Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)

Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-09	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23811	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

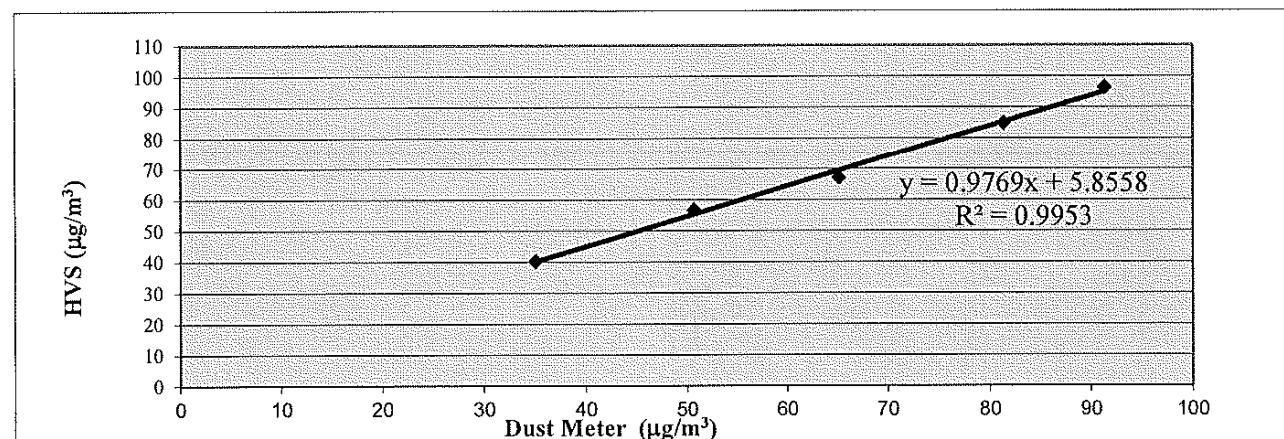
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	35	40
2	51	57
3	65	67
4	81	85
5	91	96
Average	64.8	69.1

By Linear Regression of Y on X
 Slope, mw = 0.9769 Intercept, bw = 5.8558
 Correlation coefficient* = 0.9976

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	69.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	64.8
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.067



QC Reviewer: LBB MAM HBB Signature: her Date: 23/4/23

TEST REPORT

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

Test Report No.:	38139D
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24478
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-10

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.121
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter)

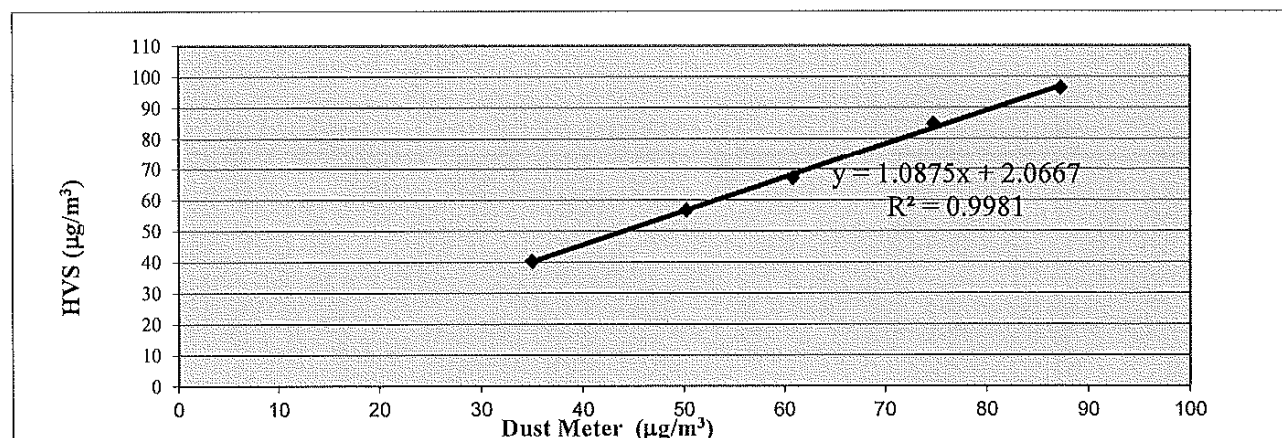
Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-10	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24478	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	35	40
2	50	57
3	61	67
4	75	85
5	87	96
Average	61.7	69.1
By Linear Regression of Y on X Slope , mw = <u>1.0875</u> Intercept, bw = <u>2.0667</u> Correlation coefficient* = <u>0.9990</u>		

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	69.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	61.7
Measuring time, (min)	60
Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] <u>1.121</u>	



QC Reviewer: CEB Mon H2V Signature: hes Date: 23/4/2023

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./230303

Equipment No.: WA-12-09
Model No. TE-5170
Operator: HL

Serial No. 2203
Cal. Date: 3-Mar-23

Ambient Condition			
Temperature, Ta (K)	294	Pressure, Pa (mmHg)	769.2

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.4	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	2.46	43.58	4.0	2.03
5	3.3	1.84	32.78	2.4	1.57

By Linear Regression of Y on X

Slope, mw = 0.0426

Intercept, bw = 0.1820

Correlation coefficient* = 0.9985

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.95

Remarks: _____

Conducted by: LEE MAN HING
Checked by: Ho Ka Chun

Signature: [Signature]
Signature: [Signature]

Date: 3/3/2023
Date: 3/3/2023

Date: 22/4/2023
Date: 22/4/23

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Equipment No.: WA-12-09 Serial No. 2203 File No. Cal./230505
Model No. TE-5170 Cal. Date: 5-May-23
Operator: HL

Ambient Condition			
Temperature, Ta (K)	294.3	Pressure, Pa (mmHg)	761.2

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.9	3.47	61.23	7.5	2.76
2	9.4	3.09	54.50	6.0	2.47
3	8.6	2.95	52.16	5.7	2.40
4	5.7	2.40	42.60	3.6	1.91
5	3.6	1.91	34.01	2.5	1.59

By Linear Regression of Y on X

Slope, mw = 0.0437 Intercept, bw = 0.0881
Correlation coefficient* = 0.9981

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation	
From the TSP Field Calibration Curve, take Qstd = 43 CFM	
From the Regression Equation, the "Y" value according to	
$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$	
Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ <u>3.82</u>	

Remarks: _____

Conducted by: Lbb Mm HZV Signature: haz Date: 5/5/2023
Checked by: Ho Ka chun Signature: Chun Date: 5/5/23

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station	FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	File No.	WMA20002/20/0018
Date:	19-Apr-23	Next Due Date:	18-Jun-23
Model No.	TE-5170	Operator:	HL
Equipment No.:	WA-12-20	Serial No.	3223

Ambient Condition			
Temperature, Ta (K)	298.5	Pressure, Pa (mmHg)	755.9

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	14.6	3.81	67.03	9.1	3.01
2	12.2	3.48	61.34	8.4	2.89
3	9.2	3.02	53.37	6.5	2.54
4	5.6	2.36	41.80	4.4	2.09
5	3.4	1.84	32.73	2.9	1.70

By Linear Regression of Y on X

Slope, mw = 0.0390

Intercept, bw = 0.4443

Correlation coefficient* = 0.9973

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

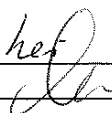
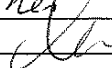
From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.54

Remarks: _____

Conducted by:	LEE MAN HUI	Signature:		Date:	19/4/2023
Checked by:	Joe Lee	Signature:		Date:	19/4/2023

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station FLN-DMS3 - House near Tong Hang
Date: 19-Apr-23
Model No. TE-5170
Equipment No.: WA-12-17

File No. WMA20002/17/0018
Next Due Date: 18-Jun-23
Operator: HL
Serial No. 3218

Ambient Condition			
Temperature, Ta (K)	301	Pressure, Pa (mmHg)	757.9

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	14.0	3.72	65.47	9.0	2.98
2	11.9	3.43	60.42	8.0	2.81
3	9.6	3.08	54.34	6.7	2.57
4	5.4	2.31	40.94	4.1	2.01
5	3.7	1.91	34.02	2.9	1.69

By Linear Regression of Y on X

Slope, mw = 0.0412

Intercept, bw = 0.3122

Correlation coefficient* = 0.9992

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.39

Remarks: _____

Conducted by: LET Mary Lin Signature: _____

Date: 19/4/2023

Checked by: Ho Ka Yee Signature: _____

Date: 19/4/2023

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

Station KTN-DMS4A - Temporary Structure at Pak Shek Au
Date: 2-May-23
Model No. TE-6070X
Equipment No.: WA-11-03

File No. WMA20002/03/0018
Next Due Date: 1-Jul-23
Operator: HL
Serial No. 3225

Ambient Condition			
Temperature, Ta (K)	300	Pressure, Pa (mmHg)	763.6

Orifice Transfer Standard Information					
Serial No.:	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	Next Calibration Date:	16-Jan-24		

Calibration of RSP Sampler							
Calibration Point	ORIFICE					HVS	
	ΔH (orifice), in. of water	Del Hc ⁽¹⁾	Qstd ⁽²⁾ (CFM)	Qa ⁽³⁾ (CFM) X-axis	Qa ⁽³⁾ (m ³ /min) X-axis	ΔW (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ Y-axis
1	9.6	9.58	54.63	54.74	1.55	7.4	1.79
2	7.8	7.78	49.32	49.42	1.40	6.5	1.68
3	6.9	6.89	46.43	46.52	1.32	5.5	1.54
4	4.8	4.79	38.85	38.93	1.10	4.2	1.35
5	2.3	2.30	27.12	27.18	0.77	2.3	1.00

By Linear Regression of Y on X

Slope, mw = 0.0290 Intercept, bw = 0.2107
Correlation coefficient* = 0.9981

(1) $DEL\ Hc = \Delta H \times (Pa / 760 \times 298 / Ta)$

(2) $Qstd = \{[\Delta H \times (Pa / 760) \times (298 / Ta)]^{1/2} - bc\} / mc$ (m³/min)

(3) $Qa = Qstd \times (Ta / Pa) \times (760 / 298)$ (m³/min)

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation	
Set Point Flow Rate., SFR	
SFR = $1.13 \times (760 / Pa) \times (Ta / 298) =$	<u>40.01</u>
Sampler Well - Type Manometer Set Point, SSP	
SSP = $[(mw \times SFR + bw)^2 \times Pa] / (Ta + 30) =$	<u>4.36</u>

Remarks:

Conducted by: Lee Man Yip
Checked by: Ho Ka Chun

Signature: keo
Signature: Ho Ka Chun

Date: 26.5/2023
Date: 21.5/2023

Certificate of Calibration

Calibration Certification Information

Cal. Date: January 16, 2023 Rootsmeter S/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 Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
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
QSTD	m=	2.02881	QA	m=	1.27041
	b=	-0.04292		b=	-0.02681
	r=	0.99998		r=	0.99998

Calculations

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

Standard Conditions

Tstd: 298.15 °K
 Pstd: 760 mm Hg

Key

ΔH: calibrator manometer reading (in H2O)
 ΔP: rootsmeter manometer reading (mm Hg)
 Ta: actual absolute temperature (°K)
 Pa: actual barometric pressure (mm Hg)
 b: intercept
 m: slope

RECALIBRATION

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

TEST REPORT

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	: BSWA
Model No.	: BSWA 308
Serial No.	: 580005
Equipment No.	: WN-01-03

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

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

Test Report No.:	37893C
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	: BSWA
Model No.	: BSWA 308
Serial No.	: 580006
Equipment No.	: WN-01-04

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

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	: BSWA
Model No.	: BSWA 308
Serial No.	: 580008
Equipment No.	: WN-01-06

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab 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
Serial No.	: 580011
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.**


PATRICK TSE
General Manager

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: 2023-03-13
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
Serial No. : 580013
Equipment No. : WN-01-09

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

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


PATRICK TSE
General Manager

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:	2022-10-02
Date Completed:	2022-10-02
Next Due Date:	2023-10-01

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24803
Equipment No.	: N-09-03

Test conditions:

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

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

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
Serial No. : 24791
Equipment No. : N-09-04

Test conditions:

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

Methodology:

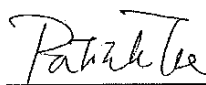
The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1801, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 37163A
Date of Issue: 2022-10-02
Date Received: 2022-09-30
Date Tested: 2022-10-02
Date Completed: 2022-10-02
Next Due Date: 2023-10-01

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description : Acoustical Calibrator
Manufacturer : SVANTEK
Model No. : SV30A
Serial No. : 24780
Equipment No. : N-09-05

Test conditions:

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

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

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
Date Completed: 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-08-75	
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.**


PATRICK TSE
General Manager

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: 2 of 2

Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings ($\mu\text{S}/\text{cm}$)	Acceptance Criteria	Comment
KCl stock solution (12890 $\mu\text{S}/\text{cm}$)	13200	12246-13534	Pass

Temperature performance checking

Reference thermometer- E431 Readings ($^{\circ}\text{C}$)	Instrument Readings ($^{\circ}\text{C}$)	Correction ($^{\circ}\text{C}$)	Comment
20.0	20.002	-0.002	N/A

pH performance checking

	Instrument Readings (pH unit)	Acceptance Criteria	Comment
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)	Acceptance Criteria	Comment
Zero DO solution	0.09	$<0.1\text{mg}/\text{L}$	Pass

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Acceptance Criteria	Comment
8.16	8.04	Difference between Titration value and instrument reading $<0.2\text{mg}/\text{L}$	Pass

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Acceptance 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)	Acceptance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass

*****END OF REPORT*****

TEST REPORT

APPLICANT: Wellab Limited (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Test Report No.:	38018A
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

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, 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

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
Date Completed:	2023-03-24

Page: 2 of 2

Certificate of Calibration

Results:

Conductivity performance checking

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

Temperature performance checking

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

pH performance checking

	Instrument Readings (pH unit)	Acceptance 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)	Acceptance Criteria	Comment
Zero DO solution	0.09	<0.1mg/L	Pass

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

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Acceptance 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)	Acceptance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass

*****END OF REPORT*****



检 验 报 告

Calibration Test Report

NO. WVS400- A863866042288063

产品名称	4G 振动传感器 AS400-4G
序列号	A863866042288063
检测项目	精度验证
公司名称	无锡北微传感科技有限公司
检测部门	质检部
日期	02 APR 2023

北微传感





检测项目	振动精度验证						
Test Item	Accuracy Verification						
产品型号	AS400-4G						
Model							
依据标准	GB/T 13823.20-2008/ISO 5347-22:1997						
Standard	振动与冲击传感器的校准方法加速度计谐振测试通用方法 Methods for the calibration of vibration and shock pick-up						
测试环境	室内 25 摄氏度						
Test Env.	Room Temperature 25°C						
产品精度	3%测量精度误差						
Precision	3% Tolerance in vibration test						
检测序列	序列	振动预设	PCB 加速度	产品 X 轴	产品 Y 轴,	产品 Z 轴,	最大误差值
Test Record	Seq.	Preset Vib.	计读数	Product	Product	Product	Max.
		g	PCB Acc.	X-Axial,	Y-Axial,	Z-Axial,	Tolerance
			Reading	g	g	g	%
	1	0.1	0.100	0.103	0.098	0.101	3.0
	2	0.2	0.204	0.196	0.197	0.203	2.0
	3	0.5	0.491	0.513	0.488	0.504	2.6
	4	0.7	0.698	0.715	0.702	0.702	2.1
5	1.0	0.981	0.978	0.995	1.007	2.2	
判断结果							
Judgement	振幅判定 合格 (✓) 不合格 ()						

Appendix Test Equipment

Nanjing Foneng HEV-500 Test Platform
(Cal. Expire date 10-Apr-2022)



OROS OR35 Analyzer & Software
(Cal. Expire date 02-Jun-2024)



Accelerometer
(Cal. Expire date 06-Jun-2024)



- END of Report -



CERTIFICATE OF ANALYSIS

CONTACT: MR FUNG
CLIENT: AECOM ASIA COMPANY LIMITED
ADDRESS: 1501-10, 15/F, TOWER 1,
GRAND CENTRAL PLAZA,
138 SHATIN RURAL COMMITTEE ROAD,
SHATIN, NEW TERRITORIES, HONG KONG

WORK ORDER: HK2238648
SUB BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 03-Oct-2022
DATE OF ISSUE: 13-Oct-2022

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results are compared against a calibrated secondary source. The "Instrument Specification" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards. The "Date of next Calibration" is recommended according to best practice principles as practised by the laboratory or quoted from relevant international standards. The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type: Landfill Gas Analyser
Service Nature: Performance Check
Scope: Carbon dioxide, Methane and Oxygen
Brand Name/ Model No.: OPTIMA7 Biogas
Serial No./Equipment No.: 331555
Date of Calibration: 11 October, 2022

GENERAL COMMENTS

This report superseded any previous report(s) with same work order number.

Ms Chan Ka Yu, Karen
Manager - Organics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK2238648
Sub-Batch: 0
Client: AECOM ASIA COMPANY LIMITED
Date of Issue: 13-Oct-2022



Equipment Type: Landfill Gas Analyser
Brand Name/
Model No.: OPTIMA7 Biogas
Serial No./
Equipment No.: 331555

Date of Calibration: 11 October, 2022

Date of next Calibration: 11 October, 2023

Parameters:

Methane

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.30
1.0	1.02	0.02	± 0.30
2.5	2.45	-0.05	± 0.30
50.0	48.57	-1.43	± 2.50

Carbon Dioxide

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.30
1.0	1.08	0.08	± 0.30
2.5	2.58	0.08	± 0.30
10.0	10.02	0.02	± 0.50
50.0	47.50	-2.50	± 2.50

Oxygen

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.20
0.5	0.43	-0.07	± 0.20
2.5	2.54	0.04	± 0.20
10.0	10.14	0.14	± 0.20

A handwritten signature in blue ink, appearing to read 'Karen'.

Ms Chan Ka Yu, Karen
Manager - Organics

**APPENDIX D
ENVIRONMENTAL MONITORING
SCHEDULES**

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Impact Air Quality and Noise Monitoring Schedule (May 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-May	2-May	3-May	4-May	5-May	6-May
			<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> KTN-DMS4(B), FLN-DMS5A <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2 <u>24hr RSP (Arsenic)</u> KTN-DMS4A		
7-May	8-May	9-May	10-May	11-May	12-May	13-May
		<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> KTN-DMS4(B), FLN-DMS5A <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2 <u>24hr RSP (Arsenic)</u> KTN-DMS4A			
14-May	15-May	16-May	17-May	18-May	19-May	20-May
	<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> KTN-DMS4(B), FLN-DMS5A <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2 <u>24hr RSP (Arsenic)</u> KTN-DMS4A			<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> KTN-DMS4(B), FLN-DMS5A <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	
21-May	22-May	23-May	24-May	25-May	26-May	27-May
	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2 <u>24hr RSP (Arsenic)</u> KTN-DMS4A		<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> KTN-DMS4(B), FLN-DMS5A <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3		<u>24hr RSP (Arsenic)</u> KTN-DMS4A
28-May	29-May	30-May	31-May			
		<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> KTN-DMS4(B), FLN-DMS5A <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2			

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	<u>1hr TSP and 24hr TSP</u> KTN-DMS4(B) - Temporary Structure near Fanling Highway (near Pak Shek Au)	--
EP-468/2013/A	ND/2019/03		
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	<u>24hr RSP (Arsenic)</u> KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
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	<u>1hr TSP and 24hr TSP</u> FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
	ND/2019/04		--
EP-473/2013/A ⁽⁵⁾	ND/2019/05	<u>1hr TSP and 24hr TSP</u> FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A ⁽⁶⁾	ND/2019/03	<u>1hr TSP</u> FLN-DMS5 - Noble Hill	--
	ND/2019/04	<u>24hr TSP</u> FLN-DMS5A - Good View New Village	--
EP-473/2013/A ⁽⁷⁾	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A ⁽⁸⁾	ND/2019/04	--	CP-FLN-NMS1 - Belair Monte
	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
Remarks: 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 exceeds 500m. 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.			

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Impact Water Quality Monitoring Schedule (May 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-May	2-May	3-May	4-May	5-May	6-May
		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
7-May	8-May	9-May	10-May	11-May	12-May	13-May
	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	
14-May	15-May	16-May	17-May	18-May	19-May	20-May
	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	
21-May	22-May	23-May	24-May	25-May	26-May	27-May
	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
28-May	29-May	30-May	31-May			
	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	<u>River Beas</u> SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	<u>River Indus and near Siu Hang San Tsuen Stream</u> 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

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Impact Ecological Monitoring Schedule (May 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-May	2-May	3-May	4-May	5-May	6-May
				Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 10:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 High tide: Start time: 10:00 Low tide: Start time: 14:00	
7-May	8-May	9-May	10-May	11-May	12-May	13-May
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution T3, T4, T5	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream MS 01 - MS 15	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 High tide: Start time: 13:00 Low tide: Start time: 07:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 15:00 Low tide: Start time: 07:00		
14-May	15-May	16-May	17-May	18-May	19-May	20-May
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 08:00 Low tide: Start time: 12:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 High tide: Start time: 08:00 Low tide: Start time: 13:00				
21-May	22-May	23-May	24-May	25-May	26-May	27-May
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 High tide: Start time: 09:00 Low tide: Start time: 17:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 10:00 Low tide: Start time: 17:00		Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution T1, T6		
28-May	29-May	30-May	31-May			

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

#Night-time avifauna monitoring in Long Valley

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Egretry Monitoring Schedule for May 2023

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

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

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Weekly Site Inspection Schedule for May 2023

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

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Impact Air Quality and Noise Monitoring Schedule (June 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Jun	2-Jun	3-Jun
					<u>24hr RSP (Arsenic)</u> KTN-DMS4A	
4-Jun	5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun
	<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> <u>KTN-DMS4(B), FLN-DMS5A</u> <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> <u>KTN-DMS4(B), FLN-DMS5A</u> <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	
11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun
	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> <u>KTN-DMS4(B), FLN-DMS5A</u> <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3	
18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun
		<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> <u>KTN-DMS4(B), FLN-DMS5A</u> <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3		<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2	
25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	
	<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>1hr TSP* X3</u> KTN-DMS4(B), FLN-DMS5 <u>24hr TSP*</u> <u>KTN-DMS4(B), FLN-DMS5A</u> <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 <u>24hr TSP</u> FLN-DMS1, FLN-DMS3	<u>1hr TSP* X3</u> FLN-DMS1, FLN-DMS3 <u>Noise</u> CP-FLN-NMS1, CP-FLN-NMS2		<u>24hr RSP (Arsenic)</u> KTN-DMS4A	

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	<u>1hr TSP and 24hr TSP</u> KTN-DMS4(B) - Temporary Structure near Fanling Highway (near Pak Shek Au)	--
EP-468/2013/A	ND/2019/03		
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	<u>24hr RSP (Arsenic)</u> KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
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	<u>1hr TSP and 24hr TSP</u> FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
	ND/2019/04		--
EP-473/2013/A ⁽⁵⁾	ND/2019/05	<u>1hr TSP and 24hr TSP</u> FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A ⁽⁶⁾	ND/2019/03	<u>1hr TSP</u> FLN-DMS5 - Noble Hill	--
	ND/2019/04	<u>24hr TSP</u> FLN-DMS5A - Good View New Village	--
EP-473/2013/A ⁽⁷⁾	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A ⁽⁸⁾	ND/2019/04	--	CP-FLN-NMS1 - Belair Monte
	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
Remarks: 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 exceeds 500m. 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.			

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Impact Water Quality Monitoring Schedule (June 2023)

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

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	<u>River Beas</u> SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	<u>River Indus and near Siu Hang San Tsuen Stream</u> 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

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Impact Ecological Monitoring Schedule (June 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Jun	2-Jun	3-Jun
					Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 09:00 Low tide: Start time: 13:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 09:00 Low tide: Start time: 13:00	
4-Jun	5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 10:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 10:00 Low tide: Start time: 16:00				
11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun
			Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T1, T6</u>	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 09:00 Low tide: Start time: 13:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 09:00 Low tide: Start time: 13:00	
18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 10:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream <u>MS 01 - MS 15</u>	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 10:00 Low tide: Start time: 16:00		Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T3, T4, T5</u>	
25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	
				Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 08:00 Low tide: Start time: 13:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 08:00 Low tide: Start time: 13:00	

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

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Egretty Monitoring Schedule for June 2023

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

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

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Tentative Weekly Site Inspection Schedule for June 2023

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

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

Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
4-May-23	9:00	Sunny	80.4
4-May-23	10:00	Sunny	73.1
4-May-23	11:00	Sunny	75.0
10-May-23	9:00	Cloudy	97.7
10-May-23	10:00	Cloudy	112.5
10-May-23	11:00	Cloudy	107.8
16-May-23	13:00	Sunny	61.1
16-May-23	14:00	Sunny	67.7
16-May-23	15:00	Sunny	69.3
22-May-23	13:00	Sunny	61.4
22-May-23	14:00	Sunny	70.9
22-May-23	15:00	Sunny	70.6
25-May-23	9:00	Cloudy	99.7
25-May-23	10:00	Cloudy	102.8
25-May-23	11:00	Cloudy	113.6
31-May-23	9:00	Sunny	112.0
31-May-23	10:00	Sunny	130.7
31-May-23	11:00	Sunny	123.2
		Minimum	61.1
		Maximum	130.7
		Average	90.5

Location FLN-DMS3 - House near Tong Hang			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
4-May-23	9:00	Sunny	73.9
4-May-23	10:00	Sunny	79.9
4-May-23	11:00	Sunny	68.0
10-May-23	13:00	Cloudy	91.7
10-May-23	14:00	Cloudy	80.3
10-May-23	15:00	Cloudy	76.4
16-May-23	13:00	Sunny	57.3
16-May-23	14:00	Sunny	62.1
16-May-23	15:00	Sunny	53.4
22-May-23	13:00	Sunny	73.7
22-May-23	14:00	Sunny	71.4
22-May-23	15:00	Sunny	64.5
25-May-23	9:00	Cloudy	87.2
25-May-23	10:00	Cloudy	77.9
25-May-23	11:00	Cloudy	90.4
31-May-23	13:00	Rainy	140.0
31-May-23	14:00	Rainy	164.9
31-May-23	15:00	Rainy	151.6
		Minimum	53.4
		Maximum	164.9
		Average	86.9

Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS5 - Noble Hill			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-May-23	14:30	Sunny	67.8
3-May-23	15:30	Sunny	76.2
3-May-23	16:30	Sunny	80.8
9-May-23	13:00	Sunny	78.1
9-May-23	14:00	Sunny	85.7
9-May-23	15:00	Sunny	87.4
15-May-23	9:00	Cloudy	66.9
15-May-23	10:00	Cloudy	78.8
15-May-23	11:00	Cloudy	68.6
19-May-23	8:00	Sunny	134.5
19-May-23	9:00	Sunny	146.9
19-May-23	10:00	Sunny	136.9
24-May-23	8:45	Cloudy	119.7
24-May-23	9:45	Cloudy	103.5
24-May-23	10:45	Cloudy	93.5
30-May-23	9:00	Cloudy	125.4
30-May-23	10:00	Cloudy	131.0
30-May-23	11:00	Cloudy	117.7
Minimum			66.9
Maximum			146.9
Average			100.0

Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-May-23	13:00	Sunny	65.5
3-May-23	14:00	Sunny	77.8
3-May-23	15:00	Sunny	68.5
9-May-23	13:00	Sunny	54.4
9-May-23	14:00	Sunny	66.1
9-May-23	15:00	Sunny	63.0
15-May-23	13:00	Cloudy	58.9
15-May-23	14:00	Cloudy	74.4
15-May-23	15:00	Cloudy	70.0
19-May-23	9:00	Sunny	65.6
19-May-23	10:00	Sunny	69.0
19-May-23	11:00	Sunny	61.4
24-May-23	13:00	Cloudy	75.8
24-May-23	14:00	Cloudy	109.2
24-May-23	15:00	Cloudy	136.9
30-May-23	13:00	Cloudy	149.8
30-May-23	14:00	Cloudy	161.4
30-May-23	15:00	Cloudy	134.7
Minimum			54.4
Maximum			161.4
Average			86.8

Appendix E - 24-hour TSP Monitoring Results

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

Start Date	Weather Condition	Air Temp. (K)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m ³ /min.)		Av. flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
			Initial	Final		Initial	Final		Initial	Final			
3-May-23	Sunny	297.2	2.9714	3.1030	0.1316	7778.9	7802.9	24.0	1.22	1.22	1.22	1761.0	74.7
9-May-23	Cloudy	296.0	2.9649	3.0847	0.1198	7802.9	7826.9	24.0	1.22	1.22	1.22	1760.7	68.0
15-May-23	Sunny	294.1	2.9548	3.0766	0.1218	7826.9	7850.9	24.0	1.23	1.23	1.23	1769.6	68.8
19-May-23	Sunny	300.0	2.9508	3.0612	0.1104	7850.9	7874.9	24.0	1.21	1.21	1.21	1741.9	63.4
24-May-23	Cloudy	299.8	2.9882	3.1642	0.1760	7874.9	7898.9	24.0	1.21	1.22	1.21	1744.9	100.9
30-May-23	Sunny	300.1	2.9752	3.1732	0.1980	7898.9	7922.9	24.0	1.21	1.21	1.21	1742.0	113.7
												Min	63.4
												Max	113.7
												Average	81.6

Location FLN-DMS3 - House near Tong Hang

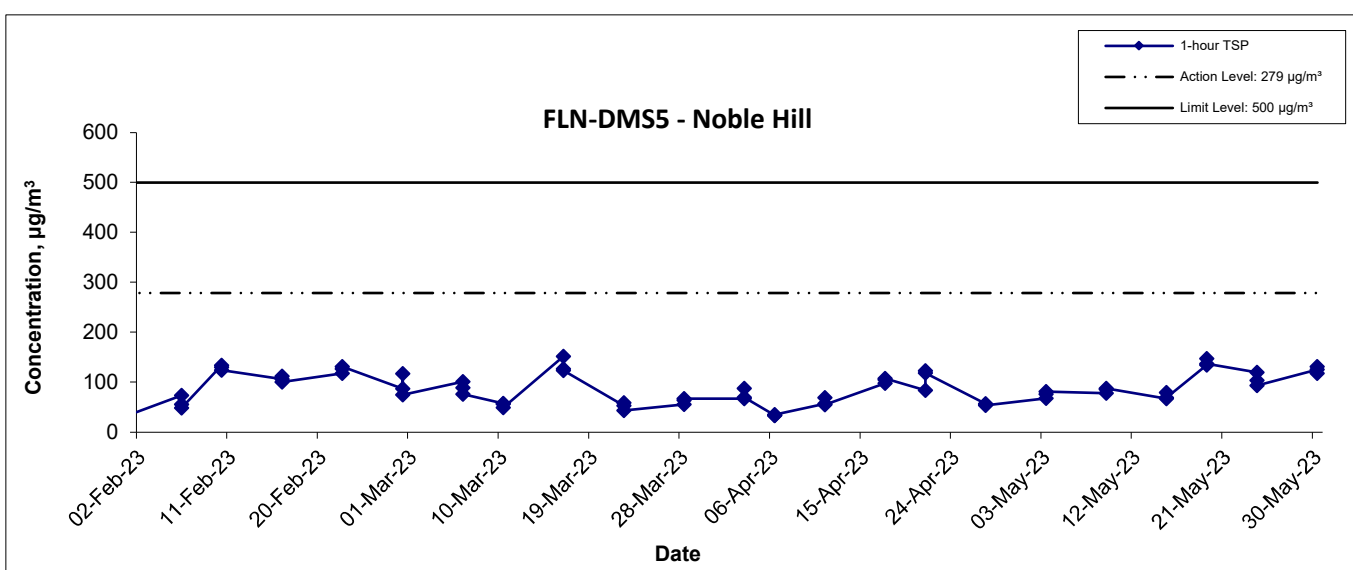
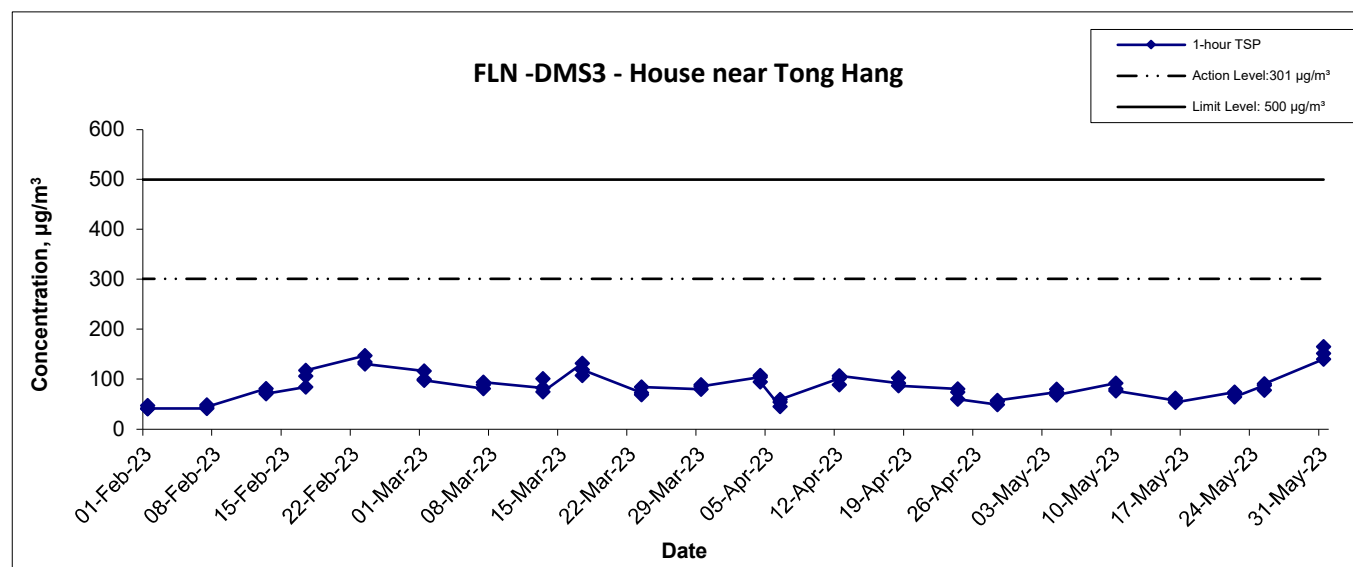
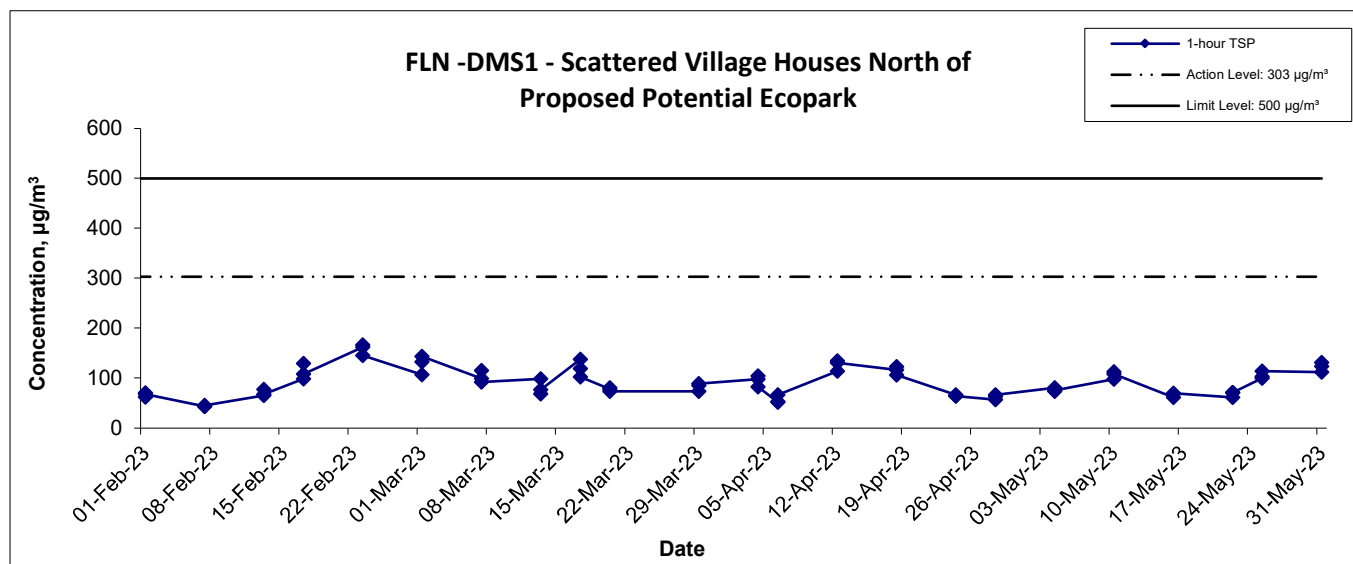
Start Date	Weather Condition	Air Temp. (K)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m ³ /min.)		Av. flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
			Initial	Final		Initial	Final		Initial	Final			
3-May-23	Sunny	297.2	2.8967	2.9699	0.0732	8941.3	8965.3	24.0	1.23	1.23	1.23	1774.0	41.3
9-May-23	Cloudy	296.0	2.9188	3.0036	0.0848	8965.4	8989.4	24.0	1.23	1.23	1.23	1773.8	47.8
15-May-23	Sunny	294.1	2.9008	2.9862	0.0854	8989.4	9013.4	24.0	1.24	1.24	1.24	1782.2	47.9
19-May-23	Sunny	300.0	2.9089	2.9997	0.0908	9013.4	9037.4	24.0	1.22	1.22	1.22	1756.3	51.7
24-May-23	Cloudy	299.8	2.9835	3.1142	0.1307	9037.4	9061.4	24.0	1.22	1.23	1.22	1759.0	74.3
30-May-23	Sunny	300.1	2.9008	3.0607	0.1599	9061.4	9085.4	24.0	1.22	1.22	1.22	1756.3	91.0
												Min	41.3
												Max	91.0
												Average	59.0


Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS5A - Good View New Village			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-May-23	9:30	Sunny	74.7
9-May-23	9:30	Sunny	60.1
15-May-23	9:00	Cloudy	65.6
19-May-23	9:00	Sunny	74.9
24-May-23	9:00	Cloudy	145.5
30-May-23	9:00	Cloudy	105.5
Minimum			60.1
Maximum			145.5
Average			87.7

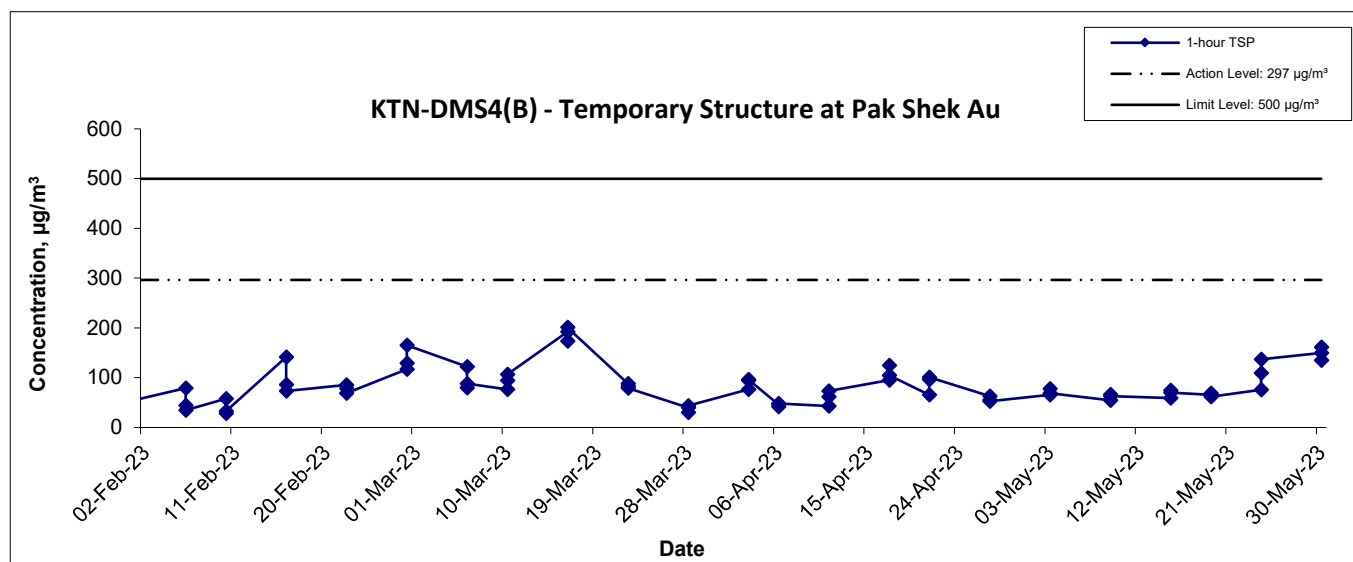
Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-May-23	9:00	Sunny	62.9
9-May-23	9:00	Sunny	70.3
15-May-23	9:00	Cloudy	56.3
19-May-23	9:00	Sunny	56.4
24-May-23	11:55	Cloudy	124.1
30-May-23	9:00	Cloudy	103.1
Minimum			56.3
Maximum			124.1
Average			78.9


1-hr TSP Concentration Levels



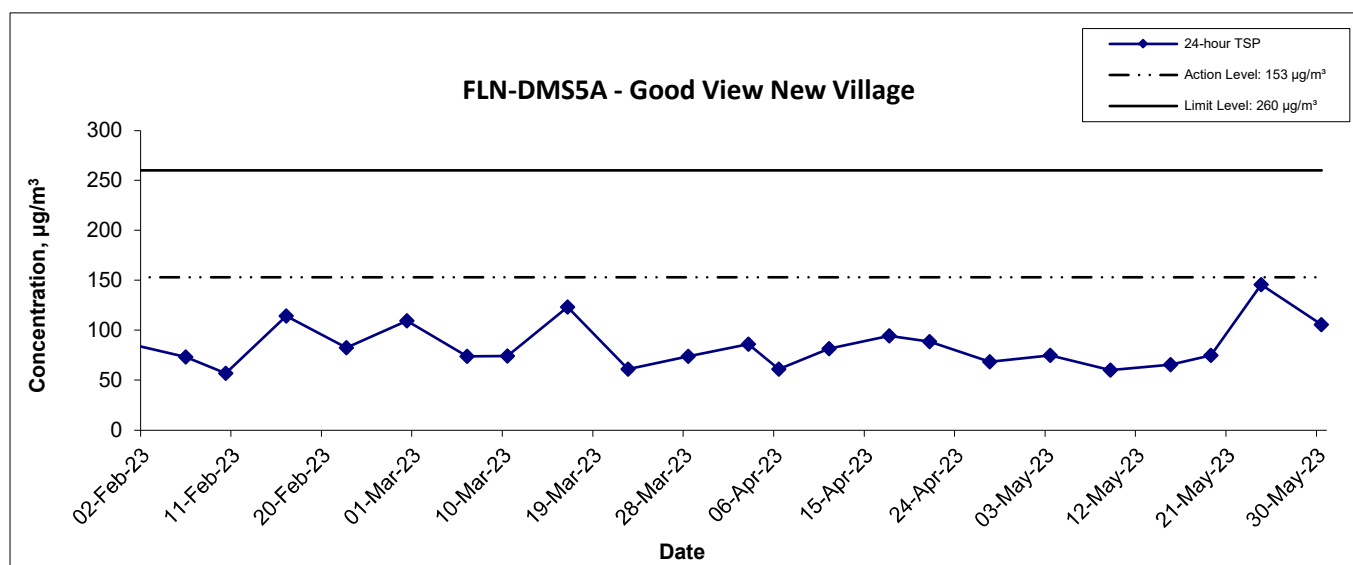
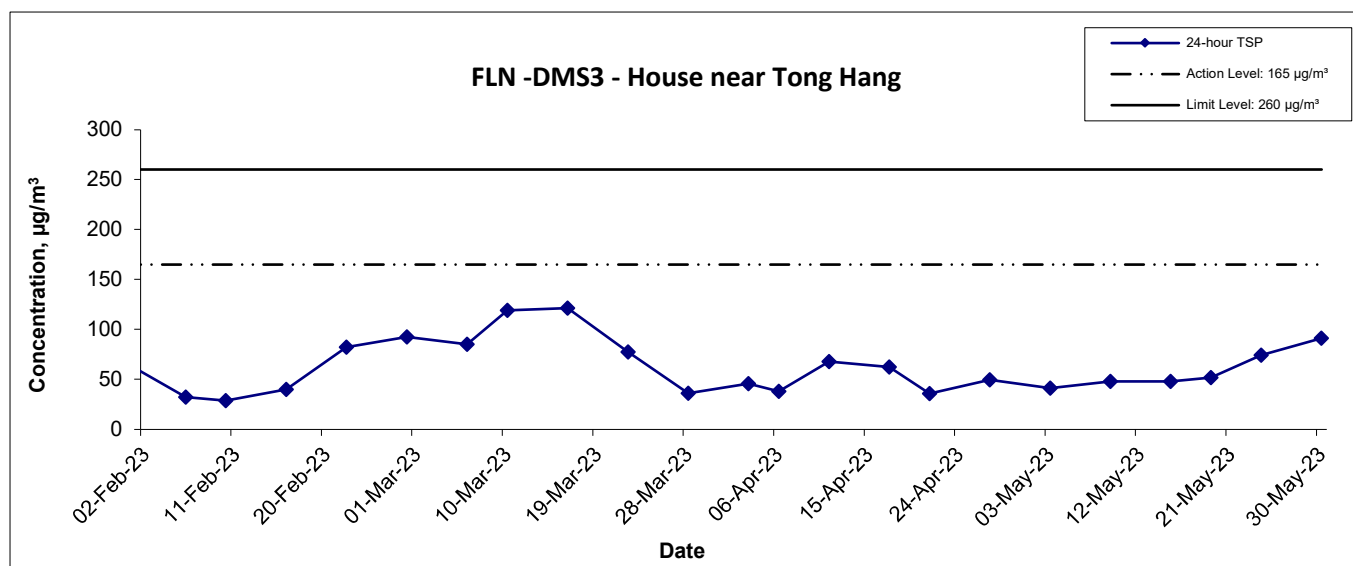
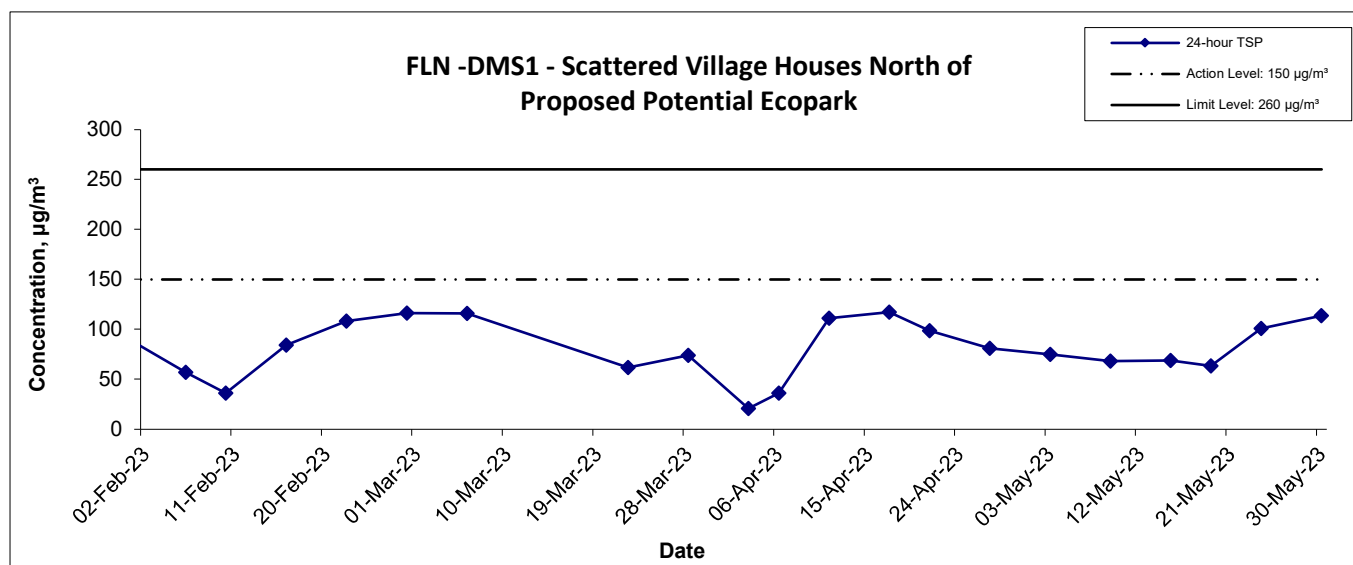
Title	Service Contract No. NDO 04/2019		
	Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas		
	Graphical Presentation of 1-hour TSP Monitoring Results		
Scale	N.T.S		Project No.
	Date		WMA20002
May 23		Appendix	E
			


1-hr TSP Concentration Levels



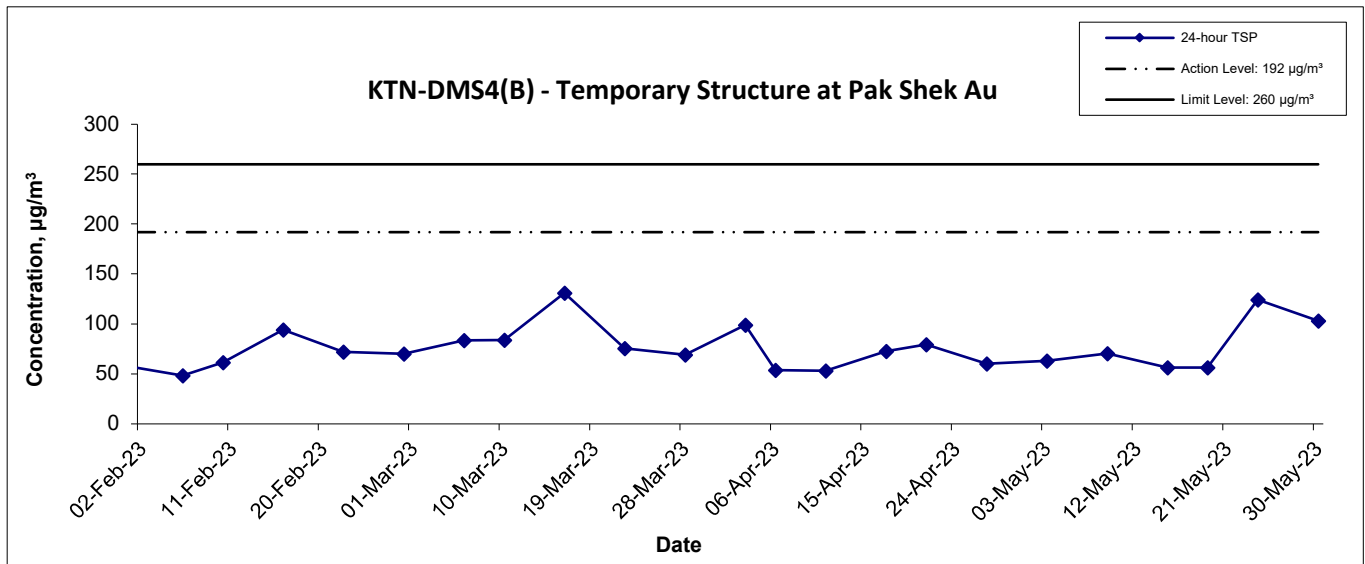
Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 1-hour TSP Monitoring Results	Scale N.T.S	Project No. WMA20002	 consulting . testing . research
	Date May 23	Appendix 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	
	May 23	E	

24-hr TSP Concentration Levels

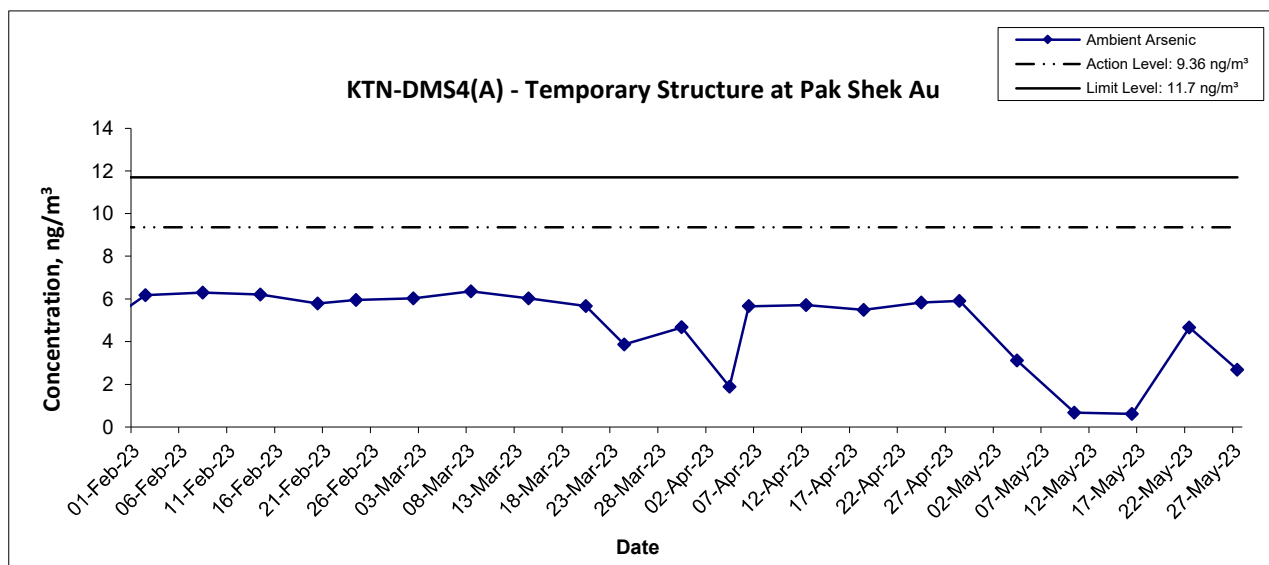



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S	Project No. WMA20002	
	Date May 23	Appendix E	

Appendix E - Ambient Arsenic Monitoring Results

Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au			
Date	Arsenic (μg)	Standard Volume, Vstd (m^3)	Ambient Arsenic Concentration (ng/m^3)
4-May-23	5.1	1636.6	3.12
10-May-23	1.1	1631.6	0.67
16-May-23	1.0	1632.3	0.61
22-May-23	7.7	1651.7	4.66
27-May-23	4.4	1644.8	2.68

Ambient Arsenic



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 N.T.S	Project No. WMA20002	 consulting . testing . research
	Date May 23	Appendix E	

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	38171
Date of Issue:	2023-05-10
Date Received:	2023-05-05
Date Tested:	2023-05-05
Date Completed:	2023-05-10

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38171
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	220411/058
Sample No.	38171-1
Arsenic (µg)	5.1

Remarks: 1) < = less than
2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.: QC38171
Date of Issue: 2023-05-10
Date Received: 2023-05-05
Date Tested: 2023-05-05
Date Completed: 2023-05-10

Page: 1 of 2

ATTN: Ms Ivy Tam

QC report:

Method Blank

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

Filter Lot Blank

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

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	102	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	99	90-110

Interference check solution A

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

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	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 38171

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC38171
Date of Issue:	2023-05-10
Date Received:	2023-05-05
Date Tested:	2023-05-05
Date Completed:	2023-05-10

Page: 2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	119	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	8	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	107	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 38171

*****END OF REP ORT*****

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.: 38213
Date of Issue: 2023-05-16
Date Received: 2023-05-11
Date Tested: 2023-05-11
Date Completed: 2023-05-16

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38213
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	220411/059
Sample No.	38213-1
Arsenic (µg)	1.1

Remarks: 1) <= less than
2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT**APPLICANT:** Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong**Report No.:** QC38213
Date of Issue: 2023-05-16
Date Received: 2023-05-11
Date Tested: 2023-05-11
Date Completed: 2023-05-16**ATTN:** Ms Ivy Tam**Page:** 1 of 2**QC report:****Method Blank**

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

Filter Lot Blank

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

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	112	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	104	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 (%)	83	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38213

PREPARED AND CHECKED BY:For and On Behalf of **WELLAB Ltd.**
PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC38213
Date of Issue:	2023-05-16
Date Received:	2023-05-11
Date Tested:	2023-05-11
Date Completed:	2023-05-16

Page: 2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	99	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	4	RPD \leq 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 38213

*****END OF REP ORT*****

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	38227
Date of Issue:	2023-05-22
Date Received:	2023-05-17
Date Tested:	2023-05-17
Date Completed:	2023-05-22

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38227
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	220411/061
Sample No.	38227-1
Arsenic (µg)	1.0

Remarks: 1) <= less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.: QC38227
Date of Issue: 2023-05-22
Date Received: 2023-05-17
Date Tested: 2023-05-17
Date Completed: 2023-05-22

Page: 1 of 2

ATTN: Ms Ivy Tam

QC report:
Method Blank

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

Filter Lot Blank

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

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	98	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	104	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 (%)	102	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38227

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC38227
Date of Issue:	2023-05-22
Date Received:	2023-05-17
Date Tested:	2023-05-17
Date Completed:	2023-05-22

Page: 2 of 2

QC report: Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	83	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	6	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	108	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 38227

*****END OF REP ORT*****

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	38283
Date of Issue:	2023-06-05
Date Received:	2023-05-24
Date Tested:	2023-05-24
Date Completed:	2023-06-05

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38283
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	220411/062
Sample No.	38283-1
Arsenic (µg)	7.7

Remarks: 1) < = less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	QC38283
Date of Issue:	2023-06-05
Date Received:	2023-05-24
Date Tested:	2023-05-24
Date Completed:	2023-06-05

ATTN: Ms Ivy Tam

Page: 1 of 2

QC report:

Method Blank

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

Filter Lot Blank

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

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	94	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	100	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 (%)	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 38283

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC38283
Date of Issue:	2023-06-05
Date Received:	2023-05-24
Date Tested:	2023-05-24
Date Completed:	2023-06-05

Page: 2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	87	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	4	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	101	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 38283

*****END OF REPORT*****

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	38284
Date of Issue:	2023-06-05
Date Received:	2023-05-29
Date Tested:	2023-05-29
Date Completed:	2023-06-05

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38284
Project No. : WMA 20002
Project Title: Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

Results:

Sample ID	220411/060
Sample No.	38284-1
Arsenic (µg)	4.4

Remarks: 1) <= less than

2) Results for the test material reported as received

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

ATTN: Ms Ivy Tam

QC report:

Method Blank

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

Report No.: QC38284
Date of Issue: 2023-06-05
Date Received: 2023-05-29
Date Tested: 2023-05-29
Date Completed: 2023-06-05

Page: 1 of 2

Filter Lot Blank

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

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	90	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	99	90-110

Interference check solution A

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

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	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 38284

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC38284
Date of Issue:	2023-06-05
Date Received:	2023-05-29
Date Tested:	2023-05-29
Date Completed:	2023-06-05

Page: 2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	102	75-125

Filter Duplicate

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

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	106	90-110

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38284

*****END OF REP ORT*****

APPENDIX F
NOISE MONITORING RESULTS AND
GRAPHICAL PRESENTATION

Appendix F - Noise Monitoring Results

Location CP-FLN-NMS1 - Belair Monte (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
4-May-23	Sunny	13:40	67.6	70.5	63.4	67.3	69.9
		13:45	66.7	68.9	62.3		
		13:50	66.0	71.7	62.8		
		13:55	68.4	72.0	62.1		
		14:00	67.1	69.0	63.0		
		14:05	67.5	70.6	63.1		
10-May-23	Cloudy	13:30	68.9	71.6	64.1	67.3	
		13:35	67.3	69.6	61.0		
		13:40	66.7	69.7	62.5		
		13:45	65.6	68.3	61.4		
		13:50	68.7	69.5	63.0		
		13:55	65.3	67.7	62.2		
16-May-23	Sunny	13:15	67.4	70.5	61.3	67.5	
		13:20	66.8	69.5	61.6		
		13:25	67.5	69.3	64.5		
		13:30	66.9	69.9	62.3		
		13:35	66.7	70.2	61.9		
		13:40	69.0	72.2	62.0		
22-May-23	Sunny	15:15	64.7	67.8	59.4	65.8	
		15:20	66.5	70.3	60.7		
		15:25	65.4	68.6	60.0		
		15:30	65.5	68.7	60.9		
		15:35	67.4	70.8	61.6		
		15:40	64.6	67.4	61.1		
31-May-23	Sunny	16:30	74.1	75.8	68.0	73.4	
		16:35	74.5	76.9	68.3		
		16:40	72.3	74.6	67.9		
		16:45	73.4	75.3	68.1		
		16:50	71.7	73.9	67.7		
		16:55	74.0	75.9	68.2		

Location CP-FLN-NMS2 - Scattered Village House in Tong Hang (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
4-May-23	Sunny	13:00	62.5	63.1	58.3	60.3	59.6
		13:05	60.4	61.9	57.6		
		13:10	58.1	58.6	55.3		
		13:15	58.3	59.3	56.1		
		13:20	60.9	62.4	58.1		
		13:25	59.8	61.8	57.4		
10-May-23	Cloudy	14:15	63.3	63.9	62.6	63.3	
		14:20	63.4	64.2	62.6		
		14:25	63.3	63.8	62.6		
		14:30	63.1	63.7	62.4		
		14:35	63.3	64.1	62.5		
		14:40	63.5	64.0	62.7		
16-May-23	Sunny	15:15	60.3	61.3	55.5	65.1	
		15:20	56.6	58.2	55.2		
		15:25	56.2	56.9	55.2		
		15:30	59.6	61.5	55.0		
		15:35	68.6	70.0	57.7		
		15:40	69.6	70.1	68.6		
22-May-23	Sunny	16:05	63.2	64.0	62.5	63.6	
		16:10	63.8	65.5	62.5		
		16:15	63.1	63.6	62.3		
		16:20	63.2	64.2	62.4		
		16:25	64.6	65.2	62.3		
		16:30	63.8	65.2	62.4		
31-May-23	Cloudy	15:50	69.1	69.9	68.4	68.4	
		15:55	68.5	69.1	68.1		
		16:00	68.8	69.6	68.0		
		16:05	68.0	68.6	67.3		
		16:10	67.6	68.0	67.3		
		16:15	68.1	68.6	67.5		

Appendix F - Noise Monitoring Results

Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-May-23	Sunny	15:05	60.3	62.0	55.0	57.3	58.6
		15:10	55.1	56.8	54.9		
		15:15	56.0	56.8	55.2		
		15:20	56.2	57.0	55.4		
		15:25	56.2	56.9	55.5		
15:30	57.8	59.1	55.9				
9-May-23	Cloudy	11:00	56.8	61.1	45.4	58.8	
		11:05	57.7	62.2	44.7		
		11:10	57.3	61.9	46.0		
		11:15	62.2	66.6	47.5		
		11:20	58.4	62.2	47.3		
11:25	58.0	59.5	46.1				
19-May-23	Sunny	13:00	56.8	58.6	55.5	59.0	
		13:05	56.0	56.8	55.4		
		13:10	60.1	61.8	55.6		
		13:15	61.0	62.4	58.5		
		13:20	57.9	59.7	56.1		
13:25	60.0	62.0	56.2				
24-May-23	Sunny	11:25	57.8	60.7	53.3	59.7	
		11:30	61.3	66.0	53.3		
		11:35	60.6	62.2	52.8		
		11:40	57.4	58.9	52.1		
		11:45	62.0	67.0	52.9		
11:50	56.1	58.0	53.3				
30-May-23	Cloudy	09:10	54.4	55.8	53.2	54.0	
		09:15	53.5	54.4	52.7		
		09:20	52.8	53.3	52.3		
		09:25	52.8	53.9	52.0		
		09:30	56.4	58.3	52.7		
09:35	52.5	53.2	52.0				

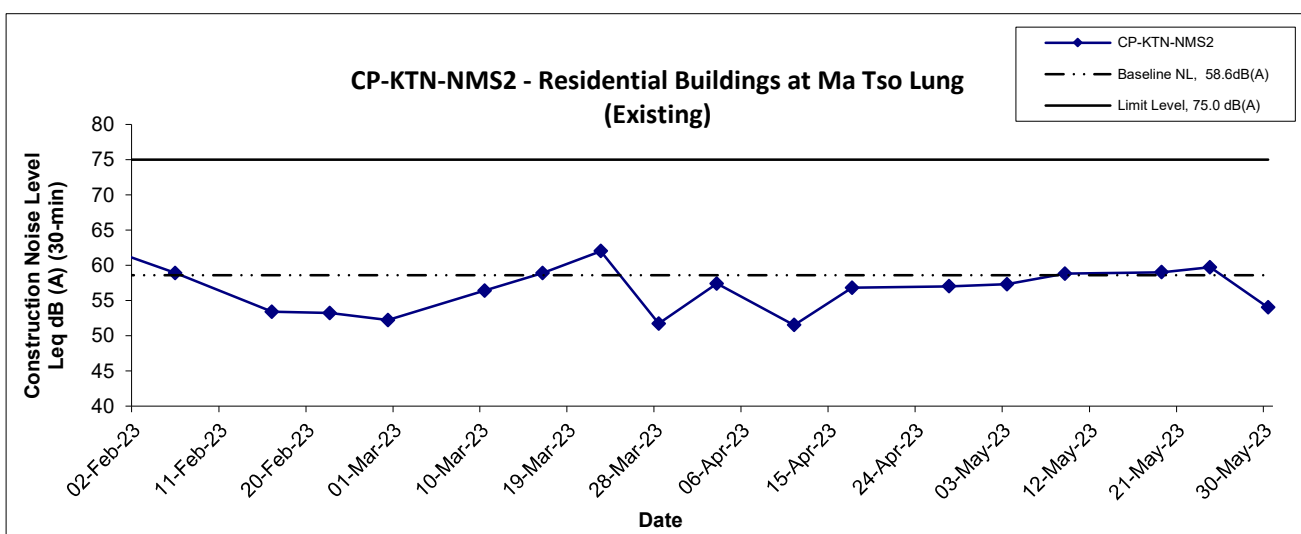
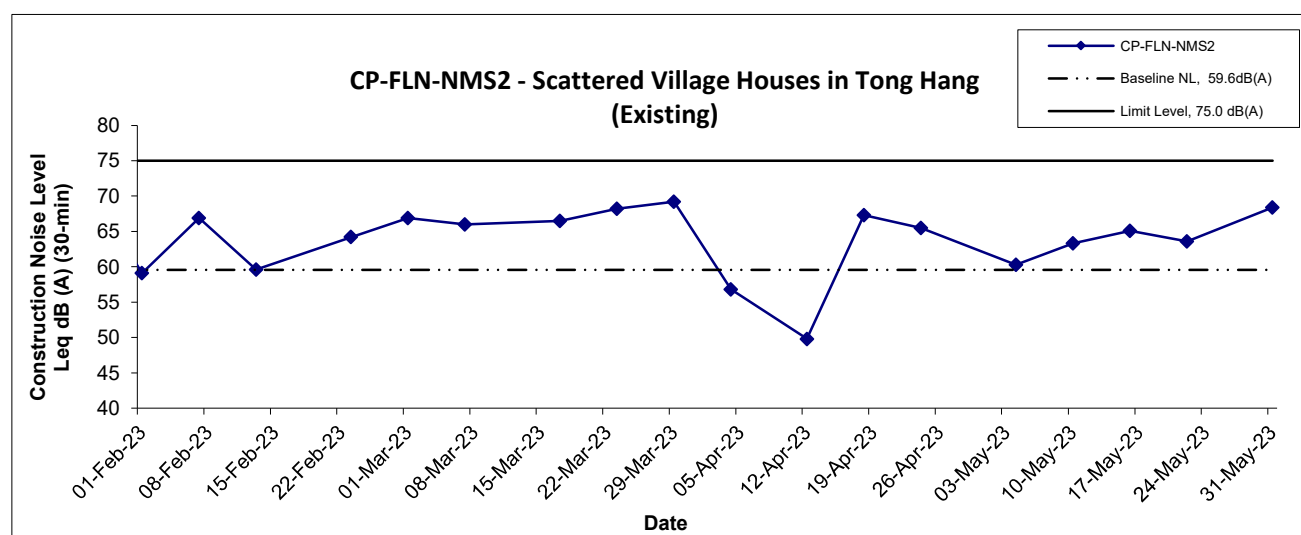
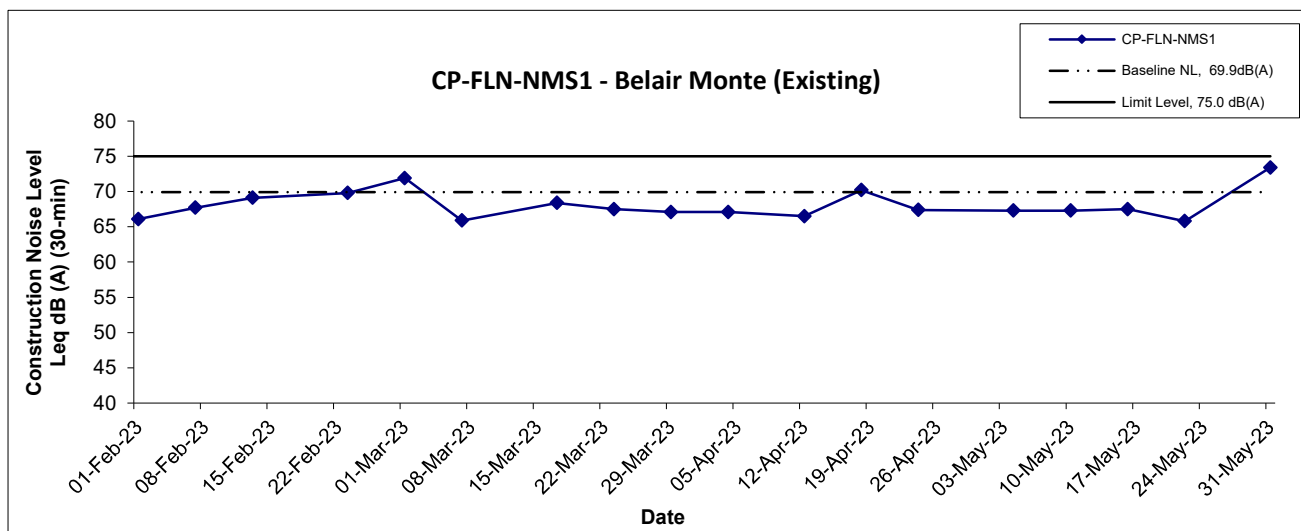
Location CP-KTN-NMS3 - Fung Kong Garden (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-May-23	Sunny	15:35	52.0	52.4	51.4	55.1	51.6
		15:40	54.5	57.8	51.9		
		15:45	51.9	52.6	51.1		
		15:50	52.4	52.8	51.4		
		15:55	57.7	62.1	52.4		
		16:00	57.8	62.4	51.8		
9-May-23	Cloudy	11:15	51.7	52.4	51.1	51.7	
		11:20	53.9	54.5	47.6		
		11:25	48.8	50.0	47.3		
		11:30	51.2	52.2	49.0		
		11:35	51.4	51.9	51.0		
		11:40	52.0	53.1	51.0		
19-May-23	Sunny	14:55	56.1	57.0	54.7	53.5	
		15:00	52.6	54.0	50.8		
		15:05	53.7	54.3	51.4		
		15:10	52.9	53.8	51.0		
		15:15	52.4	53.8	51.3		
		15:20	51.9	52.8	51.0		
24-May-23	Sunny	11:30	56.6	58.8	48.7	56.2	
		11:35	57.0	58.4	49.3		
		11:40	55.5	58.1	49.1		
		11:45	58.9	60.1	49.0		
		11:50	54.3	56.2	48.2		
		11:55	51.3	53.0	47.5		
30-May-23	Cloudy	09:36	52.4	53.2	51.8	55.8	
		14:24	52.6	53.3	52.0		
		02:24	52.1	52.6	51.7		
		07:12	53.3	55.1	51.7		
		09:36	61.4	66.8	51.9		
		12:00	52.5	53.4	51.5		


Appendix F - Noise Monitoring Results

Location CP-KTN-NMS5 - N/A							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-May-23	Sunny	17:10	52.4	53.2	48.3	52.0	57.2
		17:15	50.8	51.9	44.7		
		17:20	48.7	50.3	44.3		
		17:25	53.4	55.6	46.7		
		17:30	52.6	53.8	48.2		
		17:35	52.4	53.4	48.3		
9-May-23	Cloudy	13:15	58.4	60.7	54.7	58.3	
		13:20	58.7	61.9	55.0		
		13:25	58.7	61.9	54.9		
		13:30	59.4	63.0	55.2		
		13:35	57.7	60.0	54.2		
		13:40	57.1	59.3	54.3		
19-May-23	Sunny	16:30	64.6	65.0	63.9	61.4	
		16:35	63.1	64.6	59.1		
		16:40	60.5	61.2	58.5		
		16:45	61.3	65.4	57.5		
		16:50	57.5	58.8	55.0		
		16:55	54.7	54.8	52.9		
24-May-23	Cloudy	09:48	67.9	70.2	66.2	66.6	
		09:53	70.8	74.9	67.3		
		09:58	67.1	68.1	65.2		
		10:03	63.7	66.0	60.2		
		10:08	58.2	60.7	54.5		
		10:13	60.6	62.7	56.4		
30-May-23	Cloudy	11:00	56.1	57.8	54.5	57.4	
		11:05	59.5	59.8	54.6		
		11:10	57.1	59.1	55.4		
		11:15	55.9	56.2	55.5		
		11:20	58.7	63.7	55.8		
		11:25	55.6	60.2	54.1		

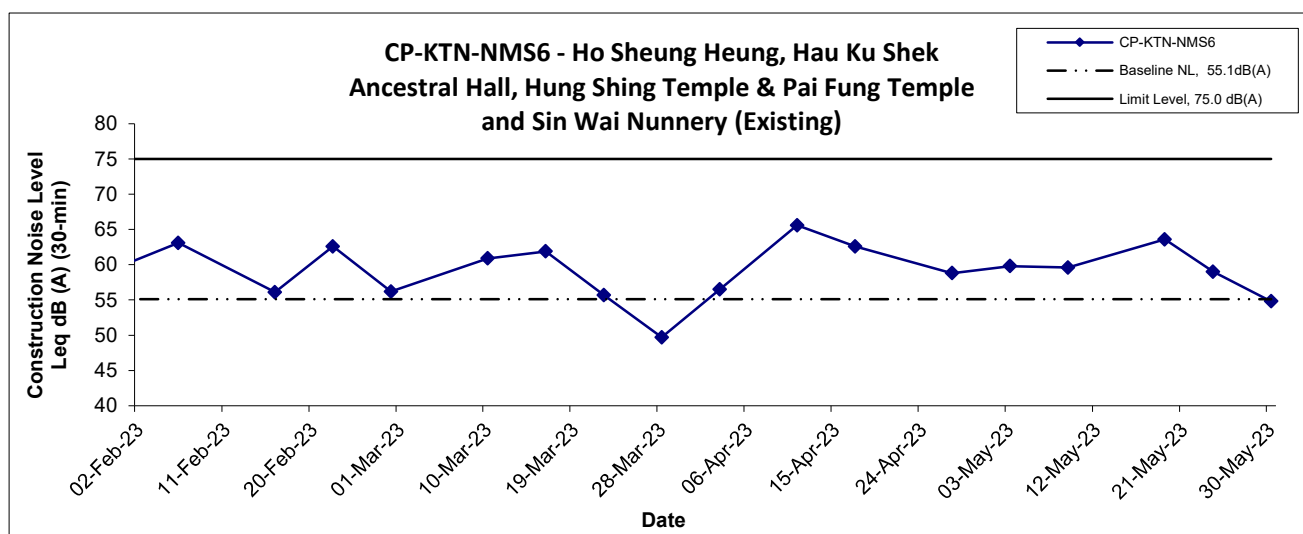
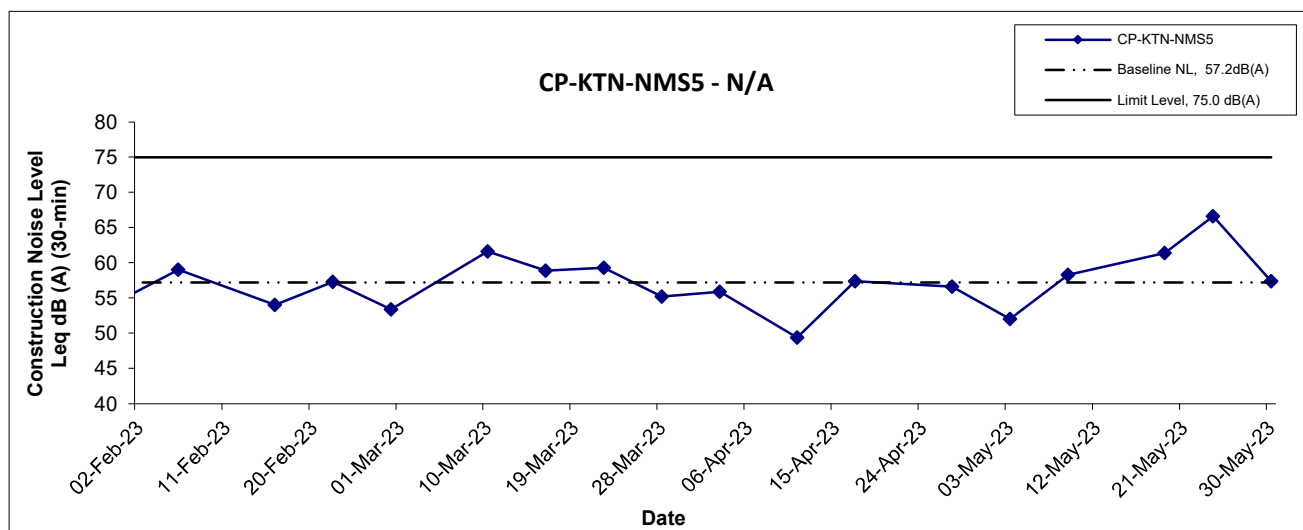
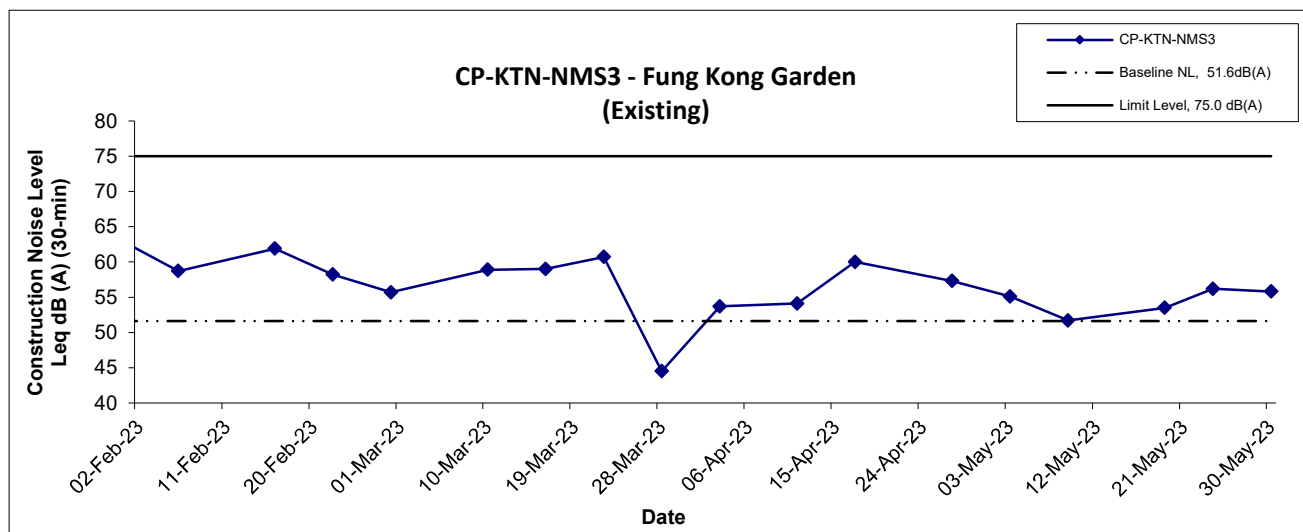
Location CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-May-23	Sunny	16:20	59.8	61.0	55.0	59.8	55.1
		16:25	61.4	63.1	56.5		
		16:30	58.6	60.9	55.2		
		16:35	60.7	61.3	55.6		
		16:40	58.4	59.3	53.6		
		16:45	58.7	59.6	53.8		
9-May-23	Sunny	14:05	57.6	60.2	52.6	59.6	
		14:10	62.2	68.0	53.1		
		14:15	57.5	59.5	55.4		
		14:20	59.8	61.9	56.5		
		14:25	58.2	60.2	55.7		
		14:30	60.2	61.6	56.2		
19-May-23	Sunny	11:25	63.6	63.9	62.5	63.6	
		11:30	63.1	63.6	62.4		
		11:35	64.8	65.9	62.7		
		11:40	63.3	64.1	62.0		
		11:45	63.3	64.8	62.5		
		11:50	63.5	64.4	62.4		
24-May-23	Cloudy	10:41	59.4	62.8	48.1	59.0	
		10:46	57.0	59.5	54.2		
		10:51	57.7	59.8	54.5		
		10:56	58.6	60.2	55.7		
		11:01	61.0	63.1	57.8		
		11:06	59.2	61.4	56.8		
30-May-23	Cloudy	10:10	53.1	54.9	49.3	54.8	
		10:15	52.2	54.5	49.2		
		10:20	56.9	58.6	49.8		
		10:25	52.3	52.8	50.1		
		10:30	51.2	51.5	50.3		
		10:35	58.1	60.0	50.5		

Noise 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 Construction Noise Monitoring Results	Scale N.T.S	Project No. WMA20002	 consulting . testing . research
	Date May 23	Appendix F	

Noise 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 Construction Noise Monitoring Results	Scale N.T.S	Project No. WMA20002	
	Date May 23	Appendix F	

**APPENDIX G
WATER QUALITY MONITORING
RESULTS AND GRAPHICAL
PRESENTATIONS**

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

Location: SYR-CS1

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Arsenic (µg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
2-May-23	Cloudy	09:20	Middle	0.2	24.6 24.5	24.6	7.0 7.0	7.0	0.1 0.1	0.1	62.1 62.0	62.1	5.2 5.2	5.2	5.2 5.2	5.2	9 9	9.0	9 9	9.0
4-May-23	Cloudy	15:35	Middle	0.1	27.2 27.3	27.3	8.1 8.1	8.1	0.2 0.2	0.2	68.5 68.1	68.3	5.4 5.4	5.4	18.1 18.0	18.1	11 10	10.5	5 5	5.0
6-May-23	Cloudy	15:03	Middle	0.1	27.3 27.3	27.3	8.0 8.0	8.0	0.1 0.1	0.1	80.9 80.7	80.8	6.4 6.4	6.4	15.2 15.1	15.2	10 11	10.5	4 4	4.0
8-May-23	Rainy	11:42	Middle	0.2	23.6 23.6	23.6	8.1 8.1	8.1	0.1 0.1	0.1	62.5 62.2	62.4	5.3 5.3	5.3	19.9 19.5	19.7	13 15	14.0	5 5	5.0
10-May-23	Cloudy	10:49	Middle	0.2	24.6 24.6	24.6	7.3 7.3	7.3	0.2 0.2	0.2	64.7 64.7	64.7	5.4 5.4	5.4	7.4 7.4	7.4	10 11	10.5	5 5	5.0
12-May-23	Cloudy	11:49	Middle	0.2	24.3 24.3	24.3	7.6 7.5	7.6	0.1 0.1	0.1	94.6 94.3	94.5	7.9 7.9	7.9	8.4 8.4	8.4	9 9	9.0	9 10	9.5
15-May-23	Cloudy	12:57	Middle	0.2	25.3 25.3	25.3	7.8 7.8	7.8	0.1 0.1	0.1	76.8 76.6	76.7	6.3 6.3	6.3	8.6 8.6	8.6	8 8	8.0	11 10	10.5
17-May-23	Rainy	11:51	Middle	0.2	26.1 26.1	26.1	8.1 8.1	8.1	0.1 0.1	0.1	65.1 65.1	65.1	5.3 5.3	5.3	8.1 7.9	8.0	8 7	7.5	3 4	3.5
19-May-23	Sunny	12:36	Middle	0.1	28.7 28.7	28.7	6.9 6.9	6.9	0.1 0.1	0.1	76.0 74.3	75.2	5.9 5.7	5.8	6.6 6.6	6.6	13 15	14.0	3 4	3.5
22-May-23	Sunny	16:57	Middle	0.2	30.5 30.5	30.5	7.2 7.2	7.2	0.1 0.1	0.1	70.1 69.8	70.0	5.3 5.2	5.3	8.7 8.7	8.7	12 11	11.5	12 12	12.0
24-May-23	Cloudy	12:50	Middle	0.2	26.5 26.5	26.5	8.2 8.2	8.2	0.1 0.1	0.1	81.3 81.3	81.3	6.5 6.5	6.5	10.6 10.5	10.6	8 8	8.0	9 8	8.5
27-May-23	Sunny	12:44	Middle	0.1	24.0 24.0	24.0	7.9 7.9	7.9	0.1 0.1	0.1	69.0 68.7	68.9	5.8 5.8	5.8	8.2 8.2	8.2	13 15	14.0	3 3	3.0
29-May-23	Sunny	12:15	Middle	0.1	32.3 32.4	32.4	7.6 7.6	7.6	0.2 0.2	0.2	105.8 105.7	105.8	7.7 7.7	7.7	4.5 4.4	4.5	6 6	6.0	12 11	11.5
31-May-23	Cloudy	11:56	Middle	0.2	30.6 30.6	30.6	8.1 8.1	8.1	0.2 0.2	0.2	85.9 85.9	85.9	6.4 6.4	6.4	8.9 8.8	8.9	10 10	10.0	16 13	14.5

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

Location: SYR-IS1

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Arsenic (µg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
2-May-23	Cloudy	09:33	Middle	0.5	24.9 24.9	24.9	7.0 7.0	7.0	0.3 0.3	0.3	82.8 82.7	82.8	6.9 6.8	6.9	37.1 38.0	37.6	30 36	33.0	4 4	4.0
4-May-23	Cloudy	15:51	Middle	0.4	28.8 28.8	28.8	8.0 8.0	8.0	0.3 0.3	0.3	85.9 85.8	85.9	6.6 6.6	6.6	21.8 21.6	21.7	24 29	26.5	3 2	2.5
6-May-23	Cloudy	15:18	Middle	0.5	29.4 29.4	29.4	7.8 7.8	7.8	0.3 0.3	0.3	84.7 84.7	84.7	6.5 6.5	6.5	20.0 20.1	20.1	11 10	10.5	2 3	2.5
8-May-23	Rainy	11:54	Middle	0.8	24.8 24.8	24.8	7.8 7.8	7.8	0.2 0.2	0.2	44.1 43.8	44.0	3.7 3.6	3.7	32.1 32.1	32.1	33 31	32.0	2 2	2.0
10-May-23	Cloudy	11:01	Middle	0.5	25.9 25.9	25.9	7.7 7.7	7.7	0.3 0.3	0.3	76.3 76.7	76.5	6.2 6.2	6.2	27.3 28.0	27.7	26 28	27.0	2 2	2.0
12-May-23	Cloudy	12:02	Middle	0.4	25.2 25.2	25.2	8.1 8.1	8.1	0.3 0.3	0.3	80.2 79.3	79.8	6.6 6.5	6.6	43.6 44.3	44.0	58 57	57.5	11 9	10.0
15-May-23	Cloudy	13:19	Middle	0.4	28.5 28.5	28.5	8.3 8.3	8.3	0.1 0.1	0.1	80.7 80.5	80.6	6.3 6.2	6.3	34.6 35.7	35.2	57 57	57.0	10 10	10.0
17-May-23	Rainy	12:03	Middle	0.4	26.6 26.6	26.6	7.7 7.7	7.7	0.2 0.2	0.2	77.0 77.2	77.1	6.2 6.2	6.2	16.9 16.8	16.9	15 14	14.5	4 4	4.0
19-May-23	Sunny	11:55	Middle	0.5	28.8 28.8	28.8	6.8 6.8	6.8	0.3 0.3	0.3	88.3 88.1	88.2	6.8 6.8	6.8	23.7 23.9	23.8	31 28	29.5	2 3	2.5
22-May-23	Sunny	16:30	Middle	0.4	31.7 31.6	31.7	7.0 7.0	7.0	0.2 0.2	0.2	84.9 85.4	85.2	6.2 6.3	6.3	21.1 21.0	21.1	42 50	46.0	11 11	11.0
24-May-23	Cloudy	13:06	Middle	0.4	28.2 28.2	28.2	7.7 7.7	7.7	0.2 0.2	0.2	86.2 85.8	86.0	6.7 6.7	6.7	20.6 21.4	21.0	21 19	20.0	5 5	5.0
27-May-23	Sunny	12:58	Middle	0.5	25.5 25.5	25.5	7.6 7.6	7.6	0.2 0.2	0.2	76.9 76.7	76.8	6.3 6.3	6.3	12.3 12.2	12.3	19 18	18.5	3 3	3.0
29-May-23	Sunny	12:30	Middle	0.5	31.7 31.7	31.7	7.5 7.4	7.5	0.2 0.2	0.2	122.0 122.0	122.0	9.0 9.0	9.0	27.6 27.4	27.5	25 27	26.0	10 9	9.5
31-May-23	Cloudy	12:07	Middle	0.3	32.2 32.2	32.2	8.0 8.0	8.0	0.2 0.2	0.2	97.8 97.9	97.9	7.1 7.1	7.1	17.4 17.7	17.6	23 26	24.5	13 12	12.5

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

Location: NTR-CS1

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
2-May-23	Cloudy	10:43	Middle	0.2	24.1 24.1	24.1	7.3 7.3	7.3	0.1 0.1	0.1	91.5 91.5	91.5	7.7 7.7	7.7	20.8 20.5	20.7	34 34	34.0
4-May-23	Cloudy	14:22	Middle	0.2	29.2 29.2	29.2	8.1 8.1	8.1	0.1 0.1	0.1	101.5 101.8	101.7	7.8 7.8	7.8	6.9 7.0	7.0	14 15	14.5
6-May-23	Cloudy	16:19	Middle	0.2	27.8 27.8	27.8	8.2 8.2	8.2	0.1 0.1	0.1	105.5 105.5	105.5	8.3 8.3	8.3	10.7 10.4	10.6	12 11	11.5
8-May-23	Rainy	13:34	Middle	0.3	24.6 24.6	24.6	7.9 7.8	7.9	0.1 0.1	0.1	82.1 81.6	81.9	6.8 6.8	6.8	9.9 9.8	9.9	6 7	6.5
10-May-23	Cloudy	13:28	Middle	0.2	24.8 24.8	24.8	7.4 7.4	7.4	0.1 0.1	0.1	91.3 91.3	91.3	7.6 7.6	7.6	31.0 30.5	30.8	21 20	20.5
12-May-23	Cloudy	13:29	Middle	0.2	24.5 24.5	24.5	7.2 7.2	7.2	0.1 0.1	0.1	89.5 89.6	89.6	7.5 7.5	7.5	11.8 11.8	11.8	20 20	20.0
15-May-23	Cloudy	14:56	Middle	0.1	26.8 26.8	26.8	7.3 7.3	7.3	0.1 0.1	0.1	96.0 96.0	96.0	7.7 7.7	7.7	10.3 10.2	10.3	9 10	9.5
17-May-23	Rainy	14:01	Middle	0.2	26.9 26.9	26.9	7.6 7.6	7.6	0.1 0.1	0.1	78.0 77.9	78.0	6.2 6.2	6.2	27.6 26.6	27.1	26 29	27.5
19-May-23	Sunny	11:33	Middle	0.4	28.9 28.9	28.9	6.9 6.9	6.9	0.1 0.1	0.1	66.1 65.7	65.9	5.1 5.1	5.1	8.1 8.1	8.1	9 9	9.0
22-May-23	Sunny	16:09	Middle	0.2	30.0 29.9	30.0	7.1 7.1	7.1	0.1 0.1	0.1	94.3 94.1	94.2	7.1 7.1	7.1	6.9 7.0	7.0	8 8	8.0
24-May-23	Cloudy	14:26	Middle	0.2	27.4 27.4	27.4	7.8 7.8	7.8	0.1 0.1	0.1	87.9 87.8	87.9	7.0 6.9	7.0	14.3 14.5	14.4	15 15	15.0
27-May-23	Sunny	14:39	Middle	0.2	28.4 28.5	28.5	7.9 7.9	7.9	0.2 0.2	0.2	103.4 103.5	103.5	8.0 8.0	8.0	7.9 7.9	7.9	14 13	13.5
29-May-23	Sunny	13:48	Middle	0.2	32.0 32.0	32.0	8.0 8.0	8.0	0.2 0.2	0.2	118.8 119.0	118.9	8.7 8.7	8.7	9.0 8.9	9.0	7 7	7.0
31-May-23	Cloudy	14:07	Middle	0.2	31.4 31.4	31.4	7.8 7.9	7.9	0.1 0.1	0.1	90.0 90.1	90.1	6.6 6.6	6.6	7.1 7.1	7.1	7 7	7.0

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

Location: NTR-IS1

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
2-May-23	Cloudy	10:05	Middle	0.6	24.1 24.1	24.1	7.4 7.4	7.4	0.1 0.1	0.1	76.4 76.5	76.5	6.4 6.4	6.4	12.3 12.1	12.2	11 10	10.5
4-May-23	Cloudy	15:14	Middle	0.3	27.8 27.8	27.8	8.2 8.2	8.2	0.1 0.1	0.1	105.5 105.5	105.5	8.3 8.3	8.3	7.7 7.6	7.7	11 10	10.5
6-May-23	Cloudy	15:50	Middle	0.4	27.6 27.6	27.6	8.3 8.3	8.3	0.1 0.1	0.1	81.4 81.1	81.3	6.4 6.4	6.4	10.8 10.8	10.8	7 6	6.5
8-May-23	Rainy	12:30	Middle	0.6	24.1 24.1	24.1	7.7 7.7	7.7	0.1 0.1	0.1	55.2 54.9	55.1	4.6 4.6	4.6	27.3 27.3	27.3	15 17	16.0
10-May-23	Cloudy	11:36	Middle	0.6	24.2 24.2	24.2	8.1 8.0	8.1	0.1 0.1	0.1	79.4 79.2	79.3	6.7 6.6	6.7	17.2 17.2	17.2	14 15	14.5
12-May-23	Cloudy	12:40	Middle	0.5	24.5 24.4	24.5	7.1 7.1	7.1	0.1 0.1	0.1	86.9 86.4	86.7	7.3 7.2	7.3	13.7 13.8	13.8	21 21	21.0
15-May-23	Cloudy	13:50	Middle	0.5	24.6 24.6	24.6	7.7 7.7	7.7	0.1 0.1	0.1	70.6 70.7	70.7	5.9 5.9	5.9	10.8 10.8	10.8	7 7	7.0
17-May-23	Rainy	13:28	Middle	0.6	26.7 26.7	26.7	7.8 7.8	7.8	0.1 0.1	0.1	74.2 74.0	74.1	5.9 5.9	5.9	12.6 12.6	12.6	14 13	13.5
19-May-23	Sunny	10:57	Middle	0.2	27.8 27.8	27.8	6.9 6.9	6.9	0.1 0.1	0.1	105.4 105.4	105.4	8.3 8.3	8.3	4.3 4.3	4.3	9 10	9.5
22-May-23	Sunny	14:35	Middle	0.4	31.5 31.5	31.5	7.0 7.0	7.0	0.1 0.1	0.1	96.5 96.5	96.5	7.1 7.1	7.1	4.7 4.7	4.7	7 6	6.5
24-May-23	Cloudy	13:27	Middle	0.7	26.6 26.6	26.6	7.6 7.6	7.6	0.1 0.1	0.1	73.3 73.0	73.2	5.9 5.9	5.9	14.7 14.8	14.8	12 11	11.5
27-May-23	Sunny	13:41	Middle	0.4	24.8 24.8	24.8	7.5 7.5	7.5	0.1 0.1	0.1	72.0 71.7	71.9	6.0 6.0	6.0	6.3 6.3	6.3	12 13	12.5
29-May-23	Sunny	13:12	Middle	0.4	31.6 31.6	31.6	7.5 7.5	7.5	0.1 0.1	0.1	126.9 127.0	127.0	9.3 9.3	9.3	5.9 5.9	5.9	7 6	6.5
31-May-23	Cloudy	13:13	Middle	0.5	31.9 31.8	31.9	8.1 8.1	8.1	0.1 0.1	0.1	79.9 79.9	79.9	5.9 5.9	5.9	6.1 6.1	6.1	6 6	6.0

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

Location: SHST-IS2

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
2-May-23	Cloudy	09:54	Middle	0.1	23.4 23.4	23.4	7.3 7.3	7.3	0.1 0.1	0.1	84.7 85.5	85.1	7.2 7.3	7.3	9.6 9.6	9.6	7 7	7.0
4-May-23	Cloudy	15:00	Middle	0.3	28.5 28.5	28.5	8.3 8.3	8.3	0.1 0.1	0.1	92.7 92.6	92.7	7.2 7.2	7.2	7.9 7.8	7.9	12 13	12.5
6-May-23	Cloudy	15:40	Middle	0.3	27.5 27.5	27.5	8.3 8.3	8.3	0.1 0.1	0.1	92.8 92.6	92.7	7.3 7.3	7.3	11.5 11.4	11.5	11 10	10.5
8-May-23	Rainy	12:16	Middle	0.4	23.5 23.5	23.5	7.8 7.8	7.8	0.1 0.1	0.1	67.9 67.4	67.7	5.8 5.7	5.8	18.7 18.6	18.7	7 6	6.5
10-May-23	Cloudy	11:24	Middle	0.2	24.1 24.1	24.1	8.4 8.4	8.4	0.1 0.1	0.1	87.9 90.0	89.0	7.4 7.6	7.5	9.3 9.4	9.4	5 5	5.0
12-May-23	Cloudy	12:26	Middle	0.2	23.5 23.5	23.5	7.3 7.3	7.3	0.1 0.1	0.1	85.6 85.4	85.5	7.3 7.3	7.3	13.8 13.9	13.9	16 14	15.0
15-May-23	Cloudy	14:04	Middle	0.1	24.1 24.1	24.1	7.8 7.8	7.8	0.1 0.1	0.1	90.0 89.0	89.5	7.6 7.5	7.6	8.3 8.3	8.3	9 10	9.5
17-May-23	Rainy	13:38	Middle	0.2	25.2 25.2	25.2	7.8 7.8	7.8	0.1 0.1	0.1	87.3 86.8	87.1	7.2 7.2	7.2	15.7 15.6	15.7	9 9	9.0
19-May-23	Sunny	11:24	Middle	0.2	27.2 27.2	27.2	7.1 7.1	7.1	0.1 0.1	0.1	95.6 95.6	95.6	7.6 7.6	7.6	7.8 7.8	7.8	7 6	6.5
22-May-23	Sunny	14:21	Middle	0.3	29.6 29.6	29.6	7.0 6.9	7.0	0.1 0.1	0.1	97.4 99.1	98.3	7.4 7.5	7.5	7.8 7.8	7.8	8 9	8.5
24-May-23	Cloudy	13:40	Middle	0.2	26.9 26.9	26.9	7.7 7.7	7.7	0.1 0.1	0.1	96.2 96.2	96.2	7.7 7.7	7.7	15.2 14.9	15.1	9 9	9.0
27-May-23	Sunny	13:28	Middle	0.2	23.7 23.7	23.7	7.8 7.8	7.8	0.1 0.1	0.1	85.0 84.9	85.0	7.2 7.2	7.2	8.7 8.8	8.8	12 14	13.0
29-May-23	Sunny	12:58	Middle	0.2	30.3 30.4	30.4	7.7 7.7	7.7	0.1 0.1	0.1	99.0 98.6	98.8	7.4 7.4	7.4	8.8 8.8	8.8	7 8	7.5
31-May-23	Cloudy	13:23	Middle	0.2	30.1 30.1	30.1	7.9 7.9	7.9	0.1 0.1	0.1	101.2 101.2	101.2	7.6 7.6	7.6	7.7 7.9	7.8	6 7	6.5

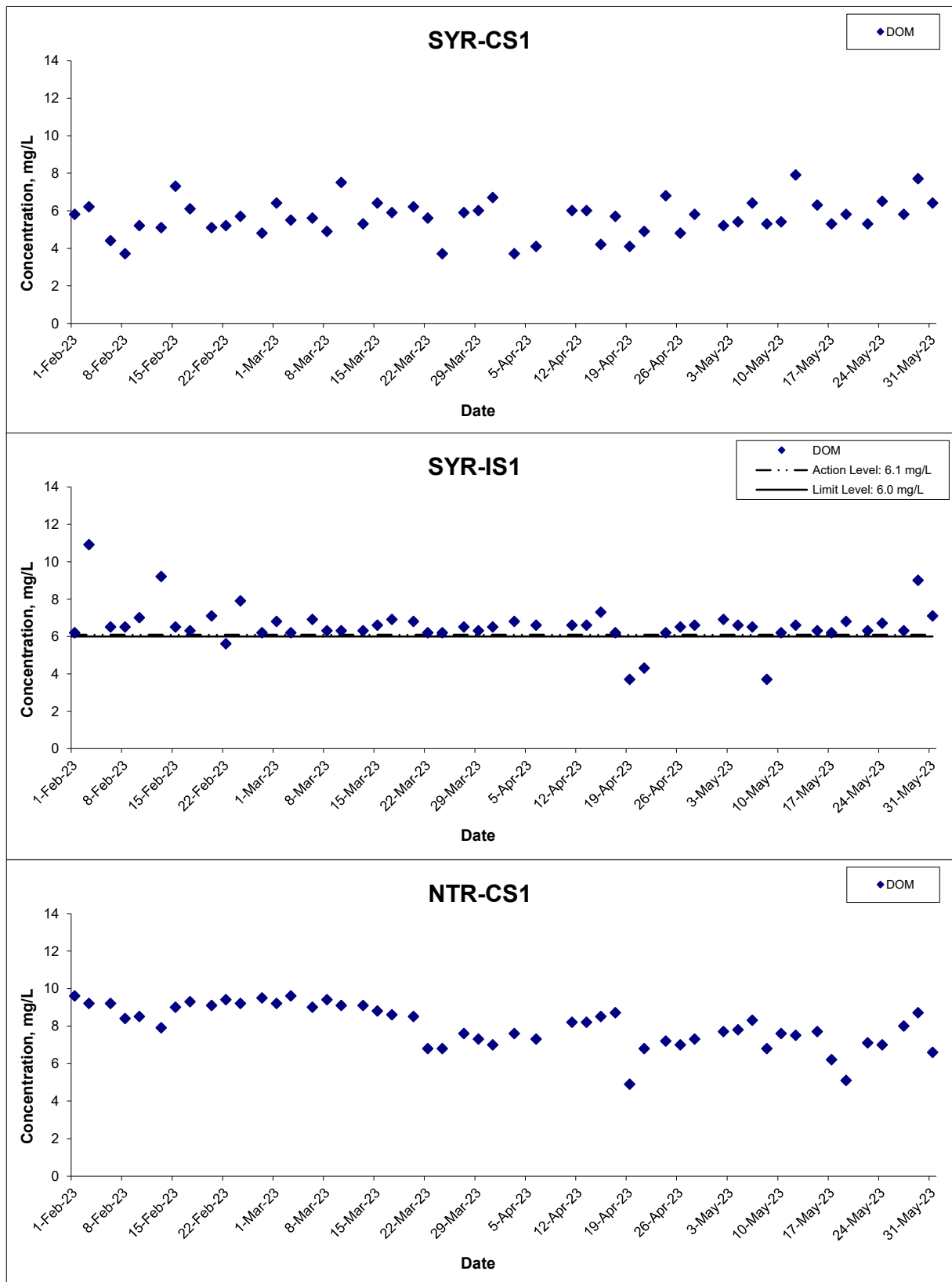
Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Water Quality Monitoring Results

Location: MWR-IS3

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
2-May-23	Cloudy	10:32	Middle	0.2	23.6 23.6	23.6	8.2 8.2	8.2	0.1 0.1	0.1	107.8 107.8	107.8	9.1 9.1	9.1	8.3 8.3	8.3	14 15	14.5
4-May-23	Cloudy	14:36	Middle	0.2	28.9 28.9	28.9	7.7 7.7	7.7	0.1 0.1	0.1	114.5 114.5	114.5	8.8 8.8	8.8	7.5 7.4	7.5	13 11	12.0
6-May-23	Cloudy	16:30	Middle	0.2	28.9 28.9	28.9	7.8 7.8	7.8	0.1 0.1	0.1	114.4 114.2	114.3	8.8 8.8	8.8	5.6 5.6	5.6	<2.5 <2.5	<2.5
8-May-23	Rainy	13:45	Middle	0.3	24.2 24.2	24.2	7.8 7.8	7.8	0.1 0.1	0.1	82.6 82.5	82.6	6.9 6.9	6.9	18.0 18.2	18.1	16 16	16.0
10-May-23	Cloudy	13:15	Middle	0.2	25.2 25.2	25.2	8.2 8.2	8.2	0.2 0.2	0.2	107.3 108.2	107.8	8.8 8.9	8.9	7.3 7.4	7.4	14 15	14.5
12-May-23	Cloudy	13:19	Middle	0.2	24.7 24.7	24.7	8.3 8.2	8.3	0.2 0.2	0.2	105.2 106.7	106.0	8.7 8.9	8.8	6.2 6.1	6.2	8 7	7.5
15-May-23	Cloudy	14:42	Middle	0.2	27.2 27.2	27.2	7.6 7.6	7.6	0.1 0.1	0.1	109.8 110.2	110.0	8.7 8.7	8.7	8.3 8.2	8.3	9 9	9.0
17-May-23	Rainy	13:55	Middle	0.2	27.3 27.3	27.3	7.8 7.8	7.8	0.1 0.1	0.1	112.6 113.4	113.0	8.9 9.0	9.0	27.9 27.8	27.9	27 24	25.5
19-May-23	Sunny	10:48	Middle	0.2	27.6 27.6	27.6	7.1 7.0	7.1	0.1 0.1	0.1	112.8 112.0	112.4	8.9 8.8	8.9	4.0 4.0	4.0	5 5	5.0
22-May-23	Sunny	15:58	Middle	0.2	31.2 31.2	31.2	7.9 7.9	7.9	0.2 0.2	0.2	127.5 127.8	127.7	9.4 9.5	9.5	6.1 6.1	6.1	10 9	9.5
24-May-23	Cloudy	14:13	Middle	0.2	27.7 27.7	27.7	8.0 8.0	8.0	0.1 0.1	0.1	113.4 113.3	113.4	8.9 8.9	8.9	7.6 7.0	7.3	9 10	9.5
27-May-23	Sunny	14:50	Middle	0.2	27.0 27.0	27.0	7.2 7.2	7.2	0.1 0.1	0.1	111.9 112.9	112.4	8.9 9.0	9.0	6.9 6.8	6.9	7 8	7.5
29-May-23	Sunny	14:09	Middle	0.2	30.5 30.5	30.5	7.4 7.4	7.4	0.1 0.1	0.1	116.3 116.8	116.6	8.7 8.8	8.8	9.0 9.0	9.0	13 11	12.0
31-May-23	Cloudy	13:56	Middle	0.2	32.1 32.1	32.1	8.0 8.0	8.0	0.1 0.1	0.1	121.1 121.2	121.2	8.8 8.8	8.8	6.9 6.9	6.9	11 13	12.0

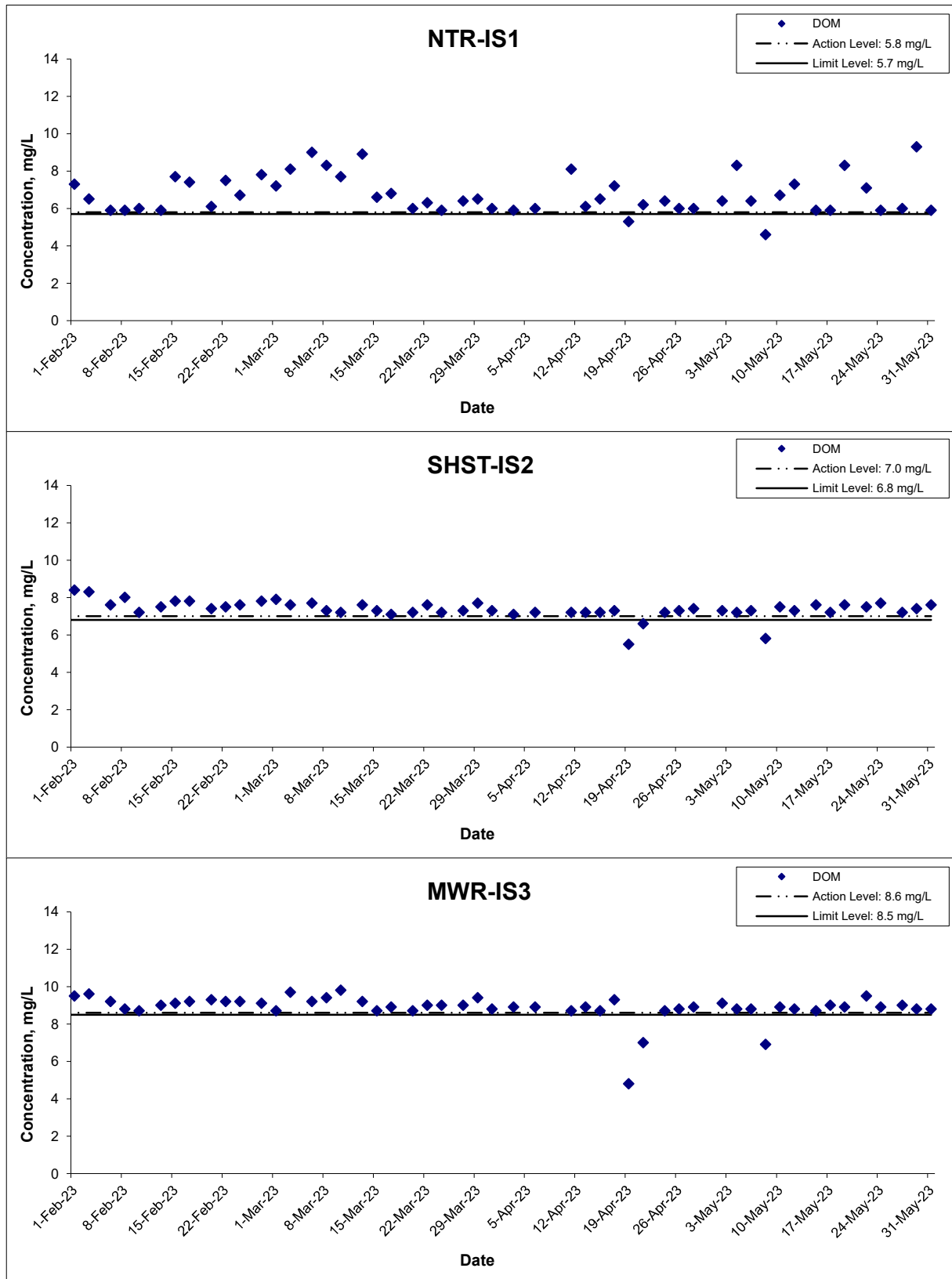
Remarks: The reporting limit for laboratory analysis of suspended solids is 2.5 mg/L. For the results below the reporting limit, the SS level will be taken as 2.5 mg/L for the calculation of depth-averaged value.


Dissolved Oxygen (Middle)



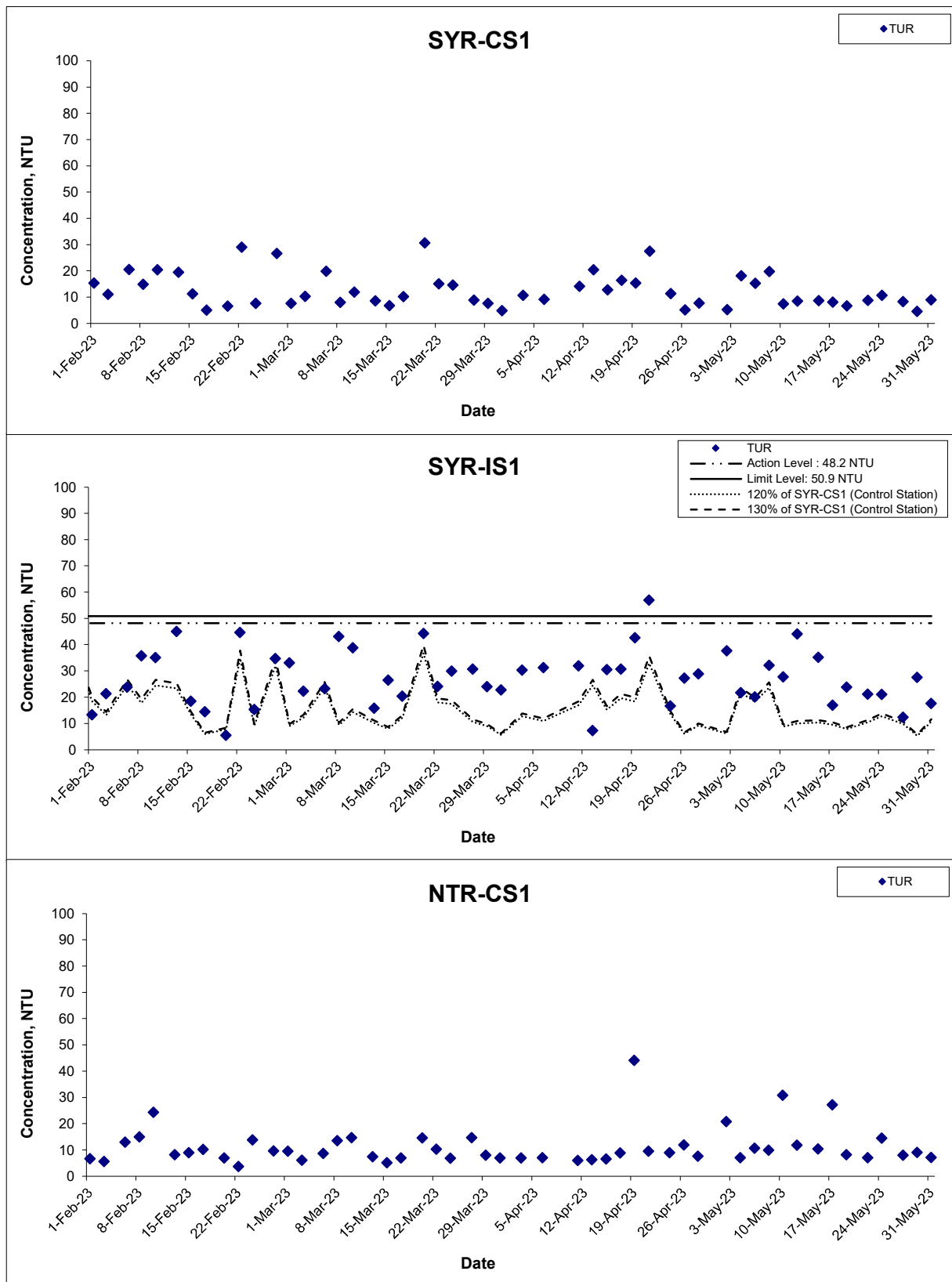
Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	WELLAB 匯力 consulting . testing . research
	Date May 23	Appendix G	

Dissolved Oxygen (Middle)



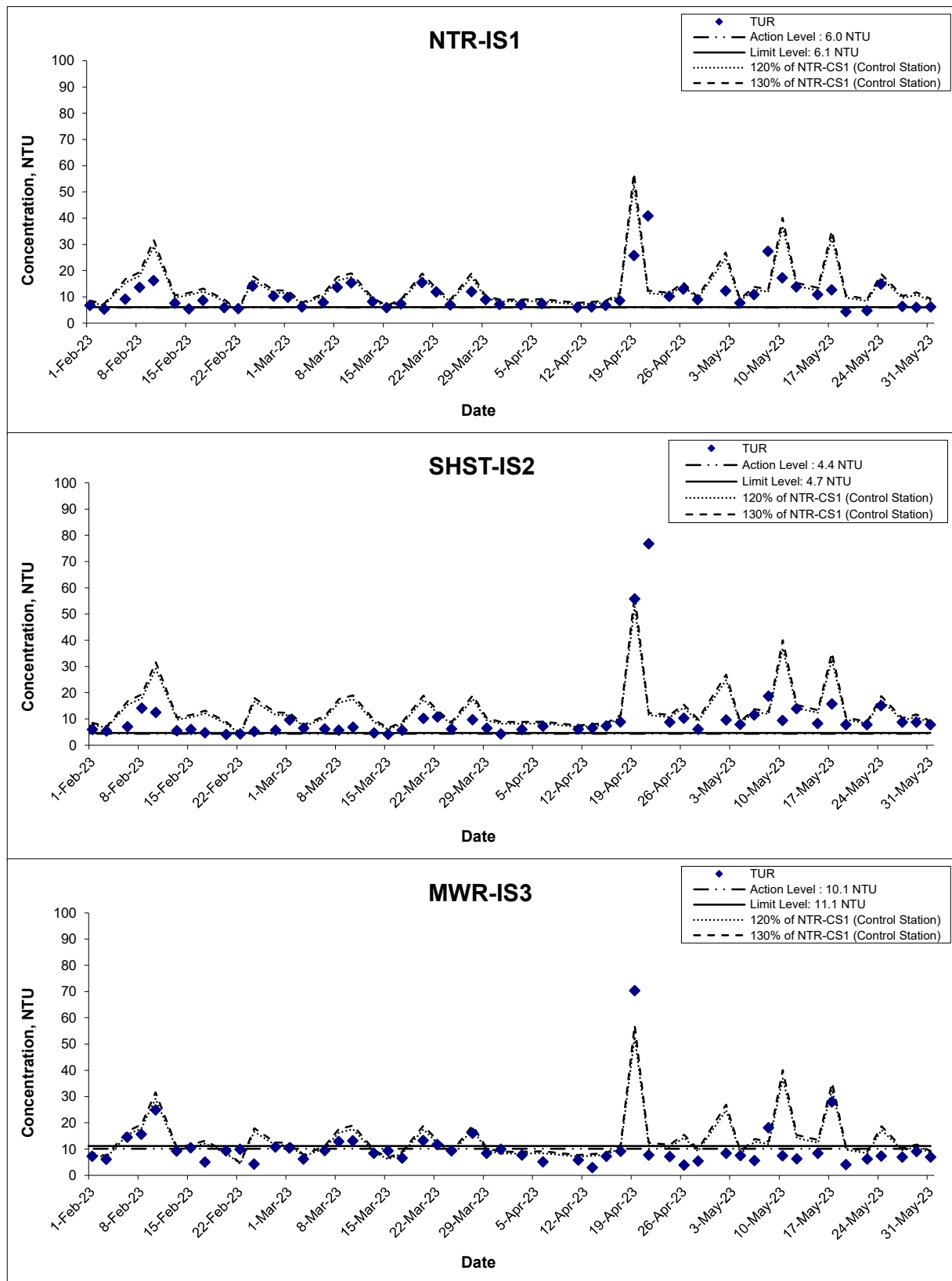
Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	
	Date May 23	Appendix G	

Turbidity (Depth-averaged)



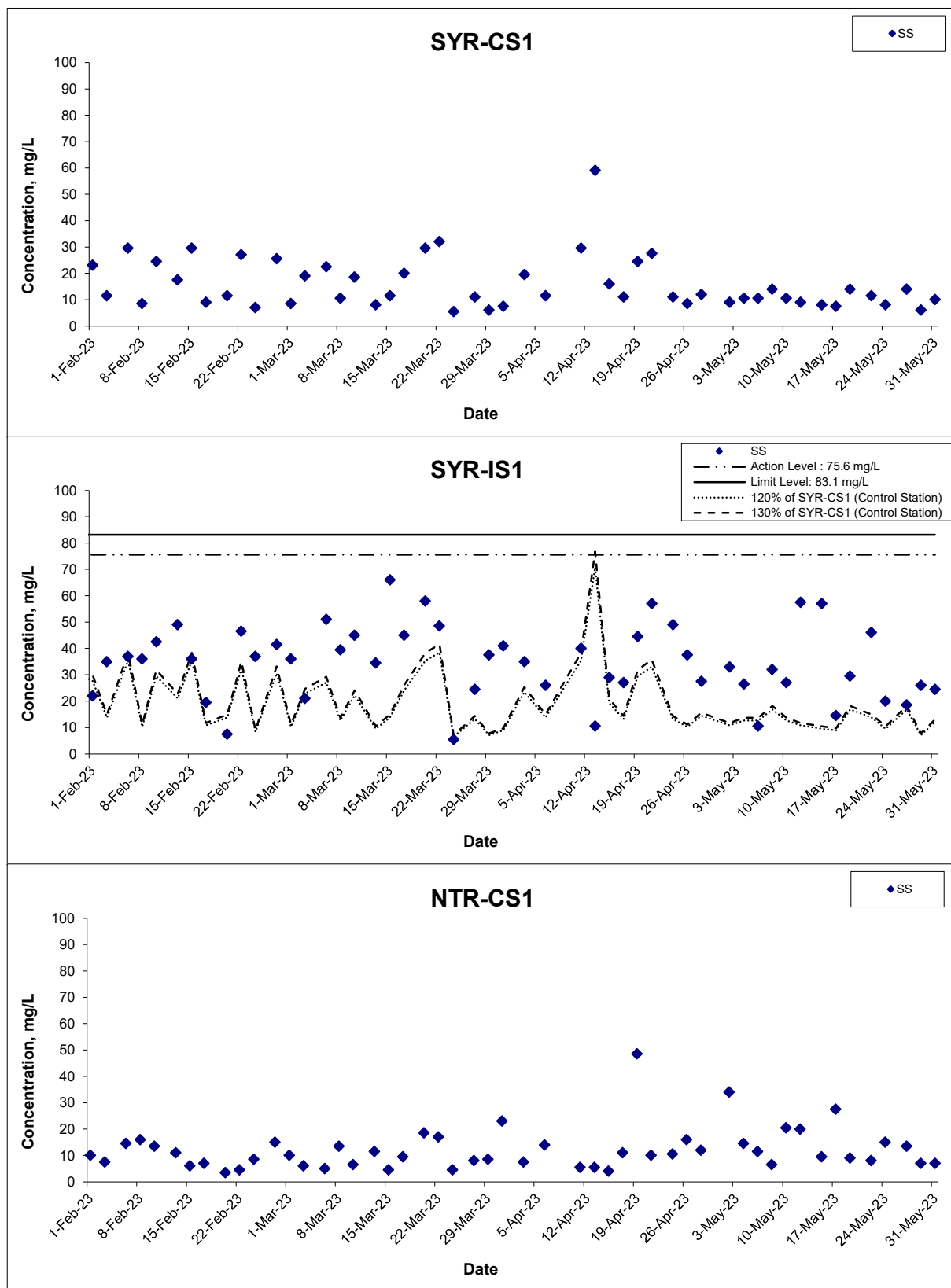
Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	WELLAB 匯力 consulting . testing . research
	Date May 23	Appendix G	

Turbidity (Depth-averaged)



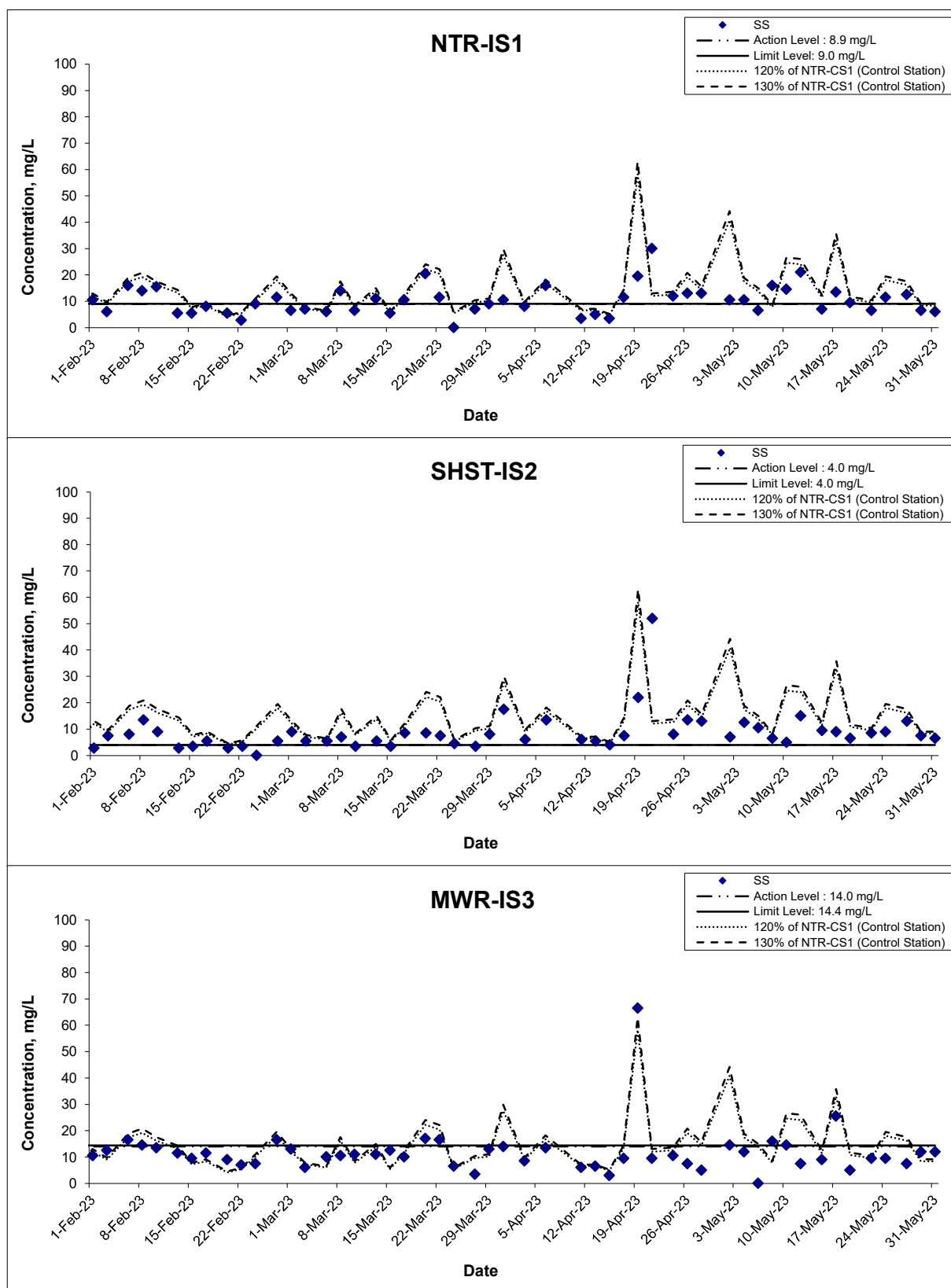
Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	WELLAB 匯力 consulting . testing . research
	Date May 23	Appendix G	

Suspended Solids (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	WELLAB 匯力 consulting . testing . research
	Date May 23	Appendix G	

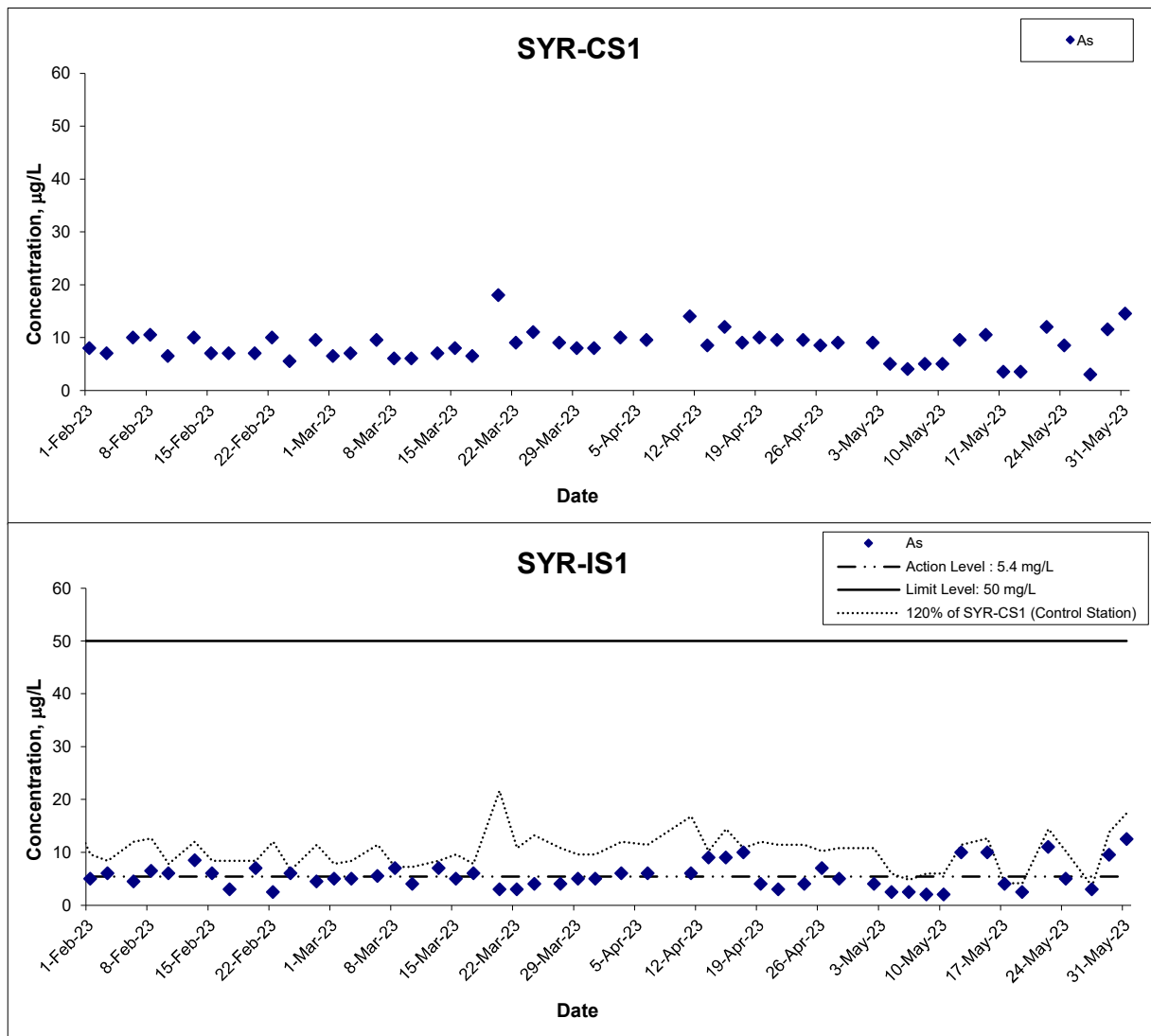
Suspended Solids (Depth-averaged)




Remarks: The graphical point at zero concentration is presented as below the reporting limit.

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	 consulting . testing . research
	Date May 23	Appendix G	

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 May 23	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.

Report No.:	38122
Date of Issue:	2023-05-08
Date Received:	2023-05-02
Date Tested:	2023-05-02
Date Completed:	2023-05-08

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38122
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. : WMA20002/230502
Sampling Date : 2023-05-02

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.	38122-2	38122-3	38122-5	38122-6
Total Suspended Solids dried at 103-105°C (mg/L)	9	9	30	36
Arsenic (µg/L)	9	9	4	4

Remarks: 1) <= less than

*****END OF REPORT*****

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.:	38122A
Date of Issue:	2023-05-08
Date Received:	2023-05-02
Date Tested:	2023-05-02
Date Completed:	2023-05-08

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38122A
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. : WMA20002/230502
Sampling Date : 2023-05-02

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38122-8	38122-9	38122-11	38122-12
Total Suspended Solids dried at 103-105°C (mg/L)	34	34	11	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38122-14	38122-15	38122-17	38122-18
Total Suspended Solids dried at 103-105°C (mg/L)	7	7	14	15

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38125
Date of Issue:	2023-05-10
Date Received:	2023-05-04
Date Tested:	2023-05-04
Date Completed:	2023-05-10

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38125
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. : WMA20002/230504
Sampling Date : 2023-05-04

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.	38125-2	38125-3	38125-5	38125-6
Total Suspended Solids dried at 103-105°C (mg/L)	11	10	24	29
Arsenic (µg/L)	5	5	3	2

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38125A
Date of Issue:	2023-05-10
Date Received:	2023-05-04
Date Tested:	2023-05-04
Date Completed:	2023-05-10

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38125A
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. : WMA20002/230504
Sampling Date : 2023-05-04

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38125-8	38125-9	38125-11	38125-12
Total Suspended Solids dried at 103-105°C (mg/L)	14	15	11	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38125-14	38125-15	38125-17	38125-18
Total Suspended Solids dried at 103-105°C (mg/L)	12	13	13	11

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38128
Date of Issue:	2023-05-11
Date Received:	2023-05-06
Date Tested:	2023-05-06
Date Completed:	2023-05-11

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38128
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. : WMA20002/230506
Sampling Date : 2023-05-06

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.	38128-2	38128-3	38128-5	38128-6
Total Suspended Solids dried at 103-105°C (mg/L)	10	11	11	10
Arsenic (µg/L)	4	4	2	3

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38128A
Date of Issue:	2023-05-11
Date Received:	2023-05-06
Date Tested:	2023-05-06
Date Completed:	2023-05-11

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38128A
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. : WMA20002/230506
Sampling Date : 2023-05-06

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38128-8	38128-9	38128-11	38128-12
Total Suspended Solids dried at 103-105°C (mg/L)	12	11	7	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38128-14	38128-15	38128-17	38128-18
Total Suspended Solids dried at 103-105°C (mg/L)	11	10	<2.5	<2.5

Remarks: 1) < = less than

*****END OF REPORT*****

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.: 38159
Date of Issue: 2023-05-12
Date Received: 2023-05-08
Date Tested: 2023-05-08
Date Completed: 2023-05-12

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38159
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. : WMA20002/230508
Sampling Date : 2023-05-08

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.	38159-2	38159-3	38159-5	38159-6
Total Suspended Solids dried at 103-105°C (mg/L)	13	15	33	31
Arsenic (µg/L)	5	5	2	2

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38159A
Date of Issue:	2023-05-12
Date Received:	2023-05-08
Date Tested:	2023-05-08
Date Completed:	2023-05-12

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38159A
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. : WMA20002/230508
Sampling Date : 2023-05-08

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38159-8	38159-9	38159-11	38159-12
Total Suspended Solids dried at 103-105°C (mg/L)	6	7	15	17

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38159-14	38159-15	38159-17	38159-18
Total Suspended Solids dried at 103-105°C (mg/L)	7	6	16	16

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38162
Date of Issue:	2023-05-15
Date Received:	2023-05-10
Date Tested:	2023-05-10
Date Completed:	2023-05-15

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38162
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. : WMA20002/230510
Sampling Date : 2023-05-10

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.	38162-2	38162-3	38162-5	38162-6
Total Suspended Solids dried at 103-105°C (mg/L)	10	11	26	28
Arsenic (µg/L)	5	5	2	2

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38162A
Date of Issue:	2023-05-15
Date Received:	2023-05-10
Date Tested:	2023-05-10
Date Completed:	2023-05-15

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38162A
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. : WMA20002/230510
Sampling Date : 2023-05-10

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38162-8	38162-9	38162-11	38162-12
Total Suspended Solids dried at 103-105°C (mg/L)	21	20	14	15

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38162-14	38162-15	38162-17	38162-18
Total Suspended Solids dried at 103-105°C (mg/L)	5	5	14	15

Remarks: 1) < = less than

*****END OF REPORT*****

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.: 38165
Date of Issue: 2023-05-18
Date Received: 2023-05-12
Date Tested: 2023-05-12
Date Completed: 2023-05-18

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38165
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. : WMA20002/230512
Sampling Date : 2023-05-12

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.	38165-2	38165-3	38165-5	38165-6
Total Suspended Solids dried at 103-105°C (mg/L)	9	9	58	57
Arsenic (µg/L)	9	10	11	9

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38165A
Date of Issue:	2023-05-18
Date Received:	2023-05-12
Date Tested:	2023-05-12
Date Completed:	2023-05-18

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38165A
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. : WMA20002/230512
Sampling Date : 2023-05-12

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38165-8	38165-9	38165-11	38165-12
Total Suspended Solids dried at 103-105°C (mg/L)	20	20	21	21

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38165-14	38165-15	38165-17	38165-18
Total Suspended Solids dried at 103-105°C (mg/L)	16	14	8	7

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38184
Date of Issue:	2023-05-19
Date Received:	2023-05-15
Date Tested:	2023-05-15
Date Completed:	2023-05-19

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38184
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. : WMA20002/230515
Sampling Date : 2023-05-15

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.	38184-2	38184-3	38184-5	38184-6
Total Suspended Solids dried at 103-105°C (mg/L)	8	8	57	57
Arsenic (µg/L)	11	10	10	10

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38184A
Date of Issue:	2023-05-19
Date Received:	2023-05-15
Date Tested:	2023-05-15
Date Completed:	2023-05-19

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38184A
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. : WMA20002/230515
Sampling Date : 2023-05-15

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38184-8	38184-9	38184-11	38184-12
Total Suspended Solids dried at 103-105°C (mg/L)	9	10	7	7

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38184-14	38184-15	38184-17	38184-18
Total Suspended Solids dried at 103-105°C (mg/L)	9	10	9	9

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38188
Date of Issue:	2023-05-22
Date Received:	2023-05-17
Date Tested:	2023-05-17
Date Completed:	2023-05-22

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38188
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. : WMA20002/230517
Sampling Date : 2023-05-17

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.	38188-2	38188-3	38188-5	38188-6
Total Suspended Solids dried at 103-105°C (mg/L)	8	7	15	14
Arsenic (µg/L)	3	4	4	4

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38188A
Date of Issue:	2023-05-22
Date Received:	2023-05-17
Date Tested:	2023-05-17
Date Completed:	2023-05-22

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38188A
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. : WMA20002/230517
Sampling Date : 2023-05-17

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38188-8	38188-9	38188-11	38188-12
Total Suspended Solids dried at 103-105°C (mg/L)	26	29	14	13

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38188-14	38188-15	38188-17	38188-18
Total Suspended Solids dried at 103-105°C (mg/L)	9	9	27	24

Remarks: 1) <= less than

*****END OF REPORT*****

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.:	38191
Date of Issue:	2023-05-22
Date Received:	2023-05-19
Date Tested:	2023-05-19
Date Completed:	2023-05-22

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38191
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. : WMA20002/230519
Sampling Date : 2023-05-19

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.	38191-2	38191-3	38191-5	38191-6
Total Suspended Solids dried at 103-105°C (mg/L)	13	15	31	28
Arsenic (µg/L)	3	4	2	3

Remarks: 1) < = less than

*****END OF REPORT*****

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.: 38191A
Date of Issue: 2023-05-22
Date Received: 2023-05-19
Date Tested: 2023-05-19
Date Completed: 2023-05-22

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38191A
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. : WMA20002/230519
Sampling Date : 2023-05-19

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38191-8	38191-9	38191-11	38191-12
Total Suspended Solids dried at 103-105°C (mg/L)	9	9	9	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38191-14	38191-15	38191-17	38191-18
Total Suspended Solids dried at 103-105°C (mg/L)	7	6	5	5

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38243
Date of Issue:	2023-05-25
Date Received:	2023-05-22
Date Tested:	2023-05-22
Date Completed:	2023-05-25

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38243
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. : WMA20002/230522
Sampling Date : 2023-05-22

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.	38243-2	38243-3	38243-5	38243-6
Total Suspended Solids dried at 103-105°C (mg/L)	12	11	42	50
Arsenic (µg/L)	12	12	11	11

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38243A
Date of Issue:	2023-05-25
Date Received:	2023-05-22
Date Tested:	2023-05-22
Date Completed:	2023-05-25

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38243A
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. : WMA20002/230522
Sampling Date : 2023-05-22

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38243-8	38243-9	38243-11	38243-12
Total Suspended Solids dried at 103-105°C (mg/L)	8	8	7	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38243-14	38243-15	38243-17	38243-18
Total Suspended Solids dried at 103-105°C (mg/L)	8	9	10	9

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38246
Date of Issue:	2023-05-31
Date Received:	2023-05-24
Date Tested:	2023-05-24
Date Completed:	2023-05-31

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38246
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. : WMA20002/230524
Sampling Date : 2023-05-24

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.	38246-2	38246-3	38246-5	38246-6
Total Suspended Solids dried at 103-105°C (mg/L)	8	8	21	19
Arsenic (µg/L)	9	8	5	5

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38246A
Date of Issue:	2023-05-31
Date Received:	2023-05-24
Date Tested:	2023-05-24
Date Completed:	2023-05-31

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38246A
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. : WMA20002/230524
Sampling Date : 2023-05-24

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38246-8	38246-9	38246-11	38246-12
Total Suspended Solids dried at 103-105°C (mg/L)	15	15	12	11

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38246-14	38246-15	38246-17	38246-18
Total Suspended Solids dried at 103-105°C (mg/L)	9	9	9	10

Remarks: 1) <= less than

*****END OF REPORT*****

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.:	38248
Date of Issue:	2023-06-01
Date Received:	2023-05-27
Date Tested:	2023-05-27
Date Completed:	2023-06-01

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38248
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. : WMA20002/230527
Sampling Date : 2023-05-27

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.	38248-2	38248-3	38248-5	38248-6
Total Suspended Solids dried at 103-105°C (mg/L)	13	15	19	18
Arsenic (µg/L)	3	3	3	3

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38248A
Date of Issue:	2023-06-01
Date Received:	2023-05-27
Date Tested:	2023-05-27
Date Completed:	2023-06-01

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38248A
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. : WMA20002/230527
Sampling Date : 2023-05-27

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38248-8	38248-9	38248-11	38248-12
Total Suspended Solids dried at 103-105°C (mg/L)	14	13	12	13

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38248-14	38248-15	38248-17	38248-18
Total Suspended Solids dried at 103-105°C (mg/L)	12	14	7	8

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38270
Date of Issue:	2023-06-02
Date Received:	2023-05-29
Date Tested:	2023-05-29
Date Completed:	2023-06-02

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38270
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. : WMA20002/230529
Sampling Date : 2023-05-29

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.	38270-2	38270-3	38270-5	38270-6
Total Suspended Solids dried at 103-105°C (mg/L)	6	6	25	27
Arsenic (µg/L)	12	11	10	9

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38270A
Date of Issue:	2023-06-02
Date Received:	2023-05-29
Date Tested:	2023-05-29
Date Completed:	2023-06-02

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38270A
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. : WMA20002/230529
Sampling Date : 2023-05-29

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38270-8	38270-9	38270-11	38270-12
Total Suspended Solids dried at 103-105°C (mg/L)	7	7	7	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38270-14	38270-15	38270-17	38270-18
Total Suspended Solids dried at 103-105°C (mg/L)	7	8	13	11

Remarks: 1) < = less than

*****END OF REPORT*****

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.:	38272
Date of Issue:	2023-06-05
Date Received:	2023-05-31
Date Tested:	2023-05-31
Date Completed:	2023-06-05

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38272
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. : WMA20002/230531
Sampling Date : 2023-05-31

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.	38272-2	38272-3	38272-5	38272-6
Total Suspended Solids dried at 103-105°C (mg/L)	10	10	23	26
Arsenic (µg/L)	16	13	13	12

Remarks: 1) <= less than

*****END OF REPORT*****

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.:	38272A
Date of Issue:	2023-06-05
Date Received:	2023-05-31
Date Tested:	2023-05-31
Date Completed:	2023-06-05

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38272A
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. : WMA20002/230531
Sampling Date : 2023-05-31

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

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38272-8	38272-9	38272-11	38272-12
Total Suspended Solids dried at 103-105°C (mg/L)	7	7	6	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38272-14	38272-15	38272-17	38272-18
Total Suspended Solids dried at 103-105°C (mg/L)	6	7	11	13

Remarks: 1) < = less than

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

**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.:	QC38122
Date of Issue:	2023-05-08
Date Received:	2023-05-02
Date Tested:	2023-05-02
Date Completed:	2023-05-08

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	99	98	80-120
Arsenic (%)	102	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	96	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	0	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 38122.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38125
Date of Issue: 2023-05-10
Date Received: 2023-05-04
Date Tested: 2023-05-04
Date Completed: 2023-05-10

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	80	81	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 (%)	112	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	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 38125.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIA TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.:	QC38128
Date of Issue:	2023-05-11
Date Received:	2023-05-06
Date Tested:	2023-05-06
Date Completed:	2023-05-11

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	96	103	80-120
Arsenic (%)	103	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	89	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	4	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 38128.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIA TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38159
Date of Issue: 2023-05-12
Date Received: 2023-05-08
Date Tested: 2023-05-08
Date Completed: 2023-05-12

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	94	92	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 (%)	89	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	4	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 38159.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38162
Date of Issue: 2023-05-15
Date Received: 2023-05-10
Date Tested: 2023-05-10
Date Completed: 2023-05-15

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	93	91	80-120
Arsenic (%)	82	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 (%)	3	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 38162.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIA TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38165
Date of Issue: 2023-05-18
Date Received: 2023-05-12
Date Tested: 2023-05-12
Date Completed: 2023-05-18

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	94	93	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 (%)	113	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	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 38165.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38184
Date of Issue: 2023-05-19
Date Received: 2023-05-15
Date Tested: 2023-05-15
Date Completed: 2023-05-19

Page: 1 of 1

ATTN: 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 ($\mu\text{g/L}$)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	115	105	80-120
Arsenic (%)	104	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	92	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	0	3	RPD \leq 5%
Arsenic (%)	11	N/A	RPD \leq 20%

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38184.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38188
Date of Issue: 2023-05-22
Date Received: 2023-05-17
Date Tested: 2023-05-17
Date Completed: 2023-05-22

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 (%)	113	98	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 (%)	99	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	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 38188.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38191
Date of Issue: 2023-05-22
Date Received: 2023-05-19
Date Tested: 2023-05-19
Date Completed: 2023-05-22

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	83	98	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 (%)	112	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	2	RPD≤5%
Arsenic (%)	16	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 38191.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38243
Date of Issue: 2023-05-25
Date Received: 2023-05-22
Date Tested: 2023-05-22
Date Completed: 2023-05-25

Page: 1 of 1

ATTN: 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 ($\mu\text{g/L}$)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	89	96	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 (%)	102	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	RPD \leq 5%
Arsenic (%)	3	N/A	RPD \leq 20%

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38243.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38246
Date of Issue: 2023-05-31
Date Received: 2023-05-24
Date Tested: 2023-05-24
Date Completed: 2023-05-31

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	90	95	80-120
Arsenic (%)	99	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	107	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	3	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 38246.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38248
Date of Issue: 2023-06-01
Date Received: 2023-05-27
Date Tested: 2023-05-27
Date Completed: 2023-06-01

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	90	92	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 (%)	86	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	1	RPD≤5%
Arsenic (%)	11	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 38248.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38270
Date of Issue: 2023-06-02
Date Received: 2023-05-29
Date Tested: 2023-05-29
Date Completed: 2023-06-02

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	114	90	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 (%)	115	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	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 38270.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.: QC38272
Date of Issue: 2023-06-05
Date Received: 2023-05-31
Date Tested: 2023-05-31
Date Completed: 2023-06-05

Page: 1 of 1

ATTN: 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 QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	92	96	80-120
Arsenic (%)	89	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	93	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	2	RPD≤5%
Arsenic (%)	6	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 38272.

*****END OF REPORT*****

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICIK 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 & Infrastructure works**

堆填區附近區域(Consultation Zone)每月氣體監察記錄

日期及時間	位置	氣體及安全標準	氧氣 O ₂ >19%	甲烷 CH ₄ <10% LEL	二氧化碳 CO ₂ <0.5%
25-05-2023 9:45	CZ PT 1		19.96	0.00	0.00
25-05-2023 9:53	CZ container 1		19.48	0.00	0.00
25-05-2023 9:47	CZ container 2		19.64	0.00	0.00
25-05-2023 9:49	CZ container 3		19.62	0.00	0.00
25-05-2023 9:51	CZ container 4		19.49	0.00	0.00
25-05-2023 9:55	CZ container 5		19.43	0.00	0.00

Prepared by : Y L Chan (Safety Officer)

Date : 25-05-2023

**APPENDIX K
BUILT HERITAGE MONITORING
RESULTS**

Project: ND/2019/02-Kwu Tung North New Development Area, Phase 1
Company : CW-KL JV

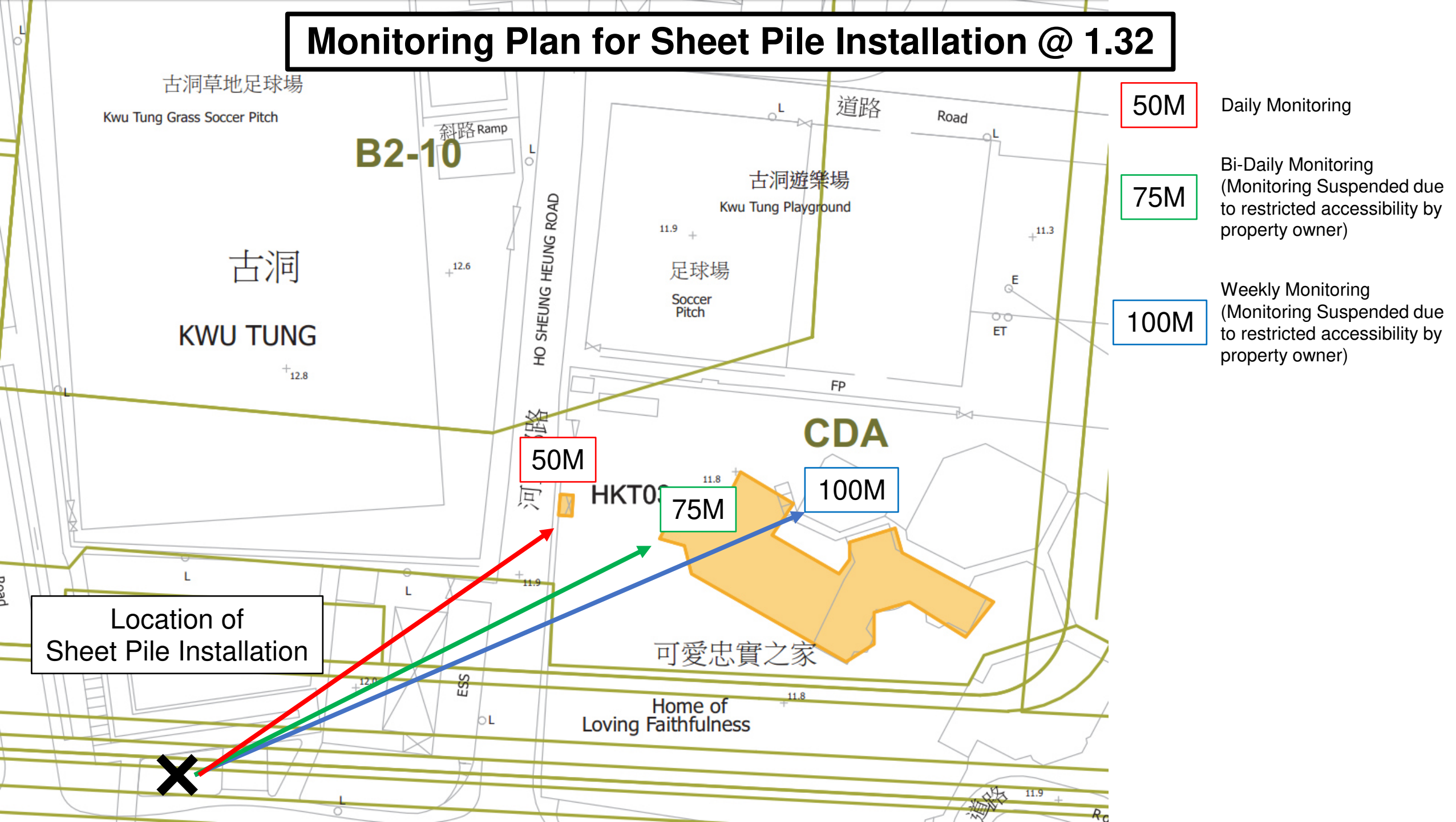
Vibration Monitoring Data

Monitoring Location : HKT03

Type of building	Guide values of Maximum PPV (mm/sec)	
	Transient Vabration	Continuous Vibration
Vibration sensitive/ Dilapidated building	7.5	3.0

Date	Results (Max Point)	Location of pile
2023 05 12	0.350	1.32
2023 05 13	0.350	1.32
2023 05 15	0.142	1.32
2023 05 16	0.156	1.32
2023 05 17	0.128	1.32
2023 05 18	0.133	1.32
2023 05 19	0.219	1.32
2023 05 20	0.125	1.32
2023 05 22	0.300	1.32
2023 05 23	0.152	1.32
2023 05 24	0.126	1.32
2023 05 25	0.159	1.32
2023 05 26	0.120	1.32
2023 05 27	0.145	1.32
2023 05 29	0.139	1.32
2023 05 30	0.117	1.32
2023 05 31	0.389	1.32

Monitoring Plan for Sheet Pile Installation @ 1.32



APPENDIX L
ECOLOGICAL MONITORING RESULTS

Appendix L1a. Avifauna Species Recorded for Water Birds Monitoring, 4 & 5 May 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.26, 2.49					
					Start Time			1000, 1000					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		3	2	2					3	1
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		2	3							
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV		1	2							2
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		2	3	6		3				5
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			2			31			
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R		2	1							4
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	1		2	6					
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		4	1							
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R							3			
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR						2				1
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM		1	2							
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R		1								9
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		4	2	5		6				22
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				3					1
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R						3				1

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.26, 2.49					
					Start Time			1000, 1000					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	1	2			2			
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)									1
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC		1							
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC				1					
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R			1							
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵂	Sv			1						3	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)		2	11		1	3			
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵂	R		5	7			3			1	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鵂	R										2
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV						1				
Plain Prinia	<i>Prinia inornata</i>	純色鷦鶯	R						2			1	
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R			3							
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		5	9			1				
Rock Dove	<i>Columba livia</i>	原鴿	R			3			13				3
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						3				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		7	3							3
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R		1	1							

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.26, 2.49					
					Start Time			1000, 1000					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R								3		
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)		1							
White Wagtail	<i>Motacilla alba</i>	白鵲鵲	PM, WV		1	3			1			1	
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC			1					2	
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R		3	1					2		
Total No. of Species					17	22	8	3	12	4	0	6	15
Total No. of Conservation Interest Species					2	4	5	3	1	3	0	0	3

Note:
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

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)						
					Weather Condition		Sunny, Sunny						
					Tidal Condition		High						
					Tide Level (m)		2.26, 2.49						
					Start Time		1000, 1000						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
<p>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)</p> <p>WAL: Wet Agricultural Land</p> <p>DAL: Dry Agricultural Land</p> <p>SWH: Shallow Water Habitat</p> <p>P: Pond</p>													

Appendix L1b. Avifauna Species Recorded for Water Birds Monitoring, 4 & 5 May 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.8, 1.3					
					Start Time			1500, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		2	2	2						
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		2	3							1
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv						1				
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV			1							
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		3	3	3		4				1
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			2	18		37			5
Brown Shrike	<i>Lanius cristatus</i>	紅尾伯勞	CPM, SWV				1						
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R										2
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	1	5	2		1				5
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		3				1				
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1	1		2			
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R			1							
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R					1					
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR						4				
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM		1	1	4						
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R			11			24				3

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.8, 1.3					
					Start Time			1500, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				3					1
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV										12
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			5			5				
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)		2	1						
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC				1					
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R			1							
Large Hawk-Cuckoo	<i>Hierococcyx sparveroides</i>	大鷹鴝	Sv									2	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	1	3	18	1	1				2
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鴝	R		2	3			5			3	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			1	1		1				
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R		1	1	1		1			1	
Plaintive Cuckoo	<i>Cacomantis merulinus</i>	八聲杜鵑	USV		1								
Red-rumped Swallow	<i>Cecropis daurica</i>	金腰燕	UPM										1
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R		1								
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		5	5	1		2			1	
Rock Dove	<i>Columba livia</i>	原鴿	R			14			11				
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						16				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.8, 1.3					
					Start Time			1500, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		3	4	3	1					1
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R		1		1						
White Wagtail	<i>Motacilla alba</i>	白鵲鴿	PM, WV			4	1		4				
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					1	3			1	
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)			1						2
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	PM, WV	LC				4					1
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R		3							5	
Total No. of Species					15	19	16	9	16	2	0	6	13
Total No. of Conservation Interest Species					2	3	6	6	2	2	0	0	6

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/5/2023 (T1 & T2), 5/5/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		Low							
					Tide Level (m)		0.8, 1.3							
					Start Time		1500, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
								WAL	DAL	SWH	P	Heard	Flight	

Note:

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; 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

P: Pond

Appendix L1c. Avifauna Species Recorded for Water Birds Monitoring, 10 & 11 May 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date				11/5/2023 (T1 & T2), 10/5/2023 (T3 & T5)				
					Weather Condition				Fine, Fine				
					Tidal Condition				High				
					Tide Level (m)				2.43, 2.77				
					Start Time				1500, 1300				
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586	2								
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		1	2	2					4	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		3								3
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		2	1	5		3			1	2
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC		1							
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				10		20			1
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R						2				
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	1	1		6	2				1
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		1								
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU									1
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R		1								
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM		2		2						
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		7	5	3	2	3				2
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)		1		2	10				7
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV										22

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date					11/5/2023 (T1 & T2), 10/5/2023 (T3 & T5)				
					Weather Condition					Fine, Fine				
					Tidal Condition					High				
					Tide Level (m)					2.43, 2.77				
					Start Time					1500, 1300				
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			7			3					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)		1								
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC						1				
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵒	Sv			1						2		
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	1	2	19	1		4			10	
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R		5	5						4		
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)	1									
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R			2								
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		3	5	1							
Richard's Pipit	<i>Anthus richardi</i>	理氏鵲	WV, PM						6					
Rock Dove	<i>Columba livia</i>	原鴿	R						22					
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					1					20	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R			14	12		5				2	
White Wagtail	<i>Motacilla alba</i>	白鵲鶇	PM, WV			1	1		1				3	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					1	1			2	1	
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)			1							
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R				1							

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/5/2023 (T1 & T2), 10/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			High					
					Tide Level (m)			2.43, 2.77					
					Start Time			1500, 1300					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
Total No. of Species					13	15	10	7	11	3	0	5	13
Total No. of Conservation Interest Species					4	5	2	4	2	3	0	0	5

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; 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
P: Pond

Appendix L1d. Avifauna Species Recorded for Water Birds Monitoring, 10 & 11 May 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/5/2023 (T1 & T2), 10/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			Low					
					Tide Level (m)			1.37, 1.23					
					Start Time			0700, 0700					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586									1
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		2	1	1					1	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		3		2						13
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV		1								1
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		2	5	3		9				2
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				13	1	1			7
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R					1					
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	7	2	2	1				5
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		3								
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU		1	3						
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR				5		4				
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM		2		1	3					
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R				1						
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		7	5	3	1	1				9
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)			1	3	1				5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/5/2023 (T1 & T2), 10/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			Low					
					Tide Level (m)			1.37, 1.23					
					Start Time			0700, 0700					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵪鶉	PM, WV										6
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		2		2	3					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)		3							3
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)								1	
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R		1	3							
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC				1					
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵂	Sv		2							1	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)		3	12	3		3			
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC				2					
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵂	R		3	5	5		6				3
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			2							
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R		2		2	5					1
Plaintive Cuckoo	<i>Cacomantis merulinus</i>	八聲杜鵑	USV									1	
Red Collared Dove	<i>Streptopelia tranquebarica</i>	火斑鳩	UPM				1						
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		9	10	1		3			1	
Rock Dove	<i>Columba livia</i>	原鴿	R			23							
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					20	40				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/5/2023 (T1 & T2), 10/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			Low					
					Tide Level (m)			1.37, 1.23					
					Start Time			0700, 0700					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		1	3	4		3				
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R				3						1
White Wagtail	<i>Motacilla alba</i>	白鵲鴿	PM, WV		1	2	2		1				3
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					1	3				
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)					1				
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R		2	1	2					4	
Total No. of Species					16	16	19	11	16	2	0	6	14
Total No. of Conservation Interest Species					1	4	4	4	6	2	0	1	5

Note:
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
P: Pond

Appendix L1e. Avifauna Species Recorded for Water Birds Monitoring, 15 & 16 May 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			15/5/2023 (T1 & T2), 16/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			High					
					Tide Level (m)			1.93, 2.04					
					Start Time			0800, 0800					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		1	1	1					1	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv			1	4						1
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV		1	1							1
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R			3	4	1	3	2		2	2
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				17	4	27			4
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R						3				
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	1	3	3	6	1				2
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		1		1						
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR				1						1
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM		1		1						
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R		3								
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		4	6	3		2				5
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				9					
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					5					2
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)		1		1	10				3

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			15/5/2023 (T1 & T2), 16/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			High					
					Tide Level (m)			1.93, 2.04					
					Start Time			0800, 0800					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC		1							
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC				3	1				
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R			2							
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵒	Sv		1							1	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)		2	15	11	4	6			
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵒	R			4	4		3				
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R				1						
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		3	6	3		3				2
Rock Dove	<i>Columba livia</i>	原鴿	R			7			5				
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						35				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		1	4	2		3				4
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R		1	4							
White Wagtail	<i>Motacilla alba</i>	白鵲鴿	PM, WV		1		3		4				1
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R		2			1					
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R		2	1	2			7		7	
Total No. of Species					14	16	15	9	14	4	0	4	12
Total No. of Conservation Interest Species					1	4	2	6	5	2	0	0	3

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		15/5/2023 (T1 & T2), 16/5/2023 (T3 & T5)							
					Weather Condition		Fine, Fine							
					Tidal Condition		High							
					Tide Level (m)		1.93, 2.04							
					Start Time		0800, 0800							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; 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
P: Pond

Appendix L1f. Avifauna Species Recorded for Water Birds Monitoring, 15 & 16 May 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			15/5/2023 (T1 & T2), 16/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			Low					
					Tide Level (m)			1.29, 1.09					
					Start Time			1200, 1300					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		1		2					1	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv										4
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV		1	1							1
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		4	4	4		9				5
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				16		26			1
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R			2							2
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	1	1		5				
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR				1	1					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		3	1	5		16				4
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				2		1			2
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV										14
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R						6				
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	2		2	1					1
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鷸	R	LC					1				
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	2								

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			15/5/2023 (T1 & T2), 16/5/2023 (T3 & T5)					
					Weather Condition			Fine, Fine					
					Tidal Condition			Low					
					Tide Level (m)			1.29, 1.09					
					Start Time			1200, 1300					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC						7			
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵒	Sv			1						1	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	1	6	18	4	2	6			1
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵒	R		5	8	2		10			1	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			2	2		1				
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)	1								
Plain Prinia	<i>Prinia inornata</i>	純色鷦鶯	R			1			7			1	
Plaintive Cuckoo	<i>Cacomantis merulinus</i>	八聲杜鵑	USV		1							1	
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R		1								
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鸛	R		5	6							
Rock Dove	<i>Columba livia</i>	原鴿	R			10	2		3				2
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						140				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		5	4	7		4				
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R		4	3							
White Wagtail	<i>Motacilla alba</i>	白鵲鴝	PM, WV			2	3		4				1
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R						2				1
Yellow Bittern	<i>Ixobrychus sinensis</i>	黃葦鴉	USV, UPM	(LC)				1					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date				15/5/2023 (T1 & T2), 16/5/2023 (T3 & T5)				
					Weather Condition				Fine, Fine				
					Tidal Condition				Low				
					Tide Level (m)				1.29, 1.09				
					Start Time				1200, 1300				
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R		3		1		1			1	
Yellow-breasted Bunting	<i>Emberiza aureola</i>	黃胸鵪	PM	(EN), RC					1				
Total No. of Species					16	15	13	6	16	4	0	6	13
Total No. of Conservation Interest Species					5	2	3	5	4	4	0	0	4

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; 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
P: Pond

Appendix L1g. Avifauna Species Recorded for Water Birds Monitoring, 22 & 23 May 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date				23/5/2023 (T1 & T2), 22/5/2023 (T3 & T5)				
					Weather Condition				Drizzle, Sunny				
					Tidal Condition				High				
					Tide Level (m)				2.64, 2.47				
					Start Time				1000, 1000				
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		3	2	1					1	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv			2	4						3
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV		1	1							
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		7	1			7			2	
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC		1							
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				3	1	14			6
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R				2		3				2
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	1				3	2			1
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		3	2							
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU			3						
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		8	21			5				
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				1					
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			4			10				
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)			1			5			2
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)	1	2							

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date				23/5/2023 (T1 & T2), 22/5/2023 (T3 & T5)				
					Weather Condition				Drizzle, Sunny				
					Tidal Condition				High				
					Tide Level (m)				2.64, 2.47				
					Start Time				1000, 1000				
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R		1								
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵒	Sv				1					1	
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R			1							
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	1	3	1	5		3			3
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵒	R			3			3				
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鵒	R		1				1				
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R					1	1			1	
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R		1		2						
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		1	9			5				2
Rock Dove	<i>Columba livia</i>	原鴿	R		2	24			12				
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					11					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		2	4	1		2				2
White Wagtail	<i>Motacilla alba</i>	白鵲鵒	PM, WV			1			1				1
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R		1	1		3				1	
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)					1				1
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R		1							2	
Total No. of Species					16	17	9	6	14	4	0	6	10

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			23/5/2023 (T1 & T2), 22/5/2023 (T3 & T5)						
					Weather Condition			Drizzle, Sunny						
					Tidal Condition			High						
					Tide Level (m)			2.64, 2.47						
					Start Time			1000, 1000						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
WAL	DAL	SWH	P	Heard				Flight						
Total No. of Conservation Interest Species					3	3	3	3	3	4	0	0	5	
Note: R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM Common autumn migrant; 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 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 P: Pond														

Appendix L1h. Avifauna Species Recorded for Water Birds Monitoring, 24 & 25 May 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			23/5/2023 (T1 & T2), 22/5/2023 (T3 & T5)						
					Weather Condition			Drizzle, Fine						
					Tidal Condition			Low						
					Tide Level (m)			1.2, 0.94						
					Start Time			1700, 1700						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586	4									
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		4	4	1					1		
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		1	7								
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV			1								
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R				4		19				1	
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC		1								
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			5		17				4	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R				2		4					
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)			5		1	1			5	
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		1	2	2							
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU			1							
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R						2					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R				4		13				8	
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R				20		10				4	
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)			9		1	2				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date				23/5/2023 (T1 & T2), 22/5/2023 (T3 & T5)					
					Weather Condition				Drizzle, Fine					
					Tidal Condition				Low					
					Tide Level (m)				1.2, 0.94					
					Start Time				1700, 1700					
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)	1									
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R		13	9								
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC				1						
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵂	Sv				1					2		
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)				1	2				5	
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵂	R				2					3	1	
Oriental Magpie	<i>Pica serica</i>	喜鵂	R				2						1	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵂鵂	R				3		2					
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R						2				1	
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)	1									
Plaintive Cuckoo	<i>Cacomantis merulinus</i>	八聲杜鵂	USV									1		
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵂	R		2		1							
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵂	R						2				1	
Rock Dove	<i>Columba livia</i>	原鵂	R			11			20					
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						83				3	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R				8		4					
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R						3					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			23/5/2023 (T1 & T2), 22/5/2023 (T3 & T5)					
					Weather Condition			Drizzle, Fine					
					Tidal Condition			Low					
					Tide Level (m)			1.2, 0.94					
					Start Time			1700, 1700					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
WAL	DAL	SWH	P	Heard				Flight					
White Wagtail	<i>Motacilla alba</i>	白鵲鵲	PM, WV				3		1				
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R				1	1	6	1			
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R						1				
White-shouldered Starling	<i>Sturnia sinensis</i>	灰背椋鳥	M, WV, Sv	LC									3
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)					1				
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R				3					4	
Total No. of Species					8	7	19	3	20	3	0	5	12
Total No. of Conservation Interest Species					3	1	3	2	5	2	0	0	4

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; 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

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			23/5/2023 (T1 & T2), 22/5/2023 (T3 & T5)				
					Weather Condition			Drizzle, Fine				
					Tidal Condition			Low				
					Tide Level (m)			1.2, 0.94				
					Start Time			1700, 1700				
					Abundance							
					Transect Walk							
					T1	T2	T3	T5				
								WAL	DAL	SWH	P	Heard
P: Pond												

Appendix L1k, Waterbirds Recorded in May 2023

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	LC	T2: In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Black-winged Stilt	<i>Himantopus himantopus</i>	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	<i>Ardeola bacchus</i>	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	<i>Tringa nebularia</i>	青腳鷸	RC	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	<i>Alcedo atthis</i>	普通翠鳥		T1: River bank, In flight T2: River bank, In flight,	Common passage migrant and winter visitor. Widely distributed in wetland habitat throughout Hong Kong.
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞		T5: Wet Agricultural Land, Shallow Water Habitat	Common winter visitor, resident and migrant. Found in Deep Bay area, Shuen Wan, Starling Inlet.
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸		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 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*
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	(LC)	T2: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Resident and common passage migrant. Widely distributed in Hong Kong.
Great Egret	<i>Ardea alba</i>	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	<i>Rostratula benghalensis</i>	彩鷸	LC	T5: Dry Agricultural Land	Locally common resident. Found in Ha Tsuen, Lok Ma Chau, Kam Tin, Long Valley, Hong Kong Wetland Park.
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸		T3: River bank, River bed T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat.	Uncommon passage migrant and winter visitor. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Shek Kong, Ho Chung.
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	PRC	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Shallow Water Habitat	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape D'Aguilar.
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	RC	T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Resident and passage migrant. Found in Deep Bay area, Tai Long Wan, Starling Inlet, Tai O, Cap D'Aguilar.
Little Egret	<i>Egretta garzetta</i>	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, In flight	Common resident. Widely distributed in coastal area throughout Hong Kong.
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	(LC)	T5: Dry Agricultural Land	Common winter visitor and passage migrant. Widely distributed in freshwater areas throughout Hong Kong.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	(LC)	T1: In flight	Uncommon resident. Widely distributed in lakes and ponds throughout Hong Kong.
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥		T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	(LC)	T2: River bank, In flight T3: River bank, River bed, In flight T5: Dry Agricultural Land, In flight	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	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.
Yellow Bittern	<i>Ixobrychus sinensis</i>	黃葦鶇	(LC)	T5: Wet Agricultural Land	Uncommon summer visitor and common passage migrant. Found in Deep Bay area, Chek Keng, Tai Long Wan.

Note:

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; 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 L1I. Birds Recorded in May 2023

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv	
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv	
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R	
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC
Brown Shrike	<i>Lanius cristatus</i>	紅尾伯勞	CPM, SWV	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R	
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R	
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R	
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R	
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR	
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM	
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R	
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV	
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R	
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鵲	R	LC
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R	
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	CPM	RC
Large Hawk-Cuckoo	<i>Hierococcyx sparveriioides</i>	大鷹鴝	Sv	
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	(LC)
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鴝	R	
Oriental Magpie	<i>Pica serica</i>	喜鵲	R	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R	
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV	
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R	
Plaintive Cuckoo	<i>Cacomantis merulinus</i>	八聲杜鵑	USV	
Red Collared Dove	<i>Streptopelia tranquebarica</i>	火斑鳩	UPM	
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Red-rumped Swallow	<i>Cecropis daurica</i>	金腰燕	UPM	
Red-whiskered bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R	
Richard's Pipit	<i>Anthus richardi</i>	理氏鶇	WV, PM	
Rock Dove	<i>Columba livia</i>	原鴿	R	
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R	
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R	
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R	
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R	
White-shouldered Starling	<i>Sturnia sinensis</i>	灰背椋鳥	M, WV, Sv	LC
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC
Yellow Bittern	<i>Ixobrychus sinensis</i>	黃葦鶉	USV, UPM	(LC)
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R	
Yellow-breasted Bunting	<i>Emberiza aureola</i>	黃胸鵲	PM	(EN), RC

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
<p>Note:</p> <p>R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; UR – Uncommon resident; SPM - Scarce Passage Migrant; SpM – Spring Migrant; ; USV - Uncommon Summer visitor; Sv – Summer Visitor; SSv – Spring & Summer Visitor; SWV – Scarce winter visitor;</p> <p>Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)</p> <p>VU: Vulnerable on IUCN Red List of Threatened Species.</p> <p>(VU): Vulnerable in China Red Data Book Status</p> <p>(EN): Endangered in China Red Data Book Status</p> <p>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)</p> <p>WAL: Wet Agricultural Land</p> <p>DAL: Dry Agricultural Land</p> <p>SWH: Shallow Water Habitat</p> <p>P: Pond</p>				

Appendix L2. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring, 9 May, 2023

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 9 May 2023									
				Weather: Fine									
				Methods: Kick-netting, sweep netting and direct observation									
				Abundance									
				MS_01*	MS_02	MS_03	MS_04	MS_05*	MS_06	MS_07	MS_08	MS_09	MS_10
Apple Snail	<i>Pomacea canaliculata</i>	-	Introduced			++					+++	++	
Atyid shrimp	<i>Caridina</i> sp.	-	-										
Black Threadtail	<i>Prodasineura autumnalis</i>	-	Native			+				+		+	
Bladder Snail	<i>Physella acuta</i>	-	-			+++	+						
Blood Worm	Chironomidae	-	-				+			+	++		+++
Caddisfly	<i>Hydroptila</i> sp.	-	-			+							
Chinese River Snail	<i>Sinotaia guangdongensis</i>	-	Native						++		++		+++
Club-tailed Cruiser	<i>Macromia urania</i>	-	Native										+
Common Bluetail	<i>Ischnura senegalensis</i>	-	Native				+						
Crimson Dropwing	<i>Trithemis aurora</i>	-	Native						+			++	
Dog-legged Clubtail	<i>Burmagomphus vermicularis</i>	-	Native									+	
Golden Bee Shrimp	<i>Caridina cantonensis</i>	-	Native									+++	
Golden Freshwater Clam	<i>Corbicula fluminea</i>	-	Native								+++		
Indigo Dropwing	<i>Trithemis festiva</i>	-	Native				+					++	
Leech	<i>Hirudinea</i>	-	-		+	+							

Mayfly	<i>Baetis</i> sp.	-	-						+			+	
	<i>Cloeon</i> sp.	-	-									+	
Orange-tailed Sprite	<i>Ceragrion auranticum ryukyuanum</i>	-	Native							+		+	
Ram's Horn Snail	<i>Gyraulus convexiusculus</i>	-	Introduced			+							
Red-rimmed Melania	<i>Melanoidea tuberculata</i>	-	Introduced								++	++	+
River Snail	<i>Radix plicatulus</i>	-	Introduced				+++				+++	++	++
River Snail	<i>Sinotaia quadrata</i>	-	-								+	++	++
Water Strider	<i>Metrocoris</i> sp.	-	-								+	+	
	<i>Microvelia</i> sp.		-		+					+		+	
	<i>Ptilomera tigrina</i>		Native				++		+		+++	++	
Yellow Featherlegs	<i>Copera marginipes</i>	-	Native		+					+		+	
Total No. of species				0	3	6	6	0	4	5	8	15	6
Total No. of Conservation Interest Species				0	0	0	0	0	0	0	0	0	0
Total No. of Native Species				0	1	1	3	0	3	3	3	7	2
Note: *: dried-up station +: species recorded within the study area (no. of individuals from 1-10) ++: species commonly recorded within the study area (no. of individuals from 11-20) +++: most abundant species recorded within the study area (no. of individuals from 21 and above)													

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 9 May 2023				
				Weather: Fine				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12	MS_13	MS_14	MS_15
Apple Snail	<i>Pomacea canaliculata</i>	-	Introduced		+++	+++	+	+++
Atyid shrimp	<i>Caridina</i> sp.	-	-			+++		
Black Threadtail	<i>Prodasineura autumnalis</i>	-	Native					
Bladder Snail	<i>Physella acuta</i>	-	-				+	
Blood Worm	Chironomidae	-	-	++		++	+	+++
Caddisfly	<i>Hydroptila</i> sp.	-	-					
Chinese River Snail	<i>Sinotaia guangdongensis</i>	-	Native					
Club-tailed Cruiser	<i>Macromia urania</i>	-	Native					
Common Bluetail	<i>Ischnura senegalensis</i>	-	Native					
Crimson Dropwing	<i>Trithemis aurora</i>	-	Native					
Dog-legged Clubtail	<i>Burmagomphus vermicularis</i>	-	Native					
Golden Bee Shrimp	<i>Caridina cantonensis</i>	-	Native					
Golden Freshwater Clam	<i>Corbicula fluminea</i>	-	Native					
Indigo Dropwing	<i>Trithemis festiva</i>	-	Native					
Leech	<i>Hirudinea</i>	-	-				+	
Mayfly	<i>Baetis</i> sp.	-	-					
	<i>Cloeon</i> sp.	-	-					
Orange-tailed Sprite	<i>Ceragrion auranticum ryukyuanum</i>	-	Native				+	
Ram's Horn Snail	<i>Gyraulus convexiusculus</i>	-	Introduced					+++

Red-rimmed Melania	<i>Melanoides tuberculata</i>	-	Introduced				+++	++
Water Strider	<i>Metrocoris sp.</i>	-	-					
	<i>Microvelia sp.</i>	-	-					
	<i>Ptilomera tigrina</i>	-	Native					
Yellow Featherlegs	<i>Copera marginipes</i>	-	Native					
Total No. of species				1	1	3	6	4
Total No. of Conservation Interest Species				0	0	0	0	0
Total No. of Native Species				0	0	0	1	0

Appendix L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring, 9 May 2023

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 9 May 2023									
				Weather: Fine									
				Methods: Kick-netting, sweep netting and direct observation									
				Abundance									
				MS_01*	MS_02	MS_03	MS_04	MS_05*	MS_06	MS_07	MS_08	MS_09	MS_10
Koi	<i>Cyprinus rubrofasciatus</i>	-	Native						+		++		
Predaceous chub	<i>Parazacco spilurus</i>	VU	Native						+				
Mosquito Fish	<i>Gambusia affinis</i>	-	Introduced										
Mozambique Tilapia	<i>Oreochromis mossambicus</i>	VU	Introduced						++				
Nile Tilapia	<i>Oreochromis niloticus</i>	-	Introduced						++		++		
Total No. of species				0	0	0	0	0	4	0	2	0	0
Total No. of Conservation Interest Species				0	0	0	0	0	2	0	0	0	0
Total No. of Native Species				0	0	0	0	0	2	0	1	0	0
Note: VU: Vulnerable on IUCN Red List of Threatened Species. Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org) +: species recorded within the study area (no. of individuals from 1-10) ++: species commonly recorded within the study area (no. of individuals from 11-20) +++: most abundant species recorded within the study area (no. of individuals from 21 and above)													

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 9 May 2023				
				Weather: Fine				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12	MS_13	MS_14	MS_15
Koi	<i>Cyprinus rubrofuscus</i>	-	Native					
Predaceous chub	<i>Parazacco spilurus</i>	VU	Native			+		
Mosquito Fish	<i>Gambusia affinis</i>	-	Introduced			+++		
Mozambique Tilapia	<i>Oreochromis mossambicus</i>	VU	Introduced					+
Nile Tilapia	<i>Oreochromis niloticus</i>	-	Introduced					+++
Total No. of species				0	0	2	0	2
Total No. of Conservation Interest Species				0	0	1	0	1
Total No. of Native Species				0	0	1	0	0
<p>Note:</p> <p>VU: Vulnerable on IUCN Red List of Threatened Species.</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)</p> <p>+: species recorded within the study area (no. of individuals from 1-10)</p> <p>++: species commonly recorded within the study area (no. of individuals from 11-20)</p> <p>+++: most abundant species recorded within the study area (no. of individuals from 21 and above)</p>								

Appendix L4. Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring, 8 & 25 May 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Domestic Cat	<i>Felis catus</i>	野貓		Introduced	+	+		+	
Domestic Dog	<i>Canis lupus familiaris</i>	野狗		Introduced	++		+++	+	+
Japanese Pipistrelle	<i>Pipistrellus abramus</i>	東亞家蝠	Cap. 170	Native	+++		++	+	++
Pallas's Squirrel	<i>Callosciurus erythraeus</i>	赤腹松鼠	Cap. 170	Introduced	+				
Short-nosed Fruit Bat	<i>Cynopterus sphinx</i>	短吻果蝠	Cap. 170, NT	Native	+		+		
Total No. of species					5	1	3	3	2
Total No. of Conservation Interest Species					3	0	2	1	1
Total No. of Native Species					2	0	2	1	1
<p>Note:</p> <p>Cap. 170: Species under protection of Wild Animals Protection Ordinance (Cap. 170)</p> <p>NT: Near Threatened in the Red List of China's Vertebrates</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)</p> <p>+: species recorded within transect routes</p> <p>++: species commonly recorded within transect routes</p> <p>+++ : dominant species within transect routes</p> <p>Local Restrictedness Column has been removed as said information is no longer available.</p>									

Appendix L5. Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring, 8 & 25 May 2023

Appendix 26: Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring, 6 & 26 May 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Amphibian									
Asian Common Toad	<i>Bufo melanostictus</i>	黑眶蟾蜍	-	Native			+	+++	+
Asiatic Painted Forg	<i>Kaloula pulchra pulchra</i>	花狹口蛙	-	Native	+		+	+	
Brown Tree Frog	<i>Polypedates megacephalus</i>	斑腿泛樹蛙	-	Native	++				
Greenhouse Frog	<i>Eleutherodactylus planirostris</i>	溫室蟾	-	Introduced		+			
Gunther's Frog	<i>Hylarana guentheri</i>	沼蛙	-	Native	+++			+++	+
Marbled Pigmy Frog	<i>Microhyla pulchra</i>	花姬蛙	-	Native	++				
Ornate Pigmy Frog	<i>Microhyla fissipes</i>	飾紋姬蛙	-	Native		+		+	
Paddy Frog	<i>Fejervarya limnocharis</i>	澤蛙	-	Native	+	+		+++	+
Spotted Narrow-mouthed Frog	<i>Kalophrynus interlineatus</i>	花細狹口蛙	(NT)	Native		+			
Reptile									
Bowring's Gecko	<i>Hemidactylus bowringii</i>	原尾蜥虎	-	Native	++		+	+	
Chinese gecko	<i>Gekko chinensis</i>	中國壁虎	-	Native		+	+		
Chinese Skink	<i>Plestiodon chinensis chinensi</i>	石龍子	-	Native	+				
Common Wolf Snake	<i>Lycodon capucinus</i>	白環蛇	-	Native				+	
Total No. of species					7	5	4	7	3
Total No. of Conservation Interest Species					0	1	0	0	0
Total No. of Native Species					7	4	4	7	3

Note:

(NT): Near Threatened in Red List of China Vertebrate

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 L6. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 8 & 25 May 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Angled Castor	<i>Ariadne ariadne</i>	波蛺蝶		-					+
Blue-spotted Crow	<i>Euploea midamus</i>	藍點紫斑蝶		-	++				
Chinese Peacock	<i>Papilio bianor</i>	碧鳳蝶		-	+				
Chocolate Pansy	<i>Junonia iphita</i>	鉤翅眼蛺蝶		-			+	+	
Common Bluebottle	<i>Graphium sarpedon</i>	青鳳蝶		-	+			+	+
Common Duffer	<i>Discophora sondaica</i>	鳳眼方環蝶		-	+				+
Common Five-ring	<i>Ypthima baldus</i>	矍眼蝶		-	++			+++	
Common Grass Yellow	<i>Eurema hecabe</i>	寬邊黃粉蝶		-	+++	+	+	++	
Common Hedge Blue	<i>Acytolepis puspa</i>	鈕灰蝶		-		+			
Common Indian Crow	<i>Euploea core</i>	幻紫斑蝶		-	++				
Common Jay	<i>Graphium doson axion</i>	木蘭青鳳蝶		-	+				+
Common Lascar	<i>Pantoporia hordonia</i>	金蟠蛺蝶		-	+				
Common Mapwing	<i>Cyrestis thyodamas</i>	網絲蛺蝶		-	+++			+	+
Common Mime	<i>Chilasa clytia</i>	斑鳳蝶		-					+
Common Mormon	<i>Papilio polytes</i>	玉帶鳳蝶		-	+++			+	+
Common Sailer	<i>Neptis hylas</i>	中環蛺蝶		-	+++			+	+
Dark Brand Bush Brown	<i>Mycalesis mineus</i>	小眉眼蝶		-	+++	+	+	+++	
Five-bar Swordtail	<i>Pathysa antiphates</i>	綠鳳蝶		-	+				

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Forest Hopper	<i>Astictopterus jama</i>	腌翅弄蝶		-	+			+	
Formosan Swift	<i>Borbo cinnara</i>	杣弄蝶		-			+		
Gaudy Baron	<i>Euthalia lubentina</i>	紅斑翠蛱蝶		-	+				
Glassy Tiger	<i>Parantica aglea</i>	絹斑蝶		-	+				
Great Egg-fly	<i>Hypolimnas bolina</i>	幻紫斑蛱蝶		-					+
Great Mormon	<i>Papilio memnon</i>	美鳳蝶		-	+++		+	+	+
Green Flash	<i>Artipe eryx</i>	綠灰蝶		-	++				
Grey Scrub Hopper	<i>Aeromachus jhora</i>	寬鐐弄蝶	R	-				++	
Indian Cabbage White	<i>Pieris canidia</i>	東方菜粉蝶		-	+++	+++	+		+
Large Faun	<i>Faunis eumeus</i>	串珠環蝶		-	+				+
Lemon Emigrant	<i>Catopsilia pomona</i>	遷粉蝶		-	++				+
Pale Grass Blue	<i>Pseudozizeeria maha</i>	酢漿灰蝶		-	+++	+++	+	+	
Paris Peacock	<i>Papilio paris</i>	巴黎翠鳳蝶		-	+++	+			+
Plains Cupid	<i>Chilades pandava</i>	曲紋紫灰蝶		-	+				
Plain Tiger	<i>Danaus chrysippus</i>	金斑蝶		-	+				
Plum Judy	<i>Abisara echerius</i>	蛇目褐蛱蝶		-		+	++		
Red Helen	<i>Papilio Helenus</i>	玉斑鳳蝶		-	+			+	+
Restricted Demon	<i>Notocrypta curvifascia</i>	曲紋袖弄蝶		-				+	
Red-base Jezebel	<i>Delias pasithoe</i>	報喜斑粉蝶		-	++		+	+	
Red Ring Skirt	<i>Hestina assimilis</i>	黑脈蛱蝶			++				+
Rustic	<i>Cupha erymanthis</i>	黃襟蛱蝶			+				

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Slate Flash	<i>Rapala manea</i>	燕灰蝶			+				
Small White	<i>Pieris rapae</i>	菜粉蝶				+		+++	+
South China Bush Brown	<i>Mycalesis mineus</i>	平頂眉眼蝶						+	
Southern Sullied Sailer	<i>Neptis clinia</i>	珂環蛺蝶				+			
Spangle	<i>Papilio protenor</i>	藍鳳蝶			+++	+	+		
Swallowtail	<i>Papilio xuthus</i>	柑橘鳳蝶	R		+				
Tailed Jay	<i>Graphium agamemnon</i>	統帥青鳳蝶			+			+	
Tailless Line Blue	<i>Prosotas dubiosa</i>	疑波灰蝶				+	+++	+	
Three-spot Grass Yellow	<i>Eurema blanda</i>	壁黃粉蝶				+		+	
White-edged Blue Baron	<i>Euthalia phemius</i>	尖翅翠蛺蝶			+			+	
Yellow Rajah	<i>Charaxes marmax</i>	螯蛺蝶	LC		+				
Total No. of species					36	12	11	21	17
Total No. of Conservation Interest Species					2	0	0	1	0
<p>Note:</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)</p> <p>*Very limited data are available for the occurrence status (being native to Hong Kong) of butterflies</p> <p>+: species recorded within transect routes</p> <p>++: species commonly recorded within transect routes</p> <p>+++: dominant species within transect routes</p>									

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
LC: Local Concern (Fellowes et al., 2002) R: Rare (Chan et al. (2011))									

Appendix L7. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring, 19 & 26 May 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Asian Pintail	<i>Acisoma panorpoides</i>	錐腹蜻		Native	++				
Amber-winged Glider	<i>Hydrobasileus croceus</i>	臀斑楔翅蜻		Native				+	+
Blue Dasher	<i>Brachydiplax flavovittata</i>	藍額疏脈蜻		Native	+				
Common Blue Skimmer	<i>Orthetrum glaucum</i>	黑尾灰蜻		Native	+		++	+	+
Common Red Skimmer	<i>Orthetrum pruinosum</i>	赤褐灰蜻		Native	++		+	+	+
Crimson Darter	<i>Crocothemis servilia</i>	紅蜻		Native	+		+		
Crimson Dropwing	<i>Trithemis aurora</i>	曉褐蜻		Native	+++				
Elusive Adjutant	<i>Aethriamanta brevipennis</i>	紅腹異蜻		Non-native	+				
Golden Flangetail	<i>Sinictinogomphus clavatus</i>	大團扇春蜓		Native	+				
Green Skimmer	<i>Orthetrum sabina</i>	狹腹灰蜻		Native	+				
Pale-spotted Emperor	<i>Anax guttatus</i>	斑偉蜓		Native	+				
Pied Percher	<i>Neurothemis tullia tullia</i>	截斑脈蜻		Native	+				

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 25/5/2023 (T1,6) , 8/5 /2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Pied Skimmer	<i>Pseudothemis zonata</i>	玉帶蜻		Native	++				
Russet Percher	<i>Neurothemis fulvia</i>	網脈蜻		Native	+				
Saddlebag Glider	<i>Tamea virginia</i>	華斜痣蜻		Native	+++		++	++	+++
Variegated Flutterer	<i>Rhyothemis variegata</i>	斑麗翅蜻		Native	+++				
Wandering Glider	<i>Pantala flavescens</i>	黃蜻		Native	+++	+++	++	++	+++
Total No. of species					16	1	5	5	5
Total No. of Conservation Interest Species					0	0	0	0	0
Total No. of Native Species					15	1	5	5	5
<p>Note:</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)</p> <p>+: species recorded within transect routes</p> <p>++: species commonly recorded within transect routes</p> <p>+++ : dominant species within transect routes</p> <p>LC: Local Concern (Fellowes et al., 2002)</p>									

APPENDIX M
WEATHER CONDITION

**APPENDIX M –
GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD**

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 May 23	24.1	78	0.3
2 May 23	24.1	74	0
3 May 23	25.4	84	0.1
4 May 23	27	84	0
5 May 23	27.5	80	0
6 May 23	28.2	82	0
7 May 23	26.6	86	35.5
8 May 23	23.2	88	39.2
9 May 23	23.8	78	0.1
10 May 23	23.9	70	0
11 May 23	23.9	76	0.5
12 May 23	24.4	77	Trace
13 May 23	23.5	85	9.5
14 May 23	21.3	93	39.9
15 May 23	24.3	84	0.1

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
16 May 23	25.2	87	0.4
17 May 23	26.9	89	32.7
18 May 23	28.9	83	0
19 May 23	29.1	82	0
20 May 23	29.7	80	Trace
21 May 23	29.7	79	1.5
22 May 23	30	76	0
23 May 23	26.9	88	8.3
24 May 23	24.9	88	14.5
25 May 23	26.1	89	Trace
26 May 23	27.8	87	0.2
27 May 23	28.8	81	0
28 May 23	28.7	75	Trace
29 May 23	28.9	73	0
30 May 23	31.2	74	0
31 May 23	31.4	77	Trace

* 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**

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
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. 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	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	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. 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

	to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC, 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.	Implementation of remedial measures.		agreed proposals; and 4. Amend proposal if appropriate.
LIMIT LEVEL				
1.Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor, IEC and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ER and ET on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.

		measures.		
2.Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Supervise the implementation of remedial measures.	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 remedial measures to be implemented; 4. Supervise and ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

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

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

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level	1. Notify IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss jointly with the Contractor and formulate remedial measures; 5. Increase 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	1. Identify source; 2. Inform IEC, ER and Contractor; 3. Repeat measurements to confirm findings; 4. Increase the monitoring frequency; 5. Carry out analysis of Contractor's working procedures with the ER and Contractor to determine possible mitigation to be implemented; 6. 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's remedial actions and keep IEC informed of the results; 8. If exceedance stops, cease additional monitoring.		Contractor to stop that portion of work until the exceedance is abated.	determined by the ER until the exceedance is abated.

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

Table N-3: Event / Action Plan for Water Quality

EVENT	ACTION				
	ET		IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	1. Conduct addition site investigation on the same day;	1. Discuss with ET, ER and Contractor on the implemented mitigation measures;	1. Review proposals on remedial measures submitted by Contractor;	1. Identify source(s) of impact;	
	2. Inform IEC, Contractor and ER;	2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and	2. Discuss with IEC, ET and Contractor on the Implemented mitigation measures;	2. Inform the ER and confirm notification of the noncompliance in writing;	
	3. Check monitoring data, all plant, equipment, Contractor’s working methods and other relative information;	3. Review submit proposal and advise the ET and ER on the Effectiveness of the implemented mitigation measures.	3. Make agreement on the remedial measures to be implemented; and	3. Rectify unacceptable practice;	
	4. Review proposals on remedial measures submitted by Contractor;		4. Supervise the implementation of agreed remedial measures.	4. Check all plant and equipment;	
	5. Discuss remedial measures with IEC and Contractor and ER; and			5. Consider changes of working methods;	
	6. Review submit proposal and ensure the effectiveness of the implemented mitigation measures.			6. Discuss with ER, ET and IEC and submit proposal of remedial measures to ER and IEC; and	
				7. Implement the agreed mitigation measures.	
Action level being exceeded by more than one consecutive sampling days	1. Conduct addition site investigation on the same day;	1. Discuss with ET, Contractor and ER on the implemented mitigation measures;	1. Discuss with ET, IEC and Contractor on the proposed mitigation measures;	1. Identify source(s) of impact;	
	2. Inform IEC, Contractor and ER;	2. Review the proposed remedial measures submitted by Contractor and advise	2. Make agreement on the remedial measures to be implemented; and	2. Inform the ER and confirm notification of the non-compliance in writing;	
	3. Check monitoring data, all plant, equipment,			3. Rectify unacceptable	

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	<p>Contractor's working methods and other relative information;</p> <p>4. Discuss remedial measures with IEC, contractor and ER; and</p> <p>5. Review submit proposal and ensure the agreed remedial measures are implemented</p>	<p>the ER accordingly; and</p> <p>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</p>	<p>3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures</p>	<p>practice;</p> <p>4. Check all plant and equipment and consider changes of working methods;</p> <p>5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and</p> <p>6. Implement the agreed mitigation measures.</p>
Limit level being exceeded by one sampling day	<p>1. Conduct addition site investigation on the same day;</p> <p>2. Inform IEC, Contractor and ER;</p> <p>3. Rectify unacceptable practice;</p> <p>4. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information;</p> <p>5. Consider changes of working methods;</p> <p>6. Discuss mitigation measures with IEC, ER and Contractor;</p> <p>7. Review the submit</p>	<p>1. Discuss with ET, Contractor and ER on the implemented mitigation measures;</p> <p>2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and</p> <p>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</p>	<p>1. Discuss with ET, IEC and Contractor on the implemented remedial measures;</p> <p>2. Request Contractor to critically review the working methods;</p> <p>3. Make agreement on the remedial measures to be implemented; and</p> <p>4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.</p>	<p>1. Identify source(s) of impact;</p> <p>2. Inform the ER and confirm notification of the noncompliance in writing;</p> <p>3. Rectify unacceptable practice;</p> <p>4. Check all plant and equipment and consider changes of working methods;</p> <p>5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of</p>

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	proposal and ensure the agreed remedial measures are implemented;			notification; and 6. Implement the agreed remedial measures.
Limit level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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; 4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the dredging activities until no exceedance of Limit level. 	<ol style="list-style-type: none"> 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. 7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.

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

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 CH ₄ 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

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
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	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. 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	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor, IEC and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ER and ET on the effectiveness of the proposed remedial measures; 5. 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. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working	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;

	<p>procedures to determine possible mitigation to be implemented;</p> <p>6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken;</p> <p>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</p> <p>8. If exceedance stops, cease additional monitoring.</p>	<p>their effectiveness and advise the ER accordingly;</p> <p>3. Supervise the implementation of remedial measures</p>	<p>remedial measures to be implemented;</p> <p>4. Supervise and ensure remedial measures properly implemented; and</p> <p>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</p>	<p>3. Implement the agreed proposals;</p> <p>4. Resubmit proposals if problem still not under control;</p> <p>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.</p>
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Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

Table N-6.1 Action and Limit Levels and Responses for Avifauna Monitoring and General Site Inspection in the LVNP during Construction Phase.

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
AVIFAUNA MONITORING				
Action 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; and 6. Conduct necessary site inspections/audits to ensure all remedial	1. Check monitoring data, analysis and investigation by ET; 2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 3. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	1. Confirm receipt of notification of the exceedance of Action Level in writing; and 2. 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/audit frequency proposed by ET with IEC and the Contractor; and 3. Supervise the instigated further mitigation measure(s).

	measures are properly implemented by the Contractor, as agreed with the PP.			
Limit Level exceeded.	<ol style="list-style-type: none"> 1. Check monitoring data and repeat data analysis to confirm findings; 2. Identify potential source(s) of impact; 3. Immediately inform IEC, Contractor and PP. 4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; 5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly 	<ol style="list-style-type: none"> 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 implemented by the Contractor, as agreed with the PP and 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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).

	implemented by the Contractor, as agreed with the PP.	feedback the audit results to the PP.		
General Site Inspection				
Action Level exceeded.	1. Investigate if the activity identified is related to the construction works; 2. Immediately inform IEC, Contractor and PP. 3. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and 4. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	1. Check the investigation and findings of the ET; 2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 3. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	1. Confirm receipt of notification of the exceedance of Action Level in writing; and 2. Propose and implement the remedial measures(s) to mitigate the impact(s) of the activity identified.	1. Check the investigation and findings of the ET and IEC; 2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and 3. Supervise the instigated further mitigation measure(s).
Limit Level exceeded	1. Investigate if the activity identified is related to the construction works;	1. Check the investigation and findings or the ET; 2. Discuss with the PP,	1. Confirm receipt of notification of the exceedance of Limit Level in writing;	1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for

	<p>2. Immediately inform IEC, Contractor and PP.</p> <p>3. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>4. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>5. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>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</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>
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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

EVENT	RESPONSE			
	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.	<p>data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>
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Limit Level Exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Identify potential source(s) of impact;</p> <p>3. Immediately inform IEC, Contractor and PP.</p> <p>4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p> <p>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</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>
Operational Phase				
Action Level	1. Check monitoring	1. Check monitoring	1. Confirm receipt of	1. Check the monitoring

exceeded.	<p>data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>
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Limit Level exceeded.	<ol style="list-style-type: none"> 1. Check monitoring data and repeat data analysis to confirm findings; 2. Identify potential source(s) of impact; 3. Immediately inform IEC, Contractor and PP. 4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; 5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP. 	<ol style="list-style-type: none"> 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 implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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).
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Table N-6.3 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna
WMA20002\App N - Event Action Plan

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
Construction Phase				
Action 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; and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly	1. Check monitoring data, analysis and investigation by ET; 2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	1. Confirm receipt of notification of the exceedance of Action Level in writing; and 2. 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/audit frequency proposed by ET with IEC and the Contractor; and 3. Supervise the instigated further mitigation measure(s).

	implemented by the Contractor, as agreed with the PP.			
Limit Level exceeded.	<ol style="list-style-type: none"> 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 on the need for further mitigation measure(s); and 	<ol style="list-style-type: none"> 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 implemented by the Contractor, as agreed with the PP and feedback the audit 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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).

	7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	results to the PP.		
Operational Phase				
Action 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;	1. Check monitoring data, analysis and investigation by ET; 2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	1. Confirm receipt of notification of the exceedance of Action Level in writing; and 2. 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/audit frequency proposed by ET with IEC and the Contractor; and 3. Supervise the instigated further mitigation measure(s).

	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.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p> <p>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</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>

	<p>impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>		
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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

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
Construction Phase				
Action Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p>	<p>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p>

	<p>construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>		<p>3. Supervise the instigated further mitigation measure(s).</p>
Limit Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p> <p>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s),</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the</p>

	<p>natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>then propose and implement the further mitigation measure(s); and</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>
Operational Phase				

Action Level exceeded.	<ol style="list-style-type: none"> 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; and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP. 	<ol style="list-style-type: none"> 1. Check monitoring data, analysis and investigation by ET; 2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of the exceedance of Action Level in writing; and 2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified. 	<ol style="list-style-type: none"> 1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and 3. Supervise the instigated further mitigation measure(s).
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Limit Level exceeded.	<ol style="list-style-type: none"> 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 on the need for further mitigation measure(s); and 7. Conduct necessary 	<ol style="list-style-type: none"> 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 implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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).

	<p>site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>			
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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

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
Construction Phase				
Action Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit</p>	<p>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>

	<p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	results to the PP.		
Limit Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p> <p>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</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>

	<p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>		
Operational Phase				
Action Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and</p>	<p>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit</p>

	<p>check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>remedial measures(s) to mitigate the impact(s) identified.</p>	<p>frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>
Limit Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p>

	<p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed</p>	<p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>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</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>
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	with the PP.			
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APPENDIX O
SUMMARY OF EXCEEDANCE

Appendix O: Exceedance Report**(A) Exceedance Report for Air Quality**

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Air Quality	1-hr TSP	0	0	0	0
	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	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Noise	$L_{eq}(30 \text{ min.}) \text{ dB(A)}$	0	0	0	0

(C) Exceedance Report for Water Quality

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Water Quality	DO	0	4	0	0
	Turbidity	0	3	0	0
	SS	0	2	0	0
	Arsenic	0	0	0	0

(D) Exceedance Report for Landfill Gas

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		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 Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Cultural Heritage	Built Heritage Monitoring	0	0	0	0

(F) Exceedance Report for Ecological Monitoring

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Ecological	Avifauna	0	0	0	0
	Aquatic Fauna	0	0	0	0
	Non-Aquatic Fauna	1	1	0	0
	General Site Inspection (LVNP)	0	0	0	0

APPENDIX P
SITE AUDIT SUMMARY



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

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

Weekly Site Inspection Record Summary

Checklist Reference Number	230502
Date	2 May 2023 (Tuesday)
Time	10:15 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Land Contamination</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landfill Gas Hazard</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>K. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:230427), the environmental deficiency was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 May 2023
Checked by	Dr. Priscilla Choy		3 May 2023



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

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

Weekly Site Inspection Record Summary

Checklist Reference Number	230509
Date	9 May 2023 (Tuesday)
Time	14:30 – 16:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Land Contamination</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landfill Gas Hazard</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>K. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:230502), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Him Ng		10 May 2023
Checked by	Dr. Priscilla Choy		10 May 2023

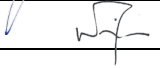
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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

Weekly Site Inspection Record Summary

Checklist Reference Number	230516
Date	16 May 2023 (Tuesday)
Time	09:30 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Land Contamination</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landfill Gas Hazard</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>K. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:230509), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		18 May 2023
Checked by	Dr. Priscilla Choy		18 May 2023

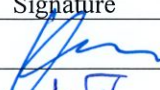
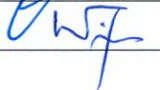
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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

Weekly Site Inspection Record Summary

Checklist Reference Number	230523
Date	23 May 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	
	• 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.:230516), no major environmental deficiency was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		23 May 2023
Checked by	Dr. Priscilla Choy		23 May 2023

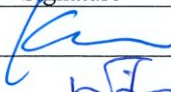

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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

Weekly Site Inspection Record Summary

Checklist Reference Number	230531
Date	31 May 2023 (Wednesday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Land Contamination</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landfill Gas Hazard</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>K. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:230523), no major environmental deficiency was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		1 June 2023
Checked by	Dr. Priscilla Choy		1 June 2023



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

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	230503
Date	3 May 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	
230503-R01	• Exposed slopes on the side of the outlet next to Sheung Yue River should be covered with tarpaulin sheets.	D 7
	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.:230426), no major environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Adrian Lam		4 May 2023
Checked by	Dr. Priscilla Choy		4 May 2023



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

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	230510
Date	10 May 2023 (Wednesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
230510-R01	• Exposed slopes on the side of the outlet next to Sheung Yue River should be covered with tarpaulin sheets.	D 7
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:230503), no major environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Adrian Lam		11 May 2023
Checked by	Dr. Priscilla Choy		11 May 2023

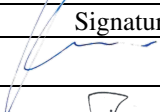

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230517
Date	17 May 2023 (Wednesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
230517-R01	• The excavated slope surface should be covered by impervious sheets.	D 7
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:230510), item 230510-R01 was observed improved/rectified by the Contractor during the weekly site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		18 May 2023
Checked by	Dr. Priscilla Choy		18 May 2023

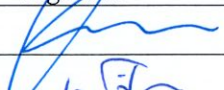
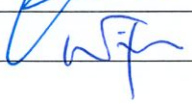
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230524
Date	24 May 2023 (Wednesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
230524-R01	• The exposed slope surface should be covered by impervious sheets.	D 7
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:230517), item 230517-R01 was remarked as 230524-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		30 May 2023
Checked by	Dr. Priscilla Choy		30 May 2023

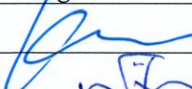

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230529
Date	29 May 2023 (Monday)
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	
230529-R01	• The exposed slope surface should be covered by tarpaulin sheets.	D 7
	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.:230524), item 230524-R01 was remarked as 230529-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		30 May 2023
Checked by	Dr. Priscilla Choy		30 May 2023



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

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	230505
Date	5 May, 2023 (Friday)
Time	10:00 - 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
230505-O02	• Dusty debris was observed at Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	B 4, 9
230505-R03	• Dusty stockpiles should be covered with tarpaulin sheets.	B 2
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
230505-O01	• Provide adequate wheel-washing facilities for each vehicle exits, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	<i>E. Waste / Chemical Management</i>	
230505-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<i>F. Landscape & Visual</i>	
230505-R02	• Remove any construction material from tree protection zone.	F 1
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	Follow-up on previous audit section (Ref. No.:230428). Item 230428-O01, 230428-O02, 230428-R01 and 230428-R02 were remarked as 230505-O01, 230505-O02, 230505-R01 and 230505-R02 respectively. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Adrian Lam		6 May 2023
Checked by	Dr. Priscilla Choy		6 May 2023


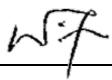
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	230512
Date	12 May, 2023 (Friday)
Time	10:00 - 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
230512-O02	• Dusty debris was observed at Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	B 4, 9
230512-R03	• Dusty stockpiles should be covered with tarpaulin sheets.	B 2
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
230512-O01	• Provide adequate wheel-washing facilities for each vehicle exits, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	<i>E. Waste / Chemical Management</i>	
230512-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<i>F. Landscape & Visual</i>	
230512-R02	• Remove any construction material from tree protection zone.	F 1
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	Follow-up on previous audit section (Ref. No.:230505). Follow-up action is needed to be review for all items, which were remarked as 230512-O01, 230512-O02, 230512-R01, 230512-R02 and 230512-R03 respectively.	

	Name	Signature	Date
Recorded by	Adrian Lam		12 May 2023
Checked by	Dr. Priscilla Choy		12 May 2023

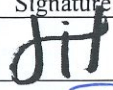

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	230516
Date	16 May, 2023 (Tuesday)
Time	14:00 - 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
230516-R03	• Dusty stockpiles should be covered with tarpaulin sheets.	B 2
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230516-O01	• Provide adequate wheel-washing facilities for each vehicle exits, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	E. Waste / Chemical Management	
230516-R01	• Provide drip tray for chemical/fuel containers.	E 14
	F. Landscape & Visual	
230516-R02	• Remove any construction material from tree protection zone.	F 1
	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.:230512). Item no. 230512-O02 was improved by Contractor. Follow-up action is needed to be review, which were remarked as 230516-O01, 230516-R01, 230516-R02 and 230516-R03 respectively.	

	Name	Signature	Date
Recorded by	Him Ng		17 May 2023
Checked by	Dr. Priscilla Choy		17 May 2023



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

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Weekly Site Inspection Record Summary

Checklist Reference Number	230522
Date	22 May, 2023 (Monday)
Time	10:00 - 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
230522-R02	• Dusty stockpiles should be covered with tarpaulin sheets.	B 2
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230522-O01	• Provide adequate wheel-washing facilities for each vehicle exits, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
230522-R01	• Remove any construction material from tree protection zone.	F 1
	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.:230516). Follow-up action are needed to be review for item 230516-R02, 230516-R03 and 230516-O01, which were remarked as 230522-R01, 230522-R02 and 230522-O01 respectively.	

	Name	Signature	Date
Recorded by	Adrian Lam		23 May 2023
Checked by	Dr. Priscilla Choy		23 May 2023

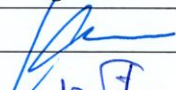
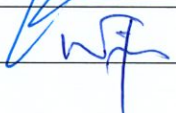
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Weekly Site Inspection Record Summary

Checklist Reference Number	230504
Date	4 May 2023 (Thursday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Others</i>	
	Follow-up on previous audit section (Ref. No.: 230426), no major environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		8 May 2023
Checked by	Dr. Priscilla Choy		8 May 2023



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

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Weekly Site Inspection Record Summary

Checklist Reference Number	230511
Date	11 May 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	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
230511-R01	• Prevent oil leakage from air compressors.	E 13
	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.: 230504), no major environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Him Ng		12 May 2023
Checked by	Dr. Priscilla Choy		12 May 2023

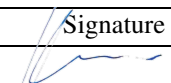
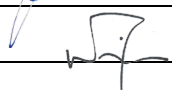
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Weekly Site Inspection Record Summary

Checklist Reference Number	230517
Date	17 May 2023 (Wednesday)
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	
	• 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.: 230511), item 230511-R01 was observed improved/rectified by the Contractor during the weekly site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		18 May 2023
Checked by	Dr. Priscilla Choy		18 May 2023

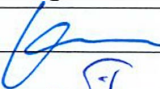

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Weekly Site Inspection Record Summary

Checklist Reference Number	230525
Date	25 May 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	
230525-R01	<ul style="list-style-type: none"> The idle stockpile of dusty materials at Portion K should be covered properly with tarpaulin sheet. 	A 2
	C. Noise	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	D. Water Quality	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	E. Waste / Chemical Management	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	F. Cultural Heritage	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	G. Landscape and Visual	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	H. Ecology	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	I. Permits/Licences	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 230517), no major environmental deficiency was identified during the weekly site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		1 June 2023
Checked by	Dr. Priscilla Choy		1 June 2023

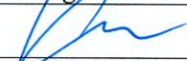

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230502
Date	2 May 2023 (Tuesday)
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	
	• 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.: 230424), no environmental deficiency was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 May 2023
Checked by	Dr. Priscilla Choy		3 May 2023

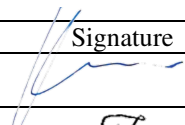
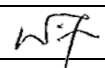
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230508
Date	8 May 2023 (Monday)
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	
230508-R01	• To enhance water mitigation measures at D2-01 to prevent muddy water runoff go through the site surface and discharge to public access road e.g. sandbag barrier.	D 3
	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.: 230502), no environmental deficiency was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		12 May 2023
Checked by	Dr. Priscilla Choy		12 May 2023

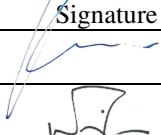
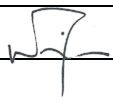
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230518
Date	18 May 2023 (Thursday)
Time	09:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
230518-R01	• The earth bunding at D2-02 should be fully enclosed to prevent muddy runoff from entering the river.	D 3
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230508), item no. 230508-R01 was observed improved/rectified by the Contractor during the weekly site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		18 May 2023
Checked by	Dr. Priscilla Choy		18 May 2023



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

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	230522
Date	22 May 2023 (Monday)
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	
	• 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.: 230518), item no. 230518-R01 was observed improved/rectified by the Contractor during the weekly site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		23 May 2023
Checked by	Dr. Priscilla Choy		23 May 2023



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

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	230529
Date	29 May 2023 (Monday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230522), no major environmental deficiency was identified during the weekly site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		30 May 2023
Checked by	Dr. Priscilla Choy		30 May 2023

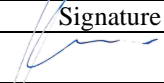

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230504
Date	4 May 2023 (Thursday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230426), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		5 May 2023
Checked by	Dr. Priscilla Choy		5 May 2023



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

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	230511
Date	11 May 2023 (Thursday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230504), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Him Ng		12 May 2023
Checked by	Dr. Priscilla Choy		12 May 2023

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

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	230517
Date	17 May 2023 (Wednesday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230511), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		18 May 2023
Checked by	Dr. Priscilla Choy		18 May 2023

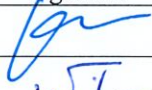
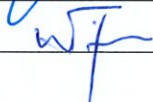
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	230525
Date	25 May 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.: 230517), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		1 June 2023
Checked by	Dr. Priscilla Choy		1 June 2023



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

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Weekly Site Inspection Record Summary

Checklist Reference Number	230505
Date	5 May 2023 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230428), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		8 May 2023
Checked by	Dr. Priscilla Choy		8 May 2023



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

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Weekly Site Inspection Record Summary

Checklist Reference Number	230512
Date	12 May 2023 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230505), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Adrian Lam		15 May 2023
Checked by	Dr. Priscilla Choy		15 May 2023

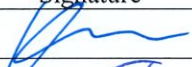
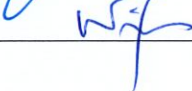
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Weekly Site Inspection Record Summary

Checklist Reference Number	230519
Date	19 May 2023 (Friday)
Time	14:30 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230512), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		23 May 2023
Checked by	Dr. Priscilla Choy		23 May 2023

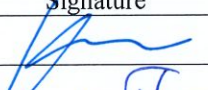

Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Weekly Site Inspection Record Summary

Checklist Reference Number	230525
Date	25 May 2023 (Thursday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230519), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		30 May 2023
Checked by	Dr. Priscilla Choy		30 May 2023

APPENDIX Q
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
Construction Dust Impact							
S3.8	D1	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 92.1%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7 L/m ² to achieve the respective dust removal efficiencies	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	#
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	<p>Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction Phase</p> <ul style="list-style-type: none"> Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; 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, 	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	# ^ ^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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.</p> <ul style="list-style-type: none"> • 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 ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and 					<p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>N/A</p> <p>N/A</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> 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 S3.8	D4	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction phase	^
Noise Impact (Construction Phase)							
S4.9	N1	Implement the following good site management practices: <ul style="list-style-type: none"> Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; Plant known to emit noise strongly in one direction, where 	Control construction airborne noise	Contractor	All construction sites	Construction phase	^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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;</p> <ul style="list-style-type: none"> 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 screen noise from on-site construction activities. 					<p>^</p> <p>^</p>
S4.9	N2	Install temporary site hoarding (approx 2.4m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N3	Install movable noise barriers and full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N4	Use of “Quiet” Plant and Working Methods	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected	Contractor	Selected representative	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			representative locations		noise monitoring stations		
Water Quality Impact (Construction Phase)							
S5.7	W1	<p><u>Construction Runoff and Site Drainage</u></p> <p>In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures should be provided and the Storm Water Pollution Control Plan is given below. where appropriate, should include the following:</p> <p>Stormwater Pollution Control Plan</p> <ul style="list-style-type: none"> At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction. Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipments in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m³ capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple 	Control construction runoff	Contractor	All construction sites	Construction phase	<p>^</p> <p>#</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>inputs from a variety of sources and suited to applications where the influent is pumped.</p> <ul style="list-style-type: none"> 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 					<p>^</p> <p>^</p> <p>N/A</p> <p>#</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>foundation excavations should be discharged into storm drains via silt removal facilities.</p> <ul style="list-style-type: none"> • 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 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 					<p>^</p> <p>^</p> <p>^</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>public roads and drains.</p> <ul style="list-style-type: none"> Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds. 					<p>N/A</p> <p>^</p> <p>^</p> <p>^</p>
S5.7	W2	<p><u>Stream Diversion</u></p> <ul style="list-style-type: none"> In order to prevent sediment transport during riverbank works, deployment of silt curtain should be implemented, especially when construction works encroach or occur in close distance to water body. It is recommended to carry out all the riverbank works and diversion works within a cofferdam or diaphragm wall and the work areas on riverbed should be kept in dry condition. 	Minimize water quality impact due to stream diversion	Contractor	All streams that required diversion	Construction phase	#

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S5.7	W3	<u>Groundwater from Contaminated Area</u> <ul style="list-style-type: none"> For other inaccessible sites, site investigation is required when they are resumed and handed over to the Project Proponent to identify if contaminated groundwater is found. If the investigation results indicated that the groundwater to be generated from construction works would be contaminated, the contaminated groundwater should be either discharged into recharged wells, or properly treated in compliance with the requirements of Technical Memorandum on Standards for Effluents Discharged into Drainage on Sewerage Systems, Inland and Coastal Waters. If recharged well method were used, the groundwater quality in the recharged well should not be affected by recharging operation, i.e. the pollution levels of the recharged groundwater should not be higher than that in the recharging wells. If treatment and discharge method were used, the design of wastewater treatment facilities, such as active carbon and petrol interceptor, should be submitted to the EPD and a discharge license should be obtained under the WPCO through the Regional Offices of EPD. 	Minimize water quality impact due to potential groundwater from contaminated area	Contractor	All identified groundwater-contaminated areas	Construction phase	N/A
							N/A
							N/A
							N/A
S5.7	W4	<u>Sewage from Workforce</u> Portable chemical toilets and sewage holding tanks should be provided for	Handling of site sewage	Contractor	All construction sites	Construction Phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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.</p> <p>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.</p>					
Waste Management (Construction Waste)							
S7.6	WM1	<p><u>Waste Reduction Measures</u></p> <p>Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction:</p> <ul style="list-style-type: none"> 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 	Reduce waste generation	Contractor	All construction sites where practicable	Prior to the commencement of construction	<p>^</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>damage and contamination of construction materials;</p> <ul style="list-style-type: none"> plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc); provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 					<p>^</p> <p>N/A</p> <p>^</p>
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	^
S7.6	WM3	<p><u>Good Site Practice</u></p> <p>The following good site practices are recommended throughout the construction activities:</p> <ul style="list-style-type: none"> 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; 	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	<p>^</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> Provision of sufficient waste disposal points and regular collection for disposal; Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; 					^ ^ *
S7.6	WM4	<u>Storage of Waste</u> The following recommendation should be implemented to minimize the impacts: <ul style="list-style-type: none"> Waste such as soil should be handled and stored well to ensure secure containment; Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; Different locations should be designated to stockpile each material to enhance reuse; 	Minimize waste impacts from storage	Contractor	All construction sites	Construction phase	^ ^ ^
S7.6	WM5	<u>Collection and Transportation of Waste</u> The following recommendation should be implemented to minimize the	Minimize waste impact	Contractor	All construction	Construction	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		impacts: <ul style="list-style-type: none"> 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. 	from storage		sites	phase	^ ^ ^ ^
S7.6	WM6	<u>Excavated and C&D Material</u> Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at Public Fill Reception Facilities areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: <ul style="list-style-type: none"> Maintain temporary stockpiles and reuse excavated fill material for backfilling; Carry out on-site sorting; Deliver surplus artificial hard materials to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products; Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and Implement a recording system for the amount of waste generated, 	Minimize waste impacts from excavated and C&D material	Contractor	All construction sites	Construction phase	^ ^ N/A N/A N/A ^

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		<p>recycled and disposed of for checking;</p> <p>Standard formwork should be used as far as practicable in order to minimize the arising of C&D waste. The use of more durable formwork (e.g. metal hoarding) or plastic facing should be encouraged in order to enhance the possibility of recycling. The purchasing of construction materials should be carefully planned in order to avoid over ordering and wastage.</p> <p>Wheel wash facilities have to be provided at the site entrance before the trucks leaving the works area.</p>					N/A ^
S7.6	WM7	<p><u>Contaminated Soil</u></p> <p>As a precaution, it is recommended that standard good site practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of river measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.</p>	Remediate contaminated soil	Contractor	All construction sites where applicable	Construction phase	^
S7.6	WM8	<p><u>Chemical Waste</u></p> <p>If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed</p>	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	All construction sites	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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> <ul style="list-style-type: none"> General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis. 	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	^ ^ ^
S7.6	WM10	<u>Sewage</u> <ul style="list-style-type: none"> The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts. 	Minimize production of sewage impacts	Contractor	All construction sites	Construction phase	N/A N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S7.6	WM11	Topsoil reuse – Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. This is considered a general measure for good site practice.	Good site practice	Contractor/ Project Proponent	Onsite	Construction phase	N/A
Land Contamination							
S 8.4	LC2	Detailed site investigation (SI) for all inaccessible potentially contaminated sites in 2 NDAs	Verify the land contamination potential before the commencement of construction	Project Proponent Detailed Design Consultant Contractor	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	After the land is resumed and handed over to the Project Proponent	N/A
S 8.5	LC3	Preparation and submission of supplementary Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) for all inaccessible potentially contaminated sites in 2 NDAs to EPD for agreement if land contamination is confirmed	Present the findings of SI and evaluate the potential environmental and human health impacts Recommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if	Project Proponent/ Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination is confirmed and remediation is required	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			remediation is required				
S 8.5	LC4	Preparation and submission of Remediation Report to EPD for agreement	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed supplementary CAR and RAP	Project Proponent/ Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination is confirmed and remediation is required	N/A
S 8.6	LC5	Re-appraisal of surveyed sites (if they become part of the land requirement for NDA development) that were not identified as potentially contaminated or could not be accessed for visual inspection during the site survey	Verify the land contamination potential due to potential change of land uses before the commencement of construction	Project Proponent/ Detailed Design Consultant	All surveyed sites (if they become part of the land requirement for NDA development (that were not identified as potentially	After the land is resumed and handed over to the Project Proponent.	N/A

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					contaminated or could not be accessed for visual inspection during the site survey as listed in the CAP		
S 8.7.2 and Appendix 8.4	LC6	Treatment of arsenic-containing soil “Solidification/Stabilization” (S/S) treatment method was proposed for the treatment of arsenic-containing soil. Toxicity Characteristic Leaching Procedure (TCLP) test should be undertaken after S/S in order to ensure that the contaminant will not leach to the environment. Unconfined Compressive Strength (UCS) test should be conducted, and not less than 1MPa should be met prior to the backfilling or stockpiled for future reuse within the study area.	To treat the arsenic containing soil	Government Developer/ Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	N/A
S 8.7.2 and Appendix 8.4	LC7	Excavation and Transportation <ul style="list-style-type: none"> Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table; Excavation should be carried out during dry season as far as 	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>possible to minimize runoff from excavated soils;</p> <ul style="list-style-type: none"> 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 and Appendix 8.4	LC8	<p>Solidification/Stabilization</p> <ul style="list-style-type: none"> The loading, unloading, handling, transfer or storage of cement should be carried out in an enclosed system; Mixing process and other associated material handling activities should be properly scheduled to minimize potential noise impact and dust emission; The mixing facilities should be sited as far apart as 	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	The course of treatment	<p>N/A</p> <p>^</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>practicable from the nearby noise sensitive receivers;</p> <ul style="list-style-type: none"> 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 banded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or site run-off during rainy season; and <p>If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials.</p>					<p>^</p> <p>^</p> <p>*</p>
S 8.7.2 and Appendix 8.4	LC9	<p><u>Safety Measures</u></p> <ul style="list-style-type: none"> Set up a list of safety measures for site workers; Provide written information and training on safety for site workers; Keep a log-book and plan showing the zones requiring treatment and clean zones; Maintain a hygienic working environment; Avoid dust generation; Provide face and respiratory protection gear to site workers if 	To minimize the potential adverse effects on health and safety of construction workers	Contractor	KTN NDA	The course of treatment	N/A

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		<p>necessary;</p> <ul style="list-style-type: none"> 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 <p>Eating, drinking and smoking should not be allowed in the excavation areas and treatment area to avoid inadvertent ingestion of arsenic containing soil.</p>					
Landfill Gas Hazard							
S10.6	LFG1	<ul style="list-style-type: none"> Underground rooms or void should be avoided as far as practicable in the proposed developments within the Consultation Zone and should be avoided totally in the proposed developments within the MTLL. Buildings or structures within the MTLL should be at ground level with raised floor slabs which are less prone to gas ingress. For the high risk category, the use of active control of gas, including barriers and detection systems are recommended. These measures include the control of gas by mechanical means e.g. ventilation of spaces with air to dilute gas, or extraction of gas using fans or blowers. For the low risk category, the provision of barriers to the movement of gas is recommended. Measures recommended 	To minimize the risk of LFG hazards to occupants within MTLL and its 250m Consultation Zone	Government / Developer/ Detailed Design Consultant within MTLL and its 250m Consultation Zone	Buildings within MTLL and its 250m Consultation Zone	Detailed design phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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.</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> During all works, safety procedures should be implemented to minimize the risks of fires and explosions, asphyxiation of workers (especially in confined space) and toxicity effects resulting from contact with contaminated soils and groundwater. Safety officers, specifically trained with regard to LFG and leachate related hazards and the appropriate actions to take in 	To minimize the risk of LFG hazards to the staff and visitors within MTLL and its 250m Consultation Zone	Contractor	Construction sites within MTLL and its 250m Consultation Zone	Construction phase	<p>^</p> <p>^</p>

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		<p>adverse circumstances, should be present on all worksites throughout the works.</p> <ul style="list-style-type: none"> 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 premises, 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. 					<p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> Smoking and naked flames should be prohibited within confined spaces. “No Smoking” and “No Naked Flame” notices in Chinese and English should be posted prominently around the construction site. Safety notices should be posted warning of the potential hazards. Welding, flame-cutting or other hot works may only be carried out in confined spaces when controlled by a “permit to work” procedure, properly authorized by the Safety Officer. The permit to work procedure should set down clearly the requirements for continuous monitoring of methane, carbon dioxide and oxygen throughout the period during which the hot works are in progress. The procedure should also require the presence of an appropriately qualified person who shall be responsible for reviewing the gas measurements as they are made, and who shall have executive responsibility for suspending the work in the event of unacceptable or hazardous conditions. Only those workers who are appropriately trained and fully aware of the potentially hazardous conditions which may arise should be permitted to carry out hot works in confined areas. During the construction works, adequate fire extinguishers and breathing apparatus sets should be made available on site and appropriate training given in their use. 					<p>^</p> <p>N/A</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> Ongoing gas monitoring should be considered for offices, stores etc set up on site. 					^
S10.6	LFG3	<p>Utility Companies</p> <ul style="list-style-type: none"> The developers should make the utility companies aware of the location and features of the site within the Consultation Zone during the respective detailed design stage as part of the QLFCHA. The utilities companies should have a responsibility to train and ensure their staff to take appropriate precautions at all times when entering enclosed spaces or plant rooms. Should utility installation be required in site E1-1, the developers should make the utility companies aware of the potential constraints imposed by the landfill restoration facilities and aftercare works to ensure these facilities and works will remain unaffected. Appropriate precautionary measures against landfill gas should also be taken should utility installation be required within the MTLL. <p>Building Management</p> <ul style="list-style-type: none"> 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 	<p>To minimize the risk of LFG hazards to the occupants, maintenance personnel, visitors and other users within MTLL and its 250m Consultation Zone</p>	Government / Developer within MTLL and its 250m Consultation Zone	Buildings within MTLL and its 250m Consultation Zone	Operation phase	N/A

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		<p>precautions required to be taken.</p> <ul style="list-style-type: none"> 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 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, 					

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		<p>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.</p> <ul style="list-style-type: none"> 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 					

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		phase.					
<i>Cultural Heritage (Pre-construction Phase)</i>							
S11.6.1	CH1	<p><u>Undertaking Further Archaeological Survey to Cover the Outstanding Areas</u></p> <p>Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located in the areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.</p>	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified Archaeologist	In the not-yet-surveyed-areas with medium archaeological potential located in the areas within Areas D1-11, A3-5, A3-6, B1-1, and B1-7,	After land resumption but before construction	N/A

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S11.6.1	CH2	<u>Undertaking Survey-cum-Rescue Excavation</u> A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	In KTN NDA, for Site 3 and In FLN NDA for Site 5.	After land resumption but before construction commencement of the zone	N/A
S11.6.1	CH3	<u>Undertaking Preservation in-situ for Site 7</u> Preservation in-situ of the cultivation deposits in Site 7 is proposed. If disturbance to the site by the design of the Central Park is unavoidable, further archaeological survey should be conducted after land resumption prior to the pre-construction stage to assess the feasibility to incorporate Site 7 into the design of the development plan of the proposed zone. Appropriate followup actions, including preservation of the significant archaeological deposits in-situ in the Central Park, would then be considered with the consent of AMO. The recommended mitigation measure of preservation in-situ with further archaeological survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the	To preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Site 7 in FLN NDA	After land resumption prior to preconstruction stage of the proposed Central Park (Area C2-8, Zoning O)	N/A

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		Authority under the AM Ordinance.					
S11.6.1	CH4	<u>Undertaking Induction Training</u> Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spots A, D, F to H. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Spots A, D, F to H	Before the commencement of the excavation works and before site staff are deployed on site	N/A
S11.6.1	CH5	<u>Undertaking Archaeological Impact Assessment before Construction at A1</u> It is recommended that an Archaeological Impact Assessment to be conducted in the impacted area in Area B1-8 and B1-9 at A1 (Sheung	To define the precise archaeological deposits extent and to preserve the archaeological resources as	Project Proponent/ Contractor/ Qualified	Area B1-8 and B1-9 zoned as R4 and R3 in A1	After land resumption but before construction	N/A

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		Shui Wa Shan Site of Archaeological Interest) after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.	far as possible	Archaeologist			
S11.6.1	CH6	<u>Undertaking Archaeological Impact Assessment before Construction within A1 but except Area B1-8 and B1-9</u> Should there be any development work within the Sheung Shui Wa Shan Site of Archaeological Interest, it is recommended that an Archaeological Impact Assessment is required after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Area within A1 except Area B1-8 and B1-9 in R4 &R3 zoning	After land resumption but before construction	N/A
S11.6.2	CH7	<u>Undertaking baseline condition survey and baseline vibration impact assessment</u> In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s could be adopted for graded historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	G303 and G308	Preconstruction stage before commencement of construction works during Schedule 3 study	N/A

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		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	<u>Undertaking baseline condition survey and baseline vibration impact assessment</u> In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historic buildings and historic buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	KT57, FL05, FL18, and FL2	Preconstruction stage before commencement of construction works	N/A
S11.6.2	CH9	<u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u> Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	Ancillary structures of G303, HKT01, HKT02, Entrance	Prior to Removal / Relocation of features before commencement of construction	N/A

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		records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out the Project Proponent.			Gate of HKT03, HKT04, KT01 to KT10, KT13, KT36, KT39, KT40, KT41, KT43, KT45, KT47, KT50, KT54, KT62 to KT63, KT69, FL01, FL16, and FL35	works during Schedule 3 study	
S11.6.2	CH10	<u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u> Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	KT12 and KT61	Prior to Removal / Relocation of features before commencement of construction works	N/A
S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	HKT01, HKT02, Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of	N/A

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						construction works	
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 Heritage (Construction Phase)							
S11.6.1	CH13	<u>Inform Upon Archaeological Discovery</u> 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	<u>Watertable Monitoring</u> 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

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S11.6.2	CH15	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment	^
<i>Landscape and Visual Impact (Detailed Design, Prior to Construction, Construction and Operation Phases)</i>							
S.12.9	LV1	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed design consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as the areas become available, to achieve early establishment	N/A

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S.12.9 MM1	LV2	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A
S.12.9 MM2	LV3	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	N/A

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		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 MM14.4	LV 4	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern	Prior to Construction and Construction Phase	^

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		final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.			Section		
Landscape and Visual (Construction)							
S.12.9 MM3	LV5	Open Space Provision - the principles adopted in the RODP planning ensure that public open space systems are incorporated. All requirements for open space areas stipulated in the planning documents for the formulation of the Preliminary Layout Plan should be adhered to.	Reprovision of open space. Enhance visual amenity of the area and improve the overall landscape character	Government Developer/ Detailed Design Consultant/ Contractor/	Onsite as stipulated in the planning documents for the formulation of the Preliminary Layout Plan	Prior to Construction and Construction Phas	N/A
S.12.9 MM4	LV6	Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A

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		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 MM5	LV7	<p>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.</p> <p>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.</p> <p>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.</p> <p>For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted,</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					
S.12.9 MM6	LV8	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM7	LV9	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>Compensatory planting is proposed at the potential open areas such as</p>	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		<p>open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.</p> <p>Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Raphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested.</p>					
S.12.9 MM8	LV10	<p>Woodland Compensatory Planting – Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>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).</p> <p>Native tree species are suggested for planting in the appropriate</p>					N/A

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		<p>locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>.</p> <p>In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>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.</p>					

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S.12.9 MM9	LV11	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and facilities	Government / Developer/ Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM10	LV12	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Developer/ Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM11	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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S.12.9 MM12	LV14	<p>Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics.</p> <p>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)</p>	To soften the hard, straight edges and provide greening along roads.	Government / Developer/ Detailed Design Consultant/ Contractor	On viaducts or along roads	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM13 & EIA Annex 13	LV15	<p>Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance on- wetland areas within the LVNP. (See E4,E15 and E25 also)</p> <p>Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.</p>	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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S.12.9 MM14.1	LV16	<p>Reprovision of Natural Stream – Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No. 5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used.</p> <p>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.</p> <p>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)</p>	Achieve a natural stream, similar to existing, including wetland planting provision for embankments	Government / Developer/ Detailed Design Consultant/ Contractor	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S12.9 MM14.2	LV17	Stream Buffer Planting –Providing a minimum 10 m buffer with planting (where there is a general presumption against any development taking place) along streams where they flow close to developments, confers a degree of protection to the stream course and its associated vegetation.	Protect natural streams	Government / Developer/ Detailed Design Consultant/ Contractor	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		<p>For the stream at Ma Tso Lung in KTN NDA, the middle and upper sections will be designated as Green Belt zone where there is a general presumption against development as buffer to the stream.</p> <p>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)</p>			San Tsuen		
S12.9 MM14.3	LV18	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc.	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Developer/ Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		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 MM15	LV19	<p>Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs.</p> <p>All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.</p>	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase	N/A
S.12.9 MM16	LV20	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non- reflective, recessive colours be used.</p> <p>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).</p>	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase	^

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S.12.9 MM17	LV21	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Developer/ Contractor	Throughout NDAs	Construction and Operation Phases	N/A
<i>Ecology (Prior to Construction Phase or throughout the project)</i>							
S. 13.9	E1	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase	N/A

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S. 13.9	E2	Detailed design of development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones F1-2 and F1-3 and detailed design of LMC Loop Eastern Connection Road with restoration of diverted stream and riparian corridor, permanent barrier and underpass on the at-grade section Compensation for the loss of seasonally wet grassland at Ma Tso Lung by habitat restoration and enhancement along diverted section of Ma Tso Lung Stream	Minimize impacts on Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream and riparian corridor of importance to species of conservation significance.	Project Proponent/ Detailed Design Consultant. (design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas F1-2 and F1-3 and LMC Loop Eastern Connection Road.	Detailed design and construction phases.	N/A
S13.9	E3	Detailed design, implementation and management of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space zone D1-3, Fanling Bypass to cross stream on viaduct.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	PlanD, Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	FLN area D1-3.	Detailed design, construction and operation phases.	N/A
S.13.9	E4	Long Valley Nature Park (LVNP) designation, design and implementation.	Compensate for wetland loss arising from the project and protection of	Project Proponent/ Detailed Design	Long Valley KTN area C1-9 and any suitable areas to	Detailed design phase	N/A

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		Enhancement of non-wetland habitats in LVNP. Planning for the advanced provision of alternative foraging habitat along main river channels for large waterbirds.	Long Valley from adverse ecological impacts including provision of additional/alternative habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Consultant (Long Valley Nature Park Habitat Creation & Management Plan)	be identified during the planning stage		
S13.9	E5	Stringent planning control requirements in Long Valley north and west of Sheung Yue River, including Ho Sheung Heung egrettry.	Protect these wetland areas from indirect impacts to habitats and fauna especially breeding ardeids foraging in these areas and utilizing flight-lines from Ho Sheung Heung egrettry. Avoid habitat loss and disturbance to fauna of conservation significance, especially nesting ardeids Maintenance of ecological linkages with Deep Bay ecosystem and avoidance	PlanD.	KTN areas C2-1 and C2-2 , Ho Sheung Heung egrettry and areas north of Long Valley along the Ng Tung River to the Shenzhen River	Detailed design phase	N/A

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			of severance of these linkages, especially for waterbirds				
S13.9	E6	Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.	Minimize disturbance to large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels. Maintain ecological linkages within NDA Project Area and between Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Area along Ng Tung, Sheung Yue and Shek Sheung River	Detailed design, construction and operational phases.	N/A
S13.9	E7	Building setback and mounding in locations near Long Valley. KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).	Minimization of disturbance impacts to fauna using Long Valley.	PlanD	KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along	Detailed design phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
					northern and northeastern boundaries.		
S13.9	E8	<p>Preparation and implementation of Guidelines for building design measures to minimize mortality and light and glare impacts to fauna.</p> <p>Guidelines to address the following measures:</p> <p>Use opaque, non-transparent, non-reflective noise barriers for all developments associated with the Project.</p> <p>Measures to include the following:</p> <ul style="list-style-type: none"> 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; 	Minimize mortality and disturbance impacts on fauna, especially mammals and birds.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant	Near Long Valley	Detailed design phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> 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 KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and shrubland at Crest Hill.	Minimize loss of secondary woodland and shrubland of ecological value.	Project Proponent/Detailed Design Consultant	KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and Crest Hill	Detailed design phase	N/A

S13.9	E11	<p>No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north or east of KTN D1-5 and east of D1-9 and C2-3, construction hours restricted to 09.00 to 17.30 during 1 March to 31 July on new pedestrian bridge over the Sheung Yue River, new pedestrian bridge over the tidal section of the Ng Tung River and existing bridge between KTN areas C2-2 and C1-8.</p> <p>Review Design and construction methods for all bridges especially those on the Sheung Yue and tidal Ng Tung Rivers and adopt methods which minimize impacts on Long Valley and the rivers, and disturbance and fragmentation impacts on fauna.</p> <p>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.</p>	Minimize disturbance impacts (including cumulative impacts with cycle track project) to flight-lines of breeding ardeids.	Project Proponent/ Detailed Design Consultant Contractor	Along and within Sheung Yue and Ng Tung Rivers, Long Valley, Long Valley and watercourse upstream areas including KTN area B3-12	Detailed design/ construction phase.	^
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EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
Ecology (Construction Phase)							
S13.9	E12	Compensatory egret habitat provision and establishment. Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate. Phasing of works near and within Man Kam To Road Egret habitat outside breeding season	Compensate for loss of Man Kam To Road egret habitat. Avoid mortality of breeding egrets	Project Proponent/ Detailed Design Consultant/ Contractor	FLN area A1-7 500m from Man Kam To Road Egret habitat.	Construction phase.	^
S13.9	E13	Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and adopt measures which minimize impacts on rivers and disturbance and fragmentation impacts on fauna. No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north and east of KTN area D1-5 and east of D1-9 and C2-3 and restriction of working hours on new pedestrian bridges over the Sheung Yue River and tidal Ng Tung River to 09.00 to 17.30 during the ardeid breeding season (1 March to 31 July) Provision of alternative foraging habitat along main river channels for large waterbirds.	Minimize impacts on rivers and disturbance and fragmentation impacts on fauna	Project Proponent/ Detailed Design Consultant/ Contractor	Along and within the Sheung Yue, Ng Tung and Shek Sheung Rivers	Detailed design and construction phases.	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S13.9	E14	<p>Buffer zone of 15-30m as appropriate on both sides (not less than 45m total width) of Ma Tso Lung Stream north of the point where it is crossed by the LMC Loop Eastern Connection Road, and Ma Tso Lung Stream diversion during construction of the LMC Loop Eastern Connection Road; development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones in KTN areas F1-2 and F1-3 to be set back beyond buffer.</p> <p>Construction and maintenance of permanent 1.2m high solid faunal barrier at all at-grade sections of LMC Loop eastern connection Road north of junction with road D4 within 15-30m as appropriate of Ma Tso Lung Stream buffer and construction of faunal underpass beneath road.</p> <p>Compensation for the loss of seasonally wet grassland at Ma Tso Lung by habitat restoration and enhancement along diverted section of Ma Tso Lung Stream.</p>	Minimize impacts direct and indirect impacts of habitat loss, disturbance, pollution and fragmentation on Ma Tso Lung Stream and marsh and riparian corridor of importance to species of conservation significance.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant/ Contractor. (Design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas H1-1, F12 and F1-3 and Lok Ma Chau Loop Eastern Connection Road.	Detailed design and construction phases.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.13.9	E15	Creation and enhancement of proposed Long Valley Nature Park and creation and enhancement of wetland and buffer planting within LVNP.	Compensate for wetland loss arising from the project	Project Proponent/ Contractor (LVNP Detailed Habitat Creation & Management Plan)	Long Valley, (KTN area C1-9).	Construction phase.	^
S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; provision of Open Space areas and development areas along river corridors; Design and erection of 2m high solid dull green site barrier fence between river channel and any active works area along or adjacent to Ng Tung, Sheung Yue and Shek Sheung Rivers. Ng Tung, Sheung Yue and Shek Sheung Rivers screen planting.	Minimize disturbance to waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Detailed Design Consultant/ Contractor	Ng Tung, Sheung Yue and Shek Sheung Rivers	Detailed design and Construction phases.	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S13.9	E17	<p>Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas, including along any roads adjacent to or penetrating into areas/habitats of ecological importance.</p> <p>Erection of a 2m high dull green site barrier fence at the edge of the works area or 30m from Ma Tso Lung Stream and tributaries, whichever distance is the greater.</p>	<p>Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flight- line impacts to birds, especially breeding ardeids.</p>	Contractor	<p>Interface between areas/habitats/ fauna/ flora of ecological importance (e.g. KTN areas B1-3, C1-5, C1- 6, C1-9, 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</p>	Construction phase.	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
					of the Fanling Bypass. Riparian corridor of Ma Tso Lung Stream and tributaries.		
S13.9	E18	Compensatory woodland planting, management and maintenance.	Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for all construction sites. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Contractor	All construction sites	Construction phase.	^
S13.9	E20	Pre-site clearance check for presence of flora or fauna of conservation significance and bat roosts. If any are found, measures should be proposed and implemented to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement.	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Formulate and implement mitigation measures to	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	N/A

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		<p>Pre-site clearance check on all construction sites and pre –works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of protected plant species/specimens of conservation significance. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works,</p> <p>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.</p> <p>Pre-site clearance check on all construction sites for presence of Chinese Bullfrog, translocation to suitable areas including LVNP.</p>	avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation.				
S13.9	E21	Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of flora or fauna of conservation significance and bat roosts. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Consider	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement.</p> <p>Pre-site clearance check on all construction sites for presence of reptile species of conservation significance, capture and translocate to receptor site; review translocation options in respect to species in Ma Tso Lung area and determine whether release locally or elsewhere is appropriate. Seek agreement of relevant authorities including AFCD in respect of proposed measures then implement</p> <p>Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of Small Snakehead and <i>Somaniathelphusa zanklon</i>. Capture any <i>Somaniathelphusa zanklon</i> found and translocate to Ma Tso Lung Stream/ other suitable areas including LVNP</p>	<p>and implement adjustments to avoid, minimize or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation</p>				
S13.9	E22	Prevention of dust, run-off and pollutants impacting Deep Bay catchment area and areas of ecological importance.	Avoid increase to pollution entering ecologically sensitive Deep Bay ecosystem.	Contractor	All construction sites.	Construction	N/A
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 Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.A9	LV1-DP2	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	N/A
S.12.A9 MM14.4	LV4-DP2	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	Prior to Construction and Construction Phase	N/A
S.12.A9 MM4	LV5-DP2	Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction.	Protect and Preserve Trees	Government/ Detailed	Onsite	Prior to Construction	^

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		<p>In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.</p> <p>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.</p>		Design Consultant/ Contractor		and Construction Phase	
S.12.A9 MM5	LV6- DP2	<p>Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work.</p>	Transplant Trees where suitable for transplantation	Government Detailed Design Consultant/ Contractor	<i>Onsite where possible, otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		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 MM6	LV7- DP2	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government Detailed Design Consultant/ Contractor	<i>Onsite</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM8	LV9- DP2	Woodland Compensatory Planting – Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>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.</p>					
S.12.A9	LV10-	Vertical Greening – Planting of climbers to grow up vertical surfaces were	Soften hard surfaces and	Government	<i>On appropriate</i>	Prior to	N/A

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MM9	DP2	appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design Consultant/ Contractor	<i>structures</i>	Construction, Construction Phase & Maintenance in Operation Phase	
S.12.A9 MM11	LV11- DP2	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM12	LV12- DP2	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural	To soften the hard, straight edges and provide greening along roads.	Government Detailed Design Consultant/ Contractor	<i>On viaducts or along roads.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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 MM13 & EIA Annex 13	LV13- DP2	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>Onsite where possible. Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM14.3	LV14- DP2	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	<i>Channelized watercourse, particularly the Ma Wat River Channel Diversion</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>maintenance work can be carried out and that the channel meets all its requirements for water flow, etc.</p> <p>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.</p>					
S.12.A9 MM15	LV15- DP2	<p>Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs.</p> <p>All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.</p>	<p>Reprovision for ponds lost due to the Project.</p>	<p>Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority</p>	<p><i>E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA</i></p>	<p>Prior to Construction, Construction Phase Maintenance in Operation Phase</p>	N/A
Landscape and Visual (Construction)							
S.12.A9 MM16	LV16- DP2	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used.</p> <p>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).</p>	<p>To screen undesirable views of the works site.</p>	<p>Contractor</p>	<p><i>Throughout NDAs</i></p>	<p>Construction Phase</p>	^

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S.12.A9 MM17	LV17-DP2	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	^
Ecology (Detailed Design, Construction and Operational Phases)							
S13.9	E2-DP2	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor/ Maintenance Authority	Within NDA.	Detailed design phase, Construction phase and Operation phase.	^
Ecology (Construction Phase)							
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.	Contractor.	Interface between areas/habitats of ecological importance (KTN area B1-3) and works areas.	Construction phase.	^
S13.9	E4-DP2	Compensatory native woodland planting.	Compensate for loss of	Project	KTN NDA areas	Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			plantation of ecological significance.	Proponent / Contractor	E1-8 and G1-3.	phase.	
Cultural Heritage (Construction Phase)							
S11.6.2	CH5-DP2	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment,	N/A
DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.A9	LV1-DP3	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	^
S.12.A9	LV4-	Avoid affecting Watercourses – In the detailed design, consideration should	Avoid direct impacts to	Detailed	All watercourses,	Prior to Construction	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM14.4	DP3	<p>be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc.</p> <p>Guidelines stated should be followed.</p> <p>For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass.</p> <p>In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream.</p> <p>Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.</p>	watercourses	Design Consultant/ Contractor	<i>particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section</i>	And Construction Phase	
S.12.A9 MM4	LV5-DP3	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction.</p> <p>In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.</p> <p>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</p>	Protect and Preserve Trees	Government Detailed Design Consultant/ Contractor	<i>Onsite</i>	Prior to Construction and Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.					
S.12.A9 MM5	LV6- DP3	<p>Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>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.</p> <p>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.</p>	Transplant Trees where suitable for transplantation	Government Detailed Design Consultant/ Contractor	<i>Onsite where possible.</i> <i>Otherwise consider offsite locations.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM6	LV7- DP3	<p>Slope Landscaping – Site formation should be reduced as far as possible.</p> <p>Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and</p>	Government Detailed Design Consultant/	<i>Onsite</i>	Prior to Construction, Construction Phase &	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Contractor		Maintenance in Operation Phase	
S.12.A9 MM7	LV8-DP3	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensate orytrees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>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 <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested.</p>	Compensate for trees and shrubs lost due to the Project.	Government Detailed Design Consultant/ Contractor	<i>Onsite where possible.</i> <i>Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9	LV9-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	<i>In areas</i>	Prior to	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM8	DP3	<p>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.</p> <p>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 <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>. 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</p>	woodland to compensate for those areas of quality woodland lost.	Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</i>	Construction, Construction Phase & Maintenance in Operation Phase	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.					
S.12.A9 MM9	LV10- DP3	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM11	LV11- DP3	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9	LV12-	Road Greening –For viaducts, soft landscaping should be provided to soften	To soften the hard,	Government	<i>On viaducts or</i>	Prior to	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM12	DP3	the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	straight edges and provide greening along roads.	Detailed Design Consultant/ Contractor	<i>along roads.</i>	Construction, Construction Phase & Maintenance in Operation Phase	
S.12.A9 MM13 EIA Annex 13	LV13- DP3	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>Onsite where possible. Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM14.3	LV14- DP3	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel	Minimize the necessity of watercourse modification,	Government / Detailed Design	<i>Channelized watercourse, particularly the</i>	Prior to Construction, Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	protect watercourses where possible and enhance channelized watercourses	Consultant/ Contractor	<i>Ma Wat River Channel Diversion</i>	Phase & Maintenance in Operation Phase	
S.12.A9 MM15	LV15-DP3	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA</i>	Prior to Construction, Construction Phase Maintenance in Operation Phase	N/A
Landscape and Visual (Construction)							
S.12.A9 MM16	LV16-DP3	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically	To screen undesirable views	Contractor	<i>Throughout NDAs</i>	Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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).	of the works site.				
S.12.A9 MM17	LV17-DP3	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	N/A
Ecology (Detailed Design, Construction and Operational Phases)							
S13.9	E3-DP3	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Detailed design, Construction and Operation phases.	^
Ecology (Construction Phase)							
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and enhancement of wetland and woodland areas and buffer planting within LVNP.	Compensate for wetland loss arising from the project.	Project Proponent/ Contractor	Long Valley	Construction phase.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
				(LVNP Detailed Habitat Creation & Management Plan).			
S.13.9	E5-DP3	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas, including along any roads adjacent to or penetrating into areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flightline impacts to birds,	Contractor.	Interface between areas/habitats of ecological importance (KTN areas B1-3, H1-1) and works areas.	Construction phase.	N/A
S13.9	E6-DP3	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
DP4- KTN NDA Road D1 to D5 (New Road)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.A9	LV1-DP4	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to		Detailed Design Consultant/	<u>Throughout NDAs,</u>	Prior to Construction, Construction & for all	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Contractor		planting, this should be installed as soon as the areas become available, to achieve early establishment	
S.12.A9 MM1	LV2-DP4	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	<u>Throughout NDAs, particularly for reservoirs</u>	Prior to Construction	N/A
S.12.A9 MM2	LV3-DP4	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible	Detailed Design Consultant/	Throughout NDAs	Prior to Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines.</p> <p>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.</p> <p>Construction time frame should also be considered and designs seek to keep it to a practical minimum.</p>	into the surrounding landscape				
S.12.A9	LV4-	Tree Protection & Preservation – Existing trees to be retained within the	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM4	DP4	<p>Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.</p> <p>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.</p>		Detailed Design Consultant/ Contractor		and Construction Phase	
S.12.A9 MM5	LV5- DP4	<p>Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite possible. Consider locations where Otherwise offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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 MM6	LV6- DP4	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM7	LV7- DP4	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as	Compensate for trees and shrubs lost due to the Project.	Government Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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 <i>Melastoma malabathricum</i> , <i>Diospyros vaccinioides</i> , <i>Gardenia jasminoides</i> , <i>Ixora chinensis</i> , <i>Ligustrum sinense</i> , <i>Litsea rotundifolia</i> , <i>Melastoma dodecandrum</i> , <i>Atalantia buxifolia</i> , <i>Rhodomyrtus tomentosa</i> , <i>Raphiolepis indica</i> , and <i>Rhododendron simsii</i> are suggested..					
S.12.A9 MM8	LV8- DP4	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i> , <i>Bischofia javanica</i> , <i>Castanopsis fissa</i> , <i>Celtis sinensis</i> , <i>Cinnamomum burmannii</i> , <i>Cinnamomum camphora</i> ,	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>Xanthoxylum avicennae, Hibiscus 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, Raphiolepis indica, and Rhododendron simsii.</p> <p>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.</p>					
S.12.A9 MM9	LV9- DP4	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM11	LV10- DP4	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads	Government / Detailed Design	Along roads, around suitable	Prior to Construction, Construction Phase &	N/A

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			and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Consultant/ Contractor	built structures , or around VSRS to contain their view out to the NDA structures.	Maintenance in Operation Phase	
S.12.A9 MM12	LV11- DP4	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	To soften the hard, straight edges and provide greening along roads.	Government Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM13 & EIA Annex 13	LV12- DP4	Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance on-wetland areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/	Onsite where possible. Otherwise consider offsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		along the embankments and beds of modified/ re-provisioned watercourses.		Contractor/ Maintenance Authority	locations		
S.12.A9 MM15	LV13- DP4	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase	N/A
Landscape and Visual (Construction)							
S.12.A9 MM16	LV14- DP4	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, 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).	To screen undesirable views of the works site.	Contractor			N/A
S.12.A9 MM17	LV15- DP4	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the	To minimize glare impact to adjacent VSRs	Government / Contractor	<u>Throughout NDAs</u>	Construction and Operation Phases	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.					
Ecology (Prior to Detailed Design Prior to Construction Phase)							
S. 13.9	E1-DP4	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase.	N/A
Ecology (Detailed Design, Construction and Operational Phases)							
S13.9	E2-DP4	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Throughout.	N/A
Ecology (Construction Phase)							
S.13.9	E3-DP4	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora	Contractor.	Interface between areas/habitats of ecological importance (KTN	Construction phase.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			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 plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
S13.8	E5-DP4	Maintenance of compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Maintenance Authority.	KTN areas E1-8 and G1-3.	Operation phase	N/A
Cultural Heritage (Pre-construction Phase)							
S11.6.1	CH1-DP4	<u>Undertaking Survey-cum-Rescue Excavation</u> A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent / Contractor/ Qualified Archaeologist	In KTN NDA, for Site 1	After land resumption but before Construction commencement of the zones	N/A
S11.6.1	CH2-DP4	<u>Undertaking Further Archaeological Survey to Cover the Outstanding Areas</u> Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located with	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified	In the not-yet-surveyed- areas with medium archaeological	After land resumption but before construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.		Archaeologist	potential located within the work extent of DP4		
S11.6.1	CH3-DP4	<u>Undertaking Induction Training</u> Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spot E. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Spot E	Before the commencement of the excavation works and before site staff are deployed on site	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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	CH4-DP4	<u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u> Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	Entrance Gate of HKT03, KT16, KT17 and KT18	Prior to Removal / Relocation of features before commencement of construction works	N/A
S11.6.2	CH5-DP4	<u>Undertaking baseline condition survey and baseline vibration impact assessment</u> In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 15mm/s could be adopted for historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	HKT03 (Main Building) and G308	Preconstruction stage before commencement of construction works	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report.					
S11.6.2	CH6-DP4	<u>Relocation of Built Heritages</u> Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	N/A
Cultural Heritage (Construction Phase)							
S11.6.2	CH7-DP4	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment,	N/A
DP5- New sewage pumping stations (SPSs) in KTN NDA							
Landscape and Visual (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 Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated		Detailed Design Consultant/ Contractor/	Throughout NDAs,	Prior to Construction, Construction & for all planting,	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.				this should be installed as soon as the areas become available, to achieve early establishment	
S.12.B9 MM1	LV2- DP5	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A
S.12.B9 MM2	LV3- DP5	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form,	Improve visual amenity of the new buildings, NDAs in	Detailed Design Consultant/	Throughout NDAs	Throughout NDAs	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines.</p> <p>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.</p>	general and integrate as best possible into the surrounding landscape				
S.12.B9 MM4	LV4- DP5	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction.</p> <p>In particular OVTs will be preserved according to ETWB Technical Circular</p>	<p>Protect and Preserve Trees</p>	<p>Government Detailed Design</p>	Onsite	<p>Prior to Construction and</p>	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>(Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.</p> <p>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.</p>		Consultant/ Contractor		Construction Phase	
S.12.B9 MM5	LV5- DP5	<p>Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>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.</p>	Transplant Trees where suitable for transplantation	Government Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite location.	Prior to Construction,, Construction Phase & Maintenance in Operation Phase	N/A

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		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 MM6	LV6- DP5	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011- Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government/ Detailed Design Consultant/	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM7	LV7- DP5	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open	Compensate for trees and shrubs lost due to the Project.	Government/ Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		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 <i>Melastoma malabathricum</i> , <i>Diospyros vaccinioides</i> , <i>Gardenia jasminoides</i> , <i>Ixora chinensis</i> , <i>Ligustrum sinense</i> , <i>Litsea rotundifolia</i> , <i>Melastoma dodecandrum</i> , <i>Atalantia buxifolia</i> , <i>Rhodomyrtus tomentosa</i> , <i>Raphiolepis indica</i> , and <i>Rhododendron simsii</i> are suggested.					
S.12.B9 MM8	LV8-DP5	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i> , <i>Bischofia javanica</i> , <i>Castanopsis fissa</i> , <i>Celtis sinensis</i> , <i>Cinnamomum burmannii</i> , <i>Cinnamomum camphora</i> , <i>Xanthoxylum</i>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		<p><i>avicennae</i> <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus omentosa</i>, <i>Raphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>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.</p>					
S.12.B9 MM9	LV9- DP5	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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S.12.B9 MM10	LV10-DP5	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	<i>On appropriate buildings</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM11	LV11-DP5	Screen Planting – Tall screen/buffer trees and shrubs should be implanted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM14.3	LV12-DP5	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	<u>Channelized watercourse, particularly the Ma Wat River Channel Diversion</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		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 and Visual (Construction)							
S.12.B9 MM16	LV13- DP5	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	<i>Throughout NDAs</i>	Construction Phase	N/A
S.12.B9 MM17	LV14- DP5	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	<i>Throughout NDAs</i>	Construction and Operation Phases	^
Ecology (Construction Phase)							
S.13.9	E1-DP5	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	<i>Interface</i>	Construction phase.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		between active works areas and all areas/habitats of ecological importance.	disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.		<i>between areas/habitats of ecological importance and works areas (all sides of KTN area F1-2).</i>		
DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW)							
Landscape and Visual (Construction Phase and Operational Phase)							
S.12.9 MM4	LV1- DP7	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.</p> <p>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</p>	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	<u>Onsite</u>	Prior to Construction and Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		tree protection measures for those trees to be retained.					
S.12.9 MM9	LV2-DP7	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM10	LV3-DP7	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	<i>On appropriate buildings</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
DP10- Fanling Bypass Eastern Section (New Road)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
S.12.D9	LV1-DP10	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated		Detailed Design Consultant/ Contractor	<i>Throughout NDAs.</i>	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.				available, to achieve early establishment	
S.12.D9 MM1	LV2- DP10	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption	Government/ Detailed Design Consultant/ Contractor	<u>Throughout NDAs, particularly for reservoirs</u>	Prior to Construction	N/A
S.12.D9 MM4	LV3- DP10	Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any	Protect and Preserve Trees	Government/ Detailed Design Consultant/ Contractor	<u>Onsite</u>	Prior to Construction and Construction Phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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 MM5	LV4- DP10	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be	Transplant Trees where suitable for transplantation	Government/ Detailed Design Consultant/ Contractor	<u>Onsite where possible.</u> <u>Otherwise consider offsite locations</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		referred to.					
S.12.D9 MM6	LV5- DP10	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government/ Detailed Design Consultant/ Contractor	<u>Onsite</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM7	LV6- DP10	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>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.</p> <p>Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma</i></p>	Compensate for trees and shrubs lost due to the Project.	Government/ Detailed Design Consultant/ Contractor	<u>Onsite where possible.</u> <u>Otherwise consider offsite locations</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<i>dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii</i> are suggested.					
S.12.D9 MM8	LV7- DP10	<p>Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.</p> <p>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).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>,</p>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<u><i>In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</i></u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<i>Rhaphiolepis indica, and Rhododendron simsii.</i> <i>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.</i>					
S.12.D9 MM9	LV8- DP10	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government/ Detailed Design Consultant/ Contractor	<u>On appropriate structures</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM11	LV9- DP10	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government/ Detailed Design Consultant/ Contractor	<u>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9M	LV10-	Road Greening –For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government/	<u>On viaducts or</u>	Prior to Construction,	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
M12	DP10	soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	edges and provide greening along roads.	Detailed Design Consultant/ Contractor	<u>along roads.</u>	Construction Phase & Maintenance in Operation Phase	
S.12.D9 MM14.3	LV11- DP10	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government/ Detailed Design Consultant/ Contractor	<u>Channelized</u> <u>watercourse,</u> <u>particularly the</u> <u>Ma Wat River</u> <u>Channel</u> <u>Diversion</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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 MM16	LV12- DP10	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, 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).	To screen undesirable views of the works site.	Contractor	<u>Throughout NDAs</u>	Construction Phase	^
S.12.D9 MM17	LV13- DP10	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	<u>Throughout NDAs</u>	Construction and Operation phases	^
Ecology (Detailed Design, Construction and Operational Phases)							
S13.8	E1- DP10	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/	<u>Throughout NDAs</u>	Detailed design, construction and	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
				Contractor Maintenance Authority.		Operation phases.	
Ecology (Construction Phase)							
S13.9	E3-DP10	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space Zone D1-3 and Fanling Bypass to cross stream on viaduct.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	Contractor.	<u>FLN area D1-3.</u>	Construction phase.	^
S.13.9	E4-DP10	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flight-line impacts to birds, especially breeding ardeids.	Contractor.	<u>Interface between areas/habitats of ecological importance and works areas (all of the north side of the Bypass works areas west of interchange with Sha Tau Kok Road).</u>	Construction phase.	*
Cultural Heritage (Construction Phase)							
S11.6.2	CH4-DP10	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> Construction vibration monitoring and structural strengthening measures	To minimize the potential impacts during Construction phase on any	Contractor.	<u>Identified potential vibration impacted built</u>	Construction phase, with details specified in baseline condition	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	identified potential vibration impacted built heritage features		<i>heritage features</i>	survey and baseline vibration impact assessment,	
<i>DPI2-Reprovision of temporary wholesale market in FLN NDA</i>							
<i>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</i>							
S.12.D9	LV1-DP12	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.		Detailed design consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	N/A
S.12.D9 MM1	LV2-DP12	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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 MM2	LV3- DP12	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a design 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.</p> <p>Construction time frame should also be considered and designs seek to keep it to a practical minimum.</p>					
S.12.D9 MM4	LV4- DP12	<p>Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.</p> <p>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</p>	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.					
S.12.D9 MM5	LV5- DP12	<p>Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.</p> <p>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.</p> <p>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.</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM6	LV6- DP12	<p>Slope Landscaping – Site formation should be reduced as far as possible.</p> <p>Seeding of modified slopes should be done as soon as grading works are</p>	To avoid substantial slope cutting and fill slopes.	Government / Detailed Design	Onsite	Prior to Construction, Construction Phase &	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow.</p> <p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>	<p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Consultant/ Contractor		Maintenance in Operation Phase	
S.12.D9 MM7	LV7- DP12	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>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.</p> <p>Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>,</p>	Compensate for trees and shrubs lost due to the Project.	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<i>Rhodomyrtus tomentosa</i> , <i>Rhaphiolepis indica</i> , and <i>Rhododendron simsii</i> are suggested.					
S.12.D9 MM11	LV8- DP12	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
Landscape and Visual (Construction)							
S.12.D9 MM16	LV9- DP12	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, nonreflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.D9 MM17	LV10- DP12	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	N/A

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

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported Fill (e)	Metals	Paper / Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
January	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	1.260	0.000	1.239	0.000	0.021	0.789	0.004	0.000	0.010	0.720	0.383
May	0.000	0.000	0.000	0.000	0.000	0.103	0.003	0.255	0.003	11.550	0.398
June											
Sub-total	10.692	0.000	7.422	0.000	3.270	17.228	2.918	1.068	0.023	12.830	2.369
July											
August											
September											
October											
November											
December											
Total	10.692	0.000	7.422	0.000	3.270	17.228	2.918	1.068	0.023	12.830	2.369

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	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



俊和 - 群利聯營體
CW - KL JV

Name of Department: CEDD

Appendix F

Contract No.: ND/2019/02

Year **2023**

Waste Flow Table

Month	Total Quantity Generated (a) = (c)+(d)+(e) (in tonnes)	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
		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)
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.63
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	135.98
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	506.37
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	506.37

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	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemicals Waste	Others, e.g. general refuse
									(see Note 2)		
	(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

Name of Department: CEDD

Monthly Summary Waste Flow Table for 2023 (Year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken	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	0.24	0.00	0.00	0.17	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
May	1.57	0.00	0.00	0.34	1.23	0.00	0.00	0.00	0.00	0.00	0.00
Jun											
Sub-Total	1.86	0.00	0.00	0.50	1.35	0.00	0.00	0.00	0.00	0.00	0.00
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	1.86	0.00	0.00	0.50	1.35	0.00	0.00	0.00	0.00	0.00	0.00

*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*

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)
9.00	2.00	1.00	1.00	6.00	10.00	3.00	3.00	1.00	1.00	3.00

*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 2023 (Year)

Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
		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 (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	10,098.27	0.00	0.00	7,469.40	2,562.44	0.00	0.00	0.04	0.00	0.00	66.38
May	15,674.98	0.00	0.00	8,462.50	7,135.46	0.00	0.00	0.00	0.00	0.00	77.02
June											
Sub-total	49,775.71	0.00	0.00	29,529.77	19,289.91	289.95	0.00	0.15	0.00	0.00	603.21
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	49,775.71	0.00	0.00	29,529.77	19,289.91	289.95	0.00	0.15	0.00	0.00	603.21

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

Forecast of Total Quantities of C&D Materials to be Generated from the DCK JV											
Forecast Made at the End of the Project	Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemicals Waste	Others, e.g. general refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(see Note 3) (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)

Contract No.: ND/2019/05

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated (a) = (b)+ (c)+(d)+(e)	Hard Rock and Large Broken Concrete (b)	*Reused in the Contract ©	Reused in other Projects (d)	Disposed as Public Fill (e)	Imported Fill (f)	Metals (g)	Paper/ cardboard packaging/ (h)	Plastics (i) (see Note 3)	Yard Waste (j)	Chemical Waste (k)	Others, e.g. general refuse (l)
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan-23	1.270	0.000	0.546	0.000	0.724	0.000	4.126	0.275	0.005	0.000	0.000	46.650
Feb-23	2.094	0.000	0.624	0.000	1.470	0.000	0.000	0.608	0.000	2.660	0.000	79.010
Mar-23	2.298	0.000	0.348	0.000	1.950	0.000	0.090	1.302	0.098	1.860	0.000	91.690
Apr-23	2.236	0.000	0.276	0.000	1.960	0.000	0.021	0.699	0.030	1.470	0.000	55.990
May-23	2.752	0.000	0.750	0.000	2.002	0.000	0.000	0.000	0.000	1.610	0.000	71.310
Jun-23												
Sub-total	10.650	0.000	2.544	0.000	8.106	0.000	4.237	2.884	0.133	7.600	0.000	344.650
Jul-23												
Aug-23												
Sep-23												
Oct-23												
Nov-23												
Dec-23												
Total in 2023	10.650	0.000	2.544	0.000	8.106	0.000	4.237	2.884	0.133	7.600	0.000	344.650
Total of the Project since 2020	103.992	0.000	13.263	2.857	87.872	5.110	141.941	12.316	3.953	790.413	24.882	3433.560

*Approx. estimation for each dump truck is 6m³/truck or 12 ton/truck

Total Quantity of Inert C&D Materials Generated: 103.992 (in '000m³) (a) = (b)+ (c)+(d)+(e)

Monthly Summary Waste Flow Table for 2023 (year)

Name of Person completing the record: KM LUI (EO)

Project : Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Contract No.: ND/2019/07

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in other Projects (c)	Disposed as Public Fill (d)	Imported Fill	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	0	0	0	0	0	7.340	0	0	0	0	0.009
May	0	0	0	0	0	6.492	0	0	0	0	0.015
Jun											
Sub-total	0.212	0.000	0.000	0.000	0.212	26.943	0.000	0.000	0.001	0.000	0.083
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	5.521	0.000	1.514	0.000	4.007	176.990	0.017	1.763	0.026	212.240	5.732

- 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 Generated = 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 Construction Noise Permit for any foreseeable delivery that may not be finished before restricted hours and will notify possible affected village representatives in advance.	Closed
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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>snipe was found;</p> <p>2. Arrange concrete pump for concreting works to minimise noise impact;</p> <p>3. Provide water spraying on the exposed earth to dampen the dusty surface;</p> <p>4. Provide shade cloth to separate works area and marsh where Greater Painted-snipe were found;</p> <p>5. Demarcation of temporary vehicle access to prohibit vehicle across the farmland;</p> <p>6. Provide 2m dull green site boundary fence along Long Valley work areas; and</p> <p>7. Block the main accesses by temporary barrier to avoid human disturbance.</p>	
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.	<p>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.</p> <p>The following mitigation measures will keep implemented and inspected:</p> <p>1. Installation of silt curtain, geotextiles and concrete blocks for excavation works at Ng Tung River with regular inspection;</p> <p>2. Exposed slope paved with concrete to prevent muddy runoff;</p> <p>3. Setting up wastewater treatment plants at</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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 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.	Closed
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 non-compliance to limit set in discharge licence was recorded. Regular maintenance and services of the facilities have been conducted. Close monitoring	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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.	<p>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.</p> <p>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.</p> <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> • 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.	<p>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 3rd September 2021, all C&D waste were stored within the site boundary, no odour perceived during site inspection.</p> <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> 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. <p>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.</p>	Closed
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.	<p>Site inspection was conducted by contractor and EPD inspectors on 25th 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.</p> <p>Air quality monitoring was carried out at location FLN-DMS1 - Scattered Village</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>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.</p> <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> • 工程團隊亦已於接近民居並正在進行大型工程(例如建造大口徑樁)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。"	<p>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:</p> <ul style="list-style-type: none"> • 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 <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> • 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
				seal <ul style="list-style-type: none"> • 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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 Sheung Yue River (ND/2019/02)	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，產生很大的噪音及很多廢氣。理解工人有工作時，機械運作是正常，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。”	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. 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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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	<p>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.</p> <p>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」</p> <p>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。」</p>	<p>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.</p> <p>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.</p> <p>In addition, it is reported that suspected contaminated water was discharging to Ma Wat River from surrounding industrial buildings near C5 contract site.</p> <p>Based on the findings of investigation, no foam</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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"	<p>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.</p> <p>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 from sources to reduce environmental nuisance to the neighbourhood.</p>	Closed
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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			<p>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 "</p>	<p>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 Portion 11. 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.</p> <p>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.</p> <p>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.</p> <p>Based on the findings of investigation, all plants</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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。”	<p>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。”</p> <p>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.</p> <p>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</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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機並無異常，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）至今均為雨天，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)	21 st 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發電機，而那地盤共有四個發電機同時開動。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"	<p>alternatively (one is solely for standby purpose) for power supply of site works and containers.</p> <p>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).</p> <p>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.</p> <p>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).</p> <p>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</p> <p>For odour mitigation measures, on top of currently</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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)	27 th 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”	<p>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.</p> <p>EPD carried out complaint investigation at Portion 1b / 1c on 26 July 2022 at 11:00, no adverse comment was given.</p> <p>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.</p> <p>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.</p>	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	<p>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.</p> <p>Based on peripheral inspection, the muddy water was spotted.</p>	<p>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.</p> <p>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.</p> <p>Meanwhile, below are some JV's regular preventive measures for water pollution control:</p> <ol style="list-style-type: none"> 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	<p>EPD received a complaint EPD ref: N07/RN/00016607-22 on 8 August 2022 and forwarded to ET through E-mail on 12/08/2022 and transferred to JV on the same day.</p> <p>The complaint content: "近電燈柱</p>	<p>Noise</p> <p>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 lamp pole EB1339 since 13 July 2022. The</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			EB1339 沿麻笏河一帶，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。"	<p>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.</p> <p>Air</p> <p>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.</p> <p>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.</p>	
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.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			<p>August 2022. EPD forwarded the case to ET through email on 17 August 2022.</p> <p>The complaint content: " 本人留意到近麻笏村的麻笏河有大量水泥流入河，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 and 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，引起蚊患和衛生。"</p>	<p>investigation are focusing on these two works area locations.</p> <ol style="list-style-type: none"> 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
				<p>submitted to EPD.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
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	<p>Investigation was conducted by contractor and reply as follow:</p> <p>"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</p>	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 mess 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
				<p>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.”</p> <p>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.</p>	
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！”	<p>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.</p> <p>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</p>	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 近麻笏河，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、麻笏村、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
	菜批發市場旁 (ND/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。"	產品批發市場) are Portion I and Portion II, the following investigation are focusing on these two works area locations. 1. Site activities at Portion I and Portion II; In response to the complaint, “sewerage pipe being damaged and connected to Ma Wat 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. 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. 4. Any possible source of muddy discharge to induce the captioned incident; No wastewater generating activities were conducted at Portion I and II on 18 October 2022. Wastewater (if any) from all construction activities is properly collected, treated and	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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.	
COM-2022-10-31	near Po Lau Road, Kwu Tung (ND/2019/01)	31 st October 2022	EPD received a complaint with ref: 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”	The suspected complaint location was Portion 1b. 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 2022 morning, it was reminded that the frequency of watering shall be increased under strong wind condition. 2. Two water browsers were deployed for regularly watering of main haul road. 3. Mist cannon was provided on site for dust suppression. 4. Manual water spraying was provided to maintain site condition in a damp condition. 5. Once the level of stockpile reached the formation level, hydroseeding was applied.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				6. Dust monitoring was carried out at KTN-DMS4(B) on 21 Oct 2022 and 27 Oct 2022, no exceedance was recorded. 7. Cover the slope surface with impervious sheeting. 8. Addition water browser with capacity 20,000L was deployed on site on 01 November 2022. 9. Hydroseeding to exposed soil once the formation level reached. 10. 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	<p>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？”</p> <p>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。</p> <p>高空掉建築物很危險”</p>	<p>The investigation results are as follows:</p> <ol style="list-style-type: none"> 1. The works area vicinity to lamp post VD6513 is Piers C4-03. There are viaduct construction works above the concerned lamp post. 2. 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: <ol style="list-style-type: none"> 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. <p>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.</p>	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. <u>From Contract Number (ND/2019/01):</u> 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
				<p>accumulated mud and cause the wastewater become turbid / muddy.</p> <p>9. Visual comparison was conducted with ET on 17 January 2023, the colour of the glass bottle collected from wastewater treatment plant looks clear when compare with the standard solution.</p> <p>10. During the ad-hoc inspection on 27 January 2023, inadequate treated wastewater discharge from nearby private construction site was observed.</p> <p>Mitigation Measures and Follow-Up Actions:</p> <ol style="list-style-type: none"> 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. <p><u>From Contract Number (ND/2019/02):</u> 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</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>complaint location.</p> <p>1. Joint inspection for the issue was conducted by EPD and DSD on 11 January 2023.</p> <p>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.</p> <p>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 workforce with potential risk of polluted runoff has been installed sheet pile and canvas was provided to intercept runoff due to rainwater.</p> <p>4. Checking and maintenance of wastewater treatment facilities have been carried out by supplier before the joint inspection by EPD and DSD.</p> <p>5. Training on proper wastewater treatment and discharge has been provided for site staff to raise the awareness of site staff at all levels.</p> <p>Conclusion: Based on the findings of investigation, CW-KL</p>	

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.	<p>The investigation result as follows:</p> <p>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.</p> <ol style="list-style-type: none"> 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
				<p>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.</p> <p>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.</p>	

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樁工程噪音	The investigation result as follows: 1. 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. 2. There was no foundation work carried out at or near Drills Corner Garden under ND/2019/01. 3. The nearest site area Portion 1e was a temporary storage area for construction material where no construction works carried out. 4. However, piling work was identified next to the Drills Corner Garden which was not belonged to ND/2019/01. 5. 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. 6. As there was no foundation work carried out under ND/2019/01, no mitigation measures or follow-up actions were proposed.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-04-03a	The Soil Stockpiling area at Kwu Tung near L/P: GD5847 (ND/2019/05)	3 rd April 2023	EPD received a complaint with ref.: N07/RN/00008714-23 on 3 Apr 2023. Complaint detail: 投訴上水古洞波樓路石仔嶺花園隔離地盤的泥車出馬路時，帶泥水往馬路	<p>The investigation result as follows:</p> <ol style="list-style-type: none"> 1. There are many construction sites in the concerned area adjacent to lamp post GD5847 using the access road. Thus, concerned dump trucks and their impacts may not be relevant to JV. 2. There are stockpiling works for the temporary storage, internal transferring and sorting of inert materials in the concerned area. 3. To prevent any potential impacts from the works, sufficient resources of manpower and facilities are allocated for the implementation of mitigation measures including wheel washing and water pollution control. 4. Resources allocation is listed as below, <ul style="list-style-type: none"> (a) Four full-time workers and one supervisory staff (b) Wheel washing bay supplemented with water pipes (c) Proper temporary drainage system (cutoff drain, water pumps, sump pits, bunding, etc.,) (d) One set of wastewater treatment facilities (e) Fully hard paved haul road <p>Based on the above findings, it is concluded that the complaint was not related to the Contract. JV will continue allocating sufficient resources and daily monitoring of their site conditions for proper pollution control.</p>	Closed
COM-2023-04-03b			EPD received a complaint with ref.: N07/RN/00008728-23 on 3 Apr 2023. Complaint detail: 投訴古洞發展區地盤的泥車頭，出入時沒有清洗乾淨，將泥漿帶出馬路，他今天大約14:00，發現有多部泥頭車都此問題，泥漿由青山公路古洞段，一直帶到往元朗的高速公路，現要求跟進及回覆		

APPENDIX T
SUMMARY OF SUCCESSFUL
PROSECUTION

Appendix T - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up
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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	C3	C4	C5	C6	C7
DP2	EP-466/2013/A	Castle Peak Road Diversion	1	12-Aug-20	C1-DP2						
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		C3-DP4				
DP5	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area	1	28-Oct-20		C2-DP5					
DP7	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	1	23-Mar-20	C1-DP7						
DP10	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		
DP12	EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area	1	29-Oct-19						C6-DP12	
DP14	EP-546/2017	Fanling North Temporary Sewage Pumping Station	1	16-Feb-21				C4-DP14			

DP2	EP-466/2013/A	Castle Peak Road Diversion				
Construction commencement date		12 August 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
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	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction .	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				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. <u>Note:</u> 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 relocation of any building	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.
		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	
4.2	Dedicated website	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]
		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
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				
Construction commencement date		12 August 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
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	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				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 construction	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	
4.2	Dedicated website	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]
		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

DP4	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5				
Construction commencement date		1 June 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
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	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				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 <u>Note:</u> 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 relocation of any building	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.
		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	
4.2	Dedicated website	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]
		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
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DP5	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area				
Construction commencement date		28 October 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
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	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				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 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	
4.2	Dedicated website	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]
		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

DP7	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works				
Construction commencement date		23 March 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notify 22 January 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				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	
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	
4.2	Dedicated website	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]
		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

DP10	EP-473/2013/A	Fanling Bypass Eastern Section				
Construction commencement date		1 August 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 8 September 2020	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				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 17 March 2021	
2.5	Location Plans	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 10 December 2020	
2.6	Relocation Plan for Rose Bitterling	Before construction	Approval	before the commencement of construction	N/A	
2.7	Egretry Habitat Creation and Management Plan	Before construction	Approval	before the commencement of construction	N/A	
2.8	Detailed Design of Siu Hang San Tsuen Stream	Before construction	Deposit	before the commencement of construction	Deposited 5 May 2022	EPD Satisfied 18 May 2022
2.9	Traffic Noise Mitigation Plan	Before construction	Approval	no later than 1 month before the commencement of construction	Submitted 11 September 2020	EPD Approved 8 October 2020
2.10	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 <u>Note:</u> 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	
2.11	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	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
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	NA	No relocation is required
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	
4.2	Dedicated website	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]
		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

DP12	EP-475/2013/A	Reprovision of Temporary Wholesale Market in Fanling North New Development Area				
Construction commencement date		29 October 2019				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 15 October 2019	
2.1	Establish of ET	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC				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 October 2019	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.6	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	
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	
4.2	Dedicated website	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]
		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

DP14	EP-546/2017	Fanling North Temporary Sewage Pumping Station				
Construction commencement date			16 February 2021			
Operation commencement date			tbc			
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
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	Notify 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	