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**Contract No. PM 10/2022 -
Independent Environmental Checker for Drainage Improvement Works at
Yuen Long – Stage 2**

Verification of Monthly EM&A Report (April 2025)

16 May 2025

Dear Sir,

We refer to the Monthly EM&A Report under the captioned Project, which was certified on 16 May 2025 by the Environmental Team Leader appointed under Condition 2.1 of the Environmental Permit No. EP-596/2021 (hereinafter referred to as "EP").

We would like to inform you that we have no adverse comment on the captioned submission. Therefore, we hereby verify the abovementioned submission in accordance with EP Conditions 1.9 and 4.4.

Should you have any queries regarding the captioned, please contact our Hin Chan at 2828 5764 or the undersigned at 2828 5967.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED



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Drainage Improvement Works Near Four Villages in Yuen Long – Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che

Monthly Environmental
Monitoring and Audit (EM&A)
Report

**Wing Tat Civil Engineering Co.
Limited**

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Executive Summary

A1. This is the 15th Monthly Environmental Monitoring and Audit (EM&A) Report for Drainage Improvement Works Near Four Villages in Yuen Long (the Project). This report was prepared by Aurecon Hong Kong Limited under Contract No. DC/2022/02 Drainage Improvement Works at Yuen Long – Stage 2 (hereinafter called the “Contract”). This report documents the findings of EM&A works during the reporting period from 1 to 30 April 2025.

Key Construction Works in the Reporting Period

A2. A summary of construction activities undertaken during the reporting period is presented below:

Ha Che

- Site clearance;
- Breaking ground;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;
- Sheet piling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Lin Fa Tei

- Site clearance;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting; and
- Sheet piling & backfilling and compaction;
- Removal of sheet piles, drain laying works, reinstatement.

Sung Shan New Village

- Site clearance;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;
- Sheet piling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Tai Wo

- No construction activities.

Monitoring and Audit Programme

A3. The monthly EM&A programme was undertaken by the ET in accordance with the approved Updated EM&A Manual. A summary of the monitoring and audit activities during the reporting period is presented in **Table A1**.

Table A1 Summary of EM&A activities in the Reporting Period

EM&A Activities	Date
Water Quality Monitoring	<u>Ha Che, Lin Fa Tei and Sung Shan New Village:</u> 7, 14, 24, and 28 April 2025
Noise Monitoring	<u>Ha Che, Lin Fa Tei and Sung Shan New Village:</u> 5, 11, 15, 25 and 30 April 2025
Weekly Environmental Site Inspection	2, 9, 16, 23 and 30 April 2025

Breaches of Action and Limit Levels

A4. No exceedance was recorded in the reporting month. Summary of the environmental exceedance for the reporting month is tabulated in **Table A2 and A3**.

Table A2 Summary of Exceedances for Water Quality and Noise in the Reporting Period

Environmental Monitoring	Parameter	No. of non-project related exceedances		Total No. of non-project related exceedances	No. of exceedances related to the project		Total No. of exceedance related to the project
		AL	LL		AL	LL	
Water Quality	DO	0	0	0	0	0	0
	Turbidity	0	0	0	0	0	0
	SS	0	0	0	0	0	0
Noise	L _{eq} (30mins)	0	0	0	0	0	0

Water Quality

- A5.** No exceedance of impact water quality monitoring was recorded during the reporting period.
- A6.** One (1) action level exceedance for DO at C5 was recorded on 28 March 2025. During the investigation, no evidence was found to indicate that the exceedance on 28 March 2025 was related to the construction works on site. The exceedance of DO action level is considered not related to the Project.

Noise

- A7.** No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

Cultural Heritage

- A8.** No exceedance was recorded for settlement and tilting monitoring during the reporting period.

Complaint Log

- A9.** No environmental complaint was recorded during the reporting period.

Table A3 Summary of Exceedances for Cultural Heritage in the Reporting Period

Environmental Monitoring	Parameter	No. of non-project related exceedances			Total No. of non-project related exceedances	No. of exceedances related to the the project			Total No. of exceedance related to the project
		Alert Level	Alarm Level	Action Level		Alert Level	Alarm Level	Action Level	
Cultural Heritage	Settlement	0	0	0	0	0	0	0	0
	Tilting	0	0	0	0	0	0	0	0
	Vibration	0	0	0	0	0	0	0	0

Notification of Summons and Successful Prosecutions

A10. No notification of summons or successful prosecutions was received in the reporting period.

Reporting Changes

A11. Construction works at Tai Wo are only allowed during dry season (i.e. October to March) in accordance with Condition 3.2 of EP No.: EP-596/2021. Thus, the construction EM&A programme at Tai Wo, including impact water quality monitoring, impact noise monitoring and weekly inspection, are temporarily suspended during the reporting period.

Future Key Issues

A12. The major site activities for the next reporting period are summarized below:

Ha Che

- Site clearance;
- Breaking ground;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting
- Sheet piling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Lin Fa Tei

- Site clearance;
- Breaking ground;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;
- Sheet piling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Sung Shan New Village

- Site clearance;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;
- Sheet piling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Tai Wo

- No construction activities.

1 Introduction

1.1 Project Background

- 1.1.1 The Drainage Master Plan Studies for the Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Basin (YLDMP) were completed in 1998. The majority of the improvement works in Yuen Long and Kam Tin recommended under the YLDMP Study have been completed. Since completion of the DMP Studies, there have been changes in developments within the areas and new development proposals and town planning studies were commissioned. In addition, some new flooding complaints were received at the upstream areas of the drainage basins, indicating that further improvement to the drainage systems was required.
- 1.1.2 The Drainage Services Department (DSD) commissioned the “Review of Drainage Master Plans in Yuen Long and North Districts – Feasibility Study” (the Review Study) in 2008 so that the new development scenarios could be incorporated and the effectiveness of the previously recommended works could also be assessed. The Review Study completed in end 2011 identified that some areas in Yuen Long District could not meet the required flood protection level according to the latest land use changes and future developments taking into account various factors, including sedimentation at the downstream main channels, mangrove growth at river estuaries, updated extreme sea level statistics at Tsim Bei Tsui and projected climate change impacts, in the hydraulic analysis. To account for the severity and extent of possible flooding and the works implementation time, the Review Study proposed drainage improvement works in Yuen Long District.
- 1.1.3 Atkins China Ltd (ACL) was commissioned by the DSD in November 2013 to undertake an Investigation, Design and Construction Consultancy entitled “Agreement No. CE 22/2013 (DS) Drainage Improvement Works in Yuen Long, Stage 1 – Investigation, Design and Construction” (hereinafter called the Assignment). The Project comprises construction of drainage improvement works to four villages (namely Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che) including landscaping, waterscaping, utilities diversion, temporary traffic arrangements, re-provisioning / improvements to existing dry weather flow intercepting system and any other works incidental to the completion of the Project.
- 1.1.4 An Environmental Impact Assessment (EIA) Study Brief (ESB-279/2014) for four villages namely Ha Che, Tai Wo, Lin Fa Tei and Sung Shan New Village which is a designated project was issued by the Environmental Protection Department (EPD) on 14 October 2014.
- 1.1.5 The EIA Report for Drainage Improvement Works Near Four Villages in Yuen Long – Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che (referred to as “the Project”) (Register No. AEIAR-229/2021) was approved on 3 June 2021 and the Environmental Permit (EP) EP-596/2021, covering the Upgrading, Construction and Deepening of the Project was granted on 28 September 2021.
- 1.1.6 Aurecon Hong Kong Limited (Aurecon) is commissioned by the Wing Tat Civil Engineering Co. Limited to undertake the Environmental Team (ET) services and carry out the Environmental Monitoring and Audit (EM&A) for Drainage Improvement Works Near Four Villages in Yuen Long - Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che (Register No. EP-596/2021).

- 1.1.7 This is the 15th Monthly EM&A Report summarizing the key findings of the construction phase EM&A programme from 1 to 30 April 2025 (the reporting period) and is submitted to fulfil the requirements in Condition 4.4 of EP-596/2021 and Section 12.2 of the approved Updated EM&A Manual of the Project.

1.2 Construction Works Programme

- 1.2.1 The construction programme and the location plan of the Project are shown in **Appendix 1.1** and **Figure 1.1** respectively. The locations of the proposed drainage improvement works at the four villages are presented in **Figures 1.2a** to **Figures 1.2d**.

1.3 Project Organisation

- 1.3.1 Involvement of relevant parties in a collaborative and interactive manner is essential for the implementation of the recommended EM&A programme. The following sections outline the primary responsibilities and duties of the key EM&A programme participants. The lines of communication with respect to EM&A works are shown in **Diagram 1.1**.

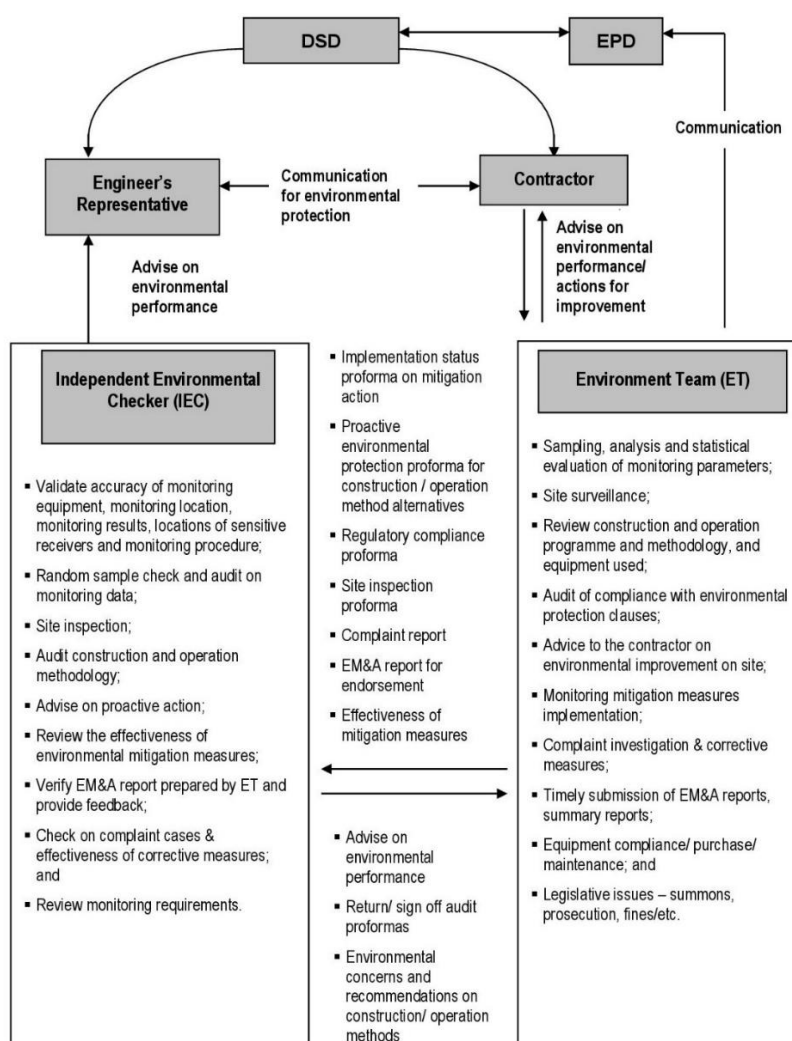


Diagram 1.1 Organisation Chart

1.3.2 Parties with different levels of involvement in the Project organisation are summarized in **Table 1.1**.

Table 1.1 Parties Involved in Project Organisation

Parties	Organization / Company
Project Proponent	Drainage Services Department
Supervisor / Engineer's Representative (ER)	Atkins China Ltd
Contractor	Wing Tat Civil Engineering Co. Limited
Environmental Team (ET)	Aurecon Hong Kong Limited
Independent Environmental Checker (IEC)	Mott MacDonald Hong Kong Limited

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

1.4 Construction Works Programme and Construction Works Area

1.4.1 The construction works commenced on 20 February 2024. The construction works programme and the construction works area of the Project are shown in **Appendix 1.1** and **Figure 1.1** respectively. A summary of construction activities undertaken during this reporting period is presented below:

Ha Che

- Site clearance;
- Breaking ground;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;
- Sheet pilling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Lin Fa Tei

- Site clearance;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting; and
- Sheet pilling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Sung Shan New Village

- Site clearance;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;

- Sheet pilling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Tai Wo

- No construction activities.

1.5 Summary of Environmental Status

1.5.1 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in **Table 1.2**.

Table 1.2 Status of Environmental License, Notifications and Permits

Table 1.2 Status of Environmental License, Notifications and Permits			
Permit / License No.	Valid Period		Status
	From	To	
Environmental Permit			
EP-596/2021	28/09/2021	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
Ref. Number: 497623	29/09/2023	N/A	Valid
Billing Account for Disposal of Construction Waste			
7048880	18/10/2023	N/A	Valid
Registration of Chemical Waste Producer			
5213-526-W3771-01	02/11/2023	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
<u>Lin Fa Tei</u> WT10002494-2023	24/05/2024	31/05/2029	Valid
<u>Tai Wo</u> WT10002495-2023	29/07/2024	31/07/2029	Valid
<u>Ha Che</u> WT10002496-2023	26/04/2024	30/04/2029	Valid
<u>Sung Shan New Village</u> WT10002497-2023	10/07/2024	31/07/2029	Valid
Construction Noise Permit (CNP)			
<u>Lin Fa Tei</u> GW-RN0091-25	29/01/2025	28/07/2025	Valid
<u>Ha Che</u> GW-RN0092-25	01/02/2025	31/07/2025	Valid
<u>Sung Shan New Village</u> GW-RN1184-24	11/10/2024	01/04/2025	Valid

1.5.2 The status for all environmental aspects is presented in **Table 1.3**.

1.5.3 The EM&A programme has been implemented in accordance with the recommendations presented in the approved EIA Report and the approved Updated EM&A Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix 1.3**.

Table 1.3 Summary of Status for Key Environmental Aspects under the Approved Updated EM&A Manual

Parameters	Status
Water Quality	
Baseline Monitoring under Approved Updated EM&A Manual	The baseline water quality monitoring results have been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 4.3.
Impact Monitoring	The regular impact water quality monitoring was commenced at Ha Che on 21 February 2024. Since construction works were commenced at Lin Fa Tei and Tai Wo on 20 March 2024, impact water quality monitoring at Lin Fa Tei (i.e. C6, C7A and C8) and Tai Wo (i.e. C4 and C5) were started 20 March 2024. Impact water quality monitoring at Sung Shan New Village (i.e. C1A, C2 and C3A) was commenced on 17 April 2024 since the construction work at Sung Shan New Village was begun on 16 April 2024.
Noise	
Baseline Monitoring	Up to the end of the reporting period, the baseline noise monitoring results for Ha Che have been reported in the Baseline Monitoring Report and submitted to the EPD under EP Condition 4.3. Baseline noise monitoring results for Tai Wo, Lin Fa Tei, and Sung Shan New Village will be further updated in the Baseline Monitoring Report and submitted to the EPD. The revised Baseline Monitoring Report was submitted to EPD for acceptance on 4 July 2024.
Impact Monitoring	The weekly impact noise monitoring was commenced at Ha Che on 23 February 2024. Since construction works were commenced at Lin Fa Tei and Tai Wo on 20 March 2024, impact noise monitoring at Lin Fa Tei (i.e. LFT_M1, LFT_M3A, LFT_M7 and LFT_M11) and Tai Wo (i.e. TW_M2 and TW_M3) were started 20 March 2024. Impact noise monitoring at Sung Shan New Village (i.e. SSNV_M2, SSNV_M3 and SSNV_M6) was commenced on 19 April 2024 since the construction work at Sung Shan New Village was begun on 16 April 2024. The noise monitoring at LFT_M7 have been suspended since 27 March 2024 due to the objection from property management office for providing access to designated monitoring location. The property management office formally refused our application of access right LFT_M7 on 29 May 2024. An alternative monitoring location LFT_M6 was proposed to replace LFT_M7 and agreed with the ER and the IEC on 29 May 2024 and 4 June 2024 respectively, impact noise monitoring was thus carried out at LFT_M6 from 4 June 2024 onward.
Ecology	
Freshwater Crab Translocation Plan (FCTP)	The EPD had no further comment on the submitted FCTP on 9 February 2024. A formal reply letter was issued by the EPD on 4 July 2024 after the submission of hardcopy for their record. Pre-construction survey at Ha Che was carried out between 5 and 7 February 2024. Pre-construction survey at Lin Fa Tei was carried out between 11 and 13 March 2024.

Parameters	Status
Habitat Creation and Management Plan (HCMP)	The first draft of HCMP was submitted to the EPD and the Agriculture, Fisheries and Conservation Department (AFCD) on 22 December 2023. Following comments from the EPD and AFCD dated 17 January 2024, the revised HCMP was submitted to EPD and AFCD for further review. Further comment was received from EPD on 27 May 2024, the revised HCMP was submitted to EPD for approval on 13 June 2024. It was accepted by EPD on 9 July 2024.
Mitigation Measures listed in Approved Updated EM&A Manual	On-going
Waste Management	
Mitigation Measures listed in Approved Updated EM&A Manual	On-going
Land Contamination	
Mitigation Measures listed in Approved Updated EM&A Manual	No suspected contamination was observed or reported by the Contractor in the reporting period.
Landscape and Visual	
Landscape and Visual Mitigation Plan (LVMP)	The revised LVMP (Rev. 10) was submitted to the EPD on 30 April 2025.
Weekly Site Audit	On-going
Mitigation Measures listed in Approved Updated EM&A Manual	On-going
Cultural Heritage	
Archaeological Survey	The Archaeological Survey at Lin Fa Tei was carried out from 16 to 28 October 2024. The completion brief of archaeological survey was submitted to AMO for review on 30 October 2024. No comment was received from the AMO up to the end of the reporting period.
Mitigation Measures listed in Approved Updated EM&A Manual	On-going
Environmental Audit	

Parameters	Status
Site Inspection covering Measures of Air Quality, Noise, Water Quality, Waste, Land Contamination, Ecological Quality, Landscape and Visual Impacts and Cultural Heritage	On-going

2 Water Quality

2.1 Monitoring Requirement

- 2.1.1 In accordance with the approved Updated EM&A Manual, impact water quality monitoring should be carried out three days per week at all designated monitoring stations during the construction period. The interval between two sets of monitoring should not be less than 36 hours.
- 2.1.2 Replicate in-situ measurements of dissolved oxygen (DO), temperature, pH, turbidity, salinity, water depth and suspended solids (SS) for each independent sampling event shall be collected to ensure a robust statistically interpretable database.

2.2 Monitoring Location

- 2.2.1 Impact water quality monitoring was conducted at 10 monitoring stations which is summarized in **Table 2.1**. The location of water quality monitoring stations is shown in **Figure 2.1a** to **Figure 2.1d**.

Table 2.1 Summary of Impact Water Quality Monitoring Stations

Stream	Monitoring ID	Coordinates (HK Grid)		Remarks
		Easting	Northing	
SSNV	C1A ⁽¹⁾	821702	831945	Alternative Impact Monitoring Point
	C2	822459	831470	Control Monitoring Point
	C3A ⁽²⁾	822413	831284	Alternative Control Monitoring Point
TW	C4 ⁽³⁾	825497	830664	Control Monitoring Point
	C5 ⁽³⁾	825486	830716	Impact Monitoring Point
LFT	C6	827232	831713	Control Monitoring Point
	C7A ⁽⁴⁾	826865	832115	Alternative Control Monitoring Point
	C8	826513	832075	Impact Monitoring Point
HC	C9	828304	835029	Control Monitoring Point
	C10	827919	834271	Impact Monitoring Point

Notes:

- (1) At Station C1, access to safe sampling of water is not feasible due to steep banks on both sides of the stream channel. An alternative monitoring location is proposed at Station C1A, which is about 250 m along the same stream channel downstream of Station C1 and is accessible for safe water sampling.
- (2) During the first day of baseline monitoring at Station C3, shallow water was observed, and the ET could not sample enough water for monitoring. As agreed by the ER, the Contractor, and the IEC, a new sampling location, Station C3A, was identified at about 130 m upstream and was accessible for water sampling.
- (3) Construction works at Tai Wo are only allowed during dry season (i.e. October to March) in accordance with Condition 3.2 of EP No.: EP-596/2021.
- (4) For Station C7, the location is not close to the nearest, revised works boundary (about 200 m away). An alternative monitoring location is proposed at Station C7A, which is about 23 m upstream of the nearest, revised works boundary.

2.3 Monitoring Parameter and Frequency

2.3.1 The monitoring parameters, frequency and duration of impact water quality monitoring are listed in **Table 2.2**.

Table 2.2 Parameters measured in the Impact Water Quality Monitoring

Parameter	Frequency	Duration	Stream	Monitoring ID
Dissolved oxygen (DO), temperature, turbidity, salinity, pH, stream water depth and suspended solids (SS)	1 day in a week ⁽¹⁾	Throughout the construction phase	SSNV	C1A
				C2
				C3A
			LFT	C6
				C7A
				C8
	3 days in a week		HC	C9
				C10
			TW ⁽²⁾	C4
				C5

Notes:

(1) Impact monitoring shall be carried out 3 days per week during the construction process. The monitoring frequency can be reduced to once per week, with sampling/ measurement at the designated monitoring locations when no exceedances were recorded during the past three-month period in accordance with Section 2.7, Appendix 4 of the Updated EM&A Manual. The change of the monitoring frequency at SSNV, LFT and HC was approved by EPD on 25 November 2024. Hence, the monitoring frequency at SSNV, LFT and HC was changed to 1 day in a week starting from 2 December 2024.

(2) No construction work would be undertaken at Tai Wo between April and September under Condition 3.2 of EP No.: EP-596/2021. Thus, impact water quality monitoring at C4 and C5 was suspended during the reporting period.

2.3.2 Monitoring location and position, time, sampling depth, weather conditions and any special phenomena or work underway nearby are recorded during the impact monitoring.

2.4 Sampling Depths & Replication

2.4.1 During impact water quality monitoring, each station was sampled. Due to a shallow water depth (less than 3 m) with low flow rates in rivers, all the monitoring would be located at mid-depth level.

2.4.2 Duplicate water samples were collected at each sampling depth for laboratory measurement of SS. Samples were stored in high density polythene bottles, packed in ice (cooled to 4 °C without being frozen), and delivered to the laboratory on the same day of collection for analysis.

2.5 Monitoring Equipment

2.5.1 The measurement of DO, temperature, turbidity, salinity, pH and stream water depth were undertaken *in-situ*. *In-situ* monitoring instruments in compliance with the specifications listed under Section 2.3 of Appendix 4 of the approved Updated EM&A Manual were adopted to undertake the water quality monitoring for the Project. Water quality monitoring equipment with the following specifications shall be supplied and maintained by the ET.

Dissolved Oxygen and Temperature Measuring Equipment

- 2.5.2 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 – 20 mg/L and 0 – 200% saturation; and
 - The temperature within 0 – 45 °C.
- 2.5.3 It should have a membrane electrode with automatic temperature compensation connected with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

pH

- 2.5.4 pH meter (e.g. Hanna – HI 9024 or equivalent) should be used to measure pH value of water samples in-situ. It should be readable to 0.1 pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 to pH 10 shall be used for calibration of the instrument before and after use.

Turbidity Measurement Equipment

- 2.5.5 The instrument should be a portable, weatherproof turbidity-measuring instrument with a comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0 – 1000 NTU and be equipped with a cable (e.g. Hach model 2100P or an approved similar instrument).

Suspended Solids

- 2.5.6 A water sampler should comprise a transparent PVC cylinder, with a capacity of not less than 2 litres, and should be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Kahlsico Water Sampler or an approved similar instrument).
- 2.5.7 Water samples for suspended solids measurement shall be collected in high density polythene bottles, packed in ice (chilled to 4 °C without being frozen), and delivered to the laboratory as soon as possible after collection.

Water Depth Detector

- 2.5.8 A portable, battery-operated echo sounder should be used for determining water depth at each designated monitoring station.

- 2.5.9 For shallow water (less than 1 m deep), a portable water depth ruler will be used to measure water depth.

Monitoring Position Equipment

- 2.5.10 A hand-held or boat-fixed digital Global Positioning System (GPS) or other equivalent instrument of similar accuracy shall be provided and used during water quality monitoring to ensure the water sampling locations are correct during water quality monitoring work.

Water Sampling Equipment

- 2.5.11 A transparent PVC or glass cylinder, which has a volume of not less than 2 litres and can be sealed at both ends with cups, should be equipped with a positive latching system. During the water sampling, a messenger is released to trigger the closure of the water sampler at suitable water depth.
- 2.5.12 For sampling location with shallow water depth, plastic bucket would be used instead.

Calibration of In-situ Instruments

- 2.5.13 All in-situ monitoring instruments should be checked, calibrated and certified by a laboratory accredited under HOKLAS or another international accreditation scheme before use, and subsequently re-calibrated at 3-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter should be carried out before measurement at each monitoring location.
- 2.5.14 For the on-site calibration of field equipment, the BS 127:1993, Guide to Field and On-Site Test Methods for the Analysis of Water should be observed.

Back-up Equipment

- 2.5.15 Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.
- 2.5.16 **Table 2.3** summarizes the equipment used in the water quality monitoring programme. Copies of the calibration certificates of multi-parameter water quality monitoring system are shown in **Appendix 2.1**.

Table 2.3 Water Quality Monitoring Equipment

Equipment	Model	Quantity	Serial No.	Parameter	Range	Accuracy
Water Sampler	Wildco 2.2L Water Sampler with messenger or plastic bucket (used in shallow water depth)	1	N/A	N/A	N/A	N/A
Multi-functional Water Quality Meter	YSI ProDSS (multi-parameters)	2	22D100436 and 22C106561	Dissolved Oxygen (DO)	0 to 500%	<ul style="list-style-type: none"> 0 to 200%: $\pm 1\%$ of reading 200 to 500%: $\pm 8\%$ of reading
					0 to 50 mg/L	<ul style="list-style-type: none"> 0 to 20 mg/L: ± 0.1 mg/L or 1% of reading, whichever is greater 20 to 50 mg/L: $\pm 8\%$ of reading
				Temperature	-5 to 50 °C	± 0.2 °C
				pH	0 to 14 pH units	± 0.2 pH units
				Turbidity	0 to 4000 NTU	<ul style="list-style-type: none"> 0 to 999 NTU: 0.3 NTU or $\pm 2\%$ of reading, whichever is greater 1000 to 4000 NTU: $\pm 5\%$ of reading
Water Depth Ruler	鼎峯 0708	1	N/A	Water depth	0 – 7 m (Used for water depth less than 1 m)	± 0.01 m
Positioning Equipment	Garmin (GPSmap 78s)	1	1WL223754	Positioning	N/A	GPS: ± 1 m

2.6 Monitoring Methodology

2.6.1 Water samples were collected at an appropriate water depth using a sealable transparent PVC or glass cylinder. For locations with shallow water depth, a plastic bucket was used as an alternative. Usually, water was then transferred to the sample bottles until they were filled to the top with no remaining air space before the lid was securely screwed on. For samples that were preserved with acid or alkalis prior to transport to the laboratory, the samples bottles were filled to the level specified by the analytical laboratory.

- 2.6.2 Multi-functional water quality meters were checked, calibrated and certified by Quality Pro Test-Consult Limited (HOKLAS reg no. 259) before use, and would be subsequently re-calibrated at 3-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter should be carried out before measurement at each monitoring location. For the on-site calibration of field equipment, the BS 127:1993, Guide to Field and On-Site Test Methods for the Analysis of Water should be observed.
- 2.6.3 Water samples for suspended solids measurement were collected in high density polythene bottles, packed in ice (chilled to 4 °C being frozen), and delivered to the laboratory as soon as possible after collection.
- 2.6.4 Water sampling equipment deployed during the monitoring programme was decontaminated by manual washing and rinsed with clean distilled water after each sampling location.
- 2.6.5 All sampling bottles were labelled with the sample ID (including the indication of sampling station), laboratory number and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible after the sampling. All samples were stored in a cool box and kept at 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. The laboratory determination works started within 24 hours after collection of water samples.

Laboratory Analytical Methods

- 2.6.6 Analysis of SS was carried out by a HOKLAS accredited laboratory (Acumen Laboratory and Testing Limited). At least two replicate samples from each independent sampling event were collected for the SS measurement. Sufficient water samples (about 3,000 mL) were collected at the monitoring stations for carrying out the laboratory SS determination. The analytical method for suspended solids is presented in **Table 2.4**.

Table 2.4 Method for Laboratory Analysis for Water Samples

Parameters	Analytical Method	Detection Limit
Suspended Solid (SS)	APHA 17ed 2540-D ⁽¹⁾	1 mg/L or better

Note:

- (1) APHA American Public Health Association Standard Methods for the Examination of Water and Wastewater.

2.7 QA/QC Requirements

Decontamination Procedures

- 2.7.1 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 disposable components/ accessories were discarded after sampling.

Sampling Management and Supervision

- 2.7.2 All sampling bottles were labelled with the sample ID numbers (including the sampling station), 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 as possible after the sampling. All samples were stored in a cool box and kept at 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

- 2.7.3 Quality control of laboratory analysis of water samples was performed by Acumen Laboratory and Testing Limited for every batch of 20 samples:
- One method blank; and
 - One set of QC sample

2.8 Action and Limit Level for Water Quality Monitoring

- 2.8.1 The criteria of action and limit levels for water quality monitoring are defined in **Table 2.5**.

Table 2.5 Action and Limit Levels for Water Quality

Parameters	Action Level	Limit Level
DO in mg/L	< 5%-ile of baseline data	< 4 mg/L or < 1%-ile of baseline data
SS in mg/L	> 95%-ile of baseline data or >120% of upstream control station of the same day, whichever is higher	> 99%-ile of baseline data or > 130% of upstream control station of the same day, whichever is higher
Turbidity in NTU	> 95%-ile of baseline data or >120% of upstream control station of the same day, whichever is higher	> 99%-ile of baseline data or > 130% of upstream control station of the same day, whichever is higher

Notes:

- (1) For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limit.
- (2) For SS and turbidity, non-compliance of the water quality limit occurs when monitoring result is higher than the limits
- (3) All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered necessary.

- 2.8.2 Based on the criteria listed in **Table 2.5**, the action and limit levels for water quality are determined in **Table 2.6**.

Table 2.6 Action and Limit Levels of Water Quality

Stream	Monitoring ID	Parameters	Action	Limit
SSNV	C1A	DO in mg/L	<6.72	<4 ⁽¹⁾
		SS in mg/L	>7.3 or >120% of upstream control station of the same day, whichever is higher	>8.5 or > 130% of upstream control station of the same day, whichever is higher
		Turbidity in NTU	>10.37 or >120% of upstream control station of the same day, whichever is higher	>10.81 or > 130% of upstream control station of the same day, whichever is higher
TW	C5	DO in mg/L	<8.36	<4 ⁽²⁾
		SS in mg/L	>9.9 or > 120% of upstream control station of the same day, whichever is higher	>10.0 or > 130% of upstream control station of the same day, whichever is higher
		Turbidity in NTU	>13.64 or > 120% of upstream control station of the same day, whichever is higher	>13.87 or > 130% of upstream control station of the same day, whichever is higher
LFT	C8	DO in mg/L	<5.38	<4 ⁽³⁾
		SS in mg/L	>6.3 or > 120% of upstream control station of the same day, whichever is higher	>7.0 or > 130% of upstream control station of the same day, whichever is higher
		Turbidity in NTU	>12.46 or > 120% of upstream control station of the same day, whichever is higher	>12.94 or > 130% of upstream control station of the same day, whichever is higher
HC	C10	DO in mg/L	<2.55	<2.43 ⁽⁴⁾
		SS in mg/L	>8.7 or > 120% of upstream control station of the same day, whichever is higher	>8.8 or > 130% of upstream control station of the same day, whichever is higher
		Turbidity in NTU	>20.06 or > 120% of upstream control station of the same day, whichever is higher	>21.07 or > 130% of upstream control station of the same day, whichever is higher

Notes:

- (1) The 1%-ile of baseline DO data at C1A is 6.61 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
- (2) The 1%-ile of baseline DO data at C5 is 8.09 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
- (3) The 1%-ile of baseline DO data at C8 is 5.36 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
- (4) The 1%-ile of baseline DO data at C10 is 2.43 mg/L, which is lower than 4 mg/L. Taking account of the baseline water quality condition and to minimise any false alarm of water quality deterioration during construction phase, DO concentration of 2.43 mg/L is adopted as the limit level.

2.9 Event and Action Plan

- 2.9.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 2.2** shall be followed. Investigation of the exceedances of environmental quality performance limits should be conducted, and the ET will immediately notify the IEC and EPD, as appropriate. The notification should be followed up with advice to the IEC and EPD on the results of the investigation, proposed actions and success of the action taken, with any necessary follow-up proposals.

2.10 Results and Observations

- 2.10.1 The water quality monitoring schedule for this reporting month is shown in **Appendix 2.3**. The monitoring results and graphical presentation of water quality monitoring at the monitoring stations are shown in **Appendix 2.4**.
- 2.10.2 No exceedance of impact water quality monitoring was recorded during reporting period. The exceedance of impact water quality monitoring in the reporting Period is summarised in **Table 2.7**.

Table 2.7 Summary of Exceedance Records of Water Quality Monitoring in the Reporting Period

Parameter	No. of non-project related exceedances ⁽¹⁾		Total No. of non-project related exceedances	No. of exceedance related to the Project		Total No. of exceedance related to the Project
	AL	LL		AL	LL	
Dissolved Oxygen	0	0	0	0	0	0
Turbidity	0	0	0	0	0	0
Suspended Solids	0	0	0	0	0	0

- 2.10.3 One (1) action level exceedance for DO at C5 was recorded on 28 March 2025. According to the Contractor's information, pouring concrete for rectangular channel wall was carried out on site. No effluent was discharged off-site and no accidental site runoff was reported on 28 March 2025. Following the review of the monitoring results of regular water quality monitoring held on 28 March 2025 and additional monitoring held on 29 March 2025, it is noted that the DO levels at both the control station (C4) upstream of the works site and the impact station (C5) downstream of the works site are lower than the baseline levels. As no anthropogenic pollution source was identified upstream of the site during the water quality monitoring, it is considered that the non-compliance of DO action level was related to natural fluctuation of water flow. No evidence was found to indicate that the exceedance on 28 March 2025 was related to the construction works on site. No monitoring was carried out on 30 March 2025 (Sunday) when construction works were not undertaken. Regular monitoring was carried out on 31 March 2025. No further exceedances of action or limit levels were observed on the monitoring results of 31 March 2025. **Table 2.8** presents the water quality (DO) monitoring results at C4 and C5 on 28, 29 and 31 March 2025.

Table 2.8 Water Quality Monitoring (DO) Results at C4 and C5 on 28, 29 and 31 March 2025

Date of Monitoring	Works Area	Monitoring Station	DO (mg/L)			Exceedance of Action Level / Limit Level
			1 st result	2 nd result	Average	
28 March 2025	Tai Wo	C4 (Control Station)	5.45	5.45	5.45	NA
		C5 (Impact Station)	5.78	5.78	5.78	Action Level
29 March 2025	Tai Wo	C4	5.71	5.71	5.71	NA
		C5	6.14	6.14	6.14	Action Level
31 March 2025	Tai Wo	C4	8.77	8.74	8.76	NA
		C5	8.90	8.90	8.90	No

3 Noise

3.1 Monitoring Locations

3.1.1 The monitoring locations for construction noise monitoring are listed in **Table 3.1** and shown in **Figure 3.1a** to **Figure 3.1d**.

Table 3.1 Noise Monitoring Stations during Construction Phase

ID No. ⁽¹⁾	Location	Nature of Uses	Type of Measurement
SSNV_M2	Village house next to a nullah in Tong Tai Po Tsuen (near DD118 1720 S.A)	Residential	Façade
SSNV_M3	Village house near a soybean sauce factory in Sung Shan New Village (near DD118 1712)	Residential	Façade
SSNV_M6	#43, Sung Shan New Village	Residential	Free-field
TW_M2 ⁽⁴⁾	#200, Cheung Po	Residential	Free-field
TW_M3 ⁽⁴⁾	Kai Yip Garden, #3H, Tai Wo	Residential	Free-field
LFT_M1	#2G, Lin Fa Tei	Residential	Façade
LFT_M3A ⁽²⁾	Near #125B, Lin Fa Tei	Residential	Free-field
LFT_M5	#156B, Lin Fa Tei	Residential	Façade
LFT_M6 ⁽³⁾	#47, Shui Tsan Ti	Residential	Façade
LFT_M11 ⁽²⁾	#210, Ngau Keng Tsuen	Residential	Façade
HC_M3A ⁽²⁾	Next to DD111 326 S.B RP near Fan Kam Road	-	Free-field
HC_M4	#1C, Chuk Hang	Residential	Façade
HC_M6	The Arbutus House 12, #52, Shui Kan Shek	Residential	Façade

Notes:

- (1) SSVN – Sung Shan New Village; TW – Tai Wo; LFT – Lin Fa Tei; HC – Ha Che.
- (2) LFT_M3A, LFT_M11, and HC_M3A are alternative noise monitoring stations proposed to replace LFT_M3, LFT_M13 and HC_M3, respectively.
- (3) Due to the objection from property management office for providing access to designated monitoring location, the noise monitoring at LFT_M7 have been suspended since 27 March 2024. An alternative monitoring location LFT_M6 was proposed to replace LFT_M7 and agreed with the ER and the IEC.
- (4) No construction work would be undertaken at Tai Wo between April and September under Condition 3.2 of EP No.: EP-596/2021. Thus, impact noise monitoring at TW_M2 and TW_M3 was suspended during the reporting period.

3.2 Noise Monitoring Parameter, Frequency and Duration

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

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

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

Table 3.2 Construction Noise Monitoring Parameter, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
SSNV_M2, SSNV_M3, SSNV_M6, HC_M3A, HC_M4, HC_M6, TW_M2, TW_M3, LFT_M1, LFT_M3A, LFT_M5, LFT_M6 and LFT_M11	$L_{eq(30mins)}$ (as a logarithmic average of 6 consecutive $L_{eq(5mins)}$)	Once every week throughout the construction phase

3.3 Monitoring Equipment, Methodology and QA / QC Procedure

- 3.3.1 As referred to the technical memorandum issued under the Noise Control Ordinance (NCO), sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used for carrying out the construction noise monitoring.
- 3.3.2 Noise measurements were not made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.
- 3.3.3 Sufficient numbers of noise measuring equipment and associated instrumentation were prepared by the ET. All the equipment and associated instrumentation were clearly labelled.
- 3.3.4 Wind data were collected from the records of Hong Kong Observatory Shek Kong Weather Station, which is about 2 km south-west of Ha Che and about 900 m north of Lin Fa Tei.
- 3.3.5 The monitoring procedures are as follows:
- For façade measurement, the monitoring station was set at a point 1 m from the exterior of the sensitive receivers building façade and set at a position 1.2 m above the ground. For free-field measurement, the monitoring station was set at a position 1.2 m above the ground.
 - The battery condition was checked to ensure good functioning of the meter.
 - Parameters such as frequency weighting, the time weighting and the interval were set as follows:
 - Frequency weighting: A
 - Time weighting: Fast
 - Interval: 30 minutes ($L_{eq(30mins)}$) would be determined for daytime noise by calculating the logarithmic average of six $L_{eq(5mins)}$ data
 - Prior to and after each noise measurement, the meter was calibrated using an acoustic calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement will be required after re-calibration or repair of the equipment.
 - At the end of the monitoring period, the values of L_{eq} , L90 and L10 were recorded. In addition, noise sources were recorded on a standard record sheet.

- 3.3.6 **Table 3.3** summarizes the noise monitoring equipment used during the construction noise monitoring. Calibration certificates for the impact noise monitoring equipment are attached in **Appendix 3.1**.

Table 3.3 Construction Noise Monitoring Equipment

Equipment	Model	No. of Equipment	Serial No.
Sound Level Meter	SVANTEK 971	1	C119577
Acoustic Calibrator	Rion NC-75	1	34724244

3.4 Maintenance and Calibration

- 3.4.1 Maintenance and calibration procedures are as follows:

- The microphone head of the sound level meter and calibrator were regularly cleaned with a soft cloth; and
- The sound level meter and acoustic calibrator were calibrated annually by a HOKLAS accredited laboratory or the manufacturer.

3.5 Action and Limit Levels

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

Table 3.4 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action	Limit Level
07:00 – 19:00 on normal weekdays	When one or more documented complaints are received	75 dB(A) ⁽¹⁾
07:00 – 23:00 on holidays; and 19:00 – 23:00 on all other days		45 dB(A) ⁽²⁾
23:00 – 07:00 of the next day		30 dB(A) ⁽²⁾

Notes:

- (1) Between 07:00 and 19:00, construction noise limit for school during normal term time is 70 dB(A) and 65 dB(A) during examination period.
- (2) The Area Sensitivity Rating of identified noise sensitive receivers is “A”, which is a rural area that is not affected by the Influencing Factors (Ifs). The limit levels are stipulated in the Technical Memorandum on Noise from Construction Work in Designated Areas.

3.6 Results and Observations

- 3.6.1 The construction noise monitoring was conducted on 5, 11, 15, 25 and 30 April 2025. The monitoring schedule is presented in **Appendix 2.3**.
- 3.6.2 The construction noise monitoring results are summarized in **Table 3.5**. No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix 3.3**.

Table 3.5 Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level, dB(A)		Limit Level
	$L_{eq(30mins)}$ Minimum	Maximum	
SSNV_M2	50.1	56.1	75 dB(A)
SSNV_M3	51.6	63.7	75 dB(A)
SSNV_M6 ⁽¹⁾	49.9	65.3	75 dB(A)
TW_M2 ⁽²⁾	/	/	75 dB(A)
TW_M3 ⁽²⁾	/	/	75 dB(A)
HC_M3A ⁽¹⁾	64.6	74.5	75 dB(A)
HC_M4	63.4	68.3	75 dB(A)
HC_M6	62.1	67.9	75 dB(A)
LFT_M1	47.9	64.0	75 dB(A)
LFT_M3A ⁽¹⁾	54.3	68.7	75 dB(A)
LFT_M5	51.9	55.2	75 dB(A)
LFT_M6	60.5	62.5	75 dB(A)
LFT_M11	58.4	62.3	75 dB(A)

Note:

- (1) For Free Field measurement, +3 dB(A) was added to the measured results.
 (2) No impact monitoring of TW was undertaken in reporting month.

3.6.3 During the construction noise monitoring period, the influencing factors which may affect the results are summarized in **Table 3.6**.

Table 3.6 Influencing Factors at Noise Monitoring Stations

Monitoring Stations	Influencing Factors
SSNV_M2	Nil
SSNV_M3	Nil
SSNV_M6	Nil
TW_M2 ⁽¹⁾	/
TW_M3 ⁽¹⁾	/
HC_M3A	Road Traffic Noise
HC_M4	Road Traffic Noise
HC_M6	Road Traffic Noise
LFT_M1	Nil
LFT_M3A	Nil
LFT_M5	Road Traffic Noise
LFT_M6	Nil
LFT_M11	Road Traffic Noise

Note:

- (1) No impact noise monitoring at TW_M2 and TW_M3 was undertaken in reporting period.

4 Ecology

4.1 Freshwater Crab

- 4.1.1 With reference to the approved EIA Report (Register No.: AEIAR-229/2021), two freshwater crab species of conservation importance were recorded within the work sites during the ecological baseline survey. *Somanniathelphusa zanklon* was recorded at Lin Fa Tei and Ha Che, while *Cryptopotamon anacoluthon* was recorded in the upstream area at Ha Che. Both species are endemic to Hong Kong and considered to be “Endangered” and “Vulnerable” by the IUCN respectively (IUCN 2023). The construction activities of the project will disturb their natural habitats and potentially causing a direct loss of these two species due to their limited mobility.

Post-translocation Monitoring

- 4.1.2 According to Section 5.2.5 of the approved Updated EM&A Manual for the Project, monthly post-translocation monitoring shall be conducted at least 12 months after pre-construction surveys to monitor their establishment.
- 4.1.3 During the monitoring, active visual search by hand netting and kick sampling for aquatic fauna species would be performed at the respective receptor sites. Potential micro-habitats and hiding spaces that is favoured by the crabs such as rocks, organic debris, leaf litter, and riparian vegetation etc., will also be overturned or raked.
- 4.1.4 Upon discovery of any marked individuals from the pre-construction survey, date and time of capture, size and health condition of the individual will also be recorded once again.
- 4.1.5 The practice of mark and recapture of the translocated population of *S. zanklon* and *C. anacoluthon* at the receptor site can then be used to estimate population size, as well as inform the health and survival status of the translocated population.
- 4.1.6 The upper and lower receptor sites of Ha Che were visited on 8 April 2025 to monitor the population of freshwater crabs translocated from Ha Che CH.A300.00~CH.A653.949.
- 4.1.7 No pollution or anthropogenic disturbance was observed for Lower Ha Che receptor site. For Upper Ha Che receptor site, a few bags of cement powder were seen nearby the stream. They were not related to the Project works. Furthermore, no construction materials or waste was found within the stream. Water flow further decreased in both receptor sites compared to the previous month, likely due to the lack of rainfall. Representative photos of the site conditions are presented in **Plate 4.1**.

Plate 4.1 Site condition of receptor sites at Ha Che during the reporting month



Upper receptor site for *C. anacoluthon* at Ha Che



Lower receptor site for *S. zanklon* at Ha Che

- 4.1.8 None of the translocated individuals from the pre-construction surveys were found in the upper and lower receptor sites of Ha Che in the reporting month. The inability to recapture the translocated individuals could be due to the structural complexity of the habitats of both sites. Given the presence of many rocks and riffles at the Upper Ha Che receptor site, together with large and deep pools in the Lower Ha Che receptor site, these receptor sites provide excellent refuge and protection for the crabs.

4.2 Habitat Compensation for the Affected Riverine Habitat

- 4.2.1 In order to ensure the reinstated habitat could compensate the loss of the important riverine habitat, Habitat Creation and Management Plan (HCMP) was approved by EPD under Condition 2.9 of the EP. The relevant drainage improvement works has been conducted continuously during the reporting period in accordance with the HCMP.

5 Waste Management

- 5.1.1 Waste generated from the Project include inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting period. The amount of waste generated by the construction works of the Project during the reporting period are shown in **Appendix 5.1**.
- 5.1.2 Sorting of construction and demolition (C&D) materials was carried out on site. Sufficient numbers of receptacles were provided for general refuse collection and sorting. Excavated inert C&D materials were reused to minimize the disposal of C&D waste to public fill.
- 5.1.3 The Contractor is advised to minimize the wastes generated through recycling or reusing. All applicable mitigation measures stipulated in the approved Updated EM&A Manual and waste management plans have been fully implemented.

6 Land Contamination

- 6.1.1 With reference to results of land contamination assessment included in the approved EIA Report (Register No.: AEIAR-229/2021), all identified sites with potential contamination are located outside the work area of the Project and no potential contamination arising from the proposed drainage improvement works is anticipated. Therefore, no land contamination issue is anticipated for this Project.
- 6.1.2 Mitigation measures listed in **Appendix 1.3** should be adopted if any suspended contamination encountered during construction.
- 6.1.3 No suspected on-site contamination was observed or reported by the Contractor in the reporting period.

7 Landscape and Visual

7.1 Audit Requirements

- 7.1.1 According to the approved Updated EM&A Manual, site audits should be undertaken every week during the construction phase to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Mitigation measures recommended in the EIA Report as the audit requirements including, preservation of existing vegetation, transplanting of affected trees, compensatory tree planting, control of night-time lighting glare, erection of decorative screen hoarding and management of construction activities and facilities are summarized in **Appendix 1.3**.

7.2 Results and Observations

- 7.2.1 To monitor and audit the implementation of landscape and visual mitigation measures, five weekly landscape and visual site audits were carried out on 2, 9, 16, 23 and 30 April 2025.
- 7.2.2 No deficiency in the mitigation measures on landscape and visual was observed during the reporting period.

8 Cultural Heritage

8.1 Archaeology

- 8.1.1 According to the assessment included in the approved EIA report (Register No.: AEIAR-229/2021) the proposed drainage works in the Lin Fa Tei area are located immediately adjacent to existing river course on mainly Pleistocene terraced alluvium and the western end of the alignment on Holocene alluvium between Lin Fa Tei Site of Archaeological Interest (SAI) and Shui Lau Tin SAI. The proposed works are partially located within Lin Fa Tei SAI. Previous investigations within SAI have shown both in situ and secondary deposit and with potential for wooden features near the stream bed. As per the recommendation from EIA Report, Archaeological Survey shall be conducted prior to the construction works, the concerned area is marked in **Figure 8.1**.
- 8.1.2 A qualified archaeologist shall be engaged and apply for a licence under the Antiquities and Monuments Ordinance (Cap. 53) to conduct the Archaeological Survey prior to the construction phase. The scope and methodology of the Archaeological Survey shall be agreed with the Antiquities and Monuments Office (AMO) prior to implementation. Tentatively and subject to agreement with AMO, a fieldscan, where possible, twenty auger tests and four 5 m by 1 m narrow trenches are proposed to further assess the archaeological potential of the area. If significant remains are uncovered, the AMO should be notified and potential need for mitigation and/ or an appropriate way forward should be agreed by the AMO and relevant parties.
- 8.1.3 For remaining drainage work areas (outside the area identified for Archaeological Survey) deemed to have limited (near Kam Sheung Road) to minimal (remainder of Works Areas) archaeological potential, the AMO shall be informed immediately if antiquities or supposed antiquities are discovered during construction works for the proposed drainage improvement works for ascertaining required remedial works.
- 8.1.4 The licence application for archaeological survey works at Lin Fa Tei, Yuen Long was approved by the AMO on 28 June 2024. The Archaeological Survey at Lin Fa Tei was carried out from 16 to 28 October 2024. During this period, a qualified Archaeologist had excavated five test trenches (5 m × 1.2 m each in size) coded TT1 to TT5 respectively and executed 20 auger tests coded AH1 to AH20 respectively.
- 8.1.5 Generally, the fill deposit at the top of the excavated area is modern and formed in recent years; the sludge deposits underneath contain no archaeological remains whatsoever.
- 8.1.6 Therefore, it can be concluded that there is no archaeological potential in the Licence Area, and the construction works of the Project will not cause any adverse impact to archaeological heritage in this part of the Lin Fa Tei Site of Archaeological Interest. The completion brief of archaeological survey was submitted to AMO for review on 30 October 2024. Draft Report on the Archaeological Survey at Lin Fa Tei were submitted to the AMO on 19 November 2024. Comments on the draft Report from the AMO were issued on 10 March 2025. The Report was revised and submitted to the AMO for further review on 21 March 2025. No further comment was received from the AMO up to the end of the reporting period.

8.2 Built Heritage

- 8.2.1 According to the approved Updated EM&A manual, mitigation measures that should be implemented during the construction phase for graded historic buildings are presented in **Table 8.1**.
- 8.2.2 Condition surveys were carried out by qualified structural engineer for Lee Tat Bridge, Lan Fong Study Hall and St John's Chapel prior to construction works. The Pre-construction Condition Survey Report were submitted to the EPD on 22 December 2023 under Condition 2.10 of the EP. The Antiquities and Monuments Office (AMO) had no adverse comment on the report on 3 January 2024. A formal reply letter was issued by the EPD on 21 June 2024 for their acceptance on the report.
- 8.2.3 Due to the distance between the works area at Ha Che and the Lan Fong Study Hall exceeded 30m radial distance during the reporting period, no vibration monitoring was undertaken. Settlement and tilting monitoring at Lan Fong Study Hall at Ha Che has been carried out during the reporting period (excluded public holiday). The distance between the north works area at Ha Che and the Lan Fong Study Hall is around 395.34 m. While the distance between the south works area at Ha Che and the Lan Fong Study Hall is around 63.76 m. The layout plan showing distance between the works area at Ha Che and the Lan Fong Study Hall is presented in **Figure 8.2**. The monitoring locations of Lan Fong Study Hall at Ha Che are indicated **Figure 8.3**. No exceedance for relevant monitoring was recorded during the reporting period.
- 8.2.4 As no construction work was carried out at Tai Wo in April 2025, no structural monitoring was conducted at St. John Chapel.
- 8.2.5 No monitoring has been carried out at Lee Tat Bridge at Lin Fa Tei as the works areas are more than 500 m away.
- 8.2.6 Monitoring data is submitted to the AMO on quarterly basis.

Table 8.1 Mitigation Measures for Impacted Graded Historic Buildings

Graded Historic Buildings	Mitigation Measures
Lee Tat Bridge, Shui Tsan Tin (Grade 3)	<ul style="list-style-type: none"> ▪ A condition survey should be carried out in advance of works and after completion of works by qualified building surveyor or structural engineer. The Condition Survey Report should contain descriptions of the structure, identification of fragile elements, an appraisal of the condition and working methods for any proposed monitoring and precautionary measures that are or were recommended with aid of photo records. The condition survey report must be submitted to the AMO for comment before construction activities commence and after the works have been completed. The contractor should implement the approved monitoring and precautionary measures.
Lan Fong Study Hall, Chuk Hang (Grade 3)	<ul style="list-style-type: none"> ▪ Vibration, settlement and tilting monitoring should be undertaken during the construction works to ensure that safe levels of vibration are not exceeded. An Alert, Alarm and Action (AAA) vibration limit set at 5 / 6 / 7.5 mm/s for Grade 3 historic buildings, settlement limit set at 6/ 8/ 10mm, and tilting limit set at 1/2000; 1/1500; 1/1000 should be adopted. Monitoring proposal, including checkpoint locations, installation details, response actions for each of the AAA levels and frequency of monitoring should be submitted for AMO's consideration. Installation of monitoring checkpoints shall be carried out in great care and adequate protection shall be provided so as to avoid unnecessary disturbance/ damage to the historic fabrics. Photo records of monitoring checkpoints shall be submitted upon installation for AMO's records. Monitoring records should be submitted to AMO on regular basis and alert AMO should the monitoring reach AAA levels.
St John's Chapel, Cheung Po (Grade 2)	

9 Environmental Site Inspection and Audit

9.1 Implementation Status of Environmental Mitigation Measures

9.1.1 Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on 2, 9, 16, 23 and 30 April 2025 at the site portions listed in **Table 9.1** below.

Table 9.1 Site Inspection Record

Date	Inspected Site Portion	Time
2 April 2025	Lin Fa Tei	14:00 – 14:30
9 April 2025	Ha Che	14:30 – 15:00
16 April 2025	Lin Fa Tei	14:00 – 14:30
23 April 2025	Sung Shan New Village	14:30 – 15:00
30 April 2025	Sung Shan New Village	11:00 – 11:30

9.1.2 Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections and during the reporting period are summarized in **Table 9.2**.

Table 9.2 Site Observations

Date	Environmental Observations	Follow-up Status
2 April 2025	<u>Observation(s) and Recommendation(s)</u> Nil	Nil
9 April 2025	<u>Observation(s) and Recommendation(s)</u> 1. Environmental permit should be displayed on site.	1. Environmental Permit has been displayed properly on site.
16 April 2025	<u>Observation(s) and Recommendation(s)</u> Nil	Nil
23 April 2025	<u>Observation(s) and Recommendation(s)</u> 1. Impervious sheeting should be provided for placing the breaker to prevent land contamination on site.	1. The breaker has been covered by impervious sheeting to prevent land contamination on site.
30 April 2025	<u>Observation(s) and Recommendation(s)</u> 1. The Contractor should regularly maintain the condition of geotextile and remove waste nearby.	1. The Contractor has been properly maintained the condition of geotextile and remove waste nearby.

9.1.3 According to the EIA Study Report, Environmental Permit, contract documents and approved Updated EM&A Manual, the mitigation measures detailed in the documents should be implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix 1.3**.

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

10.1 Summary of Exceedance

- 10.1.1 During the reporting month, no exceedances for impact water quality monitoring was recorded. One (1) action level exceedance for DO at C5 was recorded on 28 March 2025. Details of findings of the follow-up investigation are presented in Section 2.10.3.
- 10.1.2 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.
- 10.1.3 No exceedance for settlement and tilting monitoring was recorded during the reporting period.

10.2 Summary of Environmental Non-Compliance

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

10.3 Summary of Environmental Complaint

- 10.3.1 No environmental complaint was recorded during the reporting period. The Cumulative Complaint Log is presented in **Appendix 10.1**.

10.4 Summary of Environmental Summon and Successful Prosecution

- 10.4.1 There was no successful environmental prosecution or notification of summons received since the Project commencement. The Cumulative Log for environmental summon and successful prosecution is presented in **Appendix 10.1**.

11 Future Key Issues

11.1 Works and Potential Environmental Issues in the next Reporting Period

11.1.1 The construction programme for the Project for the next reporting period is presented in **Appendix 1.1**.

11.1.2 Works to be undertaken in the next reporting period are summarized below:

Ha Che

- Site clearance;
- Breaking ground;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting
- Sheet pilling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Lin Fa Tei

- Site clearance;
- Breaking ground;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;
- Sheet pilling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Sung Shan New Village

- Site clearance;
- Temporary drainage diversion;
- Excavation and Lateral Support, relocate/ divert utilities, rebar fixing, formwork erection and cast-in, concreting;
- Sheet pilling & backfilling and compaction; and
- Removal of sheet piles, drain laying works, reinstatement.

Tai Wo

- No construction activities.

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

11.2 Recommendation

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

Noise

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

Water Quality

- Surface run-off from construction sites should be discharged into dedicated discharge point via adequately designed sand/ silt removal facilities;
- Channels/ earth bunds/ sandbags barriers should be provided on site to properly direct stormwater to silt removal facilities;
- Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly;
- Open stockpiles of construction materials on sites should be covered with tarpaulin or similar fabric during rainstorms; and
- Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site.

Waste Management

- Provision of sufficient waste disposal points and regular collection of waste;
- Regular cleaning and maintenance programme for drainage system; and
- Chemical containers shall be stored with drip tray underneath.

Ecology

- Minimize loss of habitats and associated wildlife; and
- Using directional lighting to prevent excessive light spill into adjacent natural habitat and disturbance to nocturnal fauna.

Landscape and Visual

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

- Adequate tree protection measures shall be provided for the trees to be retained on site.

11.2.2 The tentative schedule of regular construction noise and water quality monitoring in the next reporting period is presented in **Appendix 11.1**. The regular impact noise and water quality monitoring will be conducted at the same monitoring locations in the next reporting period.

12 Conclusions

12.1 Conclusion

- 12.1.1 This 15th Monthly EM&A Report presents the EM&A works during the reporting period from 1 to 30 April 2025 in accordance with the approved Updated EM&A Manual.
- 12.1.2 No exceedance during impact water quality monitoring was recorded during reporting period. One (1) action level exceedance for DO at C5 was recorded on 28 March 2025. During the investigation, no evidence was found to indicate that the exceedance on 28 March 2025 was related to the construction works on site. It is considered that the non-compliance of DO action level was related to natural fluctuation of water flow.
- 12.1.3 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.
- 12.1.4 No exceedance was recorded for settlement and tilting monitoring during the reporting period.
- 12.1.5 Environmental site inspections were conducted on 2, 9, 16, 23 and 30 April 2025 by the ET in the reporting period.
- 12.1.6 No environmental complaint was recorded during the reporting period.
- 12.1.7 The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

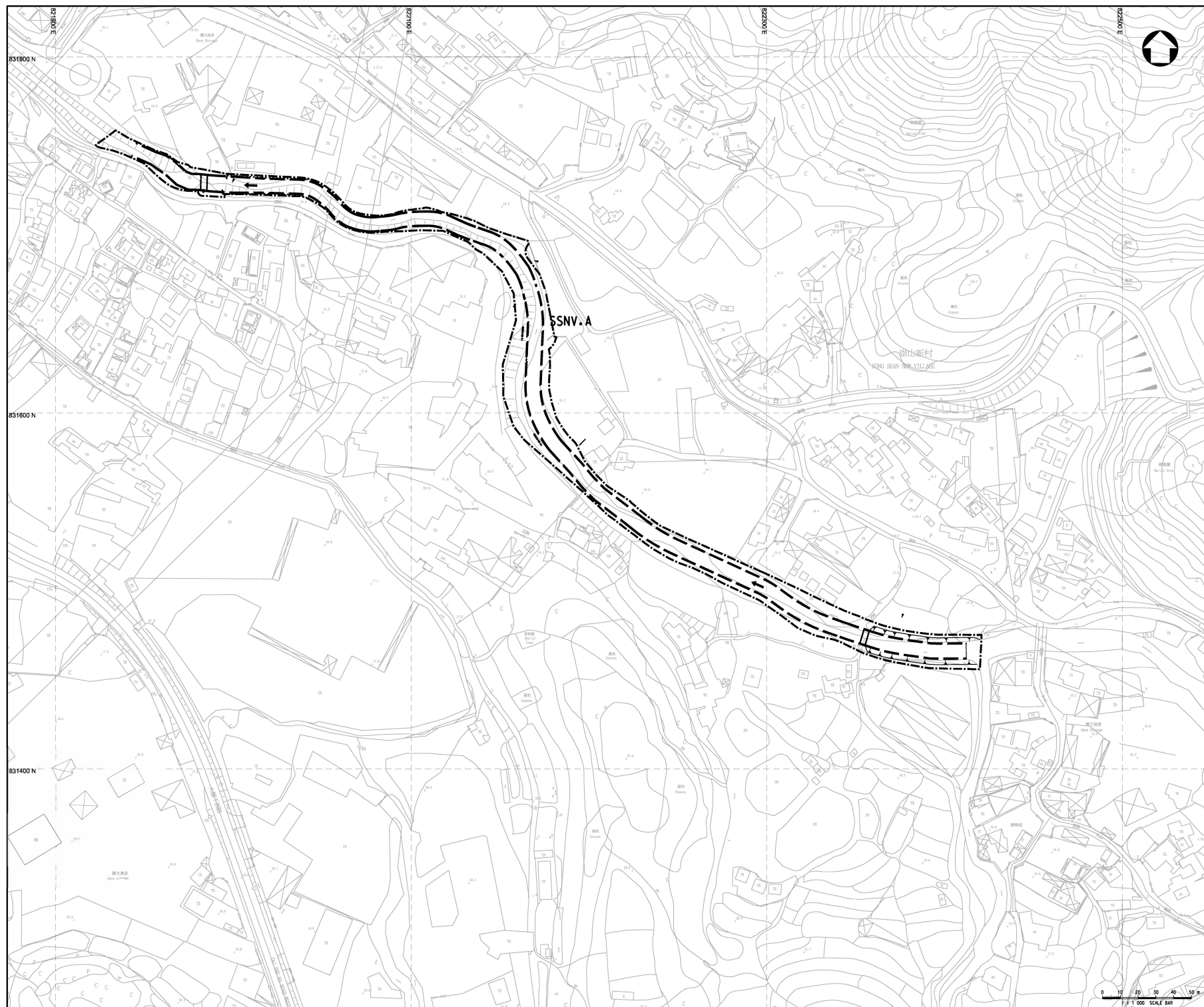
12.2 Comments/ Recommendations

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

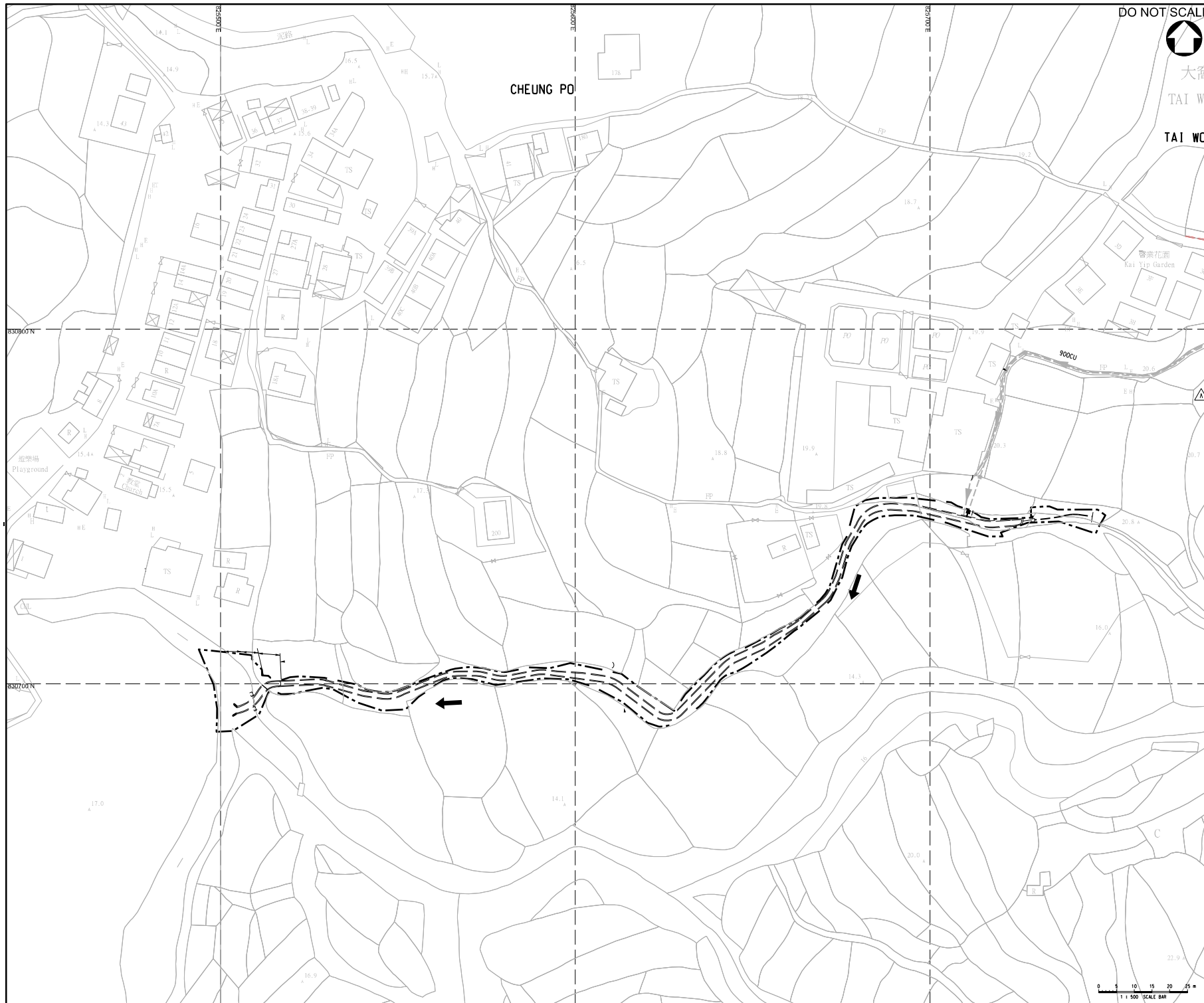
Figures

Figure 1.1 General Site Location Plan

Figure 1.2 Location of Work Areas for the Project



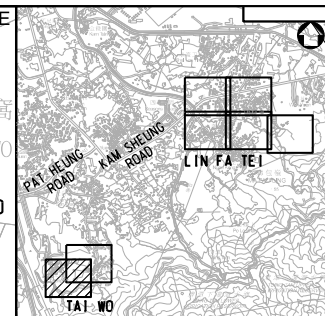
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KEY PLAN
N.T.S.

LEGEND:

- WORKS BOUNDARY
- RECTANGULAR CHANNEL

Rev.	Date	Description	By	CHK'd	App'd
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	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status	CONTRACT	Suitability	==
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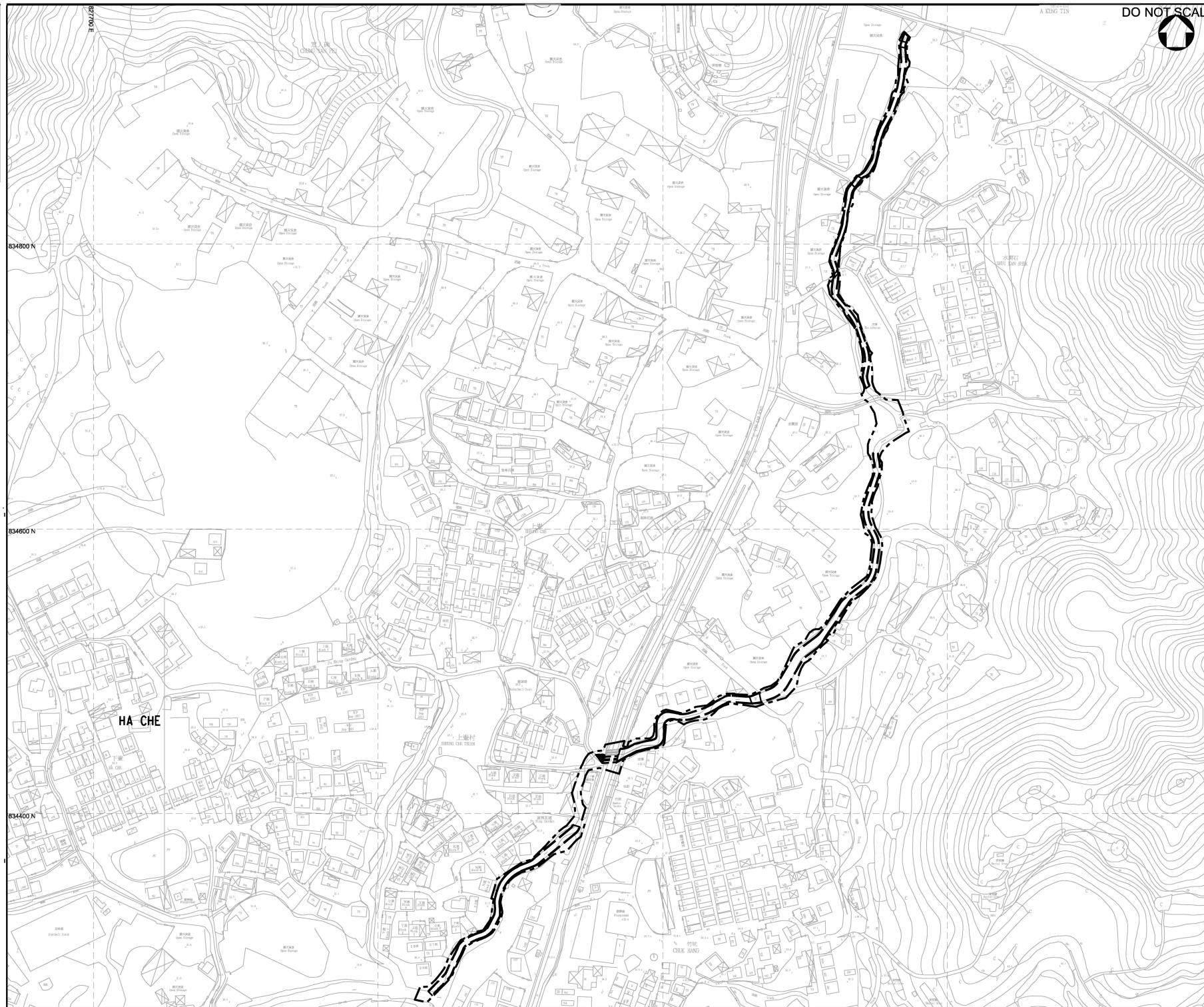
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AT YUEN LONG -
STAGE 2

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GENERAL LAYOUT PLAN

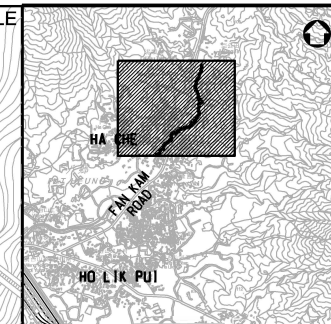
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KEY PLAN

N.T.S.

LEGEND:

- WORKS BOUNDARY
- RECTANGULAR CHANNEL

Rev.	Date	Description	By	Chk'd	App'd
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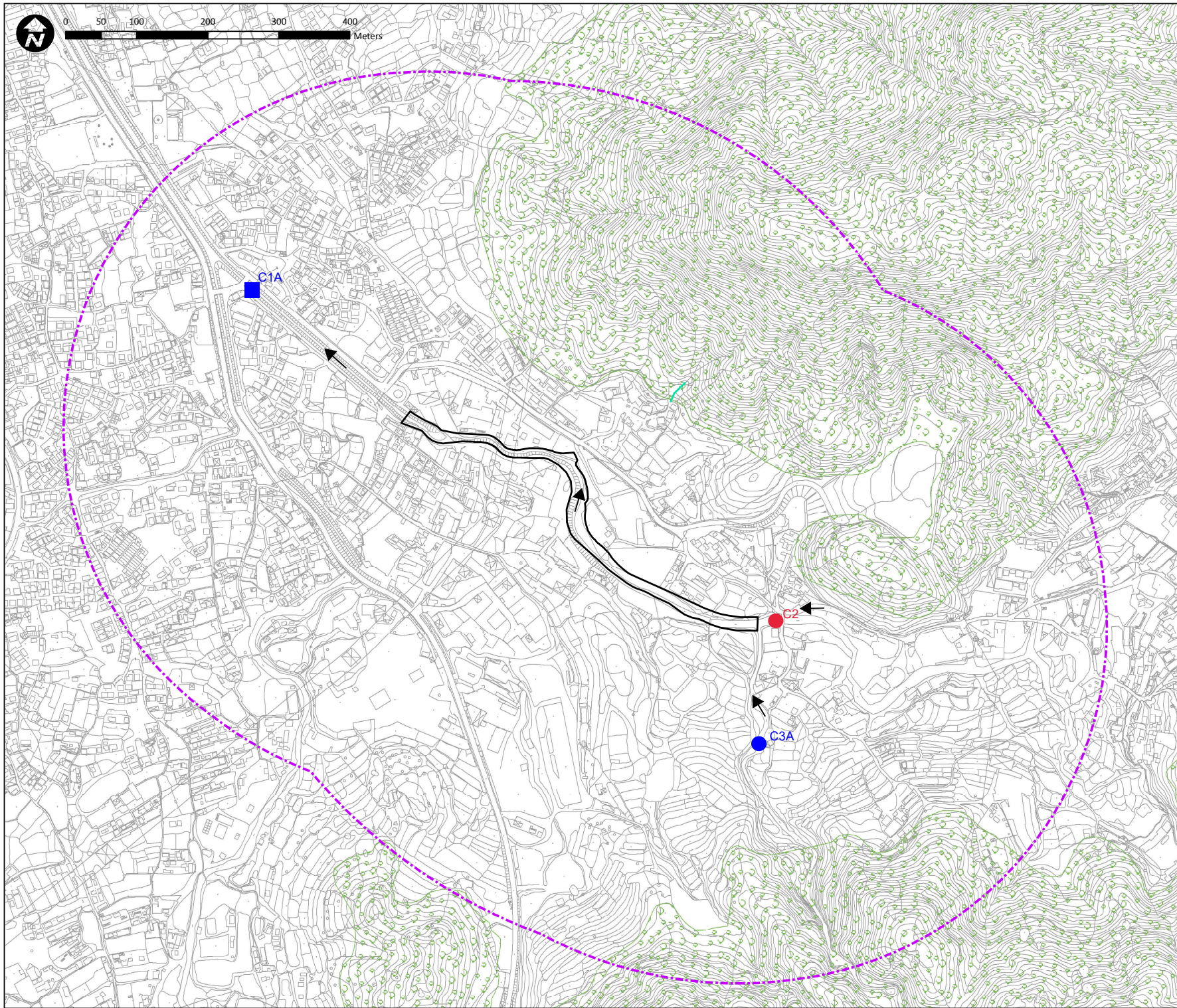
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CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

Drawing Title
HA CHE -
GENERAL LAYOUT PLAN

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Figure 2.1 Impact Water Quality Monitoring Locations



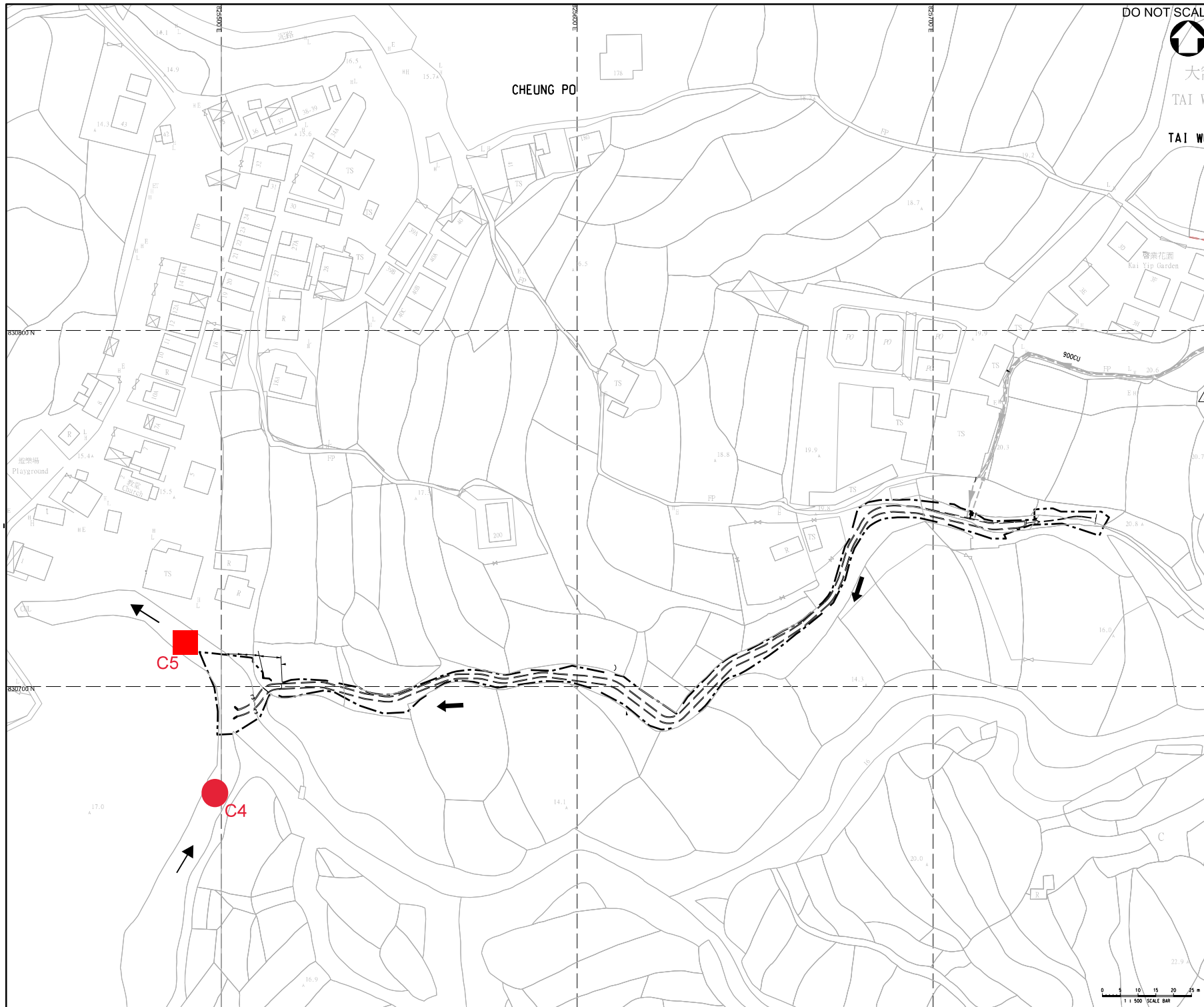
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- Work Limit Boundary
 - 500 m study area
 - Control Station
 - Alternative Control Station
 - Alternative Impact Station
 - Flow direction

Project Title:
CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

Figure Title:
Water Quality Monitoring Locations at
Sung Shan New Village

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Approved by:	
Figure Number: Figure 2.1a	Revision: R1

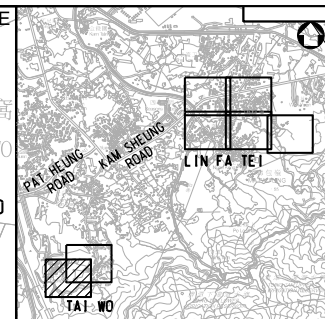
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KEY PLAN
N.T.S.

LEGEND:

WORKS BOUNDARY
RECTANGULAR CHANNEL

Control Station

Impact Station

Flow Direction

Rev.	Date	Description	By	CHK'd	App'd
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-	JUL 2022	ISSUE FOR TENDER			

Drawing Status: **CONTRACT** Suitability: =

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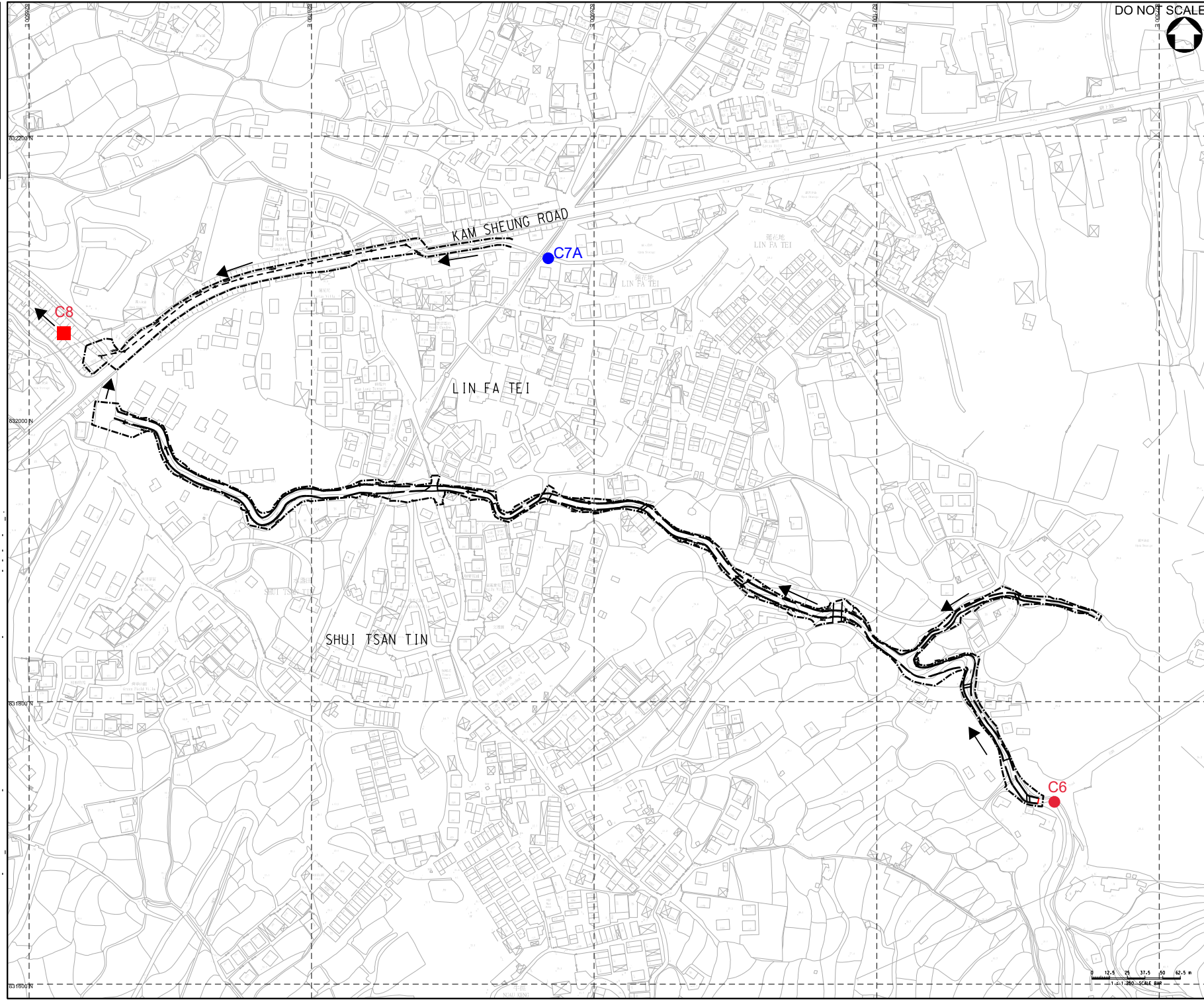
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AT YUEN LONG -
STAGE 2**

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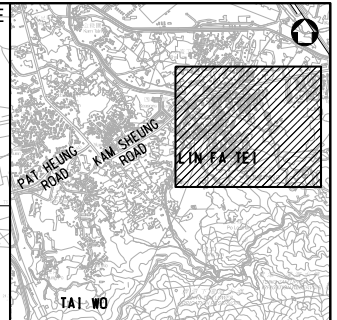
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KEY PLAN
N.T.S.

- LEGEND:**
- WORKS BOUNDARY
 - RECTANGULAR CHANNEL
 - 450 CU
 - COVERED U-CHANNEL WITH NON-HEAVY DUTY PRECAST CONCRETE COVER
 - MANHOLE
 - Control Station
 - Alternative Control Station
 - Impact Station
 - Flow Direction

A	NOV 2022	TENDER ADDENDUM NO. 4	SHC	WCTT	KP
•	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP
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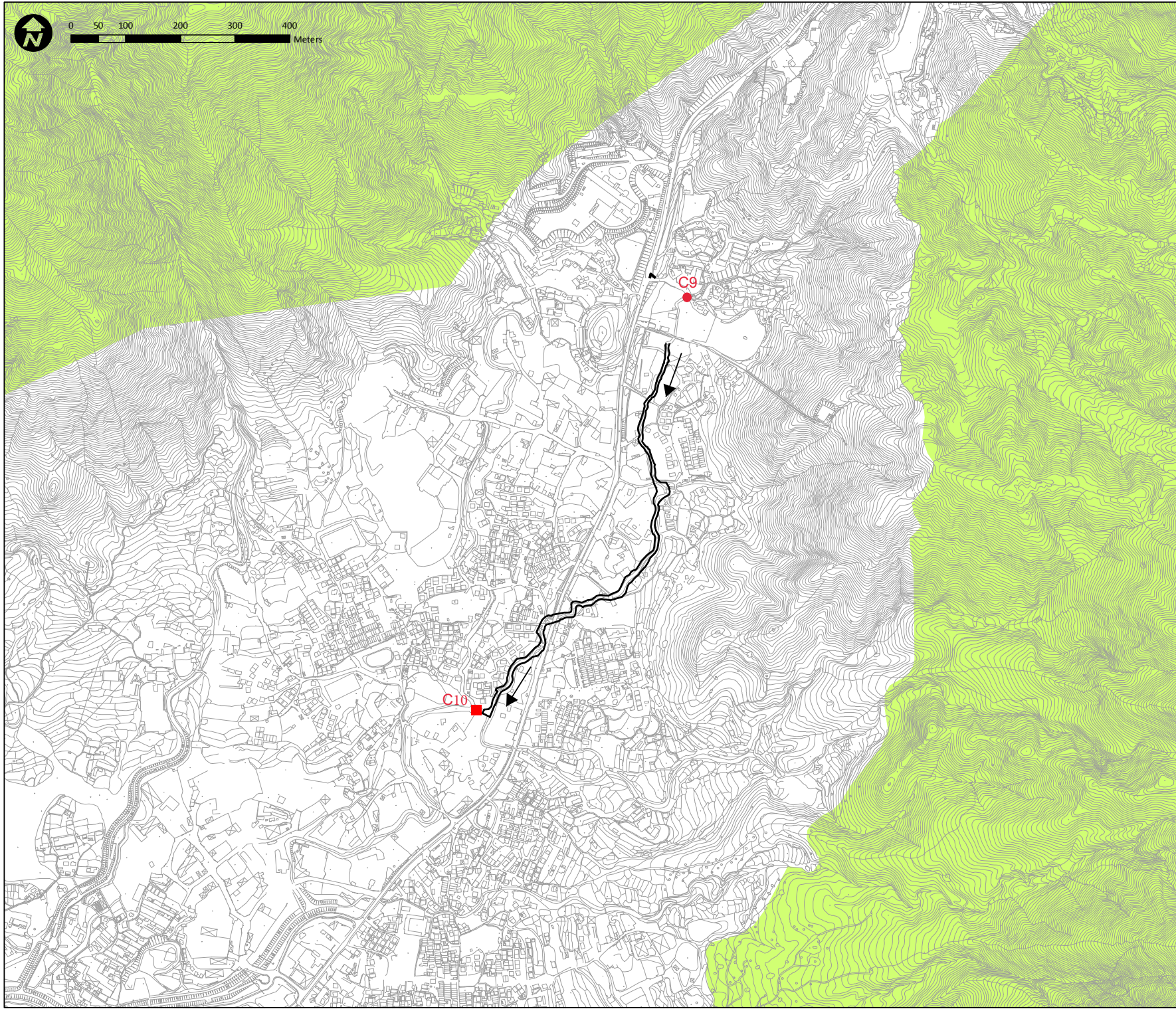
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Drainage Services Department

Project Management Division

Contract Title: **CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2**

Drawing Title: **Water Quality Monitoring Locations
at Lin Fa Tei**

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LEGEND:



WORKS BOUNDARY
RECTANGULAR CHANNEL

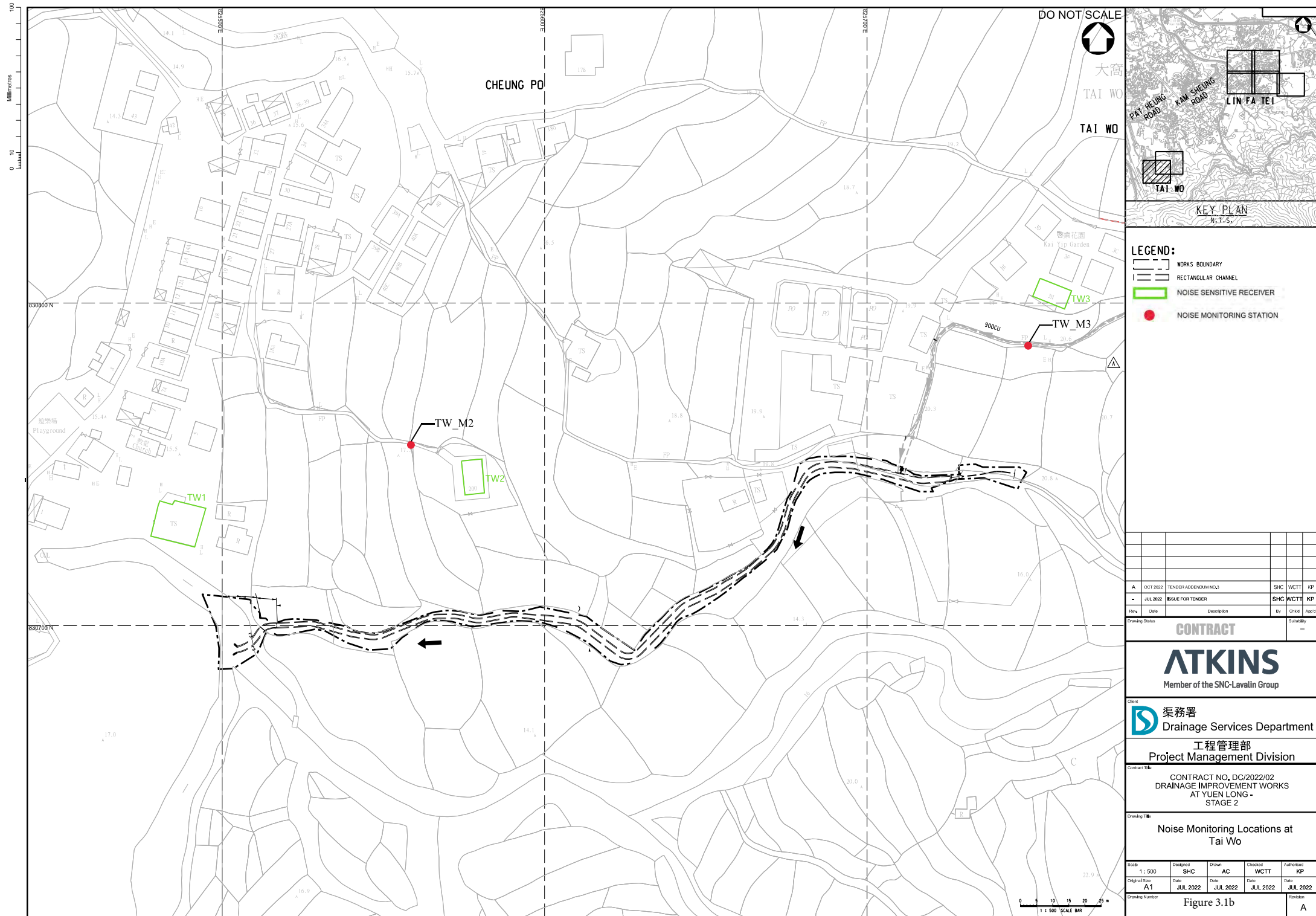
- Control Station
- Impact Station
- Flow Direction

Project Title:
CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

Figure Title:
Water Quality Monitoring Locations at
Ha Che

Drawn by:	Scale: 1:6,500 on A3	
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Approved by:		
Figure Number:	Figure 2.1d	Revision: R1

Figure 3.1 Impact Noise Monitoring Locations



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-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP
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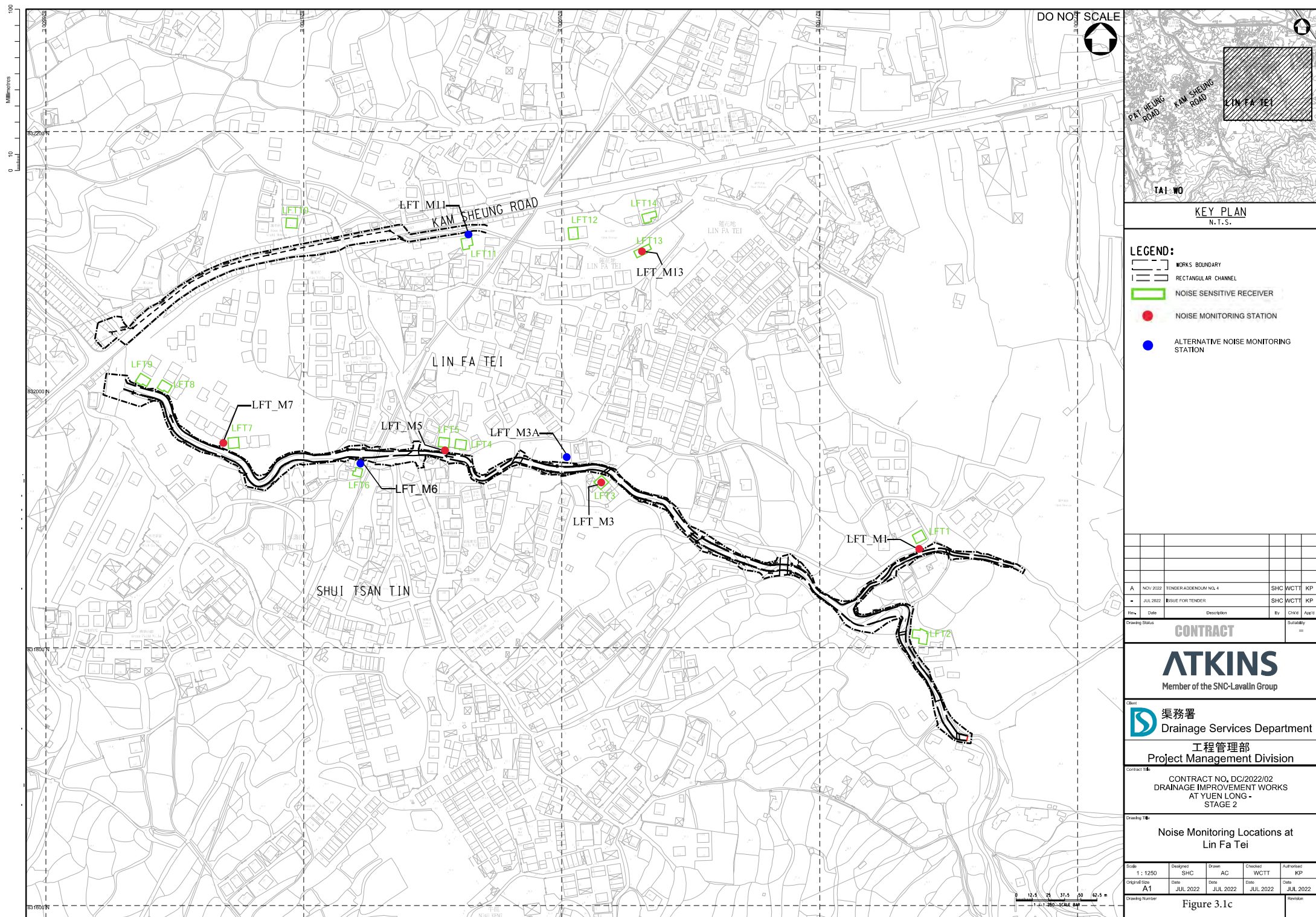
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Project Management Division

Contract No.
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DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

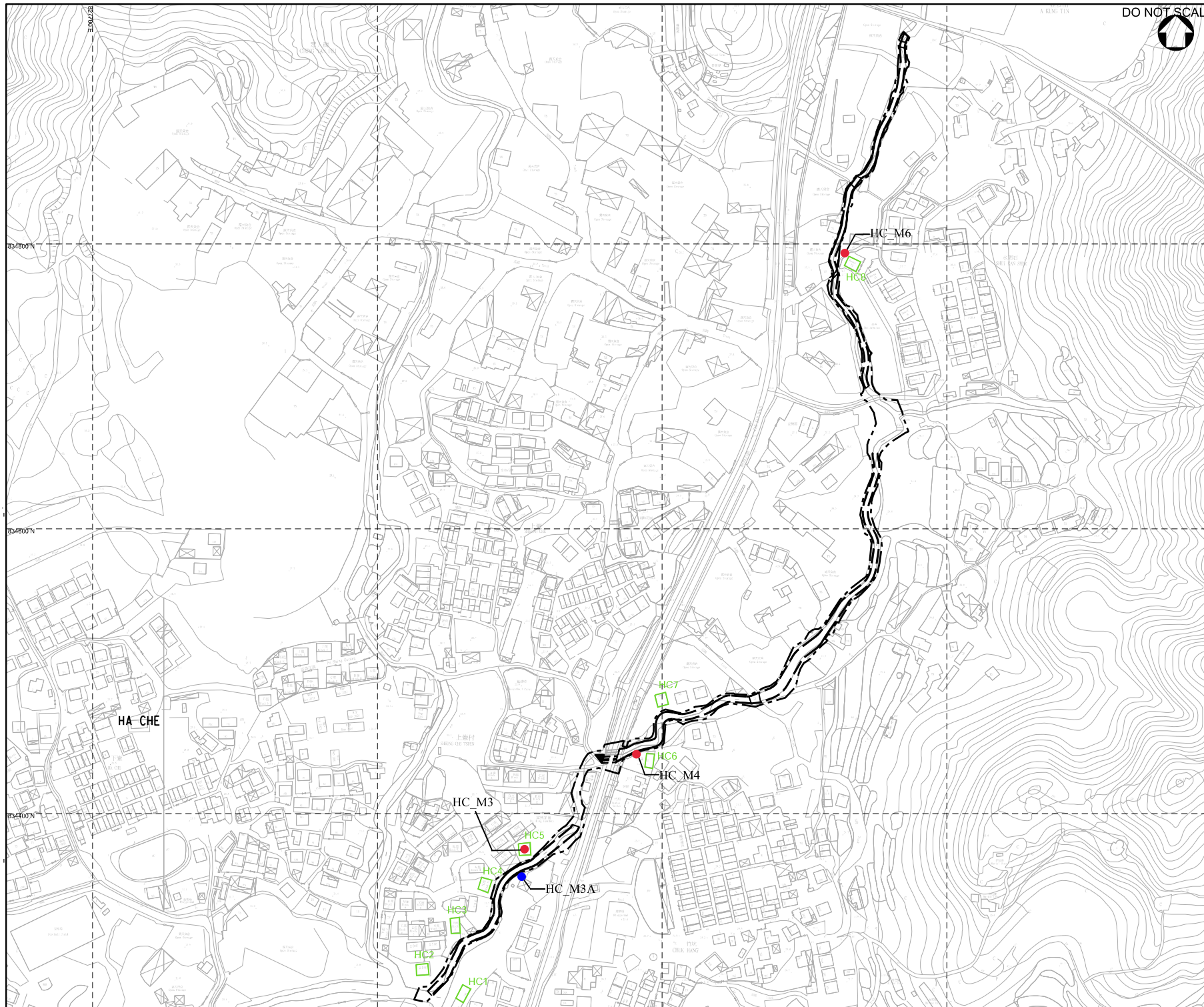
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Tai Wo

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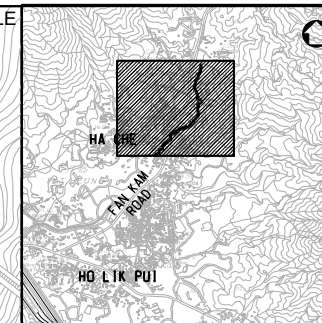
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Figure 3.1b	A



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Millimetres



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KEY PLAN
N.T.S.

LEGEND:

- WORKS BOUNDARY
- RECTANGULAR CHANNEL
- NOISE SENSITIVE RECEIVER
- NOISE MONITORING STATION
- ALTERNATIVE NOISE MONITORING STATION

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-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP
Rev.	Date	Description	By	CHK'd	App'd

Drawing Status	CONTRACT	Suitability	==
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Project Management Division

Contract Title
CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

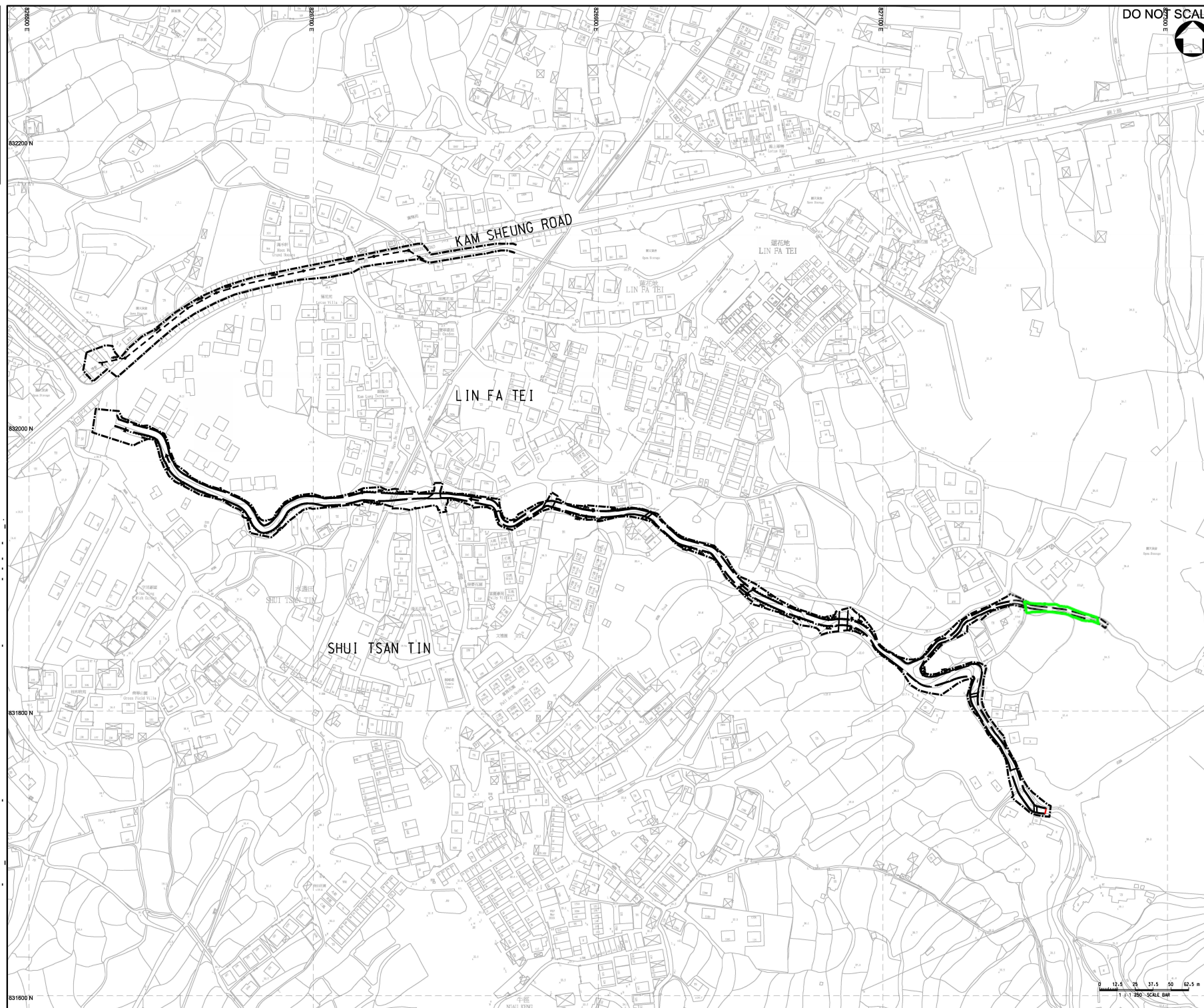
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Ha Che

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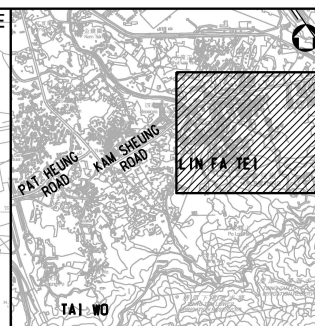
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Figure 8.1 Area for Archaeological Survey

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METERS



DO NOT SCALE



KEY PLAN

N.T.S.

LEGEND:

- WORKS BOUNDARY
- RECTANGULAR CHANNEL
- 450CU
- COVERED U-CHANNEL WITH NON-HEAVY DUTY PRECAST CONCRETE COVER
- MANHOLE
- AREA IDENTIFIED FOR ARCHAEOLOGICAL SURVEY

Rev.	Date	Description	By	Chk'd	App'd
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-	JUL 2022	ISSUE FOR TENDER			

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Contract Title: CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

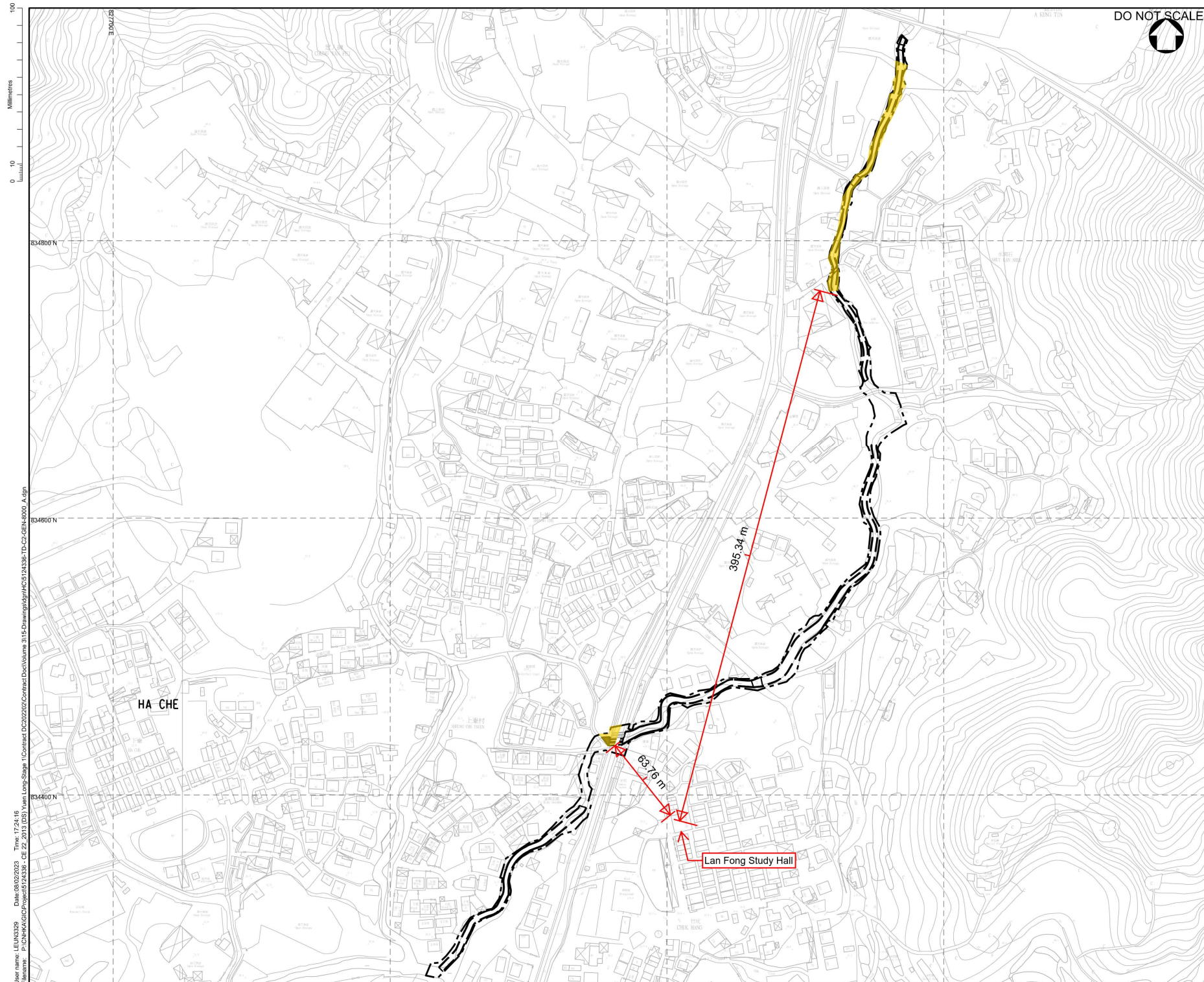
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Original Size	Date	Date	Date	Date
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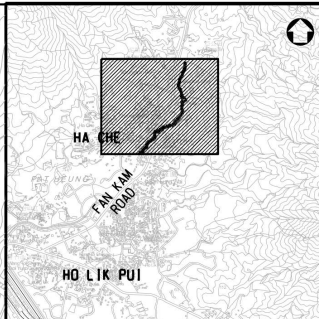
Drawing Number	Revision
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Figure 8.1

Figure 8.2 Layout plan showing distance between the works area at Ha Che and the Lan Fong Study Hall



DO NOT SCALE



KEY PLAN

N.T.S.

NOTES:

1. FOR GENERAL LAYOUT PLAN, REFER TO DRAWING NO.
5124336-TD-C2-GEN-0000.
2. FOR GENERAL NOTES, REFER TO DRAWING NOS.
5124336-TD-C2-GEN-0001 & 0002.
3. FOR LEGENDS, REFER TO DRAWING NO.
5124336-TD-C2-GEN-0003.
4. FOR PROPOSED ALIGNMENT, REFER TO DRAWING NOS.
5124336-TD-C2-GEN-8001 TO 8004.



Works area

CONTROLLED COPY

A	NOV 2022	TENDER ADDENDUM NO. 4			Sgt M.	KP		
-	JUL 2022	ISSUE FOR TENDER			SHC WCTT KP			
Rev.	Date	Description			By	CHK'd	App'd	

CONTRACT

ATKINS

Member of the SNC-Lavalin Group

4



渠務署
Drainage Services Department

Project Management Division

Control Title

CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

Drawing Title

HA CHE - GENERAL LAYOUT PLAN

Scale 1 : 1250	Designed SHC	Drawn AC	Checked WCTT	Authorised KP
Original Size A1	Date JUL 2022	Date JUL 2022	Date JUL 2022	Date JUL 2022

Figure 8.2

REVIEWED

Figure 8.3 Monitoring Locations of Lan Fong Study Hall at Ha Che

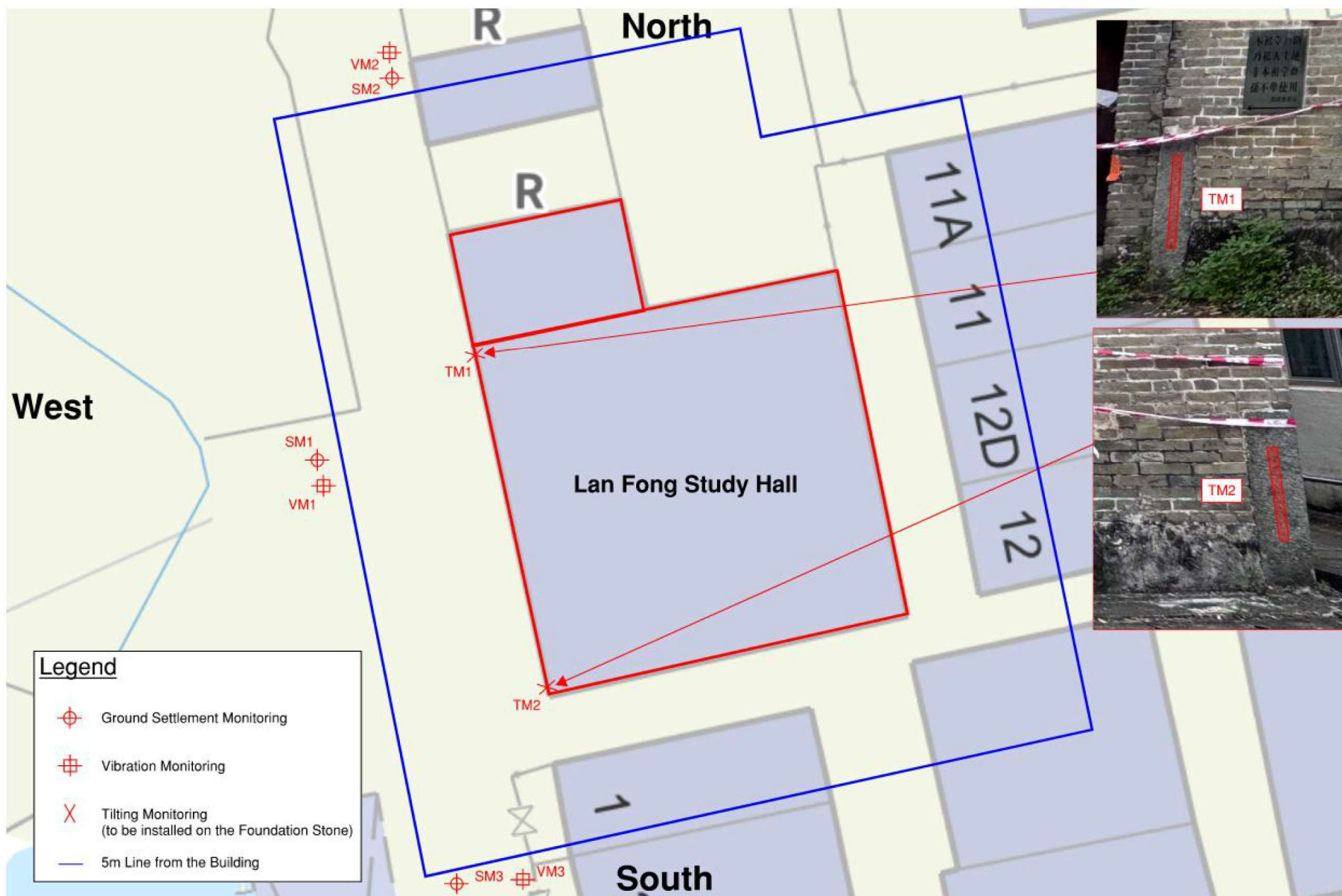
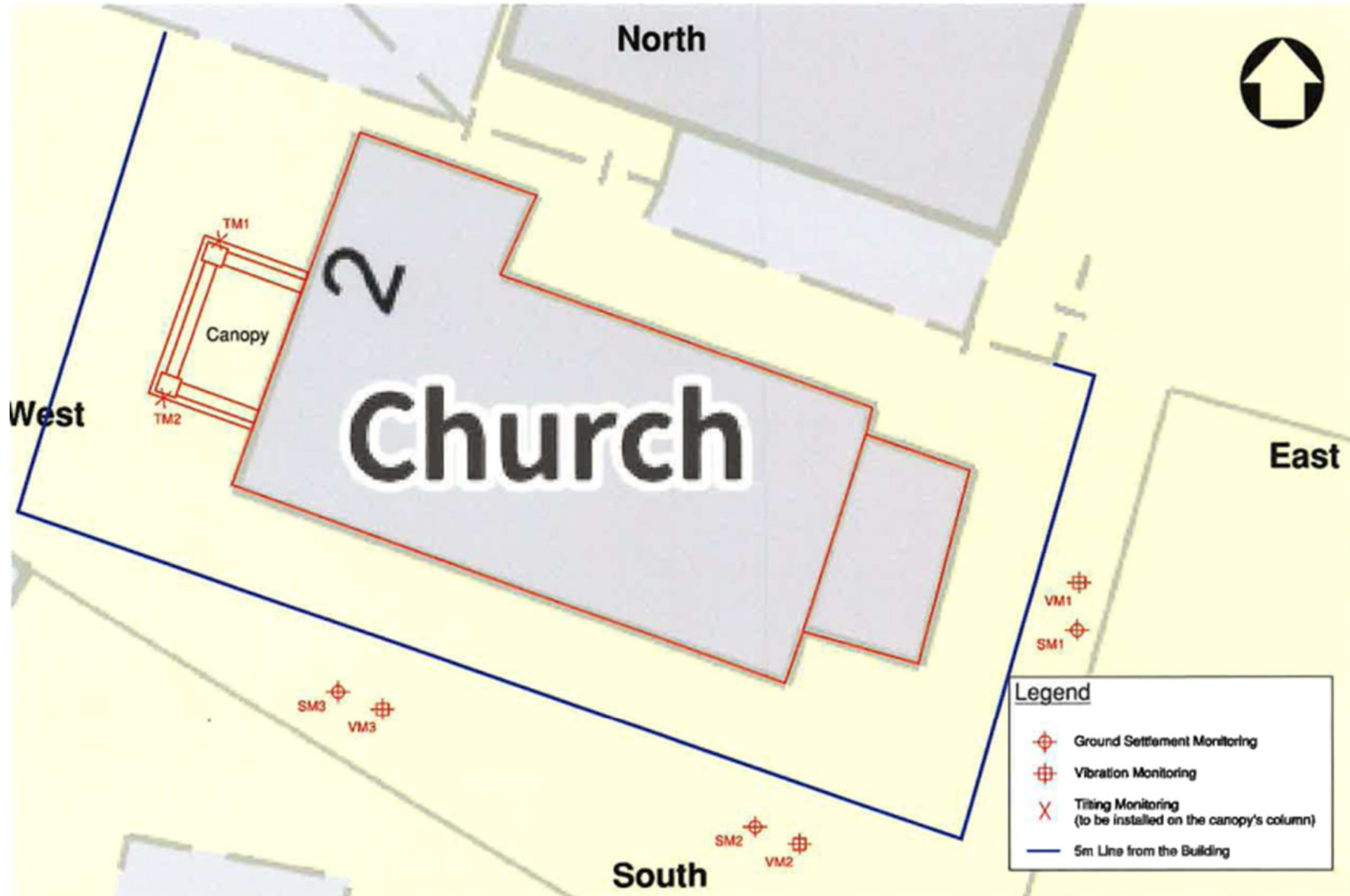


Figure 8.4 Monitoring Locations of St. John's Chapel near Tai Wo



Appendix 1.1 Construction Programme

WING TAT CIVIL ENGINEERING CO.LTD
CONTRACT NO. DC/2022/02 - DRAINAGE IMPROVEMENT WORKS AT YUEN LONG - STAGE 2
PROJECT PROGRAMME

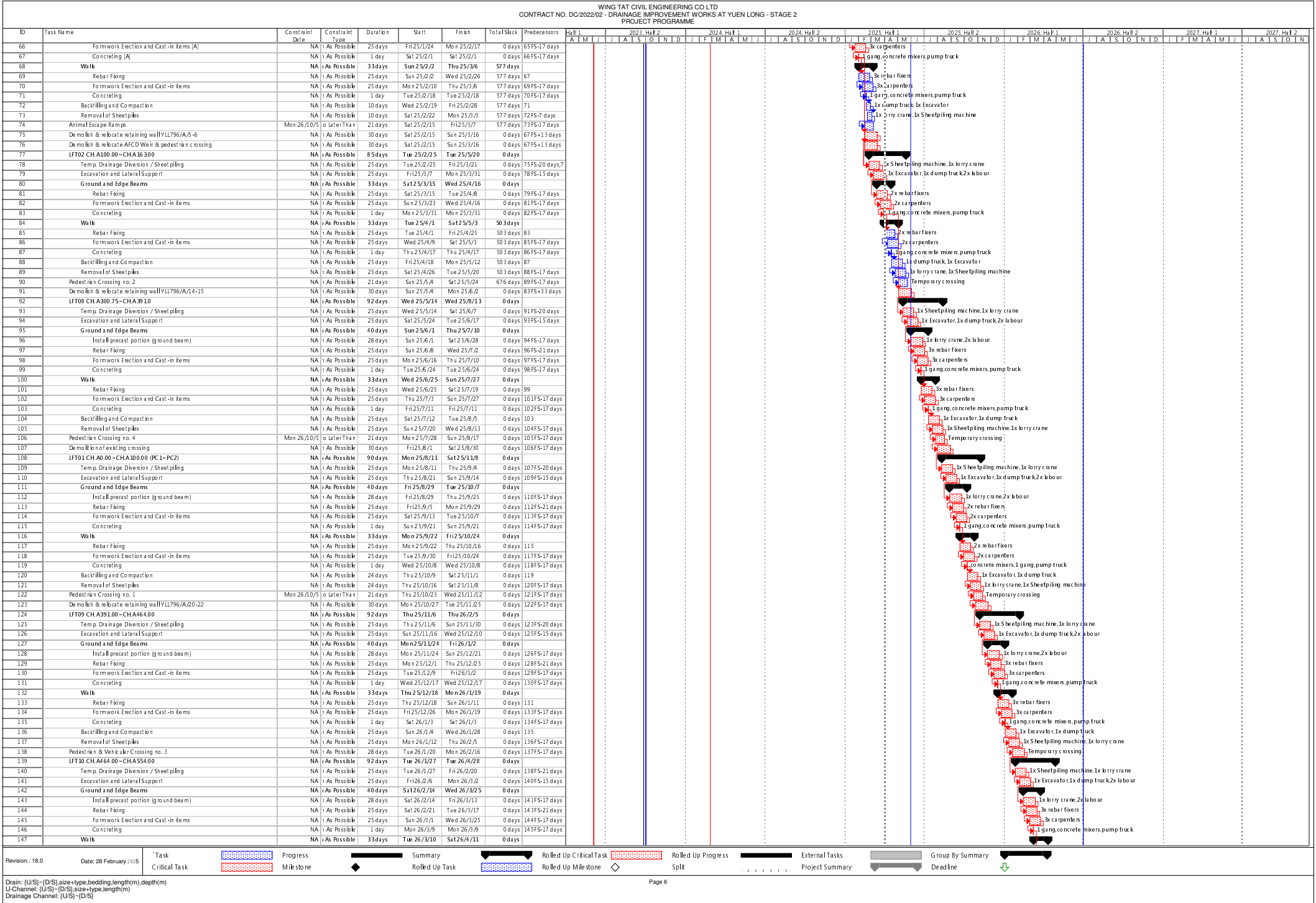
ID	Task Name	Constraint Date	Constraint Type	Duration	Start	Finish	Total Slack	Predecessors	Ha# 1	2023, Ha# 2	2024, Ha# 1	2024, Ha# 2	2025, Ha# 1	2025, Ha# 2	2026, Ha# 1	2026, Ha# 2	2027, Ha# 1	2027, Ha# 2
1	Starting date	Mon 23/5/29	Earlier Than	1 day	Mon 23/5/29	Mon 23/5/29	-5 days		A	M	J	J	A	S	O	N	D	J
2	Access date	Mon 23/5/29	As Possible	270 days	Mon 23/5/29	Fri 24/2/23	1132 days		J	F	M	A	M	J	J	A	S	O
3	Portion A	NA	As Possible	270 days	Tue 23/5/30	Fri 24/2/23	1132 days	1										
4	Portion B	NA	As Possible	210 days	Tue 23/5/30	Mon 23/12/25	1192 days	1										
5	Portion C1 & C2	NA	As Possible	270 days	Tue 23/5/30	Fri 24/2/23	1132 days	1										
6	Portion C3	NA	As Possible	0 days	Mon 23/5/29	Mon 23/5/29	1402 days	1										
7	Portion D	NA	As Possible	210 days	Tue 23/5/30	Mon 23/12/25	1192 days	1										
8	Portion E1	NA	As Possible	0 days	Mon 23/5/29	Mon 23/5/29	1402 days	1										
9	Portion E2	NA	As Possible	270 days	Tue 23/5/30	Fri 24/2/23	1132 days	1										
10	Completion Date (Extended as accepted)	NA	As Possible	1166.5 days	Tue 23/5/30	Sat 26/8/8	-5 days											
11	Section I - Drainage Improvement Works at Sung Shan New Village	Thu 26/5/28	o later Than	1095 days	Tue 23/5/30	Thu 26/5/28	0 days	1										
12	Section II - Drainage Improvement Works at Tai Wo	Tue 25/8/26	o later Than	820 days	Tue 23/5/30	Tue 25/8/26	0 days	1										
13	Section III - Drainage Improvement Works at Lin Fa Tei (except flood wall construction and drainage improvement works along Kam Sheung Road)	NA	As Soon As Possible	1166.5 days	Tue 23/5/30	Sat 26/8/8	-3 days											
14	Original	NA	As Possible	1155 days	Tue 23/5/30	Mon 26/7/27	-3 days	14										
15	EOT - Inclement weather (CL 60.1 (13)(k)(v))	Sat 26/8/8	o later Than	11.5 days	Tue 26/7/28	Sat 26/8/8	-3 days	14										
16	Section IV - Drainage Improvement Works at Ha Che (except pipe laying works by trenchless method and pipe rehabilitation works across Fan Kam Road)	NA	As Soon As Possible	1108.5 days	Tue 23/5/30	Thu 26/6/11	-5 days											
17	Original	NA	As Possible	1095 days	Tue 23/5/30	Thu 26/5/28	-5 days	1										
18	EOT - Inclement weather (CL 60.1 (13)(k)(v))	Thu 26/6/11	o later Than	13.5 days	Fri 26/5/29	Thu 26/6/11	-5 days	17										
19	Section V - Drainage Improvement Works at Shen Ha Tsuen	NA	As Possible	982 days	Tue 23/5/30	Wed 26/2/4	-5 days											
20	Original	NA	As Possible	973 days	Tue 23/5/30	Mon 26/1/26	-5 days	1										
21	EOT - Inclement weather (CL 60.1 (13)(k)(v))	Wed 26/2/4	o later Than	9 days	Tue 26/1/27	Wed 26/2/4	-5 days	20										
22	Section VI - Flood Wall Construction and Drainage Improvement Works along Kam Sheung Road at Lin Fa Tei	Tue 25/8/26	Finish No Later Than	820 days	Tue 23/5/30	Tue 25/8/26	0 days	1										
23	Section VII - Pipe Laying Works by Trenchless Method and Pipe Rehabilitation Works across Fan Kam Road and Upstream Channel and Downstream Box Culvert Construction Works (Chaining 626.224m - 678.839m) at Ha Che	Tue 25/8/26	Finish No Later Than	820 days	Tue 23/5/30	Tue 25/8/26	0 days	1										
44	Planned Completion Day of whole of the works	NA	As Possible	582 days	Tue 25/8/26	Wed 27/3/31	0 days											
45	Section I - Drainage Improvement Works at Sung Shan New Village	NA	As Possible	280 days	Fri 26/5/29	Thu 27/3/4	0 days	11										
46	EOT - Inclement weather (anticipated upto 31 Jul 2024)	Thu 26/8/6	o later Than	70 days	Fri 26/5/29	Thu 26/8/6	0 days	11										
47	EOT - Unchained/Retained Trees obstructing the works	Sun 27/1/3	o later Than	150 days	Fri 26/8/7	Sun 27/1/3	0 days	46										
48	EOT - Obstruction to Sheet Piling at CHA30 - CHA280	Thu 27/3/4	o later Than	60 days	Mon 27/1/4	Thu 27/3/4	0 days	47										
49	Section II - Drainage Improvement Works at Tai Wo	NA	As Possible	582 days	Wed 25/8/27	Wed 27/3/31	0 days	12										
50	EOT - Blockade of access by others	Wed 27/3/31	o later Than	582 days	Wed 25/8/27	Wed 27/3/31	0 days	12										
51	Section III - Drainage Improvement Works at Lin Fa Tei (except flood wall construction and drainage improvement works along Kam Sheung Road)	NA	As Soon As Possible	61.5 days	Wed 26/8/5	Mon 26/10/5	-3 days	13										
52	EOT - Inclement weather (anticipated upto 31 Jul 2024)	Mon 26/10/5	o later Than	61.5 days	Wed 26/8/5	Mon 26/10/5	-3 days	13										
53	Section IV - Drainage Improvement Works at Ha Che (except pipe laying works by trenchless method and pipe rehabilitation works across Fan Kam Road)	NA	As Soon As Possible	271.5 days	Sat 26/8/6	Thu 27/3/4	0 days											
54	EOT - Inclement weather (anticipated upto 31 Jul 2024)	Thu 26/8/6	o later Than	61.5 days	Sat 26/8/6	Thu 26/8/6	-5 days	16										
55	EOT - Additional request from End User of HC06/07	Sun 27/1/3	o later Than	150 days	Fri 26/8/7	Sun 27/1/3	0 days	54										
56	EOT - Additional Trees behind Arbutus of HC04	Thu 27/3/4	o later Than	60 days	Mon 27/1/4	Thu 27/3/4	0 days	55										
57	Section V - Drainage Improvement Works at Shen Ha Tsuen	NA	As Possible	66 days	Sat 26/1/31	Mon 26/4/6	0 days	19										
58	EOT - Inclement weather (anticipated upto 31 Jul 2024)	Mon 26/4/6	o later Than	66 days	Sat 26/1/31	Mon 26/4/6	-5 days	19										
59	Section VI - Flood Wall Construction and Drainage Improvement Works along Kam Sheung Road at Lin Fa Tei	NA	As Soon As Possible	400 days	Wed 25/8/27	Wed 26/9/30	0 days	22										
60	EOT - Difficulty/Inaccessibility for construction of 1650mm dia. pipe at Kam Sheung Road at Lin Fa Tei	Wed 26/9/30	o later Than	400 days	Wed 25/8/27	Wed 26/9/30	0 days	22										
61	Section VII - Pipe Laying Works by Trenchless Method and Pipe Rehabilitation Works across Fan Kam Road and Upstream Channel and Downstream Box Culvert Construction Works (Chaining 626.224m - 678.839m) at Ha Che	NA	As Soon As Possible	0 days	Tue 25/8/26	Tue 25/8/26	582 days	23										
62																		
63	Project establishment	NA	As Possible	307 days	Mon 23/5/15	Sat 24/3/16	0 days											
64	Project Manager's Accommodation	NA	As Possible	209 days	Mon 23/8/21	Sat 24/3/16	1110 days	1F5-1 day										
65	PM001 - Possession of Works Area at 22 Fan Kam road [A]	Fri 23/9/1	Earlier Than	1 day	Fri 23/8/1	Fri 23/9/1	1110 days											
66	Renovation and Certification of ex. PM accommodation [A]	NA	As Possible	197 days	Sat 23/9/2	Sat 24/3/16	1110 days											
67	Inspection and review of ex. PM accommodation [A]	NA	As Possible	100 days	Sat 23/9/2	Sun 23/12/10	1110 days	65										
68	Arranging time slot with RSS for power and sewer down [A]	NA	As Possible	83 days	Mon 23/12/11	Sat 24/3/2	1110 days	67										
69	Issuance of check certificates [A]	NA	As Possible	14 days	Sun 24/3/3	Sat 24/3/16	1110 days	68										
70	C11 Tendering procedure for EDMS & DWSS [A]	Mon 23/8/21	Earlier Than	30 days	Mon 23/8/21	Tue 23/9/19	1249 days	70										
71	Installation and commissioning of EDMS & DWSS [A]	NA	As Possible	40 days	Wed 23/9/20	Sun 23/10/29	1249 days	70										
72	Environmental Team (ET) procurement	NA	As Possible	190 days	Tue 23/8/15	Tue 24/2/20	0 days											
73	C9 Tendering procedure [A]	Tue 23/8/15	Earlier Than	58 days	Tue 23/8/15	Wed 23/10/11	0 days											
74	Commencement for ET (Auction) [A]	NA	As Possible	1 day	Thu 23/10/12	Thu 23/10/12	0 days	73										
75	Proposal and Acceptance of ET Members [A]	NA	As Possible	18 days	Fri 23/10/13	Mon 23/10/30	0 days	74										
76	Updating and Acceptance of EM&A Manual [A]	NA	As Possible	23 days	Tue 23/10/31	Wed 23/11/22	0 days	75										
77	Notice of Commencement of Construction to EPD [A]	NA	As Possible	90 days	Thu 23/11/23	Tue 24/2/20	0 days	76										
78	Complete necessary submissions to EPD [A]	NA	As Possible	20 days	Thu 24/2/1	Tue 24/2/20	1135 days	77 FF										
83	Setup Public Liaison Team	NA	As Possible	120 days	Mon 23/5/15	Mon 23/9/11	0 days											
84	Recruitment of Public Liaison Officer [A]	NA	As Possible	90 days	Mon 23/5/15	Sat 23/8/12	0 days											
85	Appointment and Acceptance of Public Liaison Officer [A]	NA	As Possible	30 days	Sun 23/8/13	Mon 23/9/11	0 days	84										
93	Works Area establishment	NA	As Possible	44 days	Fri 23/9/1	Sat 23/10/14	15 days											
94	PM001 - Possession of Works Area at 22 Fan Kam road [A]	Fri 23/9/1	Earlier Than	1 day	Fri 23/9/1	Fri 23/9/1	15 days											
95	Establish concrete haul road and subsoil [A]	NA	As Possible	43 days	Sat 23/9/2	Sat 23/10/14	1264 days	94										
96	Contractor's Accommodation office and welfare facilities	NA	As Possible	145 days	Sat 23/9/2	Wed 24/1/24	15 days											
97	Establish temporary site office (containers) [A]	NA	As Possible	24 days	Sat 23/9/2	Mon 23/9/25	15 days	94										
105	C9 Tendering procedure for Contractor's Site Office [A]	NA	As Possible	28 days	Sat 23/9/2	Fri 23/9/29	1162 days	94										
106	Proposal and Acceptance of Temp. Works Design and Method Statement [A]	NA	As Possible	35 days	Sat 23/9/30	Fri 23/11/3	1162 days	105										
107	Construction of Roofing [A]	NA	As Possible	15 days	Sat 23/11/4	Sat 23/11/18	1162 days	106										
108	Construction of Structure [A]	NA	As Possible	45 days	Sun 23/11/9	Tue 24/1/2	1162 days	107										
109	Inter-shipment and Furnitures [A]	NA	As Possible	15 days	Wed 24/1/3	Wed 24/1/17	1162 days	108										
110	Move-in [A]	NA	As Possible	7 days	Thu 24/1/18	Wed 24/1/24	1162 days	109										
111																		
112	Section I	NA	As Possible	1375 days	Tue 23/5/30	Thu 27/3/4	0 days											
2	access date of Portion A	Fri 24/2/23	o later Than	270 days	Tue 23/5/30	Fri 24/2/23	0 days											
3	Period of section I (Sung Shan New Village)	NA	As Possible	1095 days	Tue 23/5/30	Thu 26/5/28	0 days											

Task Name	Constraint Date	Constraint Type	Duration	Start	Finish	TotalSlct	Predecessors	Ha# 1	2023 Ha# 2	2024 Ha# 1	2024 Ha# 2	2025 Ha# 1	2025 Ha# 2	2026 Ha# 1	2026 Ha# 2	2027 Ha# 1	2027 Ha# 2
4	Extended Completion Day	NA	As Possible	0 days	Thu 26/5/28	Thu 26/5/28	307 days	3									
5	Planned Completion Day	Thu 27/3/4	o laterThan	280 days	Fri 26/5/29	Thu 27/3/4	0 days	3									
6	Early access (partial) [A]	NA	As Possible	200 days	Tue 23/5/30	Fri 23/12/15	70 days	1	Wing Tat Nas0								
7	Site Establishment	NA	As Possible	878 days	Tue 23/9/12	Thu 26/2/5	0 days										
8	Prepare and Accept Temp. Works Design and Method Statement	NA	As Possible	864 days	Tue 23/9/26	Thu 26/2/5	224 days	1	Wing Tat Nas0								
9	Public Liaison and Negotiation with Village Rep.	NA	As Possible	164 days	Tue 23/9/12	Thu 24/2/22	0 days	1	Wing Tat Nas0								
10	Initial Survey	NA	As Possible	714 days	Fri 24/2/23	Thu 26/2/5	224 days	9	6 FS-1 day								
11	Initial Safety & Environmental measures [A]	NA	As Possible	21 days	Fri 24/2/23	Thu 24/3/14	0 days	9	6 FS-1 day								
14	Setup of Instrumentation and monitoring [A]	Thu 27/3/4	o laterThan	28 days	Fri 24/3/15	Thu 24/4/11	1057 days	11									
16	EIAO Commencement of Construction [A]	NA	As Possible	1 day	Wed 24/2/21	Wed 24/2/21	1107 days	1	Wing Tat Nas0								
17	Environmental Baseline Monitoring [A]	NA	As Possible	28 days	Tue 24/3/15	Mon 24/2/19	1136 days	16	FS-10 days								
18	Condition Survey [A]	NA	As Possible	28 days	Fri 24/3/15	Thu 24/4/11	0 days	11									
19	Vegetation Survey [A]	NA	As Possible	28 days	Fri 24/3/15	Thu 24/4/11	0 days	11									
20	Tree Survey [A]	NA	As Possible	28 days	Fri 24/3/15	Thu 24/4/11	0 days	11									
21	Site Clearance [A]	NA	As Possible	60 days	Fri 24/4/12	Mon 24/6/10	0 days	18	19,20								
22	[PMI-02] TPRP/Additional Trees (impact to be ascertained)	NA	As Possible	90 days	Sun 24/5/12	Fri 24/6/9	0 days	21	FS-10 days								
23	[PMI-03] Aquatic Sinensis seedling (impact to be ascertained)	Thu 27/3/4	o laterThan	60 days	Sun 24/5/12	Wed 24/7/10	967 days	21	FS-10 days								
24	UU detection	NA	As Possible	30 days	Sun 24/5/12	Mon 24/6/10	30 days	21	FS-10 days								
25	Establish access(es) to channels [A]	NA	As Possible	30 days	Sun 24/5/12	Mon 24/6/10	30 days	21	FS-10 days								
26	Guarding / Barrier / Hoarding [A]	NA	As Possible	30 days	Tue 24/6/11	Wed 24/7/10	30 days	25	24								
27	Drainage Channel Works	NA	As Possible	937 days	Sat 24/8/10	Thu 27/3/4	0 days										
28	Excavate & Backfill ex. Unmagnetised feature [A]	NA	As Possible	20 days	Sat 24/8/10	Thu 24/8/29	0 days	26	22								
29	Rebate/Direct ex. Utilities [A]	NA	As Possible	20 days	Sat 24/8/10	Thu 24/8/29	0 days	26	22								
30	Demolish & rebate metal frame VLL796/B/9 [A]	NA	As Possible	30 days	Fri 24/8/30	Sat 24/9/28	0 days	28	29								
31	SSNV01 CH.A333.00-CHA36.100	NA	As Possible	534 days	Sun 24/9/29	Wed 24/11/20	0 days										
32	Sheet piling & Temp. Drainage Diversion [A]	NA	As Possible	20 days	Sun 24/9/29	Fri 24/10/18	0 days	30									
33	Excavation and Lateral Support [A]	NA	As Possible	20 days	Mon 24/10/7	Sat 24/10/26	0 days	32	FS-12 days								
34	Ground and Edge Beams	NA	As Possible	154 days	Tue 24/10/15	Tue 24/10/29	0 days										
35	Rebar Fixing [A]	NA	As Possible	10 days	Tue 24/10/15	Thu 24/10/24	0 days	33	FS-12 days								
36	Formwork Erection and Cast-in Items [A]	NA	As Possible	10 days	Sun 24/10/20	Tue 24/10/29	0 days	35	FS-5 days								
37	Concreting [A]	NA	As Possible	1 day	Fri 24/10/25	Fri 24/10/25											

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

ID	Task Name	Constraint Date	Constraint Type	Duration	Start	Finish	Total Slack	Predecessors		Ha#1	2023 Ha#2	2024 Ha#1	2024 Ha#2	2025 Ha#1	2025 Ha#2	2026 Ha#1	2026 Ha#2	2027 Ha#1	2027 Ha#2
		Date	Type							A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
51	HC02 CHA18-14-CHA120.261 (BC1-2)	NA	As Possible	399 days	Thu 23/10/19	Fri 24/10/11	140 days												
52	EWN/007 NC/E001 Ambiguity on Drawings	Earlier Than		30 days	Thu 23/10/19	Fri 23/1/17	1210 days												
53	C9 tender for Precast units [A]	NA	As Possible	20 days	Sat 23/11/18	Thu 23/12/7	1210 days	52											
54	Sheet piling & Temp. Drainage Diversion [A]	NA	As Possible	44 days	Thu 24/3/7	Fri 24/4/19	0 days	50											
55	Excavation and Lateral Support [A]	NA	As Possible	44 days	Tue 24/4/2	Wed 24/5/15	0 days	54 FS-18 days											
56	Walls	NA	As Possible	68 days	Sun 24/4/28	Thu 24/7/4	0 days												
57	Install precast portion (double beam) [A]	NA	As Possible	68 days	Sun 24/4/28	Thu 24/7/4	0 days	55 FS-18 days											
58	Ground Beams	NA	As Possible	40 days	Mon 24/6/10	Fri 24/7/19	0 days												
59	Rebar Fixing [A]	NA	As Possible	30 days	Mon 24/6/10	Tue 24/7/9	0 days	57 FS-25 days											
60	Formwork Erection and Cast-in Items [A]	NA	As Possible	30 days	Thu 24/6/20	Fri 24/7/19	0 days	59 FS-20 days											
61	Concreting [A]	NA	As Possible	14 days	Sun 24/6/30	Sat 24/7/13	0 days	60 FS-20 days											
62	Top Wall	NA	As Possible	50 days	Sun 24/7/14	Sun 24/9/1	0 days												
63	Rebar Fixing [A]	NA	As Possible	35 days	Sun 24/7/14	Sat 24/8/17	0 days	61											
64	Formwork Erection and Cast-in Items [A]	NA	As Possible	35 days	Mon 24/7/29	Sun 24/9/1	0 days	63 FS-20 days											
65	Concreting [A]	NA	As Possible	14 days	Tue 24/8/13	Mon 24/8/26	0 days	64 FS-20 days											
66	Backfilling and Compaction	NA	As Possible	30 days	Tue 24/8/27	Wed 24/9/25	0 days	65											
67	Removal of Sheetpiles	NA	As Possible	30 days	Thu 24/9/12	Fri 24/10/11	0 days	66 FS-14 days											
68	Animal Escape Ramp [A]	Later Than		28 days	Sat 24/9/28	Fri 24/10/25	130 days	67 FS-14 days											
69	Demolish & relocate to lot YL1797/5 [A]	NA	As Possible	20 days	Sat 24/10/12	Thu 24/10/31	0 days	67											
70	Demolish & relocate container YL1797/6 [A]	NA	As Possible	20 days	Sat 24/10/12	Thu 24/10/31	0 days	67											
71	Demolish & relocate porch YL1797/7 [A]	NA	As Possible	20 days	Sat 24/10/12	Thu 24/10/31	0 days	67											
72	Demolish & relocate fencing, retaining wall YL1797/10,11 [A]	NA	As Possible	20 days	Sat 24/10/12	Thu 24/10/31	0 days	67											
73	HC03 CHA126.235-CHA130 (BC2-3)	NA	As Possible	309 days	Wed 24/8/28	Wed 25/7/2	0 days												
74	[PMI-037] Removal of existing structural features protruding into Work Site	Earlier Than		25 days	Fri 24/11/1	Mon 24/11/25	0 days	69,70,71,72											
75	[PMI-040] Updated Channel Width of Drainage Channel between Chainage	Earlier Than		30 days	Wed 24/8/28	Thu 24/9/26	60 days												
76	Sheet piling & Temp. Drainage Diversion	NA	As Possible	40 days	Tue 24/11/26	Sat 25/1/4	0 days	74,75											
77	Excavation and Lateral Support	NA	As Possible	40 days	Sun 24/12/22	Thu 25/1/30	0 days	76 FS-14 days											
78	Ground Beams	NA	As Possible	66 days	Fri 25/1/17	Sun 25/3/23	0 days												
79	Rebar Fixing	NA	As Possible	40 days	Fri 25/1/17	Tue 25/2/25	0 days	77 FS-14 days											
80	Formwork Erection and Cast-in Items	NA	As Possible	40 days	Wed 25/2/12	Sun 25/3/23	0 days	79 FS-14 days											
81	Concreting	NA	As Possible	14 days	Mon 25/3/10	Sun 25/3/23	0 days	80 FS-14 days											
82	Wall	NA	As Possible	66 days	Mon 25/3/24	Wed 25/5/28	0 days												
83	Rebar Fixing	NA	As Possible	40 days	Mon 25/3/24	Fri 25/5/2	0 days	81											
84	Formwork Erection and Cast-in Items	NA	As Possible	40 days	Sat 25/4/19	Wed 25/5/28	0 days	83 FS-14 days											
85	Concreting	NA	As Possible	14 days	Thu 25/5/15	Wed 25/5/28	0 days	84 FS-14 days											
86	Backfilling and Compaction	NA	As Possible	25 days	Thu 25/5/29	Sun 25/6/22	0 days	85											
87	Removal of Sheetpiles	NA	As Possible	20 days	Fri 25/6/13	Wed 25/7/2	0 days	86 FS-10 days											
88	[PMI-16] Revised Drainage Channel Details	Earlier Than		90 days	Tue 24/7/23	Sun 24/10/20	255 days												
89	[NCExco] Additional Trees behind Arbutus	NA	As Possible	120 days	Sat 24/10/26	Sat 25/2/22	130 days	68											
90	HC04 CHA195.853-CHA284.946 (BC3-Ex-CH)	NA	As Possible	300 days	Thu 25/7/3	Tue 26/4/28	0 days												
91	Sheet piling & Temp. Drainage Diversion	NA	As Possible	50 days	Thu 25/7/3	Thu 25/8/21	0 days	88,89,87											
92	Excavation and Lateral Support	NA	As Possible	50 days	Thu 25/8/7	Thu 25/9/25	0 days	91 FS-15 days											
93	Ground and Edge Beams	NA	As Possible	8.5 days	Thu 25/9/11	Thu 25/12/4	0 days												
94	Rebar Fixing	NA	As Possible	50 days	Thu 25/9/11	Thu 25/10/30	0 days	92 FS-15 days											
95	Formwork Erection and Cast-in Items	NA	As Possible	50 days	Thu 25/10/16	Thu 25/12/4	0 days	94 FS-15 days											
96	Concreting	NA	As Possible	15 days	Thu 25/11/20	Thu 25/12/4	0 days	95 FS-15 days											
97	Walls	NA	As Possible	8.5 days	Fri 25/12/5	Fri 26/2/27	0 days												
98	Rebar Fixing	NA	As Possible	50 days	Fri 25/12/5	Fri 26/1/23	0 days	96											
99	Formwork Erection and Cast-in Items	NA	As Possible	50 days	Fri 26/1/9	Fri 26/2/27	0 days	98 FS-15 days											
100	Concreting	NA	As Possible	15 days	Fri 26/2/13	Fri 26/2/27	0 days	99 FS-15 days											
101	Backfilling and Compaction	NA	As Possible	40 days	Sat 26/2/28	Wed 26/4/8	0 days	100											
102	Removal of Sheetpiles	NA	As Possible	35 days	Wed 26/3/25	Tue 26/4/28	0 days	101 FS-15 days											
103	2x300 pipe with flap valve	Later Than		30 days	Tue 26/4/14	Wed 26/5/13	295 days	102 FS-15 days											
104	Demolish & relocate drainage channel YL1797/12	NA	As Possible	20 days	Tue 26/4/14	Sun 26/5/3	0 days	102 FS-15 days											
105	HC03 CHA130-CHA187.706 (BC2-3)	NA	As Possible	286 days	Mon 26/5/4	Sat 12/7/13	0 days												
106	Sheet piling & Temp. Drainage Diversion	NA	As Possible	50 days	Mon 26/5/4	Mon 26/6/22	0 days	104											
107	Excavation and Lateral Support	NA	As Possible	50 days	Tue 26/6/9	Tue 26/7/28	0 days	106 FS-14 days											
108	Ground Beams	NA	As Possible	8.5 days	Wed 26/7/15	Wed 26/10/7	0 days												
109	Rebar Fixing	NA	As Possible	50 days	Wed 26/7/15	Wed 26/9/2	0 days	107 FS-14 days											
110	Formwork Erection and Cast-in Items	NA	As Possible	50 days	Wed 26/8/19	Wed 26/10/7	0 days	109 FS-15 days											
111	Concreting	NA	As Possible	14 days	Wed 26/9/23	Tue 26/10/6	0 days	110 FS-15 days											
112	Wall	NA	As Possible	8.5 days	Wed 26/10/7	Wed 26/12/30	0 days												
113	Rebar Fixing	NA	As Possible	50 days	Wed 26/10/7	Wed 26/11/25	0 days	111											
114	Formwork Erection and Cast-in Items	NA	As Possible	50 days	Wed 26/11/11	Wed 26/12/30	0 days	113 FS-15 days											
115	Concreting	NA	As Possible	14 days	Wed 26/12/16	Tue 26/12/29	0 days	114 FS-15 days											
116	Backfilling and Compaction	NA	As Possible	30 days	Wed 26/12/30	Thu 27/1/28	0 days	115											
117	Removal of Sheetpiles	NA	As Possible	30 days	Fri 27/1/15	Sat 27/2/13	0 days	116 FS-14 days											
118	Pedestrian & Vehicle Crossing no. 1 (Box Culvert no. 3)	NA	As Possible	60 days	Sun 27/1/31	Wed 27/3/31	0 days	117 FS-14 days											
119	C9 tender procedure for HC08-08	Earlier Than		90 days	Fri 24/6/28	Wed 24/9/25	210 days												
120	Demolish & relocate metal frame YL1797/28,30,33	NA	As Possible	20 days	Thu 24/9/26	Tue 24/10/15	210 days	119											
121	Demolish & relocate storage YL1797/29	NA	As Possible	20 days	Thu 24/9/26	Tue 24/10/15	210 days	119											
122	Demolish & relocate retaining wall YL1797/32	NA	As Possible	20 days	Thu 24/9/26	Tue 24/10/15	210 days	119											
123	[NCExco] Additional Request from land owned by HC06,07	Earlier Than		225 days	Mon 24/9/16	Mon 25/4/28	0 days												
124	HC06 CHA38.556-CHA400.00	NA	As Possible	187 days	Tue 25/4/29	Sat 12/5/11	0 days												
125	Sheet piling & Temp. Drainage Diversion	NA	As Possible	35 days	Tue 25/4/29	Mon 25/6/2	0 days	120 FS-15 days											
126	Excavation and Lateral Support	NA	As Possible	35 days	Fri 25/5/16	Thu 25/6/19	0 days	123 FS-18 days											
127	Ground and Edge Beams	NA	As Possible	69 days	Mon 25/6/2	Sat 12/5/8/9	0 days												
128	Install precast portion	NA	As Possible	40 days	Mon 25/6/2	Fri 25/7/11	0 days	126 FS-18 days											
129	Rebar Fixing	NA	As Possible	35 days	Thu 25/6/19	Wed 25/7/23	0 days	128 FS-23 days											
130	Formwork Erection and Cast-in Items	NA	As Possible	35 days	Sun 25/7/6	Sat 25/8/9	0 days	129 FS-18 days											
131	Concreting	NA	As Possible	14 days	Wed 25/7/23	Tue 25/8/5	0 days	130 FS-18 days											
132	Walls	NA	As Possible	52 days	Wed 25/8/6	Fri 25/9/26	0 days												

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ID	Task Name	Constraint Date	Constraint Type	Duration	Start	Finish	Total Slack	Predecessors	2023, Hu# 2												2024, Hu# 1												2024, Hu# 2												2025, Hu# 1												2025, Hu# 2												2026, Hu# 1												2026, Hu# 2												2027, Hu# 1												2027, Hu# 2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
									A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J

[illegible]

Task Name	Constraint Date	Constraint Type	Duration	Start	Finish	Total Slack	Predecessors	HaF 1	2023, HaF 2	2024, HaF 1	2024, HaF 2	2025, HaF 1	2025, HaF 2	2026, HaF 1	2026, HaF 2	2027, HaF 1	2027, HaF 2
201	Breaking pavement	NA	6 days	Tue 25/5/6	Tue 25/5/6	45 days	200FS-2 days		A	M	J	J	A	S	O	N	D
202	Excavation and Lateral Support	NA	14 days	Mon 25/5/5	Sun 25/5/18	45 days	201FS-2 days										
203	Manhole bedding construction	NA	10 days	Sat 25/5/17	Mon 25/5/26	45 days	202FS-2 days										
204	Drain Laying	NA	10 days	Sun 25/5/25	Tue 25/6/3	45 days	203FS-2 days										
205	Manhole construction	NA	10 days	Mon 25/6/2	Wed 25/6/11	45 days	204FS-2 days										
206	Backfilling and Compaction	NA	6 days	Tue 25/6/10	Sun 25/6/15	45 days	205FS-2 days										
207	Reinstatement	NA	6 days	Mon 25/6/16	Sat 25/6/21	45 days	206										
208	TTA removal	NA	1 day	Sun 25/6/22	Sun 25/6/22	45 days	207										
209	Connection of ex. UC to SHT.A1A	Fr126/6/5	o Later Than	28 days	Mon 25/6/23	Sun 25/7/20	45 days	208									
210	SHT.CP1-SHT.A1A,550PC,8.L-4.16,D-2.06	NA	53days	Mon 25/7/21	Thu 25/9/11	45 days											
211	TTA implementation	NA	3 days	Mon 25/7/21	Wed 25/7/23	45 days	209										
212	Breaking pavement	NA	7 days	Tue 25/7/22	Mon 25/7/28	45 days	211FS-2 days										
213	Excavation and Lateral Support	NA	12 days	Sun 25/7/27	Thu 25/8/7	45 days	212FS-2 days										
214	Manhole bedding construction	NA	10 days	Wed 25/8/6	Fri 25/8/15	45 days	213FS-2 days										
215	Drain Laying	NA	10 days	Thu 25/8/14	Sat 25/8/23	45 days	214FS-2 days										
216	Manhole construction	NA	10 days	Fri 25/8/22	Sun 25/8/31	45 days	215FS-2 days										
217	Backfilling and Compaction	NA	6 days	Sat 25/8/30	Thu 25/9/4	45 days	216FS-2 days										
218	Reinstatement	NA	6 days	Fri 25/9/5	Wed 25/9/10	45 days	217										
219	TTA removal	NA	1 day	Thu 25/9/11	Thu 25/9/11	45 days	218										
220	Connection of ex. 550pipe to SHT.CP1	Fr126/6/5	o Later Than	28 days	Fri 25/9/12	Thu 25/10/9	45 days	219									
221	SHT.A1A-SHT.A01,1200PC,B.L-7.675,D-2.14	NA	47 days	Fri 25/10/10	Tue 25/11/25	45 days											
222	TTA implementation	NA	4 days	Fri 25/10/10	Mon 25/10/13	45 days	220										
223	Breaking pavement	NA	6 days	Sun 25/10/12	Fri 25/10/17	45 days	222FS-2 days										
224	Excavation and Lateral Support	NA	12 days	Thu 25/10/16	Mon 25/10/27	45 days	223FS-2 days										
225	Manhole bedding construction	NA	8 days	Sun 25/10/26	Sun 25/11/2	45 days	224FS-2 days										
226	Drain Laying	NA	8 days	Sat 25/11/1	Sat 25/11/8	45 days	225FS-2 days										
227	Manhole construction	NA	8 days	Fri 25/11/7	Fri 25/11/14	45 days	226FS-2 days										
228	Backfilling and Compaction	NA	6 days	Thu 25/11/13	Tue 25/11/18	45 days	227FS-2 days										
229	Reinstatement	NA	6 days	Wed 25/11/19	Mon 25/11/24	45 days	228										
230	TTA removal	NA	1 day	Tue 25/11/25	Tue 25/11/25	45 days	229										
231	Connection of ex. Pipe to SHT.A01	Fr126/6/5	o Later Than	28 days	Wed 25/11/26	Tue 25/12/23	45 days	230									
232	SHT.A01-SHT.A02,1500 PC,B.L-8.39,D-3.6	NA	42 days	Wed 25/12/24	Tue 26/2/3	45 days											
233	TTA implementation	NA	4 days	Wed 25/12/24	Sat 25/12/27	45 days	231										
234	Breaking pavement	NA	5 days	Fri 25/12/26	Tue 25/12/30	45 days	233FS-2 days										
235	Excavation and Lateral Support	NA	12 days	Mon 25/12/29	Fri 26/1/9	45 days	234FS-2 days										
236	Drain Laying	NA	6 days	Thu 26/1/8	Tue 26/1/13	45 days	235FS-2 days										
237	Bedding and Backfilling	NA	6 days	Mon 26/1/12	Sat 26/1/17	45 days	236FS-2 days										
238	Manhole construction	NA	8 days	Fri 26/1/16	Fri 26/1/23	45 days	237FS-2 days										
239	Backfilling and Compaction	NA	6 days	Thu 26/1/22	Tue 26/1/27	45 days	238FS-2 days										
240	Reinstatement	NA	6 days	Wed 26/1/28	Mon 26/2/2	45 days	239										
241	TTA removal	NA	1 day	Tue 26/2/3	Tue 26/2/3	45 days	240										
242	Temporary decking over ex. UC	NA	28 days	Wed 26/2/4	Tue 26/3/3	45 days	241										
243	CCTV inspection	NA	28 days	Wed 26/2/18	Tue 26/3/17	45 days	242FS-14 days										
244	Reinstatement	Fr126/6/5	o Later Than	35 days	Wed 26/3/18	Tue 26/4/21	45 days	243									
245	U-Channel Works (West)	NA	445 days	Wed 25/3/19	Sat 26/6/6	0 days											
246	End-ex. UC,450CU(G),L-70	NA	111 days	Wed 25/3/19	Mon 25/7/7	0 days											
247	Stage 1	NA	29 days	Wed 25/3/19	Wed 25/4/16	0 days											
248	Excavation and Lateral Support [A]	NA	10 days	Wed 25/3/19	Fri 25/3/28	0 days	198										
249	Formwork Erection [A]	NA	12 days	Thu 25/3/27	Mon 25/4/7	0 days	248FS-2 days										
250	Catch pit construction [A]	NA	11 days	Sun 25/4/6	Wed 25/4/16	0 days	249FS-2 days										
251	Concreting [A]	NA	1 day	Tue 25/4/15	Tue 25/4/15	0 days	250FS-2 days										
252	Stage 2	NA	29 days	Wed 25/4/16	Wed 25/5/14	0 days											
253	Excavation and Lateral Support [A]	NA	10 days	Wed 25/4/16	Fri 25/4/25	0 days	251										
254	Formwork Erection [A]	NA	12 days	Thu 25/4/24	Mon 25/5/5	0 days	253FS-2 days										
255	Catch pit construction [A]	NA	11 days	Sun 25/5/4	Wed 25/5/14	0 days	254FS-2 days										
256	Concreting [A]	NA	1 day	Tue 25/5/13	Tue 25/5/13	0 days	255FS-2 days										
257	Stage 3	NA	29 days	Wed 25/5/14	Wed 25/6/11	0 days											
258	Excavation and Lateral Support [A]	NA	10 days	Wed 25/5/14	Fri 25/5/23	0 days	256										
259	Formwork Erection [A]	NA	12 days	Thu 25/5/22	Mon 25/6/2	0 days	258FS-2 days										
260	Catch pit construction [A]	NA	11 days	Sun 25/6/1	Wed 25/6/11	0 days	259FS-2 days										
261	Concreting	NA	1 day	Tue 25/6/10	Tue 25/6/10	0 days	260FS-2 days										
262	Stage 4	NA	27 days	Wed 25/6/11	Mon 25/7/7	0 days											
263	Excavation and Lateral Support	NA	10 days	Wed 25/6/11	Fri 25/6/20	0 days	261										
264	Formwork Erection [A]	NA	11 days	Thu 25/6/19	Sun 25/6/29	0 days	263FS-2 days										
265	Catch pit construction	NA	10 days	Sat 25/6/28	Mon 25/7/7	0 days	264FS-2 days										
266	Concreting	Fr126/6/5	o Later Than	1 day	Mon 25/7/7	Mon 25/7/7	0 days	265FS-1 day									
267	SHT.CP2.5-SHT.CP2.300->900CU(G),L-11.4	NA	22 days	Tue 25/7/8	Tue 25/7/29	0 days											
268	Excavation and Lateral Support [A]	NA	6 days	Tue 25/7/8	Sun 25/7/13	0 days	266										
269	Formwork Erection [A]	NA	11 days	Sat 25/7/12	Tue 25/7/22	0 days	268FS-2 days										
270	Catch pit construction [A]	NA	9 days	Mon 25/7/21	Tue 25/7/29	0 days	269FS-2 days										
271	Concreting [A]	NA	1 day	Mon 25/7/28	Mon 25/7/28	0 days	270FS-2 days										
272	SHT.CP3-SHT.CP2.5300->900CU(G),L-66.5	NA	70 days	Tue 25/7/29	Mon 25/10/6	0 days											
273	Stage 1	NA	24 days	Tue 25/7/29	Thu 25/8/21	0 days											
274	Excavation and Lateral Support	NA	8 days	Tue 25/7/29	Tue 25/8/5	0 days	271										
275	Formwork Erection	NA	10 days	Mon 25/8/4	Wed 25/8/13	0 days	274FS-2 days										
276	Catch pit construction	NA	10 days	Tue 25/8/12	Thu 25/8/21	0 days	275FS-2 days										
277	Concreting	NA	1 day	Wed 25/8/20	Wed 25/8/20	0 days	276FS-2 days										
278	Stage 2	NA	24 days	Thu 25/8/21	Sat 25/9/13	0 days											
279	Excavation and Lateral Support	NA	8 days	Thu 25/8/21	Thu 25/8/28	0 days	277										
280	Formwork Erection	NA	10 days	Wed 25/8/27	Fri 25/9/5	0 days	279FS-2 days										
281	Catch pit construction	NA	10 days	Thu 25/9/4	Sat 25/9/13	0 days	280FS-2 days										
282	Concreting	NA	1 day	Fri 25/9/12	Fri 25/9/12	0 days	281FS-2 days										

WING TAT CIVIL ENGINEERING CO.LTD																			
CONTRACT NO. DC/2022/02 - DRAINAGE IMPROVEMENT WORKS AT YUEN LONG - STAGE 2																			
PROJECT PROGRAMME																			
ID	Task Name	Constraint Date	Constraint Type	Duration	Start	Finish	Total Slack	Predecessors	Ha# 1	2023, Ha# 2	2024, Ha# 1	2024, Ha# 2	2025, Ha# 1	2025, Ha# 2	2026, Ha# 1	2026, Ha# 2	2027, Ha# 1	2027, Ha# 2	
365	Catch pit construction	NA	As Possible	14 days	Sun 25/4/6	Sat 25/4/19	0 days	364FS-2 days	A	M	J	J	A	S	O	N	D	J	J
366	Concreting	NA	As Possible	1 day	Fri 25/4/18	Fri 25/4/18	0 days	365FS-2 days											
367	SHT.CP10-SHT.CP9,750CU(UHD-G),L=4.3	NA	As Possible	17 days	Sat 25/4/19	Mon 25/5/5	0 days												
368	Excavation and Lateral Support	NA	As Possible	6 days	Sat 25/4/19	Thu 25/4/24	0 days	366											
369	Formwork Erection	NA	As Possible	8 days	Wed 25/4/23	Wed 25/4/30	0 days	368FS-2 days											
370	Catch pit construction	NA	As Possible	7 days	Tue 25/4/29	Mon 25/5/5	0 days	369FS-2 days											
371	Concreting	NA	As Possible	1 day	Sun 25/5/4	Sun 25/5/4	0 days	370FS-2 days											
372	SHT.CP9-SHT.CP8,600CU(UHD-G),L=33.7	NA	As Possible	45 days	Mon 25/5/5	Wed 25/6/18	0 days												
373	Stage 1	NA	As Possible	24 days	Mon 25/5/5	Wed 25/5/28	0 days												
374	Excavation and Lateral Support	NA	As Possible	8 days	Mon 25/5/5	Mon 25/5/12	0 days	371											
375	Formwork Erection	NA	As Possible	10 days	Sun 25/5/11	Tue 25/5/20	0 days	374FS-2 days											
376	Catch pit construction	NA	As Possible	10 days	Mon 25/5/19	Wed 25/5/28	0 days	375FS-2 days											
377	Concreting	NA	As Possible	1 day	Tue 25/5/27	Tue 25/5/27	0 days	376FS-2 days											
378	Stage 2	NA	As Possible	22 days	Wed 25/5/28	Wed 25/6/18	0 days												
379	Excavation and Lateral Support	NA	As Possible	8 days	Wed 25/5/28	Wed 25/6/4	0 days	377											
380	Formwork Erection	NA	As Possible	10 days	Tue 25/6/3	Thu 25/6/12	0 days	379FS-2 days											
381	Catch pit construction	NA	As Possible	8 days	Wed 25/6/11	Wed 25/6/18	0 days	380FS-2 days											
382	Concreting	NA	As Possible	1 day	Tue 25/6/17	Tue 25/6/17	0 days	381FS-2 days											
383	Connection of ex.300CU to SHT.CP8	Fri 26/6/5	o later Than	28 days	Mon 25/6/16	Sun 25/7/13	327 days	382FS-2 days											
384	SHT.CP8-SHT.CP7,600CU(UHD-G),L=8.5	NA	As Possible	17 days	Wed 25/6/18	Fri 25/7/4	0 days												
385	Excavation and Lateral Support	NA	As Possible	6 days	Wed 25/6/18	Mon 25/6/23	0 days	382											
386	Formwork Erection	NA	As Possible	8 days	Sun 25/6/22	Sun 25/6/29	0 days	385FS-2 days											
387	Catch pit construction	NA	As Possible	7 days	Sat 25/6/28	Fri 25/7/4	0 days	386FS-2 days											
388	Concreting	NA	As Possible	1 day	Thu 25/7/3	Thu 25/7/3	0 days	387FS-2 days											
389	Reconstruction of U/S end wall	Fri 26/6/5	o later Than	21 days	Wed 25/7/2	Tue 25/7/22	318 days	388FS-2 days											
390	SHT.CP7-SHT.CP6,600CU(UHD-G),L=130.8	NA	As Possible	141 days	Fri 25/7/4	Fri 25/11/21	0 days												
391	Stage 1	NA	As Possible	29 days	Fri 25/7/4	Fri 25/8/1	0 days												
392	Excavation and Lateral Support	NA	As Possible	10 days	Fri 25/7/4	Sun 25/7/13	0 days	388											
393	Formwork Erection	NA	As Possible	12 days	Sat 25/7/12	Wed 25/7/23	0 days	392FS-2 days											
394	Catch pit construction	NA	As Possible	11 days	Tue 25/7/22	Fri 25/8/1	0 days	393FS-2 days											
395	Concreting	NA	As Possible	1 day	Thu 25/7/31	Thu 25/7/31	0 days	394FS-2 days											
396	Stage 2	NA	As Possible	29 days	Fri 25/8/1	Fri 25/9/29	0 days												
397	Excavation and Lateral Support	NA	As Possible	10 days	Fri 25/8/1	Sun 25/8/10	0 days	395											
398	Formwork Erection	NA	As Possible	12 days	Sat 25/8/9	Wed 25/8/20	0 days	397FS-2 days											
399	Catch pit construction	NA	As Possible	11 days	Tue 25/8/19	Fri 25/8/29	0 days	398FS-2 days											
400	Concreting	NA	As Possible	1 day	Thu 25/8/28	Thu 25/8/28	0 days	399FS-2 days											
401	Stage 3	NA	As Possible	29 days	Fri 25/8/29	Fri 25/9/26	0 days												
402	Excavation and Lateral Support	NA	As Possible	10 days	Fri 25/8/29	Sun 25/9/7	0 days	400											
403	Formwork Erection	NA	As Possible	12 days	Sat 25/9/6	Wed 25/9/17	0 days	402FS-2 days											
404	Catch pit construction	NA	As Possible	11 days	Tue 25/9/16	Fri 25/9/26	0 days	403FS-2 days											
405	Concreting	NA	As Possible	1 day	Thu 25/9/25	Thu 25/9/25	0 days	404FS-2 days											
406	Stage 4	NA	As Possible	29 days	Fri 25/9/26	Fri 25/10/24	0 days												
407	Excavation and Lateral Support	NA	As Possible	10 days	Fri 25/9/26	Sun 25/10/5	0 days	405											
408	Formwork Erection	NA	As Possible	12 days	Sat 25/10/4	Wed 25/10/15	0 days	407FS-2 days											
409	Catch pit construction	NA	As Possible	11 days	Tue 25/10/14	Fri 25/10/24	0 days	408FS-2 days											
410	Concreting	NA	As Possible	1 day	Thu 25/10/23	Thu 25/10/23	0 days	409FS-2 days											
411	Stage 5	NA	As Possible	29 days	Fri 25/10/24	Fri 25/11/21	0 days												
412	Excavation and Lateral Support	NA	As Possible	10 days	Fri 25/10/24	Sun 25/11/2	0 days	410											
413	Formwork Erection	NA	As Possible	12 days	Sat 25/11/1	Wed 25/11/2	0 days	412FS-2 days											
414	Catch pit construction	NA	As Possible	11 days	Tue 25/11/11	Fri 25/11/21	0 days	413FS-2 days											
415	Concreting	NA	As Possible	1 day	Thu 25/11/20	Thu 25/11/20	0 days	414FS-2 days											
416	Connection of ex.400CU to SHT.CP6	Fri 26/6/5	o later Than	28 days	Wed 25/11/19	Tue 25/12/6	171 days	415FS-2 days											
417	SHT.CP6-SHT.CP5,600CU(UHD-G),L=24.1	NA	As Possible	36 days	Fri 25/11/21	Fri 25/12/26	0 days												
418	Excavation and Lateral Support	NA	As Possible	13 days	Fri 25/11/21	Wed 25/12/3	0 days	415											
419	Formwork Erection	NA	As Possible	14 days	Tue 25/12/2	Mon 25/12/5	0 days	418FS-2 days											
420	Catch pit construction	NA	As Possible	13 days	Sun 25/12/14	Fri 25/12/26	0 days	419FS-2 days											
421	Concreting	NA	As Possible	1 day	Thu 25/12/25	Thu 25/12/25	0 days	420FS-2 days											
422	Connection of ex.400CU to SHT.CP5	Fri 26/6/5	o later Than	28 days	Wed 25/12/24	Tue 26/1/20	136 days	421FS-2 days											
423	SHT.CP5-SHT.CP4,600CU(UHD-G),L=73.9	NA	As Possible	85 days	Fri 25/12/26	Fri 26/3/20	0 days												
424	Stage 1	NA	As Possible	29 days	Fri 25/12/26	Fri 26/1/23	0 days												
425	Excavation and Lateral Support	NA	As Possible	10 days	Fri 25/12/26	Sun 26/1/4	0 days	421											
426	Formwork Erection	NA	As Possible	12 days	Sat 26/1/3	Wed 26/1/14	0 days	425FS-2 days											
427	Catch pit construction	NA	As Possible	11 days	Tue 26/1/13	Fri 26/1/23	0 days	426FS-2 days											
428	Concreting	NA	As Possible	1 day	Thu 26/1/22	Thu 26/1/22	0 days	427FS-2 days											
429	Stage 2	NA	As Possible	29 days	Fri 26/1/23	Fri 26/2/20	0 days												
430	Excavation and Lateral Support	NA	As Possible	10 days	Fri 26/1/23	Sun 26/2/1	0 days	428											
431	Formwork Erection	NA	As Possible	12 days	Sat 26/1/31	Wed 26/2/11	0 days	430FS-2 days											
432	Catch pit construction	NA	As Possible	11 days	Tue 26/2/10	Fri 26/2/20	0 days	431FS-2 days											
433	Concreting	NA	As Possible	1 day	Thu 26/2/19	Thu 26/2/19	0 days	432FS-2 days											
434	Stage 3	NA	As Possible	29 days	Fri 26/2/20	Fri 26/3/20	0 days												
435	Excavation and Lateral Support	NA	As Possible	10 days	Fri 26/2/20	Sun 26/3/1	0 days	433											
436	Formwork Erection	NA	As Possible	12 days	Sat 26/2/28	Wed 26/3/11	0 days	435FS-2 days											
437	Catch pit construction	NA	As Possible	11 days	Tue 26/3/10	Fri 26/3/20	0 days	436FS-2 days											
438	Concreting	NA	As Possible	1 day	Thu 26/3/19	Thu 26/3/19	0 days	437FS-2 days											
439	Connection of ex.450CU to SHT.CP4	Fri 26/6/5	o later Than	28 days	Wed 26/3/18	Tue 26/4/14	52 days	438FS-2 days											
440	SHT.CP4-End.525CU(UHD-G),L=82.3	NA	As Possible	78 days	Fri 26/3/20	Fri 26/6/5	0 days												
441	Stage 1	NA	As Possible	27 days	Fri 26/3/20	Wed 26/4/15	0 days												
442	Excavation and Lateral Support	NA	As Possible	10 days	Fri 26/3/20	Sun 26/3/29	0 days	438,124,127											
443	Formwork Erection	NA	As Possible	11 days	Sat 26/3/28	Tue 26/4/7	0 days	442FS-2 days											
444	Catch pit construction	NA	As Possible	10 days	Mon 26/4/6	Wed 26/4/15	0 days	443FS-2 days											
445	Concreting	NA	As Possible	1 day	Tue 26/4/14	Tue 26/4/14	0 days	444FS-2 days											
446	Stage 2	NA	As Possible	27 days	Wed 26/4/15	Mon 26/5/11	0 days												
<div>Revision: 18.0 Date: 28 February 2025 Task Critical Task Progress Milestone Summary Rolled Up Task Rolled Up Milestone Rolled Up Critical Task Rolled Up Progress Split External Tasks Project Summary Group By Summary Deadline </div> <div>Drain: (U/S)-(D/S),size+type,bedding,length(m),depth(m) U-Channel: (U/S)-(D/S),size+type,length(m) Drainage Channel: (U/S)-(D/S)</div>																			

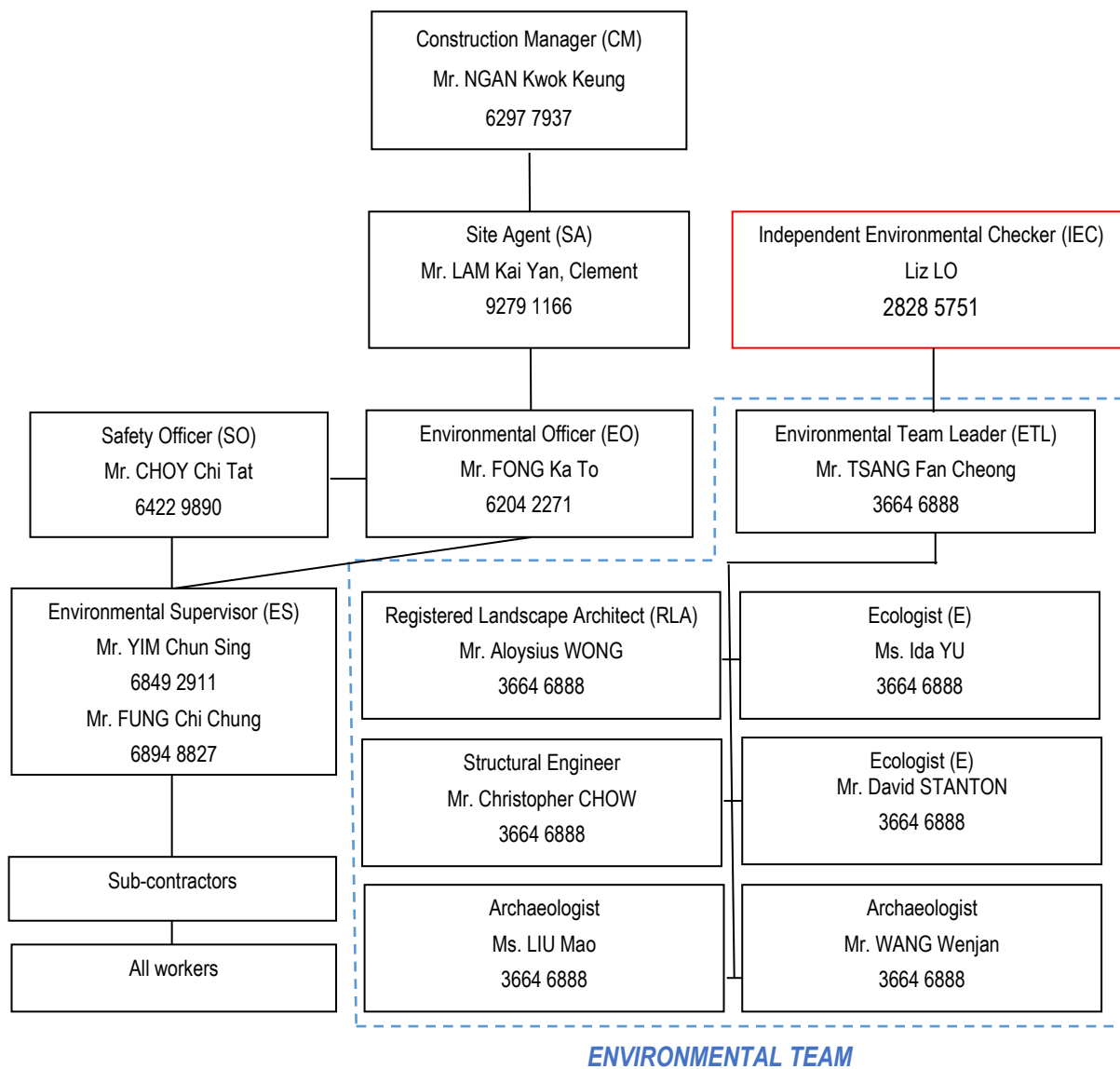
Appendix 1.2 Project Organization Chart

Wing Tat Civil Engineering Co. Ltd

Contract No. : DC/2022/02

Drainage Improvement Works at Yuen Long – Stage 2

Organization Chart of Environmental Management (updated on 12-06-2024)



Appendix 1.3 Implementation Status of Environmental Mitigation Measure

Air Quality Impact Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Construction Phase								
S.3.8.1	S.3.2.3	All the dust control measures as recommended in the Air Pollution Control (Construction Dust) Regulation, where applicable, should be implemented. Typical dust control measures include:	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> Proper and regular watering should be provided for all exposed and excavated work sites. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> All excavated or stockpile of dusty materials should be entirely covered by impervious sheeting or sprayed with water to ensure that the entire surface is wet. They should be sprayed with water immediately prior to any loading or transfer activities. These materials should be removed, backfilled or reinstated where practicable. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> After the removal of stockpiles, the remaining dusty material should be sprayed with water and cleared from the surface of roads. Stockpiling areas of dusty materials should not be extended beyond the pedestrian barriers, fencing or traffic cones. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> At locations with proposed open excavation and reinstatement works, hoarding of not less than 2.4 m from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. The contractor should ensure that the hoardings are well maintained throughout the entire construction period. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> Vehicles used for the transportation of dusty materials/ spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> Vehicle wheel washing facilities will be provided at exit of the works site. The areas where vehicle wheel washing activities are carried out and the section of the construction site between the vehicle washing facilities and the exit should be paved with concrete or bituminous materials. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> Where possible, routing of vehicles and position of construction plant should be at the maximum possible distance from ASRs. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> All demolished materials that may generate dust should be covered entirely by impervious sheeting or placed in a covered area with the top and three sides enclosed within a day of demolition. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> At construction works areas where demolition takes place, water or dust suppression chemicals should be sprayed prior to, during and immediately after the demolition activities to ensure that the top surface remains wet. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Annex 4 and Annex 12 of EIAO -TM, Air Pollution Control (Construction Dust) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> The requirements stipulated in the Development Bureau Technical Circular (Works) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness should be followed as far as practicable to enhance the cleanliness and tidiness of construction sites. 	Air Quality (fugitive dust) Control during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Development Bureau Technical Circular (Works) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> NRMMs should be approved or exempted with a label issued by EPD. The label should be displayed at a conspicuous position of the machine or vehicle. Nonroad vehicles are required to meet the Euro V emission standards and smoke requirements as stipulated under the Air Pollution Control (Vehicle Design Standards) (Emission) Regulation. 	Emission from NRMM during Construction Phase	Contractor(s)	At all construction areas of the site during the entire construction period	Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.3.8.1	S.3.2.3	<ul style="list-style-type: none"> The works at overlapping section are recommended to be scheduled to avoid works at the areas near Fan Kam Road. The Contractor shall liaise with No. CE 61/2012 (HY) – Improvement to Fan Kam Road – Investigation contractors so as to avoid undertaking works concurrently with the works from CE 61/2012 Project when they are in the close proximity. As a conservative approach, works for drainage improvement shall be carried when the works from the No. CE 61/2012 project is over 500 m away. 	Prevent potential cumulative construction air quality impacts	Contractor(s)	At all construction areas of the site for Ha Che during the entire construction period	-	Implemented	HC: 20 Feb 2024

Remarks:

1. "HC" equal to Ha Che
2. "LFT" equal to Lin Fa Tei
3. "SSNV" equal to Sung Shan New Village
4. "TW" equal to Tai Wo

Noise Impact – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
Construction Phase									
S.4.6.6	S. 4.8.1	Use of quiet PME and smaller sized of PMEs as practicable.	Noise control during construction	Contractor(s)	Construction areas near the specified locations during the construction period	EIAO-TM and NCO	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	
S.4.6.7	S. 4.8.1	Use of quiet PME for generator, mobile crane and excavator, wheeled/ tracked.	Noise control during construction	Contractor(s)	Construction areas near the specified locations during the construction period	EIAO-TM and NCO	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	
S.4.6.8	S. 4.8.1	The Contractor should be responsible for the design of temporary/ movable noise barriers with consideration of the size of PME and the requirements of intercepting the line of sight between the noise sensitive receivers and PME.	Noise control during construction	Contractor(s)	Construction areas near the specified locations during the construction period	EIAO-TM and NCO	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	The mitigation measures of utilising material stockpiles and other structures as noise barriers, is not applicable to the construction areas.

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
S.4.7.1	S. 4.8.1	<ul style="list-style-type: none"> The Contractor shall adopt the Code of Practice on Good Management Practice to Prevent Violation of the NCO (Cap. 400) (for Construction Industry) published by the EPD; The Contractor shall observe and comply with the statutory and non-statutory requirements and guidelines; Before commencing any work, the Contractor shall submit to the Environmental Review for approval the method of working, equipment and noise mitigation measures intended to be used at the site; The Contractor shall devise and execute working methods to minimise the noise impact on the identified surrounding sensitive uses, and provide experienced personnel with suitable training to ensure that those methods are implemented; Noisy equipment and noisy activities should be located as far away from the NSR's as is practical; 	Noise control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	EIAO-TM and NCO	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
S.4.7.1	S. 4.8.1	<ul style="list-style-type: none"> Machines and plant (such as dump truck, vibratory compactor, lorry, cranes) that may be intermitted use should be shut down between work periods or should be throttled down to a minimum. Additionally, the combined use of noisy equipment/ machines should be avoided, when possible; Only well-maintained plant should be operated on-site and plants should be serviced regularly during the construction programme; Silencers, mufflers or acoustic treatment mats on construction equipment should be utilised and properly maintained during the construction duration; Plants known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and Material stockpiles and other structures should be effectively utilised as noise barriers, where practicable. 	Noise control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	EIAO-TM and NCO	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	

Drainage Improvement Works Near Four Villages in Yuen Long –
Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
Monthly EM&A Report
Environmental Mitigation Implementation Schedule (EMIS)



EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
S.4.7.2	S. 4.8.1	The Contractor shall, from time to time, be aware of the noise impacts on the surrounding NSRs through adequate noise monitoring during the works so that adjustments can be made to the number of plants used for any construction activity and the corresponding plant positioning. These requirements shall be incorporated into the project works contract.	Noise control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	EIAO-TM and NCO	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	

Remarks:

1. "HC" equal to Ha Che
2. "LFT" equal to Lin Fa Tei
3. "SSNV" equal to Sung Shan New Village
4. "TW" equal to Tai Wo

Ecological Impact – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Construction Phase								
S.5.9.2	S.5.2.1	The section of watercourse with construction activities should be hydrologically isolated from the rest of the watercourse as far as practicable (except discharge of treated runoff).	Ecological – to avoid and minimize the spatial impact/ disturbance to the riverine habitat	Contractor(s)	During construction at all sites	EIA, contractual requirements	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.5.9.2	S.5.2.1	The staged construction activities should be commenced from upstream and progresses toward the downstream area and the reinstatement work especially the planting of riparian vegetation should also be undertaken in stages and commenced as soon as the hardscape work completed in the working section	Ecological – to avoid and minimize the spatial impact and shorten the temporal disturbance to the riverine habitat	Contractor(s)	During construction at all sites	EIA, contractual requirements	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.5.9.3	S.5.2.2	Good Site Practice <ul style="list-style-type: none"> Effective implementation of an Environmental Management Systems in accordance with the ISO 14001 for all work sites; Effective implementation of mitigation measures recommended for dust suppression, noise reduction, as well as water quality and waste management as detailed in other sections of the EIA Report. 	Ecological – to avoid or minimize the potential disturbance to the habitats and wildlife inhabited within or adjacent to the work sites	Contractor(s)	During construction at all sites	EIA, contractual requirements	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.5.9.3	S.5.2.2	<ul style="list-style-type: none"> Effective implementation of the Tree Preservation Measures as detailed in the guidelines published by the Tree Management Office. Staff awareness training on the ecological importance of the riverine habitats and inhabited wildlife, as well as briefing on the mitigation measures recommended in the EIA Report. Well defined and fenced Work Area to prevent intentional or accidental encroachment or trespassing into the adjacent habitats for access, parking and operation of plants/ machineries, as well as stockpiling of construction material or waste; Fence off any potentially ecologically sensitive resources within the work area with warning signpost; Water diversion by means of submerged water pump should be avoided as far as practicable to prevent obstruction of wildlife movement along the channel; Waste and refuse should be stored or dumped in appropriate receptacles and on-site burning of waste should be strictly prohibited; Excavated material should be properly covered or promptly disposed of, and opportunities to stockpile and backfill the topsoil should be explored; 	Ecological – to avoid or minimize the potential disturbance to the habitats and wildlife inhabited within or adjacent to the work sites	Contractor(s)	During construction at all sites	EIA, contractual requirements	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.5.9.3	S.5.2.2	<ul style="list-style-type: none"> No chemical should be stockpiled on-site until absolutely necessary; On-site maintenance of plant/ machineries/ vehicle should be avoided as far as practicable; Silt/ Sediment/ Oil traps should be installed to avoid direct discharge of effluent or site run-off; Regular ecological checks; Cut down of vegetation during site clearance should be in stages before groundwork takes place as such to disperse any wildlife that is sheltering in the immediate area; and Minimise vehicle access. 	Ecological – to avoid or minimize the potential disturbance to the habitats and wildlife inhabited within or adjacent to the work sites	Contractor(s)	During construction at all sites	EIA, contractual requirements	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.5.9.4	S.5.2.10	The construction work in Tai Wo should be scheduled in the dry season and sandbags or other similar facilities should be placed along the southern boundary of the work site to prevent any accidental discharge of untreated effluent into the buffered grassland and EIS under adverse weather condition. In addition, discharge of any treated or untreated effluent, either by means of soakaway or direct discharge to nearby waterways, should be directed away from the grassland buffer and the EIS. The above measure should be audited regularly as part of the routine site inspection undertaken by the ET.	Ecological – to avoid and minimize any potential impact to the Cheung Po EIA from site discharge	Contractor(s)	Tai Wo	EIA, contractual requirements	Implemented	TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.5.9.6 to 5.9.7	S.5.2.7, 5.2.8	A detail survey to update the abundance and distribution of the endemic freshwater crabs within the project site (include the original watercourse which will be cut-off at Ha Che and Lin Fa Tei, inclusive of a receptor site search for the preparation of a “Freshwater Crab Translocation Plan”, in which the whole process including logistic arrangement should be detailed for the approval of AFCD.	Ecological – to avoid/minimize the direct impact to the local population of these two endemic freshwater crab species	Engineer	Lin Fa Tei and Ha Che, before the commencement of the construction work	EIA, contractual requirements	Implemented, EPD advised no comment on the FCTP on 9 Feb 2024. A formal reply letter was issued by the EPD on 4 July 2024 after the submission of hardcopy for their record.	HC: 20 Feb 2024 LFT: 20 Mar 2024
S.5.9.6 to 5.9.7	S.5.2.9	Capture and translocate two endemic freshwater crabs and undertake post-translocation monitoring programme in accordance to the approved “Freshwater Crab Translocation Plan”.	Ecological – to avoid/minimize the direct impact to the local population of these two endemic freshwater crab species.	Contractor, ET	Lin Fa Tei and Ha Che, within one month before the commencement of the construction work	EIA, contractual requirements	Implemented, pre-construction surveys at Ha Che and Lin Fa Tei were completed between 5 and 7 Feb 2024 and 11 and 13 Mar 2024 respectively	HC: 20 Feb 2024 LFT: 20 Mar 2024
S.5.9.6 to 5.9.8	S.5.2.9	Before the commencement of a construction work in a new section, the site should be inspected by the ecologist to confirm no inhabitation of the two freshwater crab species.	Ecological – to avoid/minimize the direct impact to the local population of these two endemic freshwater crab species	Contractor, ET	Lin Fa Tei and Ha Che, within one month before the commencement of the construction work	EIA, contractual requirements	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.5.9.9	S.5.2.4	The <i>Aquilaria sinensis</i> (seedling) within the site boundary at Sung Shan New Village to be protected and retained during construction in accordance with DEVB TCW No. 4/2020 Tree Preservation	Ecological – to preserve the floral species of conservation concern	Engineer	Sung Shan New Village	EIA, contractual requirements	Implemented	SSNV: 16 Apr 2024
S.5.9.13-5.9.19	S.5.2.15	Restoration of wildlife habitat by ecological habitat and niche that could promote colonisation of aquatic wildlife during the reinstatement of embankment and channel bed	Ecological – to compensate for the loss of wildlife habitat especially the two endemic freshwater crab species	Contractor(s)	All sites during construction	EIA, contractual requirements	The restoration and planting works will be conducted after the completion of construction work at Ha Che, Lin Fa Tei and Sung Shan New Village	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

Remarks:

1. "HC" equal to Ha Che
2. "LFT" equal to Lin Fa Tei
3. "SSNV" equal to Sung Shan New Village
4. "TW" equal to Tai Wo

Water Quality Impact – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
Construction Phase									
S.6.7.2	S.6.2.3	<p>The mitigation measures should cover, but not limited to the following Best Management Practices:</p> <ul style="list-style-type: none"> Sand/ silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove sand/ silt particles from runoff to meet the requirements of the Technical Memorandum standards under the WPCO. The design of silt removal facilities should be based on the guidelines provided in ProPECC PN 2/23. All drainage facilities and erosion and sediment control structures should be inspected monthly and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Work programmes should be designed to minimize the size of work areas to minimize the soil exposure soil and reduce the potential for increased siltation and runoff; Silt removal facilities, channels and manholes should be 	Water quality control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO and ProPECC PN 2/23	Deficiency of Mitigation Measures but rectified by the Contractor.	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	WPCO licenses for HC, LFT, SSNV and TW were granted on 26 Apr 2024, 24 May 2024, 10 July 2024 and 29 July 2024 respectively.

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>maintained and cleaned regularly to ensure the proper function;</p> <ul style="list-style-type: none"> Water pumped out from excavations should be discharged into silt removal facilities; Careful programming of the works to minimize soil excavation during the rainy season. If excavation of soil cannot be avoided during the wet season (April to September), exposed slope surfaces should be covered by a tarpaulin or other means. Other measures that need to be implemented before, during, and after rainstorms are summarized in ProPECC PN 2/23; Earthwork surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed; Wastewater generated from the washing down of mixer trucks and drum mixers and similar equipment should wherever practicable be recycled. The 							

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>discharge of wastewater should be kept to a minimum;</p> <ul style="list-style-type: none"> To prevent pollution from wastewater overflow, the pump sump of any water recycling system should be provided with an on-line standby pump of adequate capacity and with automatic alternating devices; Under normal circumstances, surplus wastewater may be discharged into foul sewers after treatment in silt removal and pH adjustment facilities (to within the pH range of 6 to 10). Disposal of wastewater into storm drains will require more elaborate treatment. Surface run-off should be segregated from the concrete batching plant and casting yard area as much as possible, and diverted to the stormwater drainage system. Surface run-off contaminated by materials in a concrete batching plant or casting yard should be adequately treated before disposal into stormwater drains; Open stockpiles of construction materials on site should be covered with tarpaulin or similar fabric during rainstorms. 							

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
S.6.7.4	S6.2.3	<p>The guidelines stipulated in the ProPECC PN 2/23 “Construction Site Drainage” issued by the EPD should be followed to minimise the potential water quality impacts. Good housekeeping and stormwater best management practices, as detailed below, should be implemented to ensure that all construction runoff are well controlled to minimise the water quality impacts that arise due to the construction works of the Project.</p> <ul style="list-style-type: none"> Flood protection such as dikes or embankments should be provided around the boundaries of earthwork areas. Temporary ditches should be provided as appropriate to facilitate the runoff discharge into drainage system, through a silt/ sediment trap. The silt/ sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates; Construction works should be programmed to avoid surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible 	Water quality control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO and ProPECC PN 2/23	Implemented	<p>HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024</p>	<ul style="list-style-type: none"> WPCO licenses for HC, LFT, SSNV and TW were granted on 26 Apr 2024, 24 May 2024, 10 July 2024 and 29 July 2024 respectively. The provision of oil interceptors in the drainage system downstream is not applicable as there is no oil/ fuel pollution spotted at the construction sites. Fuel tanks and storage areas are not placed

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>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;</p> <ul style="list-style-type: none"> • All drainage facilities and erosion and sediment control structures, if any, 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; • All open stockpiles of construction materials (for example, aggregates, sand and fill material) 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; <p>3Manholes (including newly constructed ones) should</p>							

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>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;</p> <ul style="list-style-type: none"> • 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 2/23. 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 							

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>road leading to, and exiting from, the wheel-washing bay to the public road should be paved with sufficient backfall toward the wheel-washing bay to prevent vehicle tracking of soil and silty water to 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 as far as possible. The oil interceptors, if any, should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage; 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. 							

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S.6.7.5	S.6.2.3	Maintenance of vehicles and equipment involving activities with potential for leakage and spillage is expected to be carried out off-site and should only be undertaken within areas appropriately equipped to control these discharges.	To control the effluent discharge during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	
S.6.7.6	S.6.2.3	Contractor shall apply for a discharge license under WPCO.	To control the effluent discharge during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO	Implemented.	HC: 26 Apr 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	
S.6.7.7 & S.6.7.8	S.6.2.3	<p>Sewage from Workforce</p> <ul style="list-style-type: none"> Portable chemical toilets and/ or sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets to cater to 0.15 m³/day/worker of sewage and be responsible for appropriate disposal and maintenance. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the 	To control sewage generation during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO and Waste Disposal Ordinance	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>construction phase of the project. Regular environmental audit on the construction site should be conducted 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>							
S.6.7.10 - S.6.7.15	S.6.2.3	<p>Widening of Drainage Channels</p> <ul style="list-style-type: none"> Due to the characteristics of narrow width and small water flow of the existing channel, the excavation should be carried out in dry condition (even in wet season) by diverting the stream flow from upstream by a temporary drainage channel with a temporary sheet piles, earth bund or barrier so that the works area will remain dry for later excavation and widening works; The temporary drainage channel would be backfilled when the construction works are completed or the temporary 	Water quality control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO	Implemented	<p>HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024</p>	

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>diversion is no longer required. Although flooding of the proposed contaminant section seldom occurs in dry season, the excavation would consider to suspend when flood water enters the containment causing leakage of runoffs to stream water;</p> <ul style="list-style-type: none"> • After dewatering of the streams, the sediments should be allowed to dry before excavation (yet still maintain a moist state to avoid dust nuisance). This will facilitate excavation of the sediments and also minimize the risk of drained water flowing back into watercourses or diversion channels as the sediment is handled. Where time or weather constraints require handling of wet sediment, care should be taken in the removal of sediment and the storage area should be bunded to prevent silty runoff entering watercourses. Given its small quantity, all excavated sediment should be reused on-site as backfilling material; • To further minimize the leakage and loss of sediments during excavation, tightly sealed closed 							

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<p>grab excavators should be employed in river sections where material to be handled is wet. Where material is dry and in non-river sections, conventional excavations can be used;</p> <ul style="list-style-type: none"> Excavated sediment will likely be temporarily stored on-site for reuse as backfilling material. This should be stored in a bunded area and covered at any time to avoid inadvertent release of silts and suspended solids to nearby water bodies; Regular monitoring of suspended solids, pH and turbidity should be conducted during excavation works. Any exceedance of water quality in the nearby water bodies caused by inadvertent release of site runoff should be rectified in accordance with EM&A programme for this project. 							
S.6.7.16	S6.2.3	<p>Cast in-situ Construction</p> <ul style="list-style-type: none"> Minimise the area of the site which generates contaminated stormwater runoff; Provide a separate dedicated drainage system to discharge clean stormwater from the site; 	Water quality control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO	Implemented	<p>HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024</p>	

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		<ul style="list-style-type: none"> Drain all contaminated stormwater and process wastewater to a collection pit for recycling; Regularly clean out solids that accumulate in the pit; There must be no dry weather wastewater discharges from the site; Monitor wet weather discharges for pH and suspended solids. Retain the records. 							
S.6.7.17	S6.2.3	Registration to EPD as a CWP (Chemical Waste Producers) is required if chemical wastes are generated and need to be disposed of. Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance (WDO). The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the WDO should be used as a guideline for handing chemical wastes.	Water quality control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO, WDO and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024	
S.6.7.18	S.6.2.3	<p>Mitigation measures to avoid potential impact to Cheung Po EIS</p> <ul style="list-style-type: none"> The construction work in Tai Wo should be scheduled in the dry season and sand bags or other similar facilities should be 	Water quality control during construction	Contractor(s)	At Tai Wo Area during the entire construction period	WPCO	Implemented	TW: 16 Dec 2024	

Drainage Improvement Works Near Four Villages in Yuen Long –
Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
Monthly EM&A Report
Environmental Mitigation Implementation Schedule (EMIS)

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation	Remarks
		placed along the southern boundary to the work site to prevent any accidental discharge of untreated effluent into the buffered grassland and EIS under adverse weather condition; <ul style="list-style-type: none"> Discharge of any treated or untreated effluent, either by means of soakaway or direct discharge to nearby waterways, should be directed away from the grassland buffer and the EIS. 							

Remarks:

1. "HC" equal to Ha Che
2. "LFT" equal to Lin Fa Tei
3. "SSNV" equal to Sung Shan New Village
4. "TW" equal to Tai Wo

Waste Management Implication – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Construction Phase								
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> An on-site environmental co-ordinator employed by the contractor should be identified prior to the outset of the work. Prior to commencement of project, the environmental coordinator shall prepare a WMP in accordance with the requirements set out in the ETWB TCW No. 19/2005, Waste Management on Construction Sites, for the Engineers Representative's approval. The WMP shall include monthly and yearly Waste Flow Tables (WFT) that indicate the amount of waste generated, recycled and disposed of (including final disposal location), and which should be regularly updated; 	Waste management during construction	Contractor(s)	Prior to commencement of Project works and implemented throughout the entire construction period	ETWB TCW No. 19/2005	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> The Project contractor's waste management practices and effectiveness should also be audited by the Engineer on a regular basis; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	ETWB TCW No. 19/2005	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> The reuse/ recycling of all materials on site should be investigated and exhausted prior to treatment/ disposal off-site; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	ETWB TCW No. 19/2005	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> Good site practices should be adopted from the commencement of works to avoid the generation of waste, reduce cross contamination of waste and to promote waste minimisation; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	ETWB TCW No. 19/2005	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> All waste materials should be sorted on-site into inert and non-inert C&D materials, and where the materials can be recycled or reused, they should be further segregated. Inert material, or public fill will comprise stone, rock, masonry, brick, concrete and soil which is suitable for land reclamation and site formation whilst non-inert materials include all other wastes generated from the construction process such as plastic packaging and vegetation; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	Waste Disposal Ordinance	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> The Project contractor should be responsible for identifying what materials can be recycled/ reused, whether on-site or off-site. In the event of the latter, the contractor should make arrangements for the collection of the recyclable materials. Any remaining non-inert waste should be collected and disposed of to the landfill as last resort whilst any inert C&D materials should be re-used on site as far as possible. Alternatively, if no use of the inert materials can be found on-site, the materials can be delivered to a public fill area or public fill bank after obtaining the appropriate licence; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	Waste Disposal Ordinance	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> In order to monitor the disposal of C&D materials and solid waste at public filling facilities and landfills, and to control fly-tipping, a trip ticket system shall be implemented by the contractor, in accordance with the contract and the requirements of DEVB TCW No. 6/2010 "Trip Ticket System for Disposal of Construction and Demolition Material"; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	DEVB TCW No. 6/2010	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> Under the Waste Disposal (Chemical Waste) (General) Regulation, the Project contractor shall register as a Chemical Waste Producer (CWP) if chemical wastes such as spent lubricants, paints, etc. are generated onsite. Only licensed chemical waste collectors shall be employed to collect any chemical waste generated onsite. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by the EPD; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	Waste Disposal (Chemical Waste) (General) Regulation	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> A sufficient number of covered bins should be provided onsite for the containment of general refuse to prevent visual impacts and nuisance to the sensitive surroundings. These bins should be cleared daily and the collected waste disposed of to the nearest refuse transfer station. Further to the issue of DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness, the contractor is required to maintain a clean and hygienic site throughout the Project works; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	Waste Disposal Ordinance and DEVB TC(W) No. 8/2010	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> Minimize windblown litter and dust during transportation by either fitting trucks with mechanical covers or transporting waste in enclosed containers; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction	Waste Disposal Ordinance	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> All chemical toilets, if any, should be regularly cleaned and the night-soil collected and transported by a licensed contractor to a Government Sewage Treatment Works facility for disposal; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction	Waste Disposal Ordinance	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> Toolbox talks should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling; and 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction	Waste Disposal Ordinance	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> The project contractor shall comply with all relevant statutory requirements and guidelines and their updated versions that may be issued during the course of the project construction. 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction	Waste Disposal Ordinance	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S.7.5.1	S.7.2.5	<p>Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices.</p> <ul style="list-style-type: none"> Segregation and storage different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction	ETWB TCW No. 19/2005	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S.7.5.1	S.7.2.5	<ul style="list-style-type: none"> Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the workforce; Use of reusable non-timber formwork to reduce the amount of C&D material; Prior to disposal of C&D waste, it is recommended that wood, steel and other metal shall be separated for re-used and/ or recycling to minimise the quantity of waste to be disposal of to landfill; Proper storage and site practice to minimise the potential for damage and contamination of construction materials; Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction	ETWB TCW No. 19/2005	Deficiency of Mitigation Measures but rectified by the Contractor.	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

Remarks:

1. "HC" equal to Ha Che
2. "LFT" equal to Lin Fa Tei
3. "SSNV" equal to Sung Shan New Village
4. "TW" equal to Tai Wo

Land Contamination – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Construction Phase								
S.8.8.1	S.8.2.1	<p>Unexpected contaminated materials may be encountered near identified potential contaminated sites during construction. Should suspected contamination be found during construction, the extent and nature of contamination within project areas should be properly assessed and the contaminated soil/ groundwater should be remediated in accordance with EPD issued publications as below:</p> <ul style="list-style-type: none"> Guidance Note for Contaminated Land Assessment and Remediation; Guidance Manual for Use of Risk-based Remediation Goals (“RBRGs”) for Contaminated Land Management; and Practice Guide for Investigation and Remediation of Contaminated Land. 	Safety precautionary measures for handling possible contaminated materials	Contractor(s)	During construction works within the works areas nearby the land contamination sites HC-A, HC-C, HC-D, HC-I, LFT-A, LFT-B, LFT-C, LFT-D, LFT-E and SSNV-A	Guidance Note for Contaminated Land Assessment and Practice Guide for Investigation Remediation of Contaminated Land	No unexpected contaminated material was encountered during reporting period	N/A

Landscape & Visual Impact – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Construction Phase								
S9.12.1.1	S.9.2	Construction Site Control CM01 - Tree Protection and Preservation Trees / woodland within the Project Site which are unaffected by the works shall be protected and preserved during the construction phase. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at detailed design stage for further retention of individual trees.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S9.12.1.1	S.9.2	CM02 – Compensatory Tree Planting If removal of trees unavoidable due to construction impacts, trees will be compensated where technically feasible.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	No tree was removed during reporting period	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S9.12.1.1	S.9.2	CM03 - Works Area and Temporary Works Areas (Good Site Practice) The construction sequence and construction programme shall be optimized in order to minimize the duration of impact. Construction site controls shall be enforced including the storage of materials, and the location and appearance of site accommodation and site storage. The site office or temporary above-ground structures shall be sited in locations which are not visually prominent.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S9.12.1.1	S.9.2	CM04 - Advance Implementation of Mitigation Planting Replanting of existing/ disturbed vegetation shall be undertaken as soon as technically feasible.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	No replanting work was conducted during reporting period	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S9.12.1.1	S.9.2	CM05 - Coordination with Concurrent Projects Coordinated implementation programme with concurrent projects to minimise impacts and where possible reduce the period of disturbance.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S9.12.1.1	S.9.2	CM06 - Decorative Screen Hoarding Decorative screen hoarding will be erected along areas of the construction works site boundary where the works site borders publicly accessible routes and/ or is close to visually sensitive receivers (VSRs) to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S9.12.1.1	S.9.2	CM07 – Light Control Construction and night time lighting glare will be controlled to minimize glare impact to adjacent VSRs during the construction stage. This is considered a general measure for good practice.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

Drainage Improvement Works Near Four Villages in Yuen Long –
Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
Monthly EM&A Report
Environmental Mitigation Implementation Schedule (EMIS)



EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
S9.12.1.1	S.9.2	CM08 – Topsoil reuse Excavated topsoil should be conserved for re-use by the project or other projects. This is considered a general measure for good site practice.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024
S9.12.1.1	S.9.2	CM09 - Channel Bed Translocation Excavated natural stream bedding should be conserved for re-use by the project. This is considered a general measure for promoting sustainability and ecological continuity.	Good site practices and to minimize landscape and visual impact	DSD and its contractors.	Work sites	EIAO-TM	Implemented	HC: 20 Feb 2024 LFT: 20 Mar 2024 SSNV: 16 Apr 2024 TW: 16 Dec 2024

- Remarks:
1. "HC" equal to Ha Che
 2. "LFT" equal to Lin Fa Tei
 3. "SSNV" equal to Sung Shan New Village
 4. "TW" equal to Tai Wo

Cultural Heritage Impact – Implementation Schedule of Recommended Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Construction Phase								
Table 10-3	Table 10.1	<p>Lee Tat Bridge (GB-01)</p> <ul style="list-style-type: none"> A condition survey will be carried out in advance of works that may be affected by ground-borne vibration. The Condition Survey Report should contain descriptions of the structure, identification of fragile elements, an appraisal of the condition and working methods for any proposed monitoring and precautionary measures that are recommended with aid of photo records. The condition survey report must be submitted to AMO for comment before construction activities commence. The contractor should implement the approved monitoring and precautionary measures; 	Cultural heritage protection	Contractors	During the construction period, for Lee Tat Bridge (GB-01)	AMO Guidelines on CHIA; EIAO-TM	<p>The condition survey report was submitted on 22 Dec 2023. Antiquities and Monuments Office (AMO) had no adverse comment on the report on 3 Jan 2024. A formal reply letter was issued by the EPD on 21 Jun 2024 for their acceptance on the report.</p>	N/A

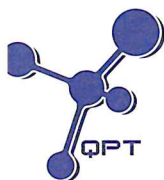
EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Table 10-3	Table 10.1	<ul style="list-style-type: none"> Vibration monitoring should be undertaken during the construction works to ensure that safe levels of vibration are not exceeded. An Alert, Alarm and Action (AAA) vibration limit set at 5 / 6 / 7.5 mm/s for Grade 3 historic buildings should be adopted. A monitoring schedule, the location of monitoring equipment, the frequency of monitoring, reporting requirements and action plan should be included in the condition survey report. The location of any monitoring equipment in the building must be approved by the owner before installation; A buffer zone should be provided to separate the building or walls of the building from the construction works. The buffer zone should be clearly marked out by temporary fencing. The buffer zone should be made at least 5 m from the proposed works or if this is not possible as large as the site restrictions allow; The contractor should ensure that safe public access is possible, through provision of clearly marked paths separated from the construction works areas, and is provided for any such affected cultural heritage structure. It is recommended that safe public access to the bridge be provided during the construction works. 	Cultural heritage protection	Contractors	During the construction period, for Lee Tat Bridge (GB-01)	AMO Guidelines on CHIA; EIAO-TM	The condition survey report was submitted on 22 Dec 2023. Antiquities and Monuments Office (AMO) had no adverse comment on the report on 3 Jan 2024. A formal reply letter was issued by the EPD on 21 Jun 2024 for their acceptance on the report.	N/A

Drainage Improvement Works Near Four Villages in Yuen Long –
Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
Monthly EM&A Report
Environmental Mitigation Implementation Schedule (EMIS)

EIA Ref.	EM&A Ref.	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Who to implement the measures?	Location/ Timing of implementation of Measures	What requirements or standards for the measures to achieve?	Implementation Status	Starting date of Implementation
Table 10-3	Table 10.1	Lan Fong Study Hall (GB-02) • No mitigation required	N/A	N/A	N/A	AMO Guidelines on CHIA; EIAO-TM	N/A	N/A
Table 10-3	Table 10.1	St. John's Chapel (GB-03) • No mitigation required	N/A	N/A	N/A	AMO Guidelines on CHIA; EIAO-TM	N/A	N/A
Table 10-1	S.10.2.1 – S.10.2.2	<ul style="list-style-type: none"> The proposed drainage works in the Lin Fa Tei area near previous wooden archaeological remains; Archaeological survey prior to construction works in area marked on Figure 10.16 of the EIA report; A qualified archaeologist shall apply for a licence under the Antiquities and Monuments Ordinance (Cap. 53) for the archaeological fieldwork. 	<p>Identification of archaeological remains, deposits and material within survey area</p> <p>Identification of archaeological extent</p>	Qualified archaeologist engaged by Contractor	Prior to construction phase	Antiquities and Monuments Ordinance	The Archaeological Survey at Lin Fa Tei was carried out from 16 to 28 Oct 2024.	16 Oct 2024
Table 10-1	S.10.2.3	As a precautionary measure, the Antiquities and Monuments Office (AMO) should be informed immediately in case of discovery of antiquities or supposed antiquities in the course of excavation for the proposed drainage improvement works at Tai Wo area, Ha Che River area, Lin Fa Tei area (all areas except area identified for Archaeological Survey) and Sung Shan New village area, so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with AMO.	To ensure appropriate mitigation measures can be timely formulated and implemented to preserve archaeological data, if discovered, in agreement with AMO	Contractor	During construction phase	Antiquities and Monuments Ordinance	No antiquities or supposed antiquities was discovered during the reporting period	N/A

- Remarks:
1. "HC" equal to Ha Che
 2. "LFT" equal to Lin Fa Tei
 3. "SSNV" equal to Sung Shan New Village
 4. "TW" equal to Tai Wo

Appendix 2.1 Calibration Certificates of Impact Water Quality Monitoring Equipment



專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE030049
Date of Issue : 18 March 2025
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit 1608, 16/F, Tower B, Manulife Fin. Centre 223 - 231 Wai Yip Street, Kwun Tong,
Kowloon (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS Multi Parameters
Manufacturer : YSI
Serial Number : 22C106561
Date of Received : 13 March 2025
Date of Calibration : 17 March 2025
Date of Next Calibration : 16 June 2025
Request No. : D-BE030049

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H ⁺ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Salinity	APHA 21e 2520 B
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance (pH unit)	Result
4.00	3.96	-0.04	Satisfactory
7.42	7.27	-0.15	Satisfactory
10.01	9.96	-0.05	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(2) Temperature

Reading of Ref. thermometer	Display Reading	Tolerance	Result
11.8	12.3	0.5	Satisfactory
21.8	21.1	-0.7	Satisfactory
34.1	33.0	-1.1	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)


(3) Dissolved oxygen

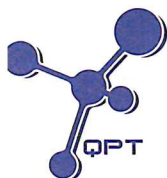
Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance (mg/L)	Result
8.84	9.11	0.27	Satisfactory
6.65	6.51	-0.14	Satisfactory
3.90	3.98	0.08	Satisfactory
0.01	0.34	0.33	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

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AUTHORIZED
SIGNATORY:


FUNG Yuen-ching
Laboratory Manager



專業化驗有限公司

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PART D - CALIBRATION RESULT

(4) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.35	3.5	Satisfactory
20	20.62	3.1	Satisfactory
30	30.38	1.3	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance ^(a) (%)	Result
0	0.76	-	Satisfactory
10	10.80	8	Satisfactory
20	19.73	-1.35	Satisfactory
100	96.97	-3.03	Satisfactory
800	721.95	-9.8	Satisfactory

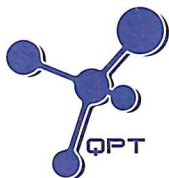
Tolerance of Turbidity should be less than ± 10.0 (%)

^(a) For 0 NTU, Display Reading should be less than 1 NTU

Remark(s): -

- The "Date of Next Calibration" is recommended according to best practice principles followed by QPT or relevant international standards.
- The results relate only to the calibrated equipment as received.
- The performance of the equipment stated in this report is checked using independent reference material, with results compared against a calibrated secondary source. "Displayed Reading" denotes the figure shown on the item under calibration/checking, regardless of equipment precision or significant figures.
- The "Tolerance Limit" mentioned is the acceptance criteria applicable to similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.

--- END OF REPORT ---



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE030347

Date of Issue : 03 April 2025

Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited

Unit 1608, 16/F, Tower B, Manulife Fin. Centre 223 - 231 Wai Yip Street, Kwun Tong,

Kowloon (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi Parameters)

Manufacturer : YSI

Serial Number : 22D100436

Date of Received : 31 March 2025

Date of Calibration : 01 April 2025

Date of Next Calibration : 30 June 2025

Request No. : D-BE030347

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter

pH value

Temperature

Dissolved oxygen

Salinity

Turbidity

Reference Method

APHA 21e 4500-H⁺ B

Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure

APHA 23e 4500-O G (Membrane Electrode Method)

APHA 21e 2520 B

APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance (pH unit)	Result
4.00	4.16	0.16	Satisfactory
7.42	7.50	0.08	Satisfactory
10.01	10.07	0.06	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading	Tolerance	Result
9.7	9.9	0.2	Satisfactory
19.5	19.4	-0.1	Satisfactory
32.3	31.7	-0.6	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)

(3) Dissolved oxygen

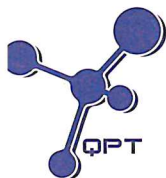
Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance (mg/L)	Result
9.28	9.36	0.08	Satisfactory
6.21	6.08	-0.13	Satisfactory
3.32	3.16	-0.16	Satisfactory
0.01	0.12	0.11	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

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AUTHORIZED
SIGNATORY:

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE030347

Date of Issue : 03 April 2025

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PART D - CALIBRATION RESULT

(4) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.77	-2.3	Satisfactory
20	19.59	-2.05	Satisfactory
30	29.31	-2.3	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance ^(a) (%)	Result
0	0.17	-	Satisfactory
10	10.76	7.6	Satisfactory
20	19.14	-4.3	Satisfactory
100	94.58	-5.42	Satisfactory
800	732.96	-8.38	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

^(a) For O NTU, Display Reading should be less than 1 NTU

Remark(s): -

- The "Date of Next Calibration" is recommended according to best practice principles followed by QPT or relevant international standards.
- The results relate only to the calibrated equipment as received.
- The performance of the equipment stated in this report is checked using independent reference material, with results compared against a calibrated secondary source. "Displayed Reading" denotes the figure shown on the item under calibration/checking, regardless of equipment precision or significant figures.
- The "Tolerance Limit" mentioned is the acceptance criteria applicable to similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.

--- END OF REPORT ---

Appendix 2.2 Event and Action Plan for Water Quality Exceedance

Event and Action Plan for Water Quality

Event	Action			
	ET ⁽¹⁾	IEC ⁽¹⁾	ER ⁽¹⁾	Contractor
Action Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform the IEC and the Contractor; 4. Check monitoring data, all plant, equipment and the Contractor's working methods; 5. Discuss mitigation measures with the IEC and the Contractor; 6. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Discuss with the ET and the Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with the IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET and the IEC and propose mitigation measures to the IEC and the ER; 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform the IEC and the Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with the IEC and the Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; 8. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Discuss with the ET and the Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with the IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET and the IEC and propose mitigation measures to the IEC and the ER within 3 working days; 6. Implement the agreed mitigation measures.

Event	Action			
	ET ⁽¹⁾	IEC ⁽¹⁾	ER ⁽¹⁾	Contractor
Limit Level being exceeded by one sampling days	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform the IEC, the Contractor and the DEP; 4. Check monitoring data, all plant, equipment and the Contractor's working methods; 5. Discuss mitigation measures with the IEC, the ER and the Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level. 	<ol style="list-style-type: none"> 1. Discuss with the ET and the Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with the IEC, the ET and the Contractor on the proposed mitigation measures; 2. Request the Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Inform the Engineer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET, the IEC and the ER and propose mitigation measures to the IEC and the ER within 3 working days; 6. Implement the agreed mitigation measures.

Event	Action			
	ET ⁽¹⁾	IEC ⁽¹⁾	ER ⁽¹⁾	Contractor
Limit Level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact. 3. Inform the IEC, the Contractor and the DEP; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with the IEC, the ER and the Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days. 	<ol style="list-style-type: none"> 1. Discuss with the ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with the IEC, the ET and the Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works until no exceedance of Limit Level. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET, the IEC and the ER and propose mitigation measures to the IEC and the ER within 3 working days; 6. Implement the agreed mitigation measures; 7. As directed by the ER, slow down or stop all or part of the construction activities.

Note (1) ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative, DEP – Director of Environmental Protection.

Appendix 2.3 Impact Monitoring Schedule of the Reporting Month

Appendix 2.4 Impact Water Quality Monitoring Data

Contract No. DC/2022/02
 Drainage Improvement Works at Yuen Long -
 Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
 Water Quality Monitoring Result



Water Quality Monitoring Location: C1A

Location	Date	Weather	Time	Water Depth (m)	Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		pH		Salinity (ppt)		Temperature (°C)		Turbidity (NTU)		Suspended Solids (mg/L)		Remark
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C1A	20250407	Sunny	12:04	0.4	6.78		73.2		7.17		0.27		21.9		7.56		5.0		
C1A	20250407	Sunny	12:04	0.4	6.78	6.78	73.4	73.3	7.17	7.17	0.27	0.27	21.9	21.9	7.58	7.57	3.1	4.1	
C1A	20250414	Sunny	12:00	0.42	6.73		69.1		6.98		0.19		22.0		6.52		2.4		
C1A	20250414	Sunny	12:00	0.42	6.73	6.73	69.0	69.1	6.98	6.98	0.19	0.19	22.0	22.0	5.96	6.24	2.3	2.4	
C1A	20250424	Sunny	12:39	0.42	6.72		96.1		7.74		0.18		24.4		8.68		8.7		
C1A	20250424	Sunny	12:39	0.42	6.72	6.72	96.2	96.2	7.73	7.74	0.18	0.18	24.4	24.4	8.65	8.67	4.9	6.8	
C1A	20250428	Sunny	11:25	0.42	7.29		89.0		7.63		0.11		25.5		7.56		12		
C1A	20250428	Sunny	11:25	0.42	7.30	7.30	89.2	89.1	7.66	7.65	0.11	0.11	25.5	25.5	7.43	7.50	15	13.5	

Contract No. DC/2022/02
 Drainage Improvement Works at Yuen Long -
 Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
 Water Quality Monitoring Result



Water Quality Monitoring Location: C2

Location	Date	Weather	Time	Water Depth (m)	Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		pH		Salinity (ppt)		Temperature (°C)		Turbidity (NTU)		Suspended Solids (mg/L)		Remark
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C2	20250407	Sunny	11:51	0.42	2.66	2.66	30.4	30.4	7.32	7.32	0.18	0.18	21.9	21.9	9.61	9.45	6.7	6.3	
C2	20250407	Sunny	11:51	0.42	2.66		30.4		7.32		0.18		21.9		9.29		5.8		
C2	20250414	Sunny	11:46	0.44	2.45	2.45	27.8	27.8	7.41	7.41	0.33	0.33	21.5	21.5	13.09	13.1	6.3	7.3	
C2	20250414	Sunny	11:46	0.44	2.45		27.8		7.41		0.33		21.5		13.1		8.2		
C2	20250424	Sunny	11:56	0.44	1.71	1.71	21.6	21.6	7.39	7.39	0.33	0.33	21.6	21.6	14.37	14.37	7.7	7.8	
C2	20250424	Sunny	11:56	0.44	1.71		21.6		7.39		0.33		21.6		14.37		7.9		
C2	20250428	Sunny	11:15	0.44	4.13	4.50	50.2	54.4	7.04	7.00	0.14	0.14	25.2	25.2	28.22	29.99	21.0	20.0	
C2	20250428	Sunny	11:15	0.44	4.87		58.6		6.96		0.14		25.2		31.75		19.0		

Contract No. DC/2022/02
 Drainage Improvement Works at Yuen Long -
 Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
 Water Quality Monitoring Result



Water Quality Monitoring Location: C3A

Location	Date	Weather	Time	Water Depth (m)	Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		pH		Salinity (ppt)		Temperature (°C)		Turbidity (NTU)		Suspended Solids (mg/L)		Remark
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C3A	20250407	Sunny	11:46	0.48	7.78	7.82	84.5	84.9	7.72	7.79	0.02	0.02	19.4	19.4	6.18	6.16	2.6	3.9	
C3A	20250407	Sunny	11:46	0.48	7.86		85.3		7.86		0.02		19.3		6.13		5.1		
C3A	20250414	Sunny	11:41	0.46	7.67	7.67	82.2	82.2	7.75	7.75	0.02	0.02	18.7	18.7	5.29	5.20	2.8	2.2	
C3A	20250414	Sunny	11:41	0.46	7.67		82.2		7.75		0.02		18.7		5.10		1.6		
C3A	20250424	Sunny	11:46	0.32	5.92	5.92	71.3	71.4	7.14	7.25	0.02	0.03	24.7	24.8	9.25	10.03	10.0	8.6	
C3A	20250424	Sunny	11:46	0.32	5.91		71.4		7.36		0.03		24.9		10.81		7.1		
C3A	20250428	Sunny	11:11	0.32	6.21	6.20	74.4	74.3	7.66	7.62	0.02	0.02	24.5	24.5	10.81	10.84	22.0	18	
C3A	20250428	Sunny	11:11	0.32	6.19		74.1		7.57		0.02		24.5		10.86		14.0		

Contract No. DC/2022/02
Drainage Improvement Works at Yuen Long -
Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
Water Quality Monitoring Result



Water Quality Monitoring Location: C6

Location	Date	Weather	Time	Water Depth (m)	Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		pH		Salinity (ppt)		Tempertuare (°C)		Turbidity (NTU)		Suspended Solids (mg/L)		Remark
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C6	20250407	Sunny	11:00	0.24	4.55	4.56	51.2	51.3	7.96	7.96	1.14	1.14	20.9	20.9	26.62	26.6	30.0	22.5	
C6	20250407	Sunny	11:00	0.24	4.56		51.3		7.96		1.14		20.9		26.58		15.0		
C6	20250414	Sunny	12:50	0.24	3.02	3.02	34.9	35.0	8.03	8.03	1.76	1.76	22.1	22.1	46.15	45.82	21.4	17.4	
C6	20250414	Sunny	12:50	0.24	3.02		35.0		8.03		1.76		22.1		45.48		13.3		
C6	20250424	Sunny	10:45	0.20	3.57	3.57	45.4	45.5	8.07	8.07	2.26	2.30	27.1	26.8	30.90	30.00	19.0	22.5	
C6	20250424	Sunny	10:45	0.20	3.57		45.6		8.06		2.34		26.5		29.10		26.0		
C6	20250428	Sunny	10:19	0.25	5.22	5.16	63.4	62.7	7.91	7.87	0.34	0.34	25.1	25.1	9.95	11.63	6.3	7.9	
C6	20250428	Sunny	10:19	0.25	5.10		61.9		7.82		0.34		25.1		13.30		9.5		

Contract No. DC/2022/02
Drainage Improvement Works at Yuen Long -
Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
Water Quality Monitoring Result



Water Quality Monitoring Location: C7A

Location	Date	Weather	Time	Water Depth (m)	Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		pH		Salinity (ppt)		Tempertuare (°C)		Turbidity (NTU)		Suspended Solids (mg/L)		Remark
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C7A	20250407	Sunny	11:08	0.08	5.20	5.20	59.6	59.6	7.51	7.52	0.17	0.17	22.1	22.1	6.48	6.53	5.7	5.3	
C7A	20250407	Sunny	11:08	0.08	5.19		59.6		7.53		0.17		22.1		6.58		4.9		
C7A	20250414	Sunny	11:03	0.10	8.52	8.52	88.6	88.6	7.40	7.40	0.17	0.17	20.0	20.0	68.15	68.37	18.0	14.5	
C7A	20250414	Sunny	11:03	0.10	8.52		88.6		7.40		0.17		20.0		68.59		11.0		
C7A	20250424	Sunny	11:53	0.10	5.98	5.99	63.0	63.2	7.78	7.78	0.60	0.60	17.7	17.7	16.83	16.83	4.2	4.4	
C7A	20250424	Sunny	11:53	0.10	6.00		63.3		7.78		0.60		17.7		16.83		4.5		
C7A	20250428	Sunny	10:34	0.10	5.28	5.24	65.4	64.9	7.67	7.61	0.18	0.18	26.2	26.2	11.76	11.10	8.3	8.4	
C7A	20250428	Sunny	10:34	0.10	5.20		64.4		7.55		0.18		26.2		10.43		8.4		

Contract No. DC/2022/02
 Drainage Improvement Works at Yuen Long -
 Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
 Water Quality Monitoring Result



Water Quality Monitoring Location: C8

Location	Date	Weather	Time	Water Depth (m)	Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		pH		Salinity (ppt)		Temperature (°C)		Turbidity (NTU)		Suspended Solids (mg/L)		Remark
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C8	20250407	Sunny	12:36	0.05	6.13		61.2		7.67		0.10		25.0		2.14		<1.0		
C8	20250407	Sunny	12:36	0.05	6.13	6.13	61.0	61.1	7.68	7.68	0.10	0.10	25.0	25.0	2.16	2.15	1.2	1.1	
C8	20250414	Sunny	13:13	0.19	5.45		63.6		7.40		0.14		23.1		5.28		2.2		
C8	20250414	Sunny	13:13	0.19	5.45	5.45	63.6	63.6	7.70	7.55	0.16	0.15	23.4	23.3	5.68	5.48	3.2	2.7	
C8	20250424	Sunny	11:16	0.14	5.60		59.1		7.43		0.25		26.6		5.08		2.5		
C8	20250424	Sunny	11:16	0.14	5.60	5.60	59.0	59.1	7.28	7.36	0.23	0.24	26.3	26.5	4.50	4.79	3.0	2.8	
C8	20250428	Sunny	10:41	0.20	7.57		92.9		7.73		0.13		25.7		12.10		7.9		
C8	20250428	Sunny	10:41	0.20	7.57	7.57	92.8	92.9	7.70	7.72	0.13	0.13	25.7	25.7	11.67	11.89	10.0	9.0	

Contract No. DC/2022/02
 Drainage Improvement Works at Yuen Long -
 Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che
 Water Quality Monitoring Result



Water Quality Monitoring Location: C9

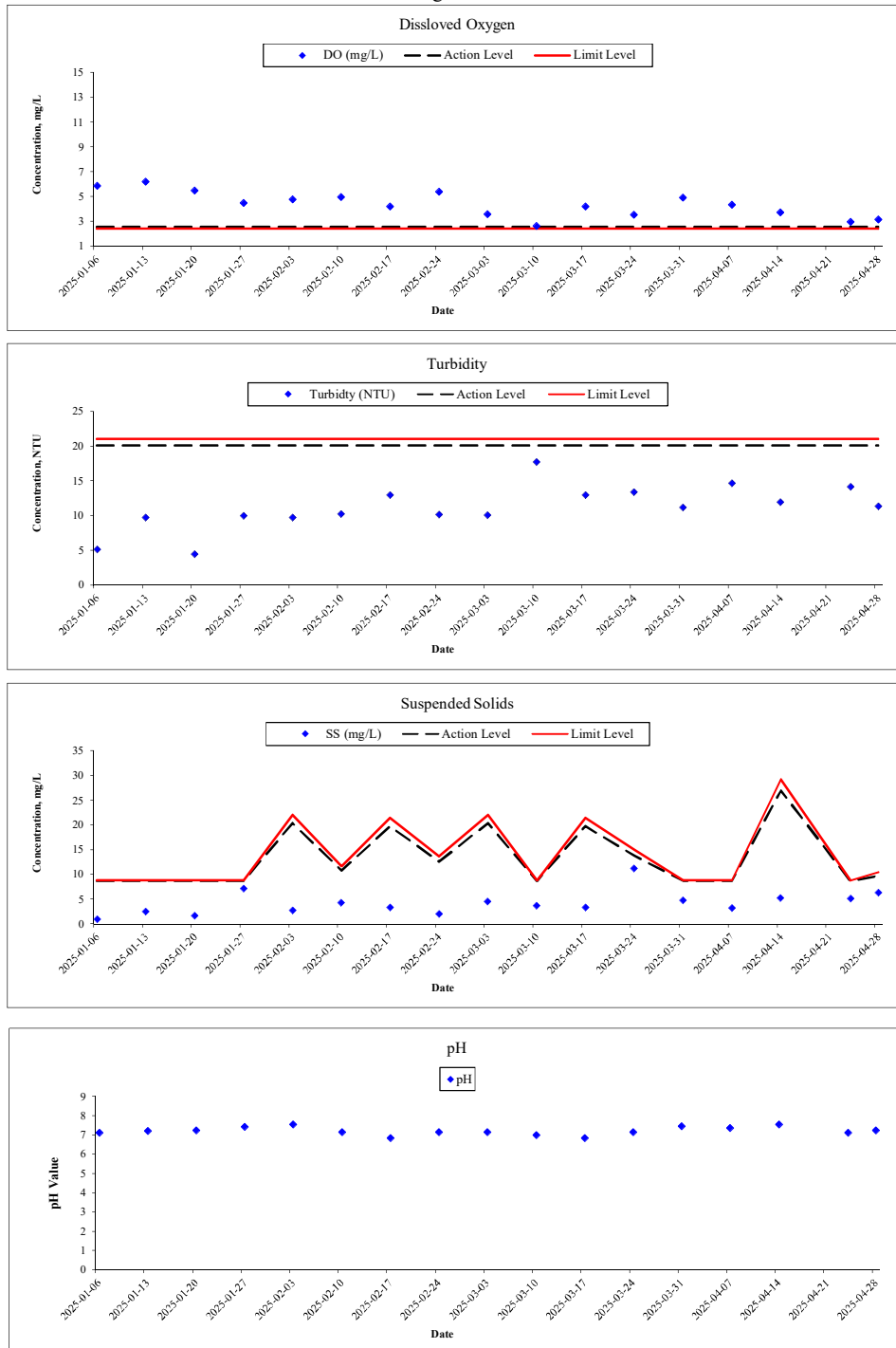
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					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C9	20250407	Sunny	10:20	0.18	8.38		88.7		7.50		0.08		18.1		3.86		3.3		
C9	20250407	Sunny	10:20	0.18	8.38	8.38	88.7	88.7	7.50	7.50	0.08	0.08	18.1	18.1	3.83	3.85	6.3	4.8	
C9	20250414	Sunny	10:50	0.18	7.76		87.3		7.22		0.08		21.1		8.78		17.0		
C9	20250414	Sunny	10:50	0.18	7.76	7.76	87.2	87.3	7.25	7.24	0.08	0.08	21.1	21.1	8.78	8.78	28.0	22.5	
C9	20250424	Sunny	10:05	0.20	7.63		89.3		7.63		0.08		23.2		2.39		5.3		
C9	20250424	Sunny	10:05	0.20	7.66	7.65	89.9	89.6	7.3	7.47	0.08	0.08	23.3	23.3	2.28	2.34	7.1	6.2	
C9	20250428	Sunny	9:43	0.20	7.53		89.7		7.44		0.10		24.1		11.62		6.2		
C9	20250428	Sunny	9:43	0.20	7.53	7.53	89.6	89.7	7.52	7.48	0.10	0.10	24.1	24.1	14.60	13.11	10.0	8.1	



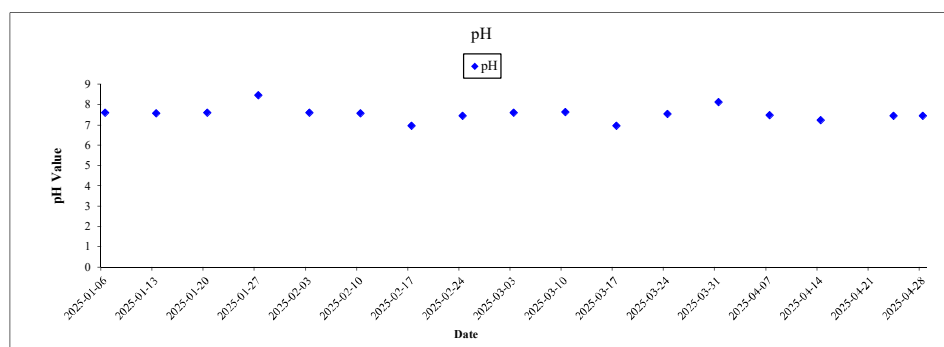
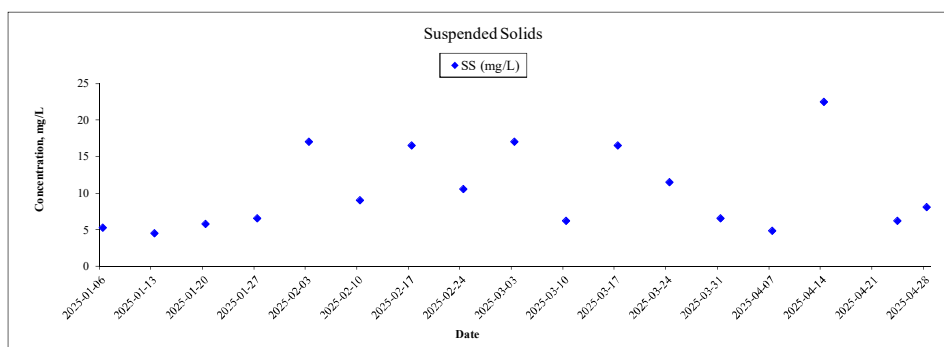
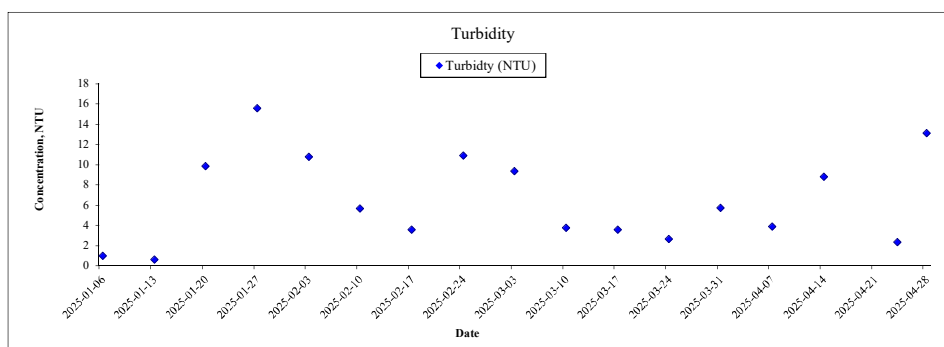
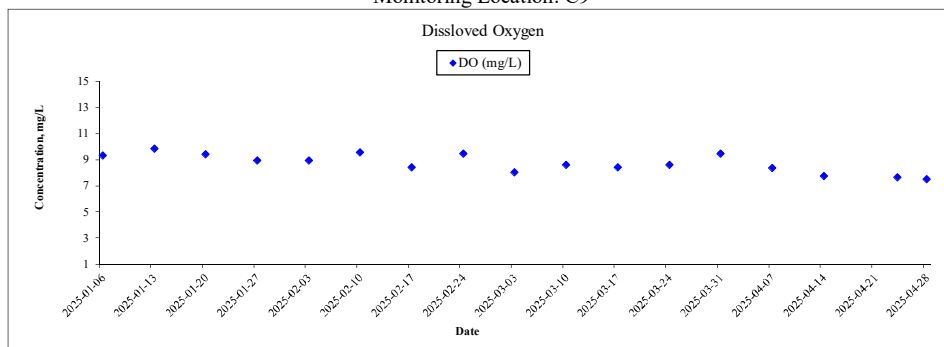
Water Quality Monitoring Location: C10

Location	Date	Weather	Time	Water Depth (m)	Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		pH		Salinity (ppt)		Tempertuare (°C)		Turbidity (NTU)		Suspended Solids (mg/L)		Remark
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
C10	20250407	Sunny	10:31	0.18	4.35	4.33	48.2	48.0	7.39	7.39	0.14	0.14	20.4	20.4	14.70	14.71	2.7	3.6	
C10	20250407	Sunny	10:31	0.18	4.30		47.7		7.38		0.14		20.4		14.71		3.6		
C10	20250414	Sunny	11:11	0.16	3.74	3.74	44.0	44.0	7.55	7.55	0.14	0.14	23.4	23.4	11.99	11.99	5.7	4.9	
C10	20250414	Sunny	11:11	0.16	3.74		44.0		7.55		0.14		23.4		11.99		4.9		
C10	20250424	Sunny	10:21	0.21	2.92	2.96	35.8	36.3	7.11	7.12	0.16	0.16	25.6	25.6	14.79	14.15	5.1	5.2	
C10	20250424	Sunny	10:21	0.21	3.00		36.8		7.13		0.16		25.6		13.51		5.2		
C10	20250428	Sunny	9:57	0.18	3.11	3.17	38.2	38.9	7.23	7.24	0.16	0.16	25.7	25.8	10.98	11.82	6.9	5.6	
C10	20250428	Sunny	9:57	0.18	3.22		39.6		7.24		0.16		25.8		11.82		5.6		

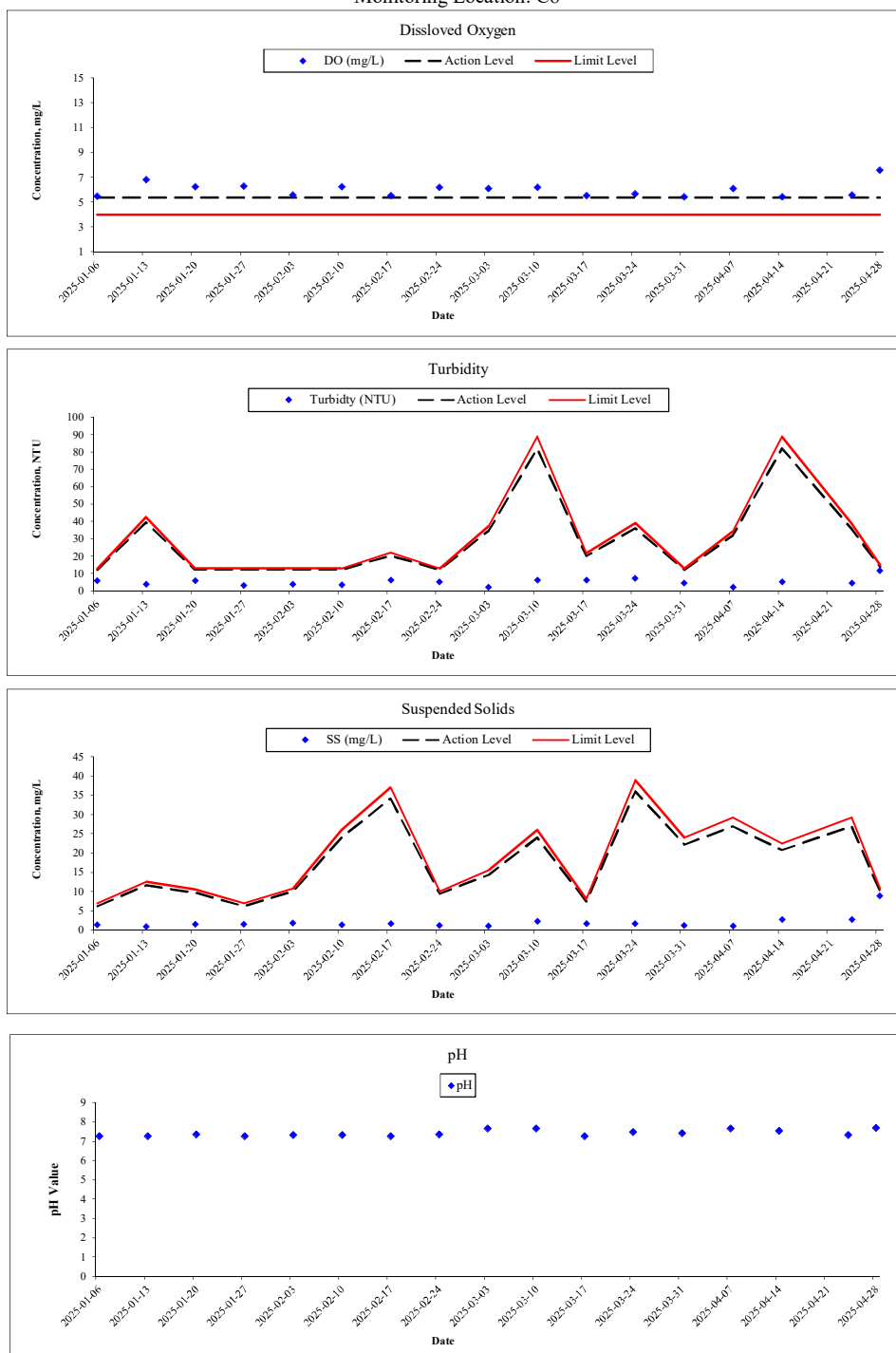
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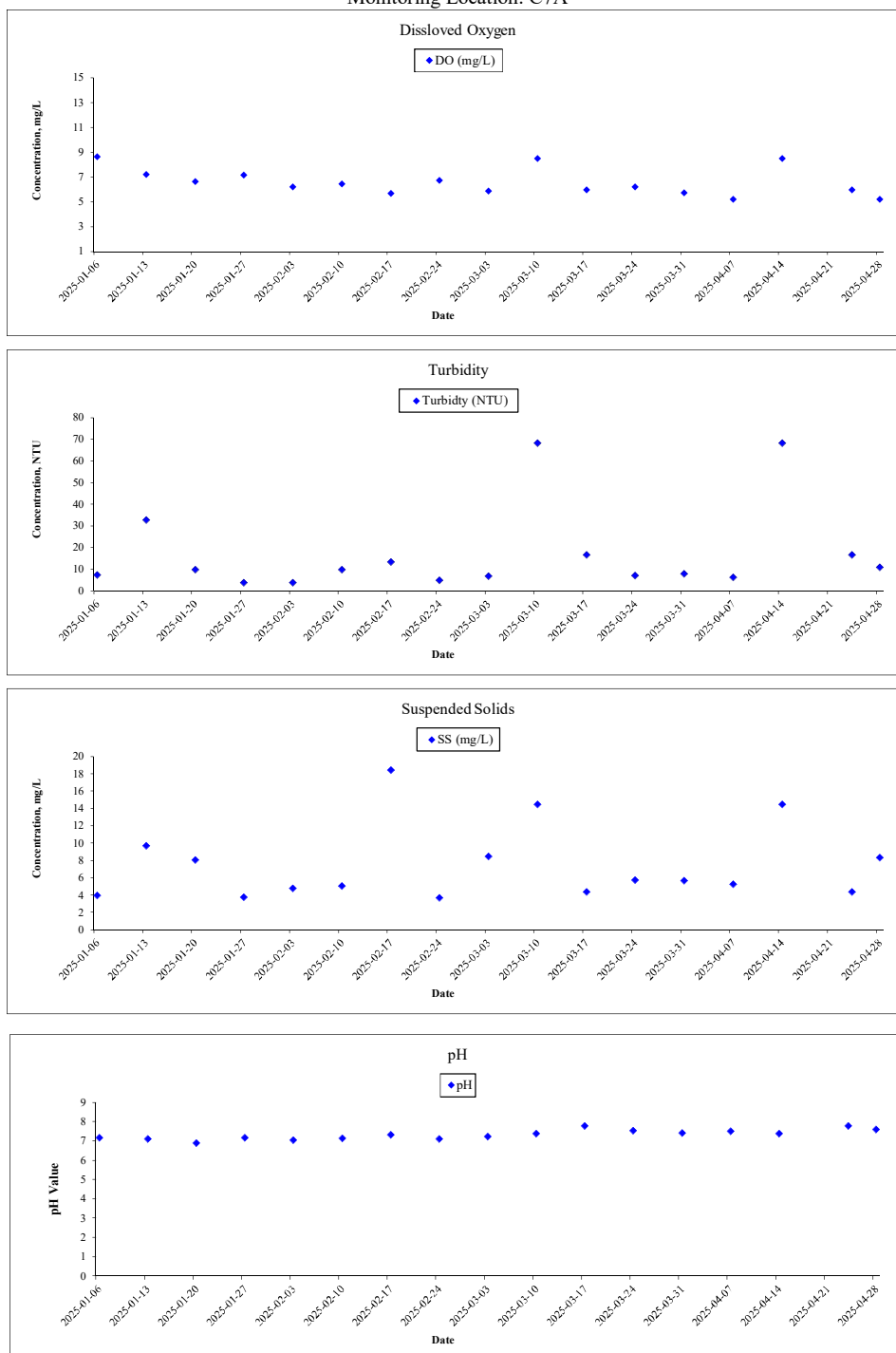
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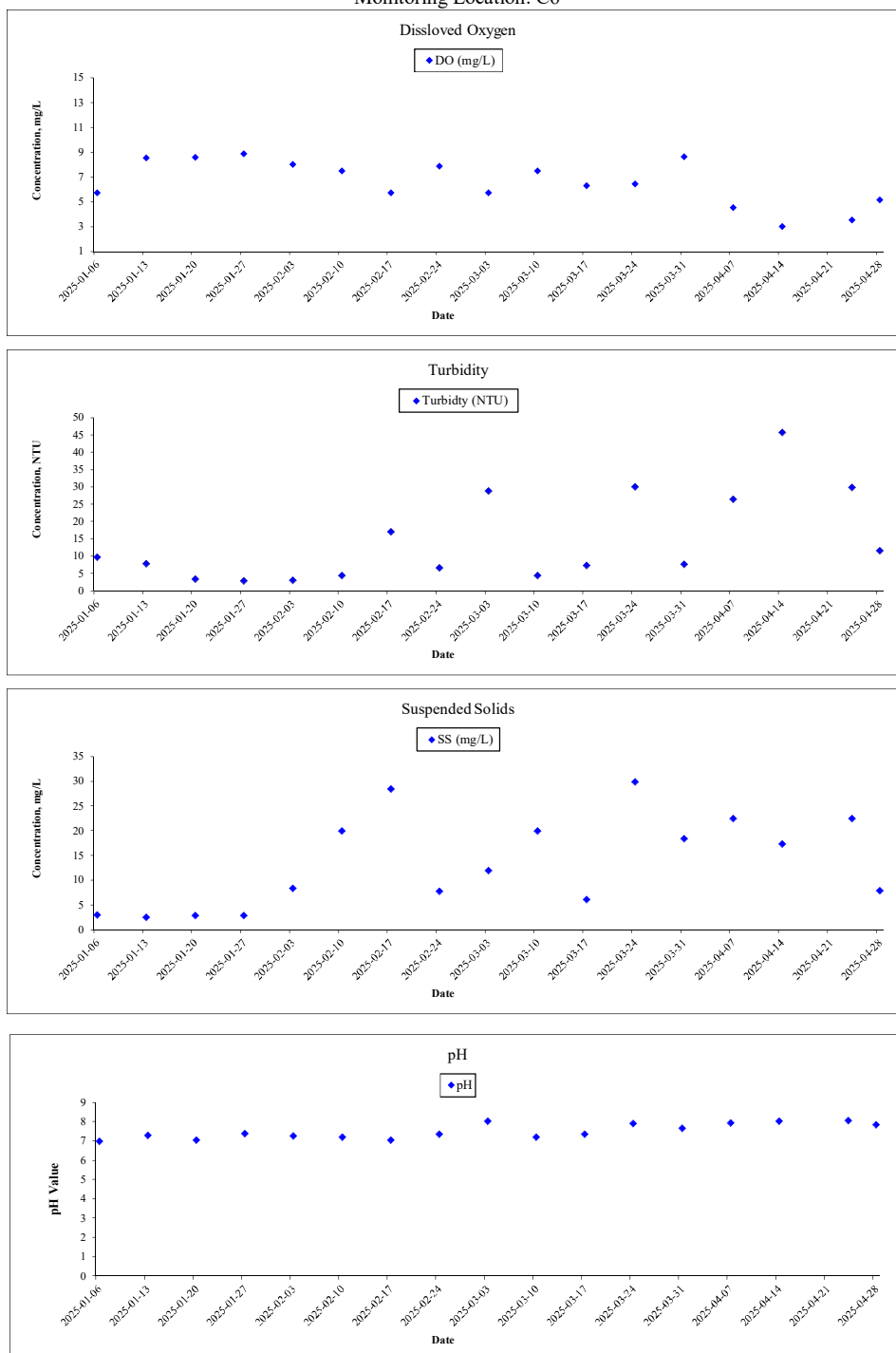
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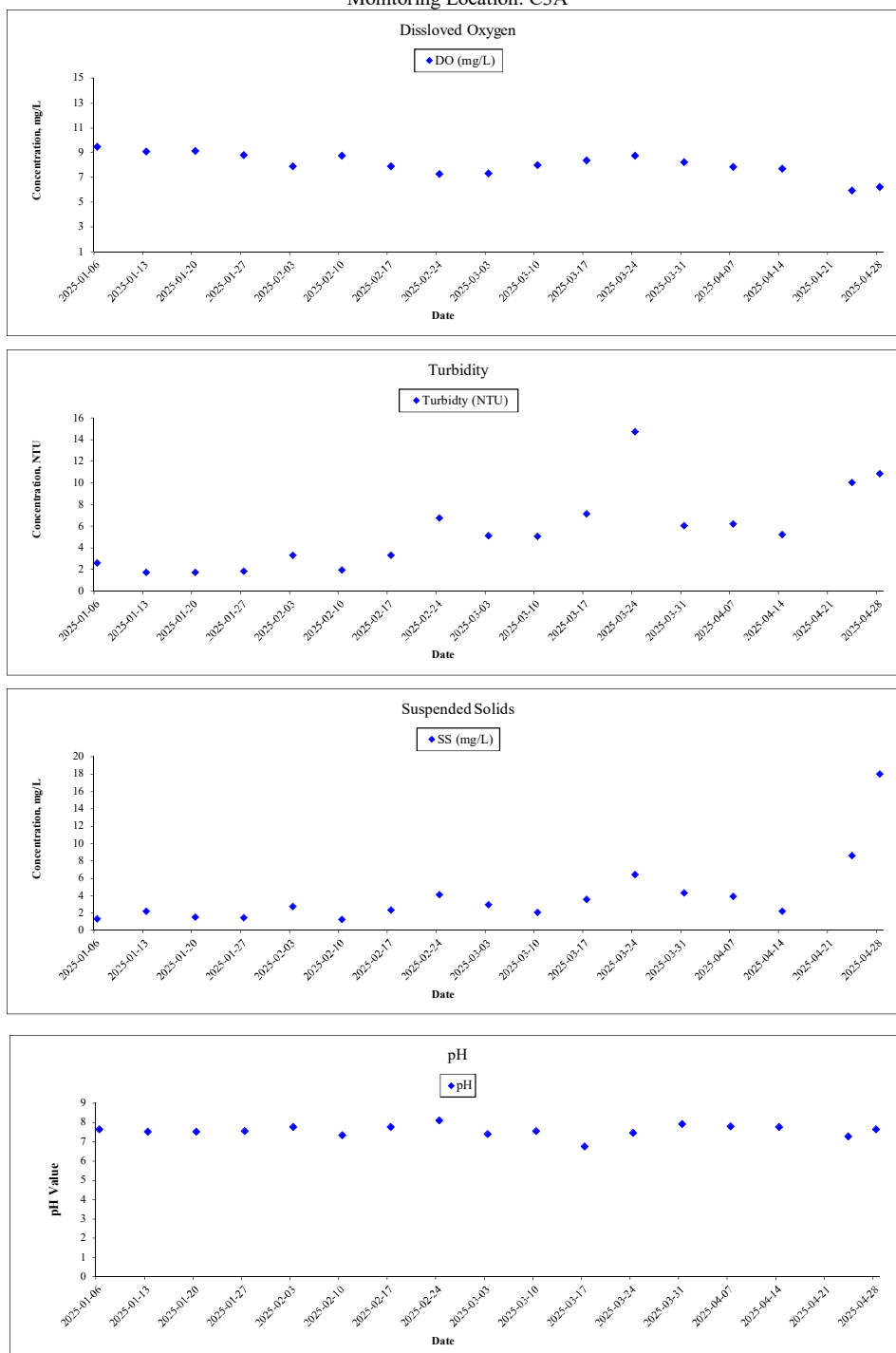
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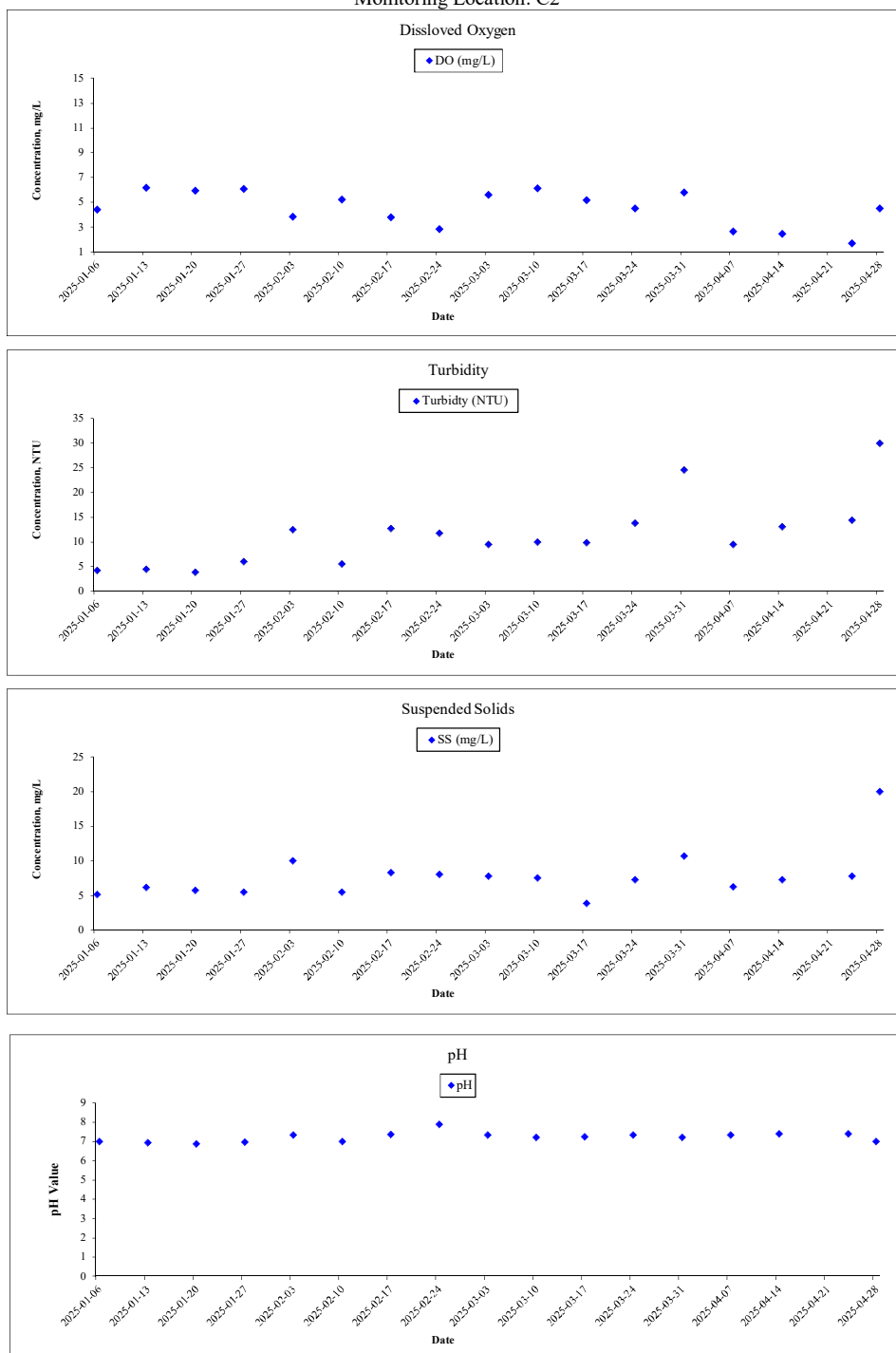
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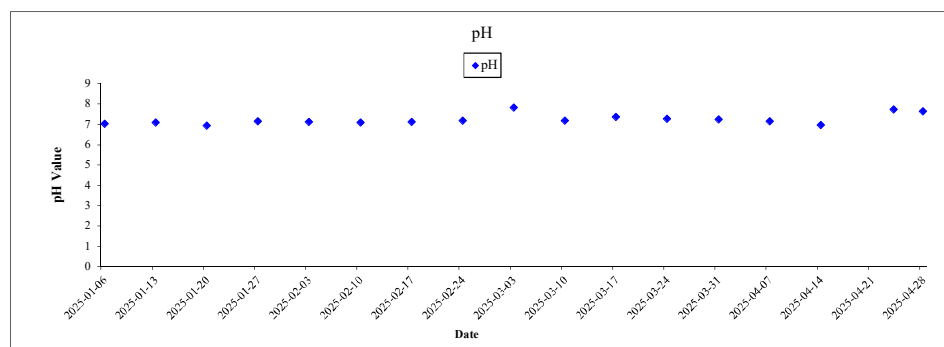
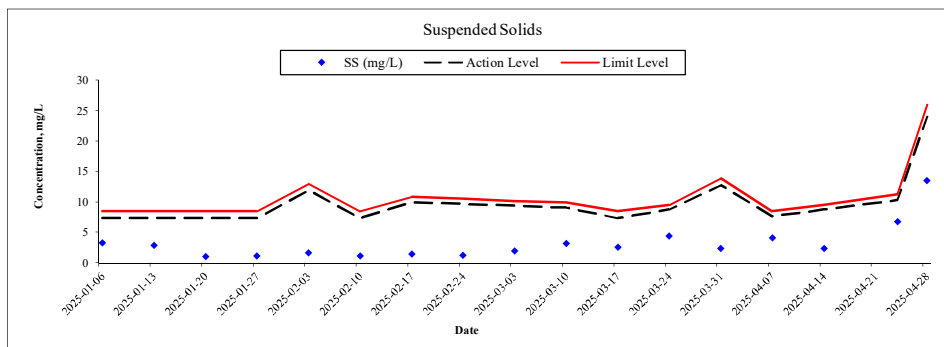
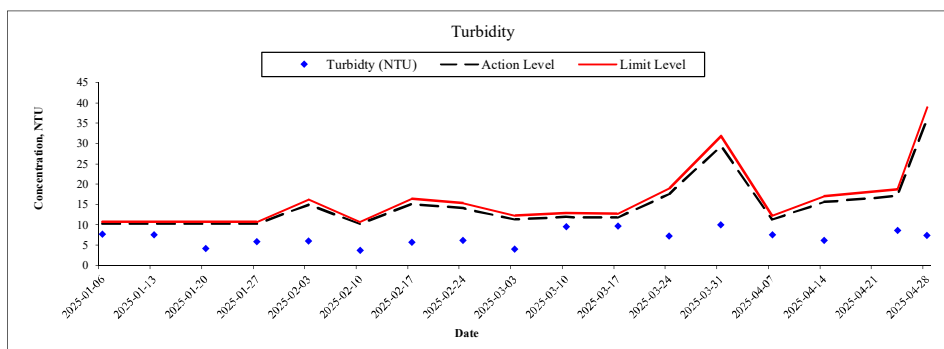
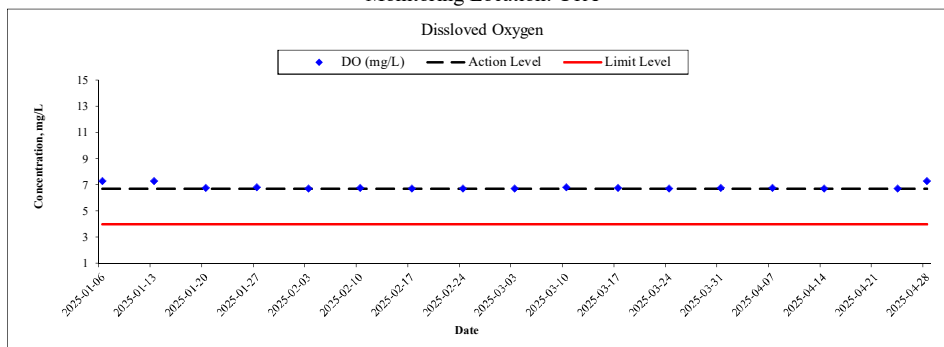
Monitoring Location: C3A



Monitoring Location: C2



Monitoring Location: C1A



Appendix 3.1 Calibration Certificates of Impact Noise Monitoring Equipment

Certificate of Calibration

for

Description: Sound Level Calibrator

Manufacturer: RION

Type No.: NC-75

Serial No.: 34724244

Submitted by:

Customer: Aurecon Hong Kong Limited

Address: Unit 1608, 16/F, Tower B, Manulife Financial Centre,
223-231 Wai Yip Street, Kwun Tong,
Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☒ Within

☐ Outside

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by:


Calibration Technician

Certified by:



Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 24 July 2024



Certificate No.: APJ23-154-CC002

Page 1 of 2

1. Calibration Precautions:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. Calibration Specifications:

Calibration check

3. Calibration Conditions:

Air Temperature: 23.4 °C
Air Pressure: 1005 hPa
Relative Humidity: 56.7 %

4. Calibration Equipment:

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. Calibration Results**5.1 Sound Pressure Level**

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	93.9

Note:

The values given in this certification only related to the values measured at the time of the calibration.



Certificate of Calibration

for

Description: *Sound Level Meter*
Manufacturer: *SVANTEK*
Type No.: *971 (Serial No.: C119577)*
Microphone: *ACO 7052E (Serial No.: 93026)*
Preamplifier: *SV 18 (Serial No.:103880)*

Submitted by:

Customer: *Aurecon Hong Kong Limited*
Address: *Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
223-231 Wai Yip Street,
Kwun Tong, Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

- ☒ **Within (31.5Hz – 4kHz)**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

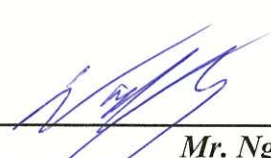
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 23 October 2024

Date of calibration: 24 October 2024

Date of NEXT calibration: 23 October 2025

Calibrated by: 
Calibration Technician

Certified by: 
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 24 October 2024

Certificate No.: APJ23-155-CC004



Page 1 of 4

1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. Calibration Conditions:

Air Temperature: 25.6 °C
Air Pressure: 1006 hPa
Relative Humidity: 51.8 %

3. Calibration Equipment:

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB
25-125.2	dBA SPL	Fast		94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB
25-125.2	dBA SPL	Fast		94	1000	94.0	Ref
				104		104.0	±0.3
				114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB
25-125.2	dBA SPL	Fast		94	1000	94.0	Ref
		Slow				94.0	±0.3

Certificate No.: APJ23-155-CC004

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
25-125.2	dB	SPL	94	31.5	94.3	±2.0
				63	94.2	±1.5
				125	94.1	±1.5
				250	94.1	±1.4
				500	94.1	±1.4
				1000	94.0	Ref
				2000	93.7	±1.6
				4000	93.2	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
25-125.2	dBA	SPL	94	31.5	55.0	-39.4±2.0
				63	68.1	-26.2±1.5
				125	78.1	-16.1±1.5
				250	85.5	-8.6±1.4
				500	90.8	-3.2±1.4
				1000	94.0	Ref
				2000	94.9	+1.2±1.6
				4000	94.3	+1.0±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
25-125.2	dBC	SPL	94	31.5	91.4	-3.0±2.0
				63	93.4	-0.8±1.5
				125	94.0	-0.2±1.5
				250	94.1	-0.0±1.4
				500	94.1	-0.0±1.4
				1000	94.0	Ref
				2000	93.6	-0.2±1.6
				4000	92.5	-0.8±1.6



Certificate No.: APJ23-155-CC004

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5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

Certificate No.: APJ23-155-CC004



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Appendix 3.2 Event and Action Plan for Noise Exceedance

Event and Action Plan for Noise

Event	ET	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and the Contractor and formulate remedial measures; and 5. Increase monitoring frequency to check the effectiveness of mitigation measures. 	<ol style="list-style-type: none"> 1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and 3. Advise the ER on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; and 4. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC and ER; and 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Notify IEC, ER, EPD, and Contractor; 2. Identify source and investigate the cause of exceedance; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess the effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, and Contractor on the potential remedial actions; and 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; and 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; and 5. Stop the relevant portion of works as determined by ER, until the exceedance is abated.

Appendix 3.3 Impact Noise Monitoring Data



				Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)
Date	Time				Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)		
05/04/2025	8:29	-	8:59	FINE	66.8	67.0	66.6	66.7	66.5	66.5	66.7	69.7
11/04/2025	8:34	-	9:04	FINE	66.5	67.2	66.5	67.8	66.6	66.8	66.9	69.9
15/04/2025	9:40	-	10:10	FINE	62.6	59.7	60.2	61.0	61.9	63.0	61.6	64.6
25/04/2025	8:33	-	9:03	FINE	67.1	66.5	68.4	67.2	67.1	66.7	67.2	70.2
30/04/2025	11:40	-	12:10	FINE	70.5	72.5	73.2	69.7	70.1	72.0	71.5	74.5
											Max	Min
											74.5	64.6

Noise Level Results at NE-104					Leq-5min, dB(A)						Leq-30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
Date	Time			Weather							
05/04/2025	7:48	-	8:18	FINE	63.3	63.9	64.6	64.8	64.9	64.5	64.4
11/04/2025	7:56	-	8:26	FINE	64.6	65.3	64.1	63.9	64.7	63.1	64.3
15/04/2025	10:15	-	10:45	FINE	67.6	69.3	67.8	68.7	68.6	67.3	68.3
25/04/2025	7:55	-	8:25	FINE	64.0	66.1	64.7	63.5	65.4	63.8	64.7
30/04/2025	13:00	-	13:30	FINE	63.8	65.4	62.3	63.9	60.1	63.4	63.4
										Max	Min
										68.3	63.4

Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
05/04/2025	7:13	-	7:43	FINE	62.1	61.5	62.1	63.1	61.9	61.5	62.1
11/04/2025	7:18	-	7:48	FINE	62.3	62.3	61.4	63.2	61.3	61.8	62.1
15/04/2025	9:00	-	9:30	FINE	66.2	66.6	65.9	64.7	64.6	65.0	65.6
25/04/2025	7:16	-	7:46	FINE	63.3	61.7	62.4	62.8	61.3	61.8	62.3
30/04/2025	11:00	-	11:30	FINE	65.8	67.9	68.3	66.2	69.7	68.2	67.9
									Max	Min	
									67.9	62.1	

Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
05/04/2025	11:39	-	12:09	FINE	60.9	64.2	61.7	66.0	65.5	63.7	64.0
11/04/2025	11:36	-	12:06	FINE	60.1	63.5	62.4	60.6	61.1	65.6	62.7
15/04/2025	11:00	-	11:30	FINE	62.8	62.8	62.7	62.5	64.3	65.2	63.5
25/04/2025	11:45	-	12:15	FINE	62.5	62.8	65.3	61.8	63.7	60.6	63.0
30/04/2025	13:45	-	14:15	FINE	50.1	48.6	47.2	47.7	46.1	46.4	47.9
										Max	Min
										64.0	47.9

Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)		
05/04/2025	12:16	-	12:46	FINE	60.9	59.1	58	60.2	59.7	59.2	59.6	62.6
11/04/2025	12:13	-	12:43	FINE	59.1	58.4	58.5	60.5	58.4	58.6	59.0	62.0
15/04/2025	11:32	-	12:02	FINE	63.3	67.6	66.5	66.1	65.6	63.1	65.7	68.7
25/04/2025	12:18	-	12:48	FINE	60.1	59.9	59.1	59.7	60.7	59.8	59.9	62.9
30/04/2025	14:17	-	14:47	FINE	52.5	53.1	51.2	50.1	49.8	50.2	51.3	54.3
											Max	Min
											68.7	54.3

Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
05/04/2025	12:52	-	13:22	FINE	54.3	53.6	54.3	55.1	53.8	55.2	54.4
11/04/2025	12:48	-	13:18	FINE	54.1	53.6	54.7	54.6	55.3	55.1	54.6
15/04/2025	12:05	-	12:35	FINE	59.3	54.2	53.5	53.2	53.1	53.4	55.2
25/04/2025	12:53	-	13:23	FINE	53.8	53.8	53.9	54.4	53.7	53.4	53.8
30/04/2025	14:50	-	15:20	FINE	53.7	51.2	51.6	51.3	51.5	51.2	51.9
										Max	Min
										55.2	51.9

Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
05/04/2025	13:26	-	13:56	FINE	60.3	62.0	63.1	59.1	59.5	62.8	61.4
11/04/2025	13:22	-	13:52	FINE	59.7	61.0	62.6	62.0	59.5	59.7	60.9
15/04/2025	12:37	-	13:07	FINE	57.5	63.6	63.2	63.0	62.8	62.4	62.5
25/04/2025	13:28	-	13:58	FINE	59.6	61.2	63.1	59.6	59.9	60.3	60.8
30/04/2025	15:23	-	15:53	FINE	61.1	61.2	60.7	61.3	59.6	58.1	60.5
										Max	Min
										62.5	60.5

Date	Time			Weather	Leq-5min, dB(A)						30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
05/04/2025	14:02	-	14:32	FINE	59.1	57.7	60.2	58.6	59.9	59.9	59.3
11/04/2025	13:58	-	14:28	FINE	59.4	57.2	59.2	58.6	57.1	58.1	58.4
15/04/2025	13:10	-	13:40	FINE	62.4	60.7	61.9	62.2	61.4	62.9	62.0
25/04/2025	14:03	-	14:33	FINE	58.0	60.3	59.4	59.4	58.3	57.4	58.9
30/04/2025	15:56	-	16:26	FINE	61.2	62.4	61.7	61.5	63.5	62.9	62.3
										Max	Min
										62.3	58.4

Noise Level Results at SSNV_M2

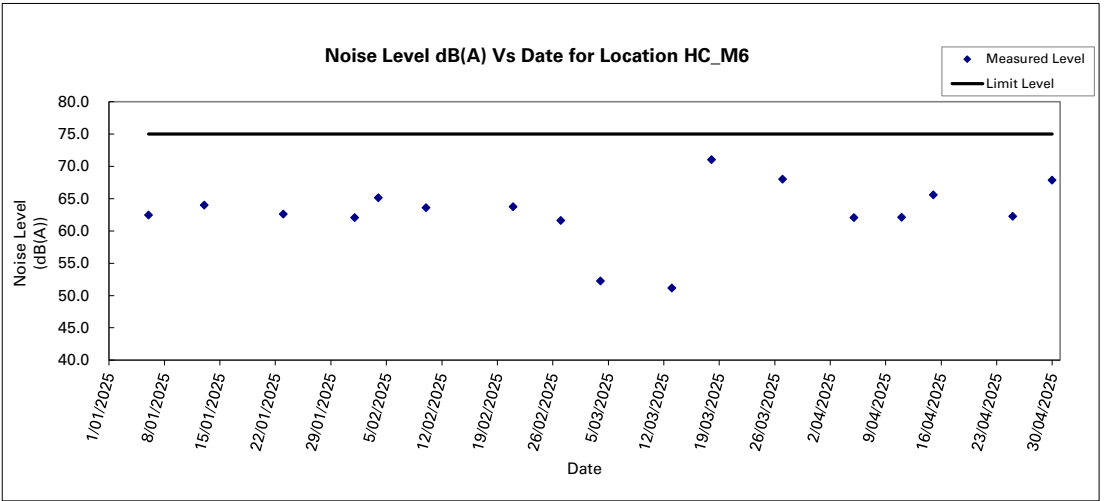
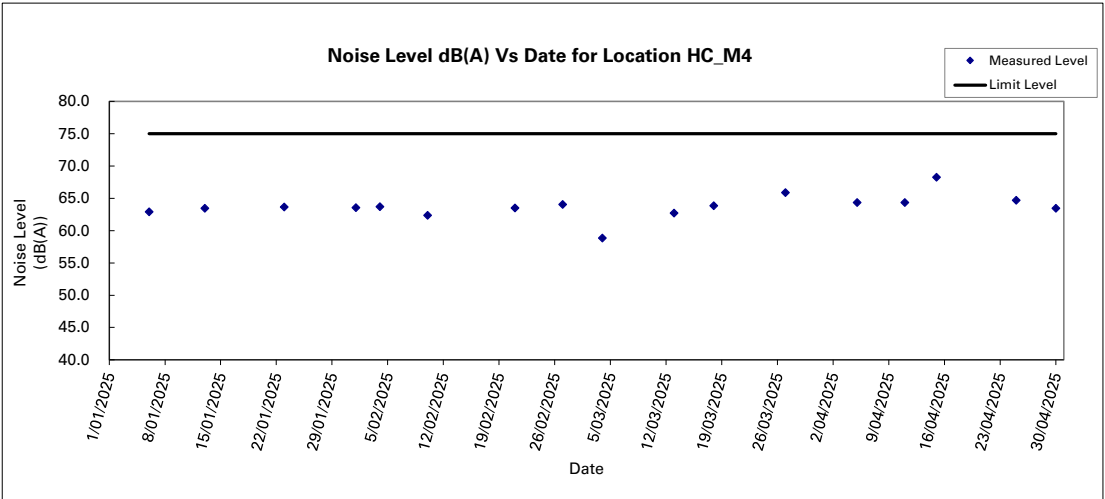
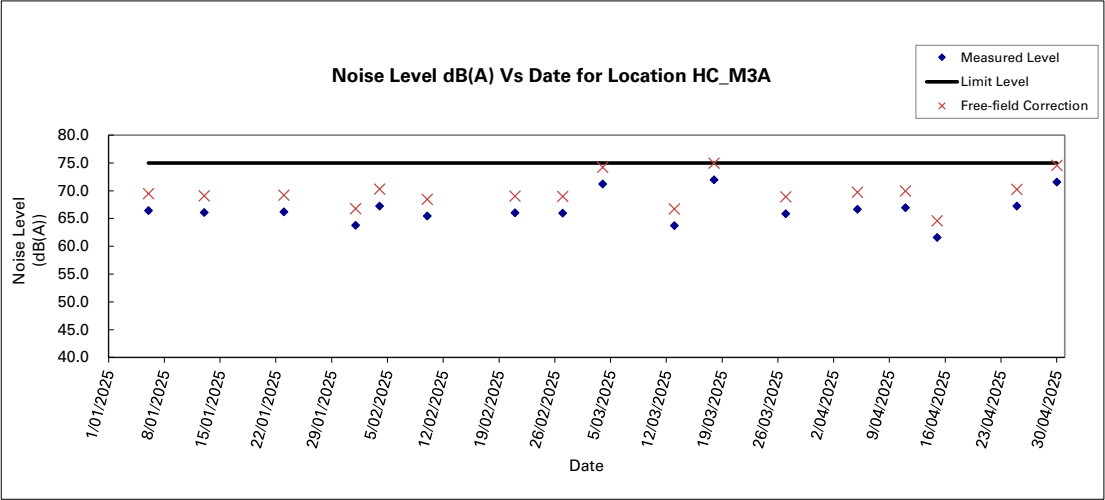
Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
05/04/2025	15:16	-	15:46	FINE	49.7	49.7	50.8	50.8	49.2	49.9	50.1
11/04/2025	15:21	-	15:51	FINE	51.2	50.9	49.6	49.7	50.8	51.0	50.6
15/04/2025	15:55	-	16:25	FINE	56.8	56.4	56.2	56.1	55.7	55.2	56.1
25/04/2025	15:28	-	15:58	FINE	49.4	50.6	51.2	50.1	49.7	50.0	50.2
30/04/2025	18:45	-	19:15	FINE	53.2	55.6	53.4	54.0	53.4	53.0	53.9
										Max	Min
										56.1	50.1

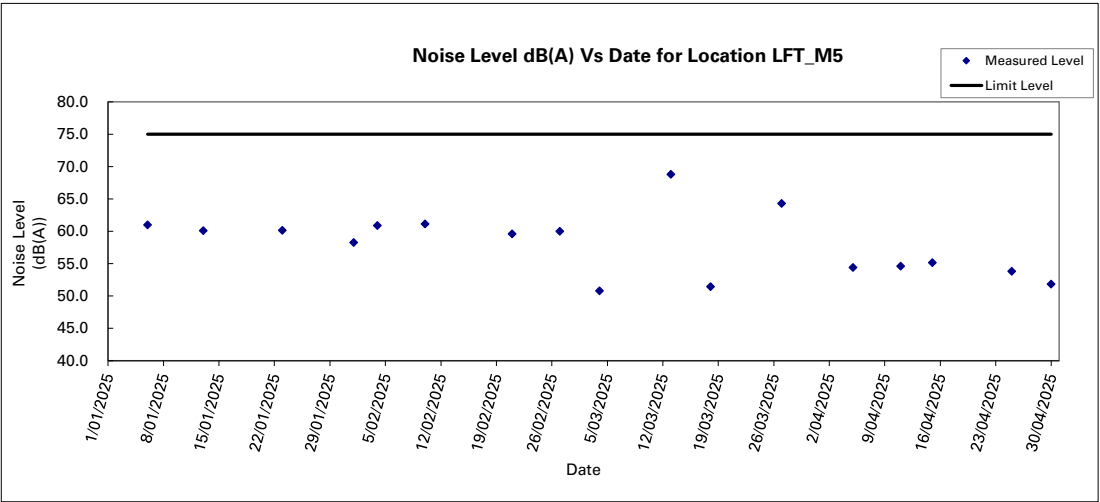
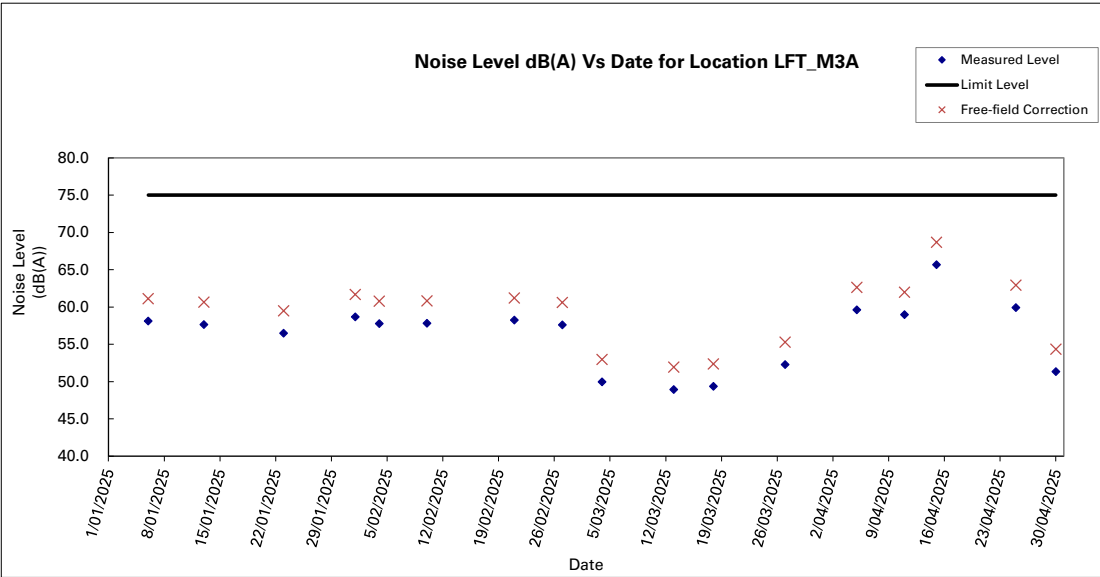
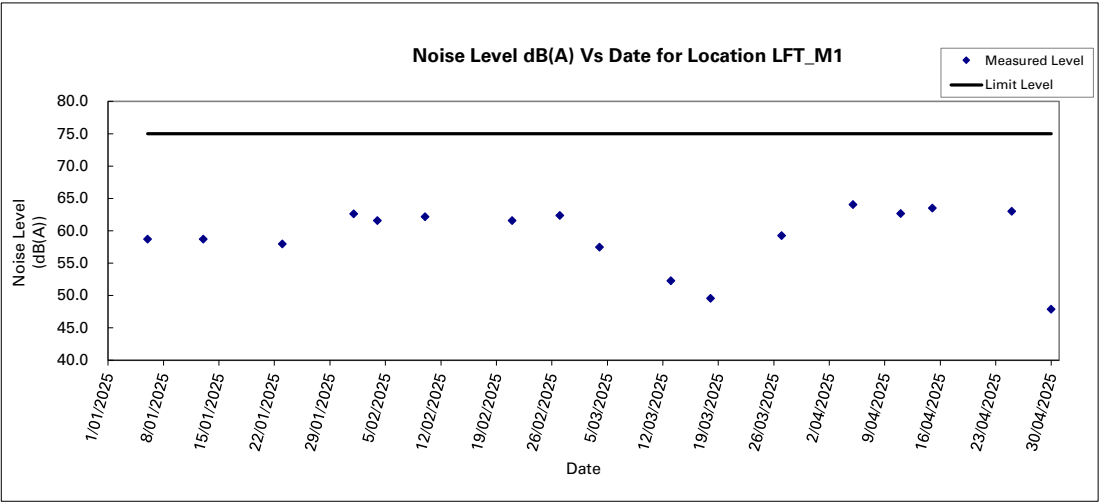
Noise Level Results at SSNV_M3

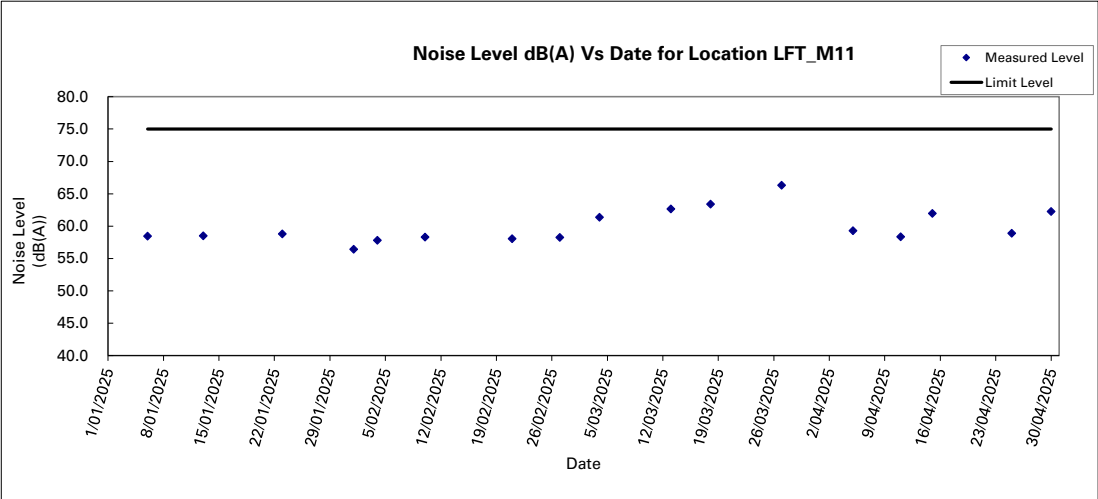
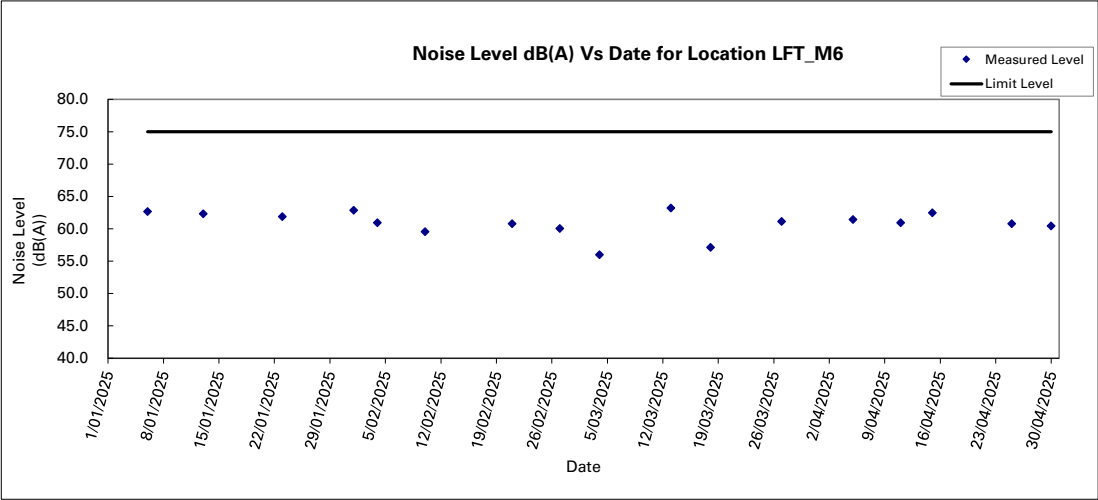
Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	
05/04/2025	15:53	-	16:23	FINE	62.9	61.5	63.3	61.2	61.7	61.2	62.0
11/04/2025	15:56	-	16:26	FINE	62.8	61.9	63.1	61.4	61.9	61.4	62.1
15/04/2025	16:26	-	16:56	FINE	55.5	55.5	55.5	55.6	55.6	55.7	55.6
25/04/2025	16:06	-	16:36	FINE	64.5	63.7	62.3	63.4	64.2	63.6	63.7
30/04/2025	19:15	-	19:45	FINE	50.6	50.9	51.0	51.4	51.8	53.2	51.6
										Max	Min
										63.7	51.6

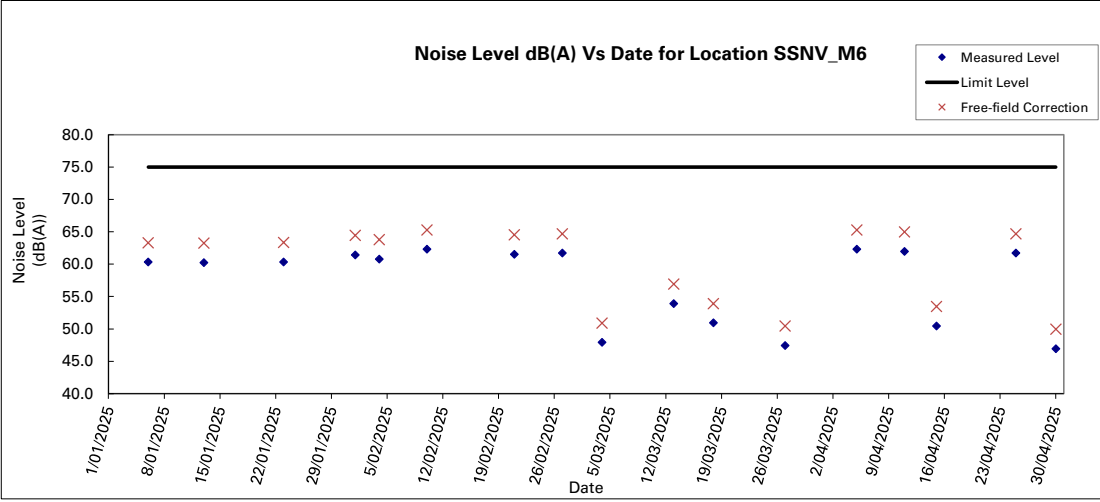
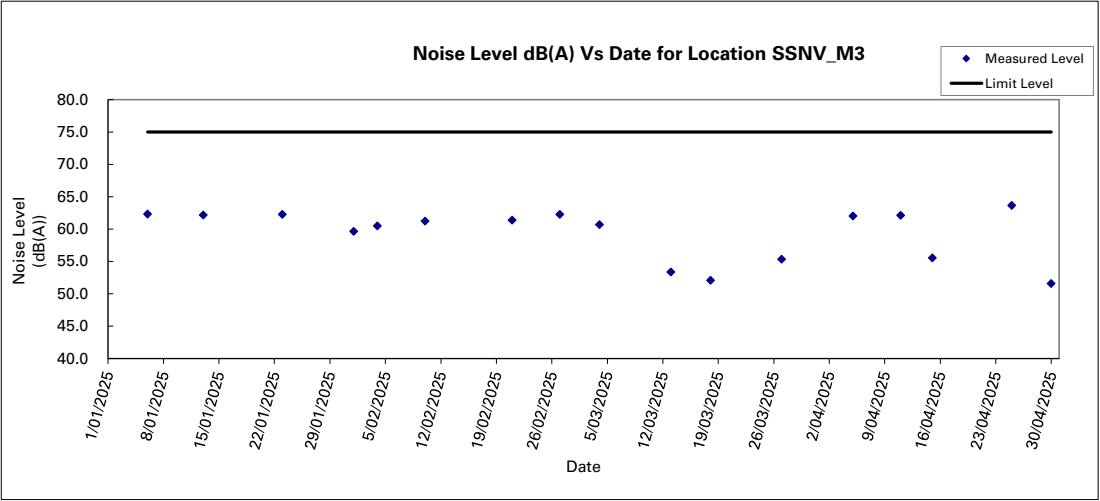
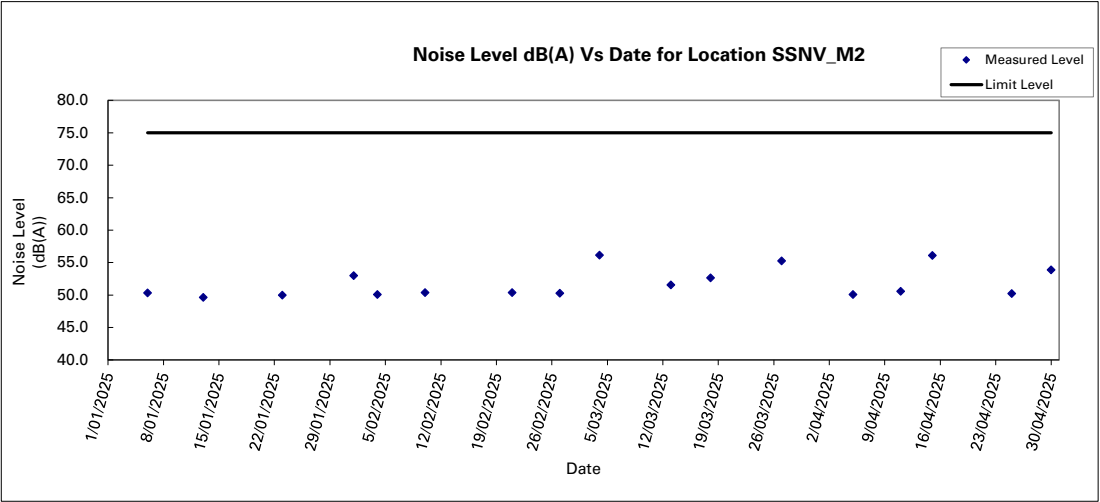
Noise Level Results at SSNV_M6

Date	Time			Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)
					Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)		
05/04/2025	16:29	-	16:59	FINE	61.5	62.5	62.9	62.9	61.2	62.5	62.3	65.3
11/04/2025	16:32	-	17:02	FINE	61.7	61.5	61.3	62.4	62.5	62.3	62.0	65.0
15/04/2025	15:20	-	15:50	FINE	49.5	49.3	49.2	49.1	51.9	52.4	50.5	53.5
25/04/2025	16:45	-	17:15	FINE	62.5	61.2	61.3	62.3	61.5	61.2	61.7	64.7
30/04/2025	18:10	-	18:40	FINE	47.0	47.2	46.4	47.5	46.1	47.3	46.9	49.9
										Max	Min	
										65.3	49.9	









Appendix 5.1 Waste Flow Table

Name of Department : Drainage Services Department

Contract No. : DC/2022/02

Monthly Summary Waste Flow Table for 2025

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Materials Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastic	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	2.212	0.205	0.000	0.000	2.007	0.000	0.000	0.000	0.000	0.000	0.009
Feb	0.439	0.081	0.000	0.000	0.358	0.000	0.000	0.000	0.000	0.000	0.014
Mar	0.550	0.048	0.000	0.000	0.501	0.000	0.000	0.000	0.000	0.000	0.021
Apr	0.511	0.098	0	0	0.413	0	0	0	0	0	0.055
May											
Jun											
Sub-total	3.712	0.433	0.000	0.000	3.279	0.000	0.000	0.000	0.000	0.000	0.100
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	3.712	0.433	0.000	0.000	3.279	0.000	0.000	0.000	0.000	0.000	0.100

Appendix 10.1 Complaint Log

Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 Apr 2025 - 30 Apr 2025	0	5	N/A

Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 Apr 2025 - 30 Apr 2025	0	0	N/A

Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 Apr 2025 - 30 Apr 2025	0	0	N/A

Appendix 11.1 Impact Monitoring Schedule of Next Reporting Month

