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

Updated Environmental Monitoring and Audit (EM&A) Manual

Wing Tat Civil Engineering Co. Limited

Revision: 8

2024-07-04

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Document prepared by:

Aurecon Hong Kong Limited

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

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

Document control						aurecon
Report title		Updated Environmental Monitoring and Audit (EM&A) Manual				
Document code		UEM&A-08	**Project number**		P525672	
File path						
Client		Wing Tat Civil Engineering Co. Limited				
Client contact			**Client reference**			
Rev	**Date**	**Revision details/status**	**Author**	**Reviewer**	**Verifier** (if required)	**Approver**
2.1	2023-11-21	Third Issue	Rex Chow	F. C. Tsang		Kevin Li
3	2023-11-22	Fourth Issue	Rex Chow	F. C. Tsang		Kevin LI
4	2023-11-23	Fifth Issue	Rex Chow	F. C. Tsang		Kevin LI
5	2024-02-11	Sixth Issue	Rex Chow	F. C. Tsang		Kevin LI
6	2024-06-02	Seventh Issue	Rex Chow	F. C. Tsang		Kevin Li
7	2024-06-29	Eighth Issue	Rex Chow	F. C. Tsang		Kevin Li
8	2024-07-04	Ninth Issue	Rex Chow	F. C. Tsang		Kevin Li
Current revision		**8**				

Approval			
Author signature		Certified by	
Name	Rex Chow	Name	F. C. Tsang
Title	Environmental Team Consultant	Title	Environmental Team Leader

MOTT MACDONALD

Drainage Services Department
Project Management Division
42/F Revenue Tower
5 Gloucester Road
Wanchai, Hong Kong

By E-mail

Attn: Mr. Ken Ho

Your Reference

Our Reference
TC/LL/hc/601100222/L037

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

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

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

Verification of Updated Environmental Monitoring and Audit (EM&A) Manual

5 July 2024

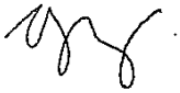
Dear Sir,

We refer to the Updated EM&A Manual under the captioned Project, which was certified on 4 July 2024 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 2.6.

Should you have any queries regarding the captioned, please contact our Hin Chan at 2828 5764 or the undersigned at 2828 5751.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED



Liz LO
Independent Environmental Checker
T 2828 5751
Liz.lo@mottmac.com

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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 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 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. The construction program and the location plan of the Project are shown in **Appendix 1** and **Figure 1.1**, respectively. The locations of the proposed drainage improvement works at the four villages are presented in **Figures 1.2**, **1.3**, **1.4** and **1.5**.

1.1.6 Descriptions of the Project elements have been further elaborated and presented in **Section 2.1**.

1.2 The Updated EM&A Manual

1.2.1 The EM&A Manual is an evolving document that should be updated to maintain its relevance as the Project progresses to ensure the impacts predicted and the recommended mitigation measures remain consistent and appropriate to the manner in which the works are to be carried out. This updated submission incorporates the update as required under Condition 2.6 of the EP, including:

- a water quality monitoring plan (WQMP) to detect potential adverse water quality impacts at the Project and downstream area directly affected by the construction of the Project and Cheung Po Ecologically Importance Stream (EIS) in Tai Wo. With reference to the excavation works in the drainage channels as mentioned in Condition 3.1 of EP, the WQMP shall include

details of the monitoring locations, monitoring frequency, parameters to be monitored, and additional measures to be taken after adverse weather conditions to ensure that the water quality is not adversely affected; and

- an Event and Action Plan for water quality monitoring.

1.3 Construction Programme

1.3.1 The proposed drainage improvement works are planned to commence in 2024 and completed in 2026. **Appendix 1** presents the construction programme of the project.

1.4 Purpose of the EM&A Manual

1.4.1 The purposes of this EM&A Manual are to:

- guide the set up of an EM&A programme to ensure compliance with the recommendations in the EIA study covering the drainage improvement works near four villages in Yuen Long;
- assess the effectiveness of the recommended mitigation measures;
- identify any further need for additional mitigation measures or remedial action;
- outlines the monitoring and audit programme for both the construction and operational phase of the Project;
- provides specific information, guidance and instruction to personnel in charged with environmental responsibilities and undertaking environmental monitoring and auditing works for drainage improvement works near four villages in Yuen Long; and
- provide systematic procedures for monitoring, auditing and minimising environmental impacts associated with the construction and operational phases.

1.4.2 This EM&A Manual contains the following information:

- project organization for the Project;
- responsibilities of the Contractor, the Engineer or Engineer's Representative (ER) and Environmental Team (ET) with respect to the environmental monitoring and audit requirements during the course of the Project;
- the basis for, and description of the broad approach underlying the EM&A programme;
- requirements with respect to the construction programme schedule and the necessary environmental monitoring and audit programme to track the varying environmental impact;
- details of the methodologies to be adopted, including all field laboratories and analytical procedures, and details on quality assurance and quality control programme;
- definition of Action and Limit levels;
- establishment of Event and Action plans;
- requirements for reviewing pollution sources and working procedures required in the event of non-compliance with the environmental criteria and complaints;
- requirements for presentation of environmental monitoring and audit data and appropriate reporting procedures; and
- requirements for review of EIA predictions and the effectiveness of the mitigation measures / environmental management systems and the EM&A programme.

1.5 Contents

1.5.1 The background, description and construction programme of this Project are provided in **Section 1.1 – 1.4**. The requirements on the EM&A programme are detailed in the following sections:

- Section 2 – Project Organisation
- Section 3 – Air Quality
- Section 4 – Noise
- Section 5 – Ecology
- Section 6 – Water Quality
- Section 7 – Waste Management
- Section 8 – Land Contamination
- Section 9 – Landscape & Visual
- Section 10 – Cultural Heritage
- Section 11 – Site Environmental Audit
- Section 12 – Reporting

2 Project Organisation

2.1 Key Parties and Organisation Chart

2.1.1 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 2-1**.

2.2 Drainage Services Department

2.2.1 The Drainage Services Department (DSD) is the project proponent and works department and hence will assume overall responsibility for the project.

2.3 Environmental Protection Department

2.3.1 The Environmental Protection Department (EPD) is the statutory enforcement body for environmental protection matters in Hong Kong.

2.4 Engineer's Representative

2.4.1 The Engineer's Representative (ER) shall appoint an appropriate member of the resident site staff, who shall:

- monitor the Contractor's compliance with the contract specifications, including the EM&A programme, and the effective implementation and operation of environmental mitigation measures in a timely manner;
- ensure that impact monitoring is conducted at the correct locations at the correct frequency as identified in the EM&A programme;
- instruct the Contractor to follow the agreed protocols or those In the Contract Specifications in the event of exceedances or complaints;
- review the programme of works with a view to identifying any potential environmental impacts before they arise;
- check that mitigation measures that have been recommended in the EIA Report, this document and contract documents, or as required, are correctly implemented in a timely manner, when necessary;
- report the findings of site audits and other environmental performance reviews to the DSD;
- verify the environmental acceptability of permanent and temporary works, relevant design plans and submissions; and
- comply with the agreed Event Contingency Plan in the event of any exceedance.

2.5 Independent Environmental Checker

2.5.1 The Independent Environmental Checker (IEC) shall advise the ER on environmental issues related to the project. The IEC shall not be in any way an associated body of the ER, the Contractor or the ET for the project. The IEC shall be empowered to audit from an independent viewpoint the environmental performance during the construction of the Project. The IEC shall be a person who has relevant professional qualifications in environmental control and at least 7 years of experience in EM&A and environmental management.

2.5.2 The IEC shall be responsible for the duties defined in this Manual, and shall audit the overall EM&A programme, including the implementation of all environmental mitigation measures, submissions required in this Manual, as well as any other relevant submissions required under the Environmental Permit. The IEC shall be responsible for verifying the environmental acceptability of permanent and temporary works, and relevant design plans and submissions under the EP. The IEC shall verify the logbook prepared and kept by the ET Leader. The IEC shall notify the EPD by fax, within 24 hours of receipt of notification from the ET Leader of any such instance or circumstance or change of circumstances or non-compliance with the EIA Report or the EP, which might affect the monitoring or control of adverse environmental impact.

2.5.3 The main duties of the IEC are to carry out independent environmental audit of the project. This shall include, inter alias, the following:

- Review and audit in an independent, objective and professional manner in all aspects of the EM&A programme;
- Validate and confirm the accuracy of monitoring results, appropriateness of monitoring equipment, monitoring locations with reference to the locations of the nearby sensitive receivers, and monitoring procedures;
- Carry out random sample check and audit on monitoring data and sampling procedures, etc;
- Conduct random site inspection (at least once a month);
- Audit the EIA recommendations and EP requirements against the status of implementation of environmental protection measures on site;
- Review the effectiveness of environmental mitigation measures and project environmental performance;
- On an as needed basis, verify and certify the environmental acceptability of the construction methodology (both temporary and permanent works), relevant design plans and submissions under the environmental permit. Where necessary, the IEC shall agree in consultation with the ET Leader and the Contractor the least impact alternative;
- Verify investigation results of complaint cases and the effectiveness of corrective measures;
- Verify EM&A reports submitted and certified by the ET Leader; and
- Feedback audit results to ER/ ET by signing according to the Event and Action Plans specified in this Manual.

2.6 Environmental Team

2.6.1 An Environmental Team (ET) headed by an ET Leader shall preferably be appointed by the Contractor to carry out the recommended EM&A programme for the Project. Neither the ET Leader nor the ET shall be in any way an associated body of the ER, the IEC or the Contractor. The ET Leader shall plan, organise and manage the implementation of the EM&A programme, and ensure that the EM&A works are undertaken to the required standards. The ET Leader shall have relevant professional qualifications in environmental control and possess at least 7 years of experience in EM&A and/or environmental management subject to the approval of their employer.

2.6.2 The ET Leader shall be responsible for the implementation of the EM&A programme in accordance with the EM&A requirements specified in this Manual and the EP. The ET Leader shall keep a contemporaneous logbook for recording each and every instance or circumstance or change of circumstances that may affect the compliance with the recommendations of the EIA report. This logbook shall be kept readily available for inspection by the IEC, and Director of Environmental Protection (DEP) or his authorised officers.

2.6.3 Sufficient and suitably qualified professional and technical staff shall be employed by the respective parties to ensure full compliance with their duties and responsibility, as required under the EM&A programme for the duration of the project.

2.6.4 The broad categories of works of the ET comprise the following:

- Conduct sampling, analysis and statistical evaluation of monitoring parameters with reference to the EIA study recommendations and requirements;
- Carry out environmental site surveillance;
- Audit the compliance with environmental protection, and pollution prevention and control regulations;
- Monitor the implementation of environmental mitigation measures;
- Monitor the compliance with the environmental protection clauses/ specifications in the Contract;
- Review the construction programme and comment as necessary;
- Review the construction methodology and comment as necessary;
- Investigate complaints, evaluate and identify corrective measures;
- Liaise with the IEC on all environmental performance matters, and submit all relevant EM&A proforma for the IEC's approval timely;
- Advise the Contractor on environmental improvement, awareness, enhancement matters, etc., on site; and
- Submit the EM&A Report to the IEC, the Contractor, the ER and the DEP timely.

2.7 The Contractor

2.7.1 The Contractor shall assign an on-site environmental coordinator to oversee Contractor's environmental performance and the implementation of the EM&A duties. The coordinator shall be a person who has relevant professional qualifications in environmental control and is subject to approval by the ER.

2.7.2 The broad categories of works of the Contractor comprise the following:

- work within the scope of the construction contract and other tender conditions with respect to environmental requirements;
- operate and strictly adhere to the guidelines and requirements in this EM&A programme and contract specifications;
- provide assistance to the ET in carrying out monitoring;
- participate in the site inspections undertaken by the ET as required, and undertake corrective actions;
- provide information/ advice to the ET regarding works activities which may contribute to, or be continuing, the generation of adverse environmental conditions;
- submit proposals on mitigation measures in case of exceedances of Action and Limit levels in accordance with the Event/ Action Plans;
- implement measures to reduce impact where Action and Limit levels are exceeded; and
- adhere to the procedures for carrying out complaint investigation.

2.7.3 The Contractor should also participate in the environmental performance review undertaken by the ER and undertake any corrective actions as instructed by the ER.

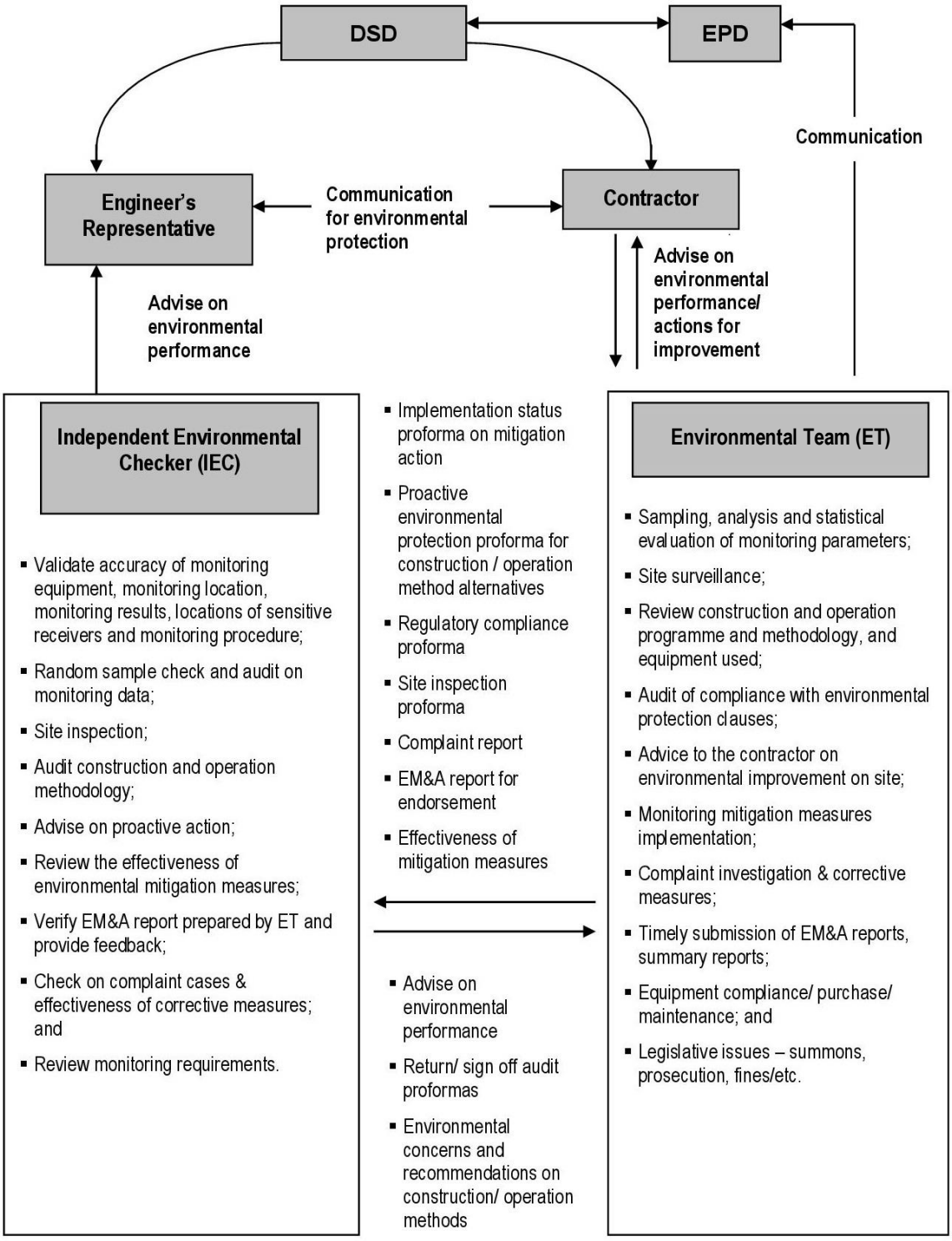


Diagram 2-1 Organisation Chart

3 Air Quality

3.1 Introduction

3.1.1 The EIA Report concluded that no significant impacts would arise from the construction phase of the Project. With proper implementation of good site practices stipulated in the Air Pollution Control (Construction Dust) Regulation and with the adoption of construction machineries and non-road vehicles meeting the prescribed emission standards and requirements specified in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, no adverse air quality impacts associated with the proposed drainage improvement works is anticipated.

3.1.2 In this section, the requirements for the monitoring and audit of air quality impacts during the construction phase of the drainage improvement works are presented.

3.2 EM&A Requirements during Construction Phase

Air Sensitive Receivers

3.2.1 Air Sensitive Receivers (ASRs) within the 500 m Study Areas at Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che have been identified according to the criteria set out in Annex 12 of the EIAO-TM, observations from site visits and review of the latest approved Outline Zoning Plans (OZPs) and information available in the Statutory Planning Portal of the Town Planning Board. The identified air sensitive receivers are shown in **Figures 3.1** to **3.5**.

Construction Dust Monitoring

3.2.2 No specific construction dust monitoring is recommended given the proper implementation of the dust control measures as required under the Air Pollution Control (Construction Dust) Regulation and the recommended mitigation measures.

Mitigation Measures

3.2.3 The Contractor shall be responsible for the design and implementation of the mitigation measures as recommended in **Appendix 2, Table A2-1.**

4 Noise

4.1 Introduction

4.1.1 In this section, the requirements, methodology, equipment, monitoring locations, criteria and protocols for the monitoring and audit of noise impacts during the construction phase of the Project are presented. The identified noise sensitive receivers are shown in **Figures 4.1** to **4.5**.

4.2 Monitoring Requirements and Equipment

Noise Parameters

4.2.1 The construction noise level shall be measured in terms of A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq\ (30min)}$ shall be used as the monitoring parameter for the time period between 07:00 - 19:00 on normal weekdays. For all other time periods, $L_{eq\ (5min)}$ shall be employed for comparison with the Noise Control Ordinance criteria. The two statistical sound levels L_{10} and L_{90}, the level exceeded for 10% and 90% of the time respectively, shall also be recorded during monitoring. The L_{90} may be considered as the ambient level into which the L_{10} as an average peak level intrudes. A sample data record sheet is shown in **Appendix 3**.

Noise Monitoring Equipment/ Calibration

4.2.2 Sound level meters and calibrators shall comply with the International Electrotechnical Commission Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification as referred to in the Technical Memorandum (TM) issued under the Noise Control Ordinance. The sound level meters shall be supplied and used with the manufacturer recommended weather shield as appropriate.

4.2.3 Sound level meters shall be calibrated using a portable calibrator prior to and following each noise measurement. The calibration levels shall be noted with the measurement results and where the difference between the calibration levels is greater than 1.0 dB(A), the measurement shall be repeated. Calibrated hand-held anemometers shall also be supplied for the measurement of wind speeds during noise monitoring periods.

4.2.4 The equipment shall be kept in a good state of repair in accordance with the manufacturer's recommendations and maintained in proper working order with sufficient spare equipment available in the event of breakdown to maintain the planned monitoring programme.

4.2.5 Noise measurements will not be made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with the hand-held anemometers capable of measuring the wind speed in m/s.

4.2.6 The ET is responsible for provision of the monitoring equipment. He shall ensure that sufficient noise measuring equipment and associated instrumentation are available for carrying out the baseline monitoring, regular impact monitoring and ad hoc monitoring. All the equipment and associated instrumentation shall be clearly labelled.

4.3 Noise Monitoring Methodology

4.3.1 Weatherproof logging sound level meters shall be installed at the monitoring locations during baseline monitoring. Continuous baseline noise for the A-weighted levels L_{eq}, L_{10} and L_{90} shall be measured over a two-week period, and a sampling period of 5 minutes will be used throughout the monitoring. Average, by sound power, of six consecutive $L_{eq\ (5min)}$ readings are used to provide $L_{eq(30min)}$ for the non-restricted period and three consecutive $L_{eq\ (5min)}$ readings are used to provide $L_{eq(15min)}$ for the restricted period during the impact stage.

4.3.2 Regular visits, for a period of at least once every three to four days, shall be conducted by the ET to ensure the continuous operations of the sound level meter. Impact monitoring shall be conducted once a week. Information such as date of monitoring, weather condition, equipment used,

measurement results and major noise sources will be recorded on the data record sheet. Examples of the record sheets are presented in **Appendix 3**.

4.4 Noise Monitoring Locations

4.4.1 Proposals of alternative monitoring locations for baseline and impact noise monitoring were prepared by the ET, and agreed with the ER and IEC. These proposals are presented in **Appendix 7**. The proposed monitoring locations, which include alternative monitoring locations, are shown in **Figure 4.6** to **Figure 4.9** and listed in **Table 4-1**. The statuses and locations of noise sensitive receivers may change after the approval of the proposal. If such cases exist, the ET Leader shall propose updated monitoring locations and seek approval from the ER and the IEC.

Table 4-1 Noise Monitoring Locations

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	#200, Cheung Po	Residential	Free-field
TW_M3	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_M7	Village house near the nullah (DD112 699 S.E)	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) SSNV – Sung Shan New Village; TW – Tai Wo; LFT – Lin Fa Tei; HC – Ha Che.
(2) LFT_M3A, LFT_M11, HC_M3A and are alternative noise monitoring stations proposed to replace LFT_M3, LFT_M13 and HC_M3, respectively.

4.4.2 The alternative monitoring locations are chosen based on the following criteria:

(i) The locations shall be close to the site activities which are likely to have significant noise impacts;

(ii) The locations shall be close to the noise sensitive receivers (NSRs) (NB. For the purpose of this section, any domestic premises, hotel, hostel, temporary housing accommodation, hospital, medical clinic, educational institution, place of public worship, library, court of law, performing art centre shall be considered as NSR);

(iii) Care shall be taken to cause minimal disturbance to the occupants of sensitive receivers; and

(iv) The proposed alternative monitoring locations should be agreed by the ER and the IEC.

4.4.3 The monitoring location shall normally be at a point 1 m from the exterior of the sensitive receivers building façade and 1.2 m above the ground. If there is a problem with access to the normal monitoring position, an alternative position may be chosen, and a correction to the measurement shall be made, if necessary. For reference, a correction of +3 dB(A) shall be made to free field measurements. The ET Leader shall agree with the IEC on the monitoring position and the corrections adopted. Once the positions for the monitoring stations are chosen, the baseline and impact monitoring shall be carried out at the same position.

4.5 Baseline Noise Monitoring

4.5.1 To obtain fully satisfactory baseline results, weatherproof logging sound level meter shall be used. Continuous baseline noise for the A-weighted levels L_{eq}, L_{10} and L_{90} shall be measured over a period of two consecutive weeks and sampling period of 5 minutes will be used throughout the monitoring. Average, by sound power, of six consecutive $L_{eq\ (5\ min)}$ readings are used to provide $L_{eq(30\ min)}$ for the non-restricted period and three consecutive $L_{eq\ (5\ min)}$ readings are used to provide $L_{eq\ (15\ min)}$ for the restricted period. The monitoring period shall be selected prior to the commencement of any construction activities to avoid other typical noise sources. Measurements shall be recorded to the nearest 0.1 dB. Major noise sources observed, both on-site and off-site, at each location will be recorded. A schedule on the baseline monitoring shall be submitted to the IEC for approval before the monitoring.

4.5.2 In exceptional cases, when insufficient baseline monitoring data or questionable results are obtained, the ET Leader and Contractor shall liaise with the IEC to agree on an appropriate set of data to be used as a baseline reference and submit to the IEC for approval.

4.6 Impact Noise Monitoring

4.6.1 Provided that the construction works will be in small scale, noise monitoring shall be undertaken at each designated monitoring stations when there are construction works nearby (within 100 m of the monitoring stations). The following is an initial guide on the regular monitoring frequency for each station on a per week basis when construction activities are undertaken:

- one set of $L_{eq\ (30\ min)}$ noise level as six consecutive $L_{eq\ (5\ min)}$ between 07:00 - 19:00 on normal weekdays

4.6.2 Major noise sources observed, both on-site and off-site, at each location shall be recorded.

4.6.3 In the case of non-compliance with the construction noise criteria, more frequent monitoring as specified in the Event and Action Plan in **Table 4-3** shall be carried out. This additional monitoring shall be continued until the exceedance is rectified or proved to be from a source other than the construction activities.

4.7 Event and Action Plan

4.7.1 The Action and Limit levels for construction noise are shown in **Table 4-2**. All NSRs identified in the project are classified with an Area Sensitivity Rating (ASR) "A" in accordance with the Technical Memorandum on Noise from Construction Work Other Than Percussive Piling. Should non-compliance of the noise criteria occurs, action in accordance with the Event/ Action Plans in **Table 4-3** shall be carried out.

Table 4-2 Action and Limit Levels for Construction Noise

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

Note: * Between 07:00 - 19:00, construction noise limit for school during normal term time is 70 dB(A) and 65 dB(A) during examination period.

ASR = "A" which is a rural area that are not affected by the IF.

(1) As stipulated In the Technical Memorandum on Noise from Construction Work in Designated Areas.

Table 4-3 Event / Action Plan for Construction Noise

Event	ET	IEC	ER	Contractor
Action Level	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.	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.	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.	1. Submit noise mitigation proposals to IEC and ER; and 2. Implement noise mitigation proposals.
Limit Level	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.	1. Discuss amongst ER, 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.	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.	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.

4.8 Mitigation Measures

4.8.1 The Contractor shall be responsible for the design and implementation of the measures recommended in **Appendix 2, Table A2-2**.

5 Ecology

5.1 Introduction

5.1.1 The potential ecological impact from the proposed drainage improvement project at Yuen Long has been evaluated in accordance with the applicable Technical Memorandum of the EIAO, and the works in Ha Che and Lin Fa Tei will unavoidably affect the watercourse habitat and potentially the local population of two endemic freshwater crab species *Somanniathelphusa zanklon* and *Cryptopotamon anacoluthon* in the Kam Tin area.

5.1.2 A range of mitigation measures including good site management, scheduling of the staged work programme to avoid breeding season of the sensitive ecological resources, as well as translocation of two endemic freshwater crab species have been recommended to avoid or minimize the identified impact within or in the vicinity of the work areas. The following section details the EM&A requirements for the ecological mitigation measures.

5.2 EM&A Requirements during Construction Phase

Project Management and Site Practice

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); and it should be commenced from downstream and progresses toward the upstream 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 as such to fast track the reinstatement work, minimize the spatial disturbance and shorten the temporal ecological impact.

5.2.2 The following good site practice should be implemented to avoid or minimize the potential disturbance to the habitats and wildlife inhabited within or adjacent to the work sites, and they should be audited regularly as part of the routine site inspection undertaken by the ET:

- 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 the EIA Report (EIAO Register No. AEIAR-229/2021);
- 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 (EIAO Register No. AEIAR-229/2021);
- 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, and opportunities to stockpile and backfill the topsoil should be explored;

- 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.

Mitigation Measures to Avoid Potential Impact to Cheung Po EIS

5.2.3 The construction work in Tai Wo should be scheduled in the dry season and sand bags 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.

Preservation of Faunal Species of Conservation Interest

5.2.4 Two freshwater crab species of conservation concern were recorded within the work sites during the ecological baseline survey, including the *Somanniathelphusa zanklon* recorded at Lin Fa Tei and Ha Che; as well as the *Cryptopotamon anacoluthon* 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. The construction activities of the project will unavoidably disturb their natural habitats and potentially causing a direct loss of these two species because of their limited mobility.

5.2.5 Although measures such as undertaking the site clearance and ground work in stages to disperse the wildlife inhabited in the immediate area have been proposed, because of the ecological significance of these two species, it is recommended to conduct pre-construction survey to check any freshwater crab species of conservation concern within the site boundary and the cut-off section of the project’s watercourse at Lin Fa Tei and Ha Che. Should any be found, these species should be captured and translocated to suitable habitat free from any development pressure and in close proximity to the project sites wherever feasible, and the post-translocation monitoring of the translocated freshwater crabs should cover at least 12 months.

5.2.6 An Ecologist with relevant experience in freshwater habitats should prepare a “Freshwater Crab Translocation Plan” for the approval of AFCD. The Plan should detail the methodology and logistics of the capture and translocation programme, including the frequency and timing of field survey, details of the receptor site(s), logistics, equipment and measures to be deployed during the process, as well as the requirements for the post-translocation monitoring. In addition, since the drainage work will be undertaken section-by-section, it is also recommended that, before the commencement of construction work in a new section, the site should be inspected by the ecologist to confirm no inhabitation of these two freshwater crab species, and if found they should be promptly captured and translocated in accordance with the approved translocation plan.

5.2.7 The selected receptor site(s) should match with the habitat requirements of these two freshwater crab species and free of any development pressure to ensure their long term survivorship after translocation. Despite published information of the natural habitat of these two species is very limited (Ng and Dudgeon, 1992; Dudgeon, 1999; Stanton and Leven, 2016 and Stanton et al., 2017), according to the former two references, *Somanniathelphusa zanklon* inhabited in a variety of lotic and lentic lowland habitats and would prefer unpolluted riverine habitats with slow-flowing low-gradient streams, where it burrows in mud and clay banks, as well as the roots of floating plants or the trailing roots and stems of the riparian grasses and other vegetation. In addition, this species is omnivorous with strongly carnivorous tendency, and prefer gastropod prey with light and fragile shells. For *Cryptopotamon anacoluthon*, it is most numerous in upland area where the stream is

shallow with clear, fast-flowing water, rocky substratum, as well as accumulations of leaf-litter, in which the latter is functioned as shelter and food source of this species.

Preservation of Plant Species of Conservation Interest

5.2.8 A protected tree species, *Aquilaria sinensis*, has been recorded in the riparian woodland within the site boundary of Sung Shan New Village. As there is no direct conflict between *Aquilaria sinensis* (seedling) and the proposed works within the site boundary of the works, this plant will be protected in accordance with DEVB TCW No. 4/2020 Tree Preservation and retained during construction.

5.2.9 Before the commencement of construction work including site clearance within the site boundary of at Sung Shan New Village, Lin Fa Tei and Ha Che, a baseline vegetation survey with the aims to ascertain the location and/ or the presence of any floral species of conservation concern - including but not limited to the recorded *Aquilaria sinensis* should be undertaken by an Ecologist with relevant experience in conducting vegetation survey in Hong Kong.

Habitat Compensation for the affected Riverine Habitat

5.2.10 Minor to moderate or moderate impact from the temporary and long term loss of certain sections of the riverine habitats at Sung Shan New Village, Lin Fa Tei and Ha Che has been predicted and such impact should be mitigated by habitat restoration during the reinstatement and greening of the channel bed and embankment. The EIA Report (EIAO Register No. AEIAR-229/2021) recommended that the wildlife habitat lost to the Project should be restored during the reinstatement of the widened channel, particularly the riverine habitats of the two endemic freshwater crabs lost due to the project in Lin Fa Tei and Ha Che.

5.2.11 To ensure the reinstated habitat could compensate the loss of the important riverine habitat, a Habitat Creation and Management Plan, detailed with the approach and design features that could facilitate and promote the colonization of the freshwater crab and other wildlife after the reinstatement work, should be prepared with collaboration of the drainage engineer, the ecologist, as well as the landscape architect, and submitted to the AFCD for review and approval before the commencement of the construction works. In addition, the Habitat Creation and Management Plan should also detail the monitoring programme to monitor the physical environment of the restored habitat including water quality, water current, as well as the establishment of riparian vegetation and the biota assemblage recolonized in the reinstated channel.

Instream

5.2.12 The channel bed should be laid with natural substrate composed of a mix of particles of different grain size, i.e., ranged from sand to boulder as far as the site condition and hydraulic capacity allowed, and the original natural substrates found within the watercourses should be retained and reintroduced to the reinstated channels after the construction works as far as practicable. If those areas could only be created intermittently within the channel bed, they should be physically connected by corridor fringed with vegetation, such as low flow channel lined with natural substrate or area along the toe zone of embankment where riparian vegetation would be established as such to minimize the effect of habitat fragmentation and potential obstruction of wildlife movement along the channel.

5.2.13 Elements that create roughness in the channel, such as a sinuous channel, channel deflector and constrictor (including gabion, boulder clusters or small vegetated island), weir, and rock vane should be strategically installed in the channel bed to create pools, riffles and water turbulence, trap suspended sediment as well as allow organic debris deposition, and hence increase the complexity of the flow pattern and availability of different types of micro-habitats and ecological niche available for aquatic wildlife.

5.2.14 In addition, in order to enhance fine materials holding capacity of any pools or riffles and facilitate the colonization of the aquatic fauna, round shapes rock would be more preferable, and the cervices formed should also be filled with a mixture of pebbles, gravel and sand to facilitate the establishment of aquatic plants and colonization of wildlife. Moreover, large rocks or boulders will be placed randomly on the top layer of natural bedding to prevent the natural substrate and riparian vegetation in the green channel from being washed away. The ground beams within the natural

bedding will also help to hold the natural bedding material in position at the channel base, while the channel bed would not be lined with concrete in green channel. The minimum depth of filling natural gravels/ pebbles/ stone/ sand is 500 mm, with width equalling to full width of the channel.

Riparian Zone

5.2.15 Riparian vegetation along the toe zone of the embankment is an important habitat for aquatic fauna, especially the freshwater crabs recorded within the project areas where the animal is known to dwell among the submerged vegetative part of the riparian vegetation. Therefore, it is recommended to incorporate constantly-submerged vegetated ledge/ aquatic planting bay along the toe zone of the channel for the establishment of riparian vegetation band, in which the emerged or submerged parts of the latter would provide shelter and refuge for the habitation of the *Somanniathelphusa zanklon* and other aquatic wildlife. Those planting area should be filled either with geobag or a mix of fine particles, and should also be allowed trapping and settlement of silt particle to create a muddy habitat as favoured by the freshwater crab *Somanniathelphusa zanklon*.

5.2.16 The upper section of the embankment should also be vegetated with a mix of woody and herbaceous plants wherever suitable and adequate planting space available to promote the diversity of riparian vegetation and detritus input to the aquatic system for the aquatic fauna colonized in the channel.

5.2.17 In addition, in order to restore the habitat for the freshwater crab *Cryptopotamon anacoluthon* which prefers shallow water accumulated with dense leaf-litter, opportunity for tree planting within the embankment by planting bay should be explored, and inclusion of deciduous tree species in the greening design along the channel side, especially in the upstream section at Ha Che where the animal was recorded, should also be included to ensure adequate leaf litter input would be presented for the use of this species.

5.2.18 The plant species selected for the reinstatement and restoration of the riparian habitat should make reference to those existing species recorded in-situ and avoid any exotic or invasive species as far as possible, and comprised with a mix of different growth forms to increase the habitat heterogeneity and hence the ecological niche provided by the riparian vegetation.

5.3 EM&A Requirements during Operational Phase

5.3.1 In order to minimize the potential ecological impact associated with maintenance activities, the following mitigation measures should be implemented during the operational phase of the Project:

- Any maintenance activities within the channel bed should be scheduled in the dry season and beyond the breeding season of the freshwater crab, which normally spawning in the wet season;
- Staff awareness training on the ecological importance of the riverine habitats and inhabited wildlife and remind the team to minimize unnecessary disturbance to the channel;
- Vegetation maintenance of the embankment should avoid trespassing into the channel bed as far as practicable, and should focus on those plant species found to be too invasive or exotic in origin;
- The use of powered equipment should be with cautions to avoid accidental spillage of oil or fuel into the water body;
- If dredging or desilting is required, it should be undertaken in dry season and section-by-section to disperse any wildlife that may be sheltering in the immediate area, and vehicle access and the use of powered equipment should be minimized.

5.3.2 On the other hand, operational phase monitoring focus on the habitat quality of the reinstated channel, such as the coverage and community structure of the established riparian and channel vegetation, the community structure and diversity of the fauna assemblage in the riverine habitats, the diversity of micro-habitats available for faunal use, the water quality, as well as abundance of detritus in the channel, etc.; and cover the area within 100m upstream and downstream of the

project sites during the first and last session of the monitoring, should be undertaken for at least a 3-year period by the Ecologist of the ET with relevant experience, and follow those presented in the Habitat Creation and Management Plan approved by the AFCD.

5.4 Implementation Schedule

5.4.1 The Contractor shall be responsible for the design and implementation of the mitigation measures as recommended in **Appendix 2, Table A2-3**.

6 Water Quality

6.1 Introduction

6.1.1 The water quality assessment in the EIA Report identified that the key issue would be related to excavation works for the construction phase of the proposed drainage improvement works. To minimize potential impacts on water quality during the drainage construction, the excavation would be carried out in dry condition (even in wet season) by diverting the stream flow from upstream by a temporary drainage channel with temporary sheet piles, earth bund or barriers, so that the works area will remain dry for later excavation and widening works. The locations of the representative water sensitive receivers are shown in **Figure 6.1** to **Figure 6.4**.

6.1.2 A monitoring programme is recommended for both baseline conditions and during the construction phase to detect any deterioration of water quality, as well as to ensure the performance of the proposed mitigation measures.

6.1.3 According to Condition 2.6 of the Environmental Permit No. EP-596/2021, a water quality monitoring plan (WQMP) shall be provided to detect potential adverse water quality impacts at the project and downstream area directly affected by the construction of the project and Cheung Po Ecologically Importance Stream in Tai Wo. This WQMP is presented in **Appendix 4**.

6.1.4 The proposed water quality monitoring locations are shown in **Figure 6.5** to **Figure 6.8**.

7 Waste Management

7.1 Introduction

7.1.1 Based on the waste management implication assessed in the EIA Report (EIAO Register No. AEIAR-229/2021), no significant impacts to nearby sensitive receivers are anticipated with proper implementation of good site practices and proposed mitigation measures.

7.2 EM&A Requirements During Construction Phase

Site Audit/ Inspection

7.2.1 Site inspections and supervisions of waste management procedures and auditing of the effectiveness of implemented mitigation measures shall be undertaken by the ET on a regular basis (e.g. weekly as a minimum). These tasks shall be scheduled in the Waste Management Plan (WMP) to be prepared by the Contractor, and the site audits summary shall be presented in the monthly EM&A reports.

Waste Management Practices

7.2.2 An on-site environmental co-ordinator shall be employed by the Contractor. Prior to commencement of Project works, the co-ordinator shall prepare a Waste Management Plan (WMP) (as part of the Environmental Management Plan) in accordance with the requirements set out in the ETWB TCW No. 19/2005, Environmental Management on Construction Sites, for the ER'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 sites), and which shall be regularly updated.

7.2.3 The overall principles of construction waste management are to reduce waste generation and to reuse and recycle construction waste. The arrangement for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and the recommended mitigation measures are to be described in a WMP.

7.2.4 The WMP will indicate the disposal location(s) of all surplus excavated materials and wastes. A trip ticket system in accordance with the Development Bureau Technical Circular (Works) (TC(W)) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials shall be included in the WMP. Surplus excavated materials and wastes shall only be disposed of at designated disposal locations unless otherwise approved by the Director. All measures recommended in the WMP shall be fully and properly implemented by the Contractor throughout the construction period.

Mitigation Measures

7.2.5 The Contractor shall be responsible for the design and implementation of the mitigation measures as recommended in **Appendix 2, Table A2-5**.

8 Land Contamination

8.1 Introduction

8.1.1 According to the results of the land contamination assessment, all identified potential contaminated sites are located outside the proposed works area boundaries and no contamination potential arising from the proposed drainage improvement works is anticipated. Therefore, contamination potential arising from the project works is not anticipated. Further site investigation for this project is considered not necessary.

8.2 EM&A Requirements during Construction Phase

8.2.1 Unexpected contaminated materials may be encountered near identified potential contaminated sites during construction. Should suspected contamination be found during construction, the mitigation measures presented in **Appendix 2, Table A2-6** should be adopted.

9 Landscape and Visual Impact Assessment

9.1 Introduction

9.1.1 The EIA has recommended landscape and visual mitigation measures to be undertaken during both the construction and operational phases of the project. This section outlines the monitoring and audit of these measures.

9.2 Methodology and Criteria

9.2.1 The design, implementation and maintenance of landscape and visual mitigation measures should be checked to ensure that they are fully realised and that potential conflicts between the proposed landscape measures and any other project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures.

9.2.2 Site inspection and audit is necessary in the operation stage.

Table 9-1 Monitoring Programme

Stage	Monitoring Task	Monitoring Report	Form of Approval	Frequency
Design	Monitoring of design works against the recommendations of the landscape and visual impact assessments within the EIA should be undertaken during detailed design and tender stages, to ensure that they fulfil the intentions of the mitigation measures. Any changes to the design, including design changes on site, should also be checked.	Report by ER confirming that the design conforms to requirements of EP	Approved by DSD	At Completion of Design Stage
Construction	Monitoring of the contractor's operations during the construction period.	Report on Contractor's compliance by ET	Counter-signature of report by IEC	Weekly
Establishment Works	Monitoring of the planting works during the 12-month establishment period after completion of the construction works.	Report on Contractor's compliance by ET	Counter-signature of report by IEC	3 months

Design

9.2.3 The mitigation measures proposed within the EIA to mitigate the landscape and visual impacts of the scheme should be embodied into the detailed engineering design and landscape design drawings and contract documents. Designs should be checked to ensure that the measures are fully incorporated and that potential conflicts with civil engineering, geo-technical, structural, lighting, signage, drainage, underground utility and operational requirements are resolved prior to construction.

Construction & Establishment Period

9.2.4 The implementation of landscape construction works and subsequent maintenance operations during the 12-month establishment period must be supervised by fully qualified Landscape Resident Site Staff (Registered Landscape Architect or Professional Member of the Hong Kong Institute of Landscape Architects).

9.2.5 Measures to mitigate landscape and visual impacts during construction, presented in **Appendix 2, Table A2-7**, should be checked to ensure compliance with the intended aims of the measures.

9.2.6 The progress of the engineering works shall be regularly reviewed on site to identify the earliest practical opportunities for the landscape works to be undertaken.

9.3 Baseline Monitoring

9.3.1 A one-off survey shall be conducted prior to commencement of any construction works. A photographic record of the site at the time of the contractor's possession of the site shall be prepared by the Contractor and approved by the ER. The approved photographic record shall be submitted to the project proponent, the ET, the IEC and the EPD for record.

9.4 Event and Action Plan

9.4.1 Should non-compliance of the landscape and visual impact occurs, actions in accordance with the action plan stated in **Table 9-2** should be carried out.

Table 9-2 Event and Action Plan for Landscape and Visual Impact

Event	Action			
	ET (1)	IEC (1)	ER (1)	Contractor
Design Check	• Check final design conforms to the requirements of EP and prepare report.	• Check report. • Recommend remedial design if necessary	• Undertake remedial design if necessary	-
Non-conformity on one occasion	• Identify source • Inform IEC and ER • Discuss remedial actions with IEC, ER and Contractor • Monitor remedial actions until rectification has been completed	• Check report • Check Contractor's working method • Discuss with ET and Contractor on possible remedial measures • Advise ER on effectiveness of the proposed remedial measures. • Check implementation of remedial measures.	• Notify Contractor • Ensure remedial measures are properly implemented	• Amend working methods • Rectify damage and undertake any necessary replacement
Repeated Non-conformity	• Identify source • Inform IEC and ER • Increase monitoring frequency • Discuss remedial actions with IEC, ER and Contractor • Monitor remedial actions until rectification has been completed • If non-conformity stops, cease additional monitoring	• Check monitoring report • Check Contractor's working method • Discuss with ET and Contractor on possible remedial measures • Advise ER on effectiveness of the proposed remedial measures • Supervise implementation of remedial measures.	• Notify Contractor • Ensure remedial measures are properly implemented	• Amend working methods • Rectify damage and undertake any necessary replacement

Note (1): ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

9.5 Mitigation Measures

9.5.1 The landscape and visual impact assessment of the EIA Report recommends a series on mitigation measures as shown in **Appendix 2, Table A2-7**.

10 Cultural Heritage

10.1 Introduction

10.1.1 Protective measures have been recommended in the EIA Report (EIAO Register No. AEIAR-229/2021) for the protection, and secure and safe public access of three indirectly affected built heritage sites by the project during the construction phase. No further action during the operation phase is required.

10.1.2 Based on desk-based research and strengthened by field visits, the Study Areas with exception of the area near the previous findings of wooden remains and other undisturbed areas within Lin Fa Tei Site of Archaeological Interest (SAI) outside the proposed works boundary in the Lin Fa Tei Study Area, are deemed to have minimal or limited archaeological potential. The proposed drainage works are not expected to have impact on archaeology during construction and operation phases with the exception of an area within Lin Fa Tei SAI near the previous findings of wooden remains.

10.2 Construction Phase Protective Measures

Archaeology

10.2.1 According to the assessment the proposed drainage works in the Lin Fa Tei area are located immediately adjacent to existing river course on mainly Pleistocene terraced alluvium and at its western end occupies Holocene alluvium. The proposed works are partially located within Lin Fa Tei SAI. Previous investigations within Lin Fa Tei SAI have shown both *in situ* and secondary deposit and with potential for wooden features near the stream bed. It is, therefore, recommended to conduct an Archaeological Survey prior to the construction works within the area marked in Figure 10.16 in the EIA Report (EIAO Register No. AEIAR-229/2021).

10.2.2 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 should be agreed with the AMO prior to implementation. Tentatively and subject to agreement with the 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 mitigation and/ or an appropriate way forward should be formulated and implemented in agreement with the AMO.

10.2.3 Furthermore and as a precautionary measure, the AMO should be informed immediately in case of discovery of antiquities or supposed antiquities in the course of excavation for any of the proposed drainage improvement works outside of the area identified for archaeological survey so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with the AMO.

Built Heritage

10.2.4 All the proposed mitigation measures to be implemented during the construction phase for graded historic buildings are presented in table below.

Table 10-1 Mitigation Recommendations for Impacted Graded Historic Buildings

Resource	Mitigation Recommendation
GB-01 Lee Tat Bridge, Shui Tsan Tin Grade 3 **(Figure 10.1)** Located at distance of 13.3 m from works boundary	• A condition survey will be carried out in advance of works and after completion of works by a 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; • 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 the 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 the AMO on regular basis and alert the AMO should the monitoring reach AAA levels.
GB-02 Lan Fong Study Hall, Chuk Hang Grade 3 (**Figure 10.2**) Located at distance of 57.7 m from works boundary	• A condition survey will be carried out in advance of works and after completion of works by a 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; • 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 / 10 mm, 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 the 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 the AMO's records. Monitoring records should be submitted to the AMO on regular basis and alert the AMO should the monitoring reach AAA levels.
GB-03 St John's Chapel, Cheung Po Grade 2 (**Figure 10.3**) Located at distance of 46.4 m from works boundary	• A condition survey will be carried out in advance of works and after completion of works by a 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; • 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 2 historic buildings, settlement limit set at 6 / 8 / 10 mm, 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 the 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 the AMO's records. Monitoring records should be submitted to the AMO on regular basis and alert the AMO should the monitoring reach AAA levels.

10.3 Operation Phase Protective Measures

10.3.1 The operation of the flooding control measures will not impose any additional adverse impacts on archaeology or built heritage. No mitigation measures will be required regarding this issue.

10.4 Construction Phase EM&A Requirements

10.4.1 Monitoring records should be submitted to the AMO on regular basis and alert the AMO should the monitoring reach AAA levels.

10.5 Operation Phase EM&A Requirements

10.5.1 There are no Cultural Heritage requirements for EM&A during the operation phase.

10.6 Implementation Schedule

10.6.1 The Contractor shall be responsible for the design and implementation of the mitigation measures as recommended in **Appendix 2, Table A2-8**.

11 Site Environmental Audit

11.1 Site Inspection Requirements

11.1.1 Site inspections/ audits provide a direct means to trigger and enforce the specified environmental protection and pollution control measures. They shall be undertaken routinely to inspect/ audit the construction activities to ensure that appropriate environmental protection and pollution control mitigation measures are properly implemented. A site inspection/ audit checklist, to be used for undertaking site inspection/ audit, will be prepared by the ET and submitted to the ER for approval.

11.1.2 The ET is responsible for formulation of the environmental site inspection/ audit, deficiency and action reporting system, and for carrying out the site inspection/ audit works in consultation with the IEC.

11.1.3 Regular site inspections/ audits shall be carried out at least once per week. All observations and results will be recorded in the data record sheets, which will be passed to the Contractor. If non-compliance is found on site, the Contractor shall follow the procedures and time-frame as stipulated in the environmental site inspection, deficiency and remedial action reporting system (formulated by the ET Leader) to report on any remedial measures subsequent to the site inspections.

11.1.4 The areas of inspection/ audit shall include, but not be limited to, the environmental situation, pollution control and mitigation measures within the site; it will also review the environmental situation outside the site area which is likely to be affected, directly or indirectly, by the site activities. The ET shall make reference to the following information in conducting the inspection/ audit:

- The EP, EIA, and EM&A Manual recommendations on environmental protection and pollution control mitigation measures;
- Works progress and programme;
- Individual works methodology proposals (which shall include proposal on associated pollution control measures);
- The contract specifications on environmental protection;
- The relevant environmental protection and pollution control laws; and
- Previous site inspection/ audit results.

11.1.5 The Contractor shall update the ET Leader with all relevant information of the construction contract for him to carry out the site inspections/ audits. The inspection/ audit results and its associated recommendations on improvements to the environmental protection and pollution control works shall be submitted to the ER, the Contractor and the IEC within 24 hours, for reference and for taking immediate action. The Contractor shall follow the procedures and time-frame as stipulated in the environmental site inspection/ audit, deficiency and action reporting system formulated by the ET to report on any remedial measures subsequent to the site inspections/ audits.

11.1.6 Ad hoc site inspections/audits shall also be carried out by the ET and/ or the IEC if significant environmental problems are identified. Inspections/ audits may also be required subsequent to receipt of an environmental complaint, or as part of the investigation/ audit work, as specified in Action Plan for environmental monitoring and audit.

11.2 Compliance with Legal and Contractual Requirements

11.2.1 There are contractual environmental protection and pollution control requirements as well as environmental protection and pollution control laws in Hong Kong, which the construction activities shall comply with.

11.2.2 In order that the works are in compliance with the contractual requirements, all the works method statements submitted by the Contractor to the ER for approval shall be sent to the ET Leader for

vetting to see whether sufficient environmental protection and pollution control measures have been included.

11.2.3 The ET Leader shall also review the progress and programme of the works to check that relevant environmental laws have not been violated and that any foreseeable potential for violating the laws can be prevented.

11.2.4 The Contractor shall regularly copy relevant documents to the ET Leader so that the checking work can be carried out. The document shall at least include the updated Work Progress Reports, the updated Works Programme, the application letters for different licence/ permits under the environmental protection laws, and all the valid licence/ permit. The site diary shall also be available for the ET Leader‘s inspection upon his request.

11.2.5 The ET Leader shall advise the ER and the Contractor of any non-compliance with the contractual and legislative requirements on environmental protection and pollution control for them to take follow-up actions. If the ET Leader’s review concludes that the current status on licence/ permit application and any environmental protection and pollution control preparation works may not cope with the works programme or may result in potential violation of environmental protection and pollution control requirements by the works in due course, (s)he shall also advise the Contractor and the ER accordingly.

11.2.6 Upon receipt of the advice, the Contractor shall undertake immediate action to remedy the situation. The ER shall follow up to ensure that appropriate action has been taken by the Contractor in order that the environmental protection and pollution control requirements are fulfilled.

11.3 Environmental Complaints

11.3.1 Complaints shall be referred to the ET Leader for carrying out complaint investigation procedures. The ET Leader shall undertake the following procedures upon receipt of the complaints:

- Log complaint and date of receipt and inform the ER immediately;
- Investigate the complaint to determine its validity, and to assess whether the source of the problem is due to works activities;
- If a complaint is valid and due to works, identify mitigation measures;
- If mitigation measures are required, advise the Contractor accordingly;
- Review the Contractor’s response on the identified mitigation measures and the updated situation;
- If the complaint is transferred from the EPD, submit interim report to the EPD after endorsement by the ER on status of the complaint investigation and follow-up action within the time frame assigned by the EPD;
- Undertake additional monitoring and audit to verify the situation if necessary, and review that any valid reason for complaint does not recur;
- Report the investigation results and the subsequent actions to the complainant (If the source of complaint is identified through the EPD, the results should be reported within the time frame assigned by the EPD); and
- Record the complaint, Investigation, the subsequent actions and the results in the monthly EM&A reports.

11.3.2 During the complaint investigation work, the Contractor and the ER shall cooperate with the ET Leader in providing all necessary information and assistance for completion of the investigation. If mitigation measures are identified in the investigation, the Contractor shall promptly carry out the mitigation. The ER shall ensure that the measures have been carried out by the Contractor. A flow chart of complaint response procedures is provided in **Appendix 5**.

12 Reporting

12.1 Baseline Monitoring Report

12.1.1 The baseline monitoring results, their interpretation and proposals for the Action/ Limit Level parameters will be presented in the Baseline Monitoring Report. The Baseline Monitoring Report should be prepared by the ET leader and endorsed by the IEC. The Report will be supported by the baseline monitoring data in electronic format prepared in HTML or PDF format, along with information from the covering monitoring locations, equipment and protocols. The agreed baseline report will then be reissued as a standalone report.

12.1.2 Copies of the Baseline Monitoring Report should be submitted to the Contractor, the IEC, the ER, the DSD and the EPD. The ET Leader should liaise with relevant parties on the exact number of copies they require. The report format and baseline monitoring data format should be agreed with the IEC, the ER and the EPD prior to submission.

12.1.3 The Baseline Monitoring Report shall be included at least the following:

- Up to half a page executive summary;
- Brief project background information;
- Drawings showing locations of the baseline monitoring stations;
- An updated construction programme with milestones of environmental protection/ mitigation activities annotated;
- Monitoring results together with the following information:

  a) monitoring methodology;
  b) name of laboratory and types of equipment used and calibration details;
  c) parameters monitored;
  d) monitoring locations;
  e) monitoring date, time, frequency and duration;
  f) quality assurance/ quality control results and detection limits.

- Details on influencing factors, including:

  a) major activities, if any, being carried out on site during the period;
  b) weather conditions during the period;
  c) other factors which might affect the results.

- Determination of the Action and Limit Levels for each monitoring parameter and statistical analysis of the baseline data, the analysis shall conclude if there is any significant difference between control and impact stations for the parameters monitored;
- Revisions for inclusion in the EM&A Manual; and
- Comments and conclusions.

12.2 Monthly EM&A Reports

12.2.1 The results and finding of all EM&A work required in the EM&A programme shall be recorded in the monthly EM&A reports. The monthly EM&A report shall be prepared by the ET Leader and endorsed by the IEC and submitted within 10 working days of the end of each reporting month, the first report will be submitted in the month after construction works commence. Copies of each monthly EM&A report shall be submitted to each of the relevant parties: the Contractor, the IEC, the ER, the DSD and the EPD, and the electronic copy shall be prepared in HTML or PDF format. The ET Leader should liaise with the relevant parties on the exact number of copies and format of the monthly reports in both hard copy and electronic medium requirement prior to submission.

12.2.2 The first monthly EM&A report shall be included at least the following:

- 1 - 2 pages executive summary;

  a) Breaches of Action and Limit Levels;
  b) Complaint Log;
  c) Notifications of any summons and successful prosecutions; and
  d) Reporting Changes.

- Basic project information:

  a) Project organisation including key personnel contact names and telephone numbers;
  b) Construction Programme;
  c) Management structure; and
  d) Works undertaken during the month.

- Environmental status:

  a) Works undertaken during the month with illustrations (such as location of works); and
  b) Drawing showing the project area, the locations of the monitoring and control stations and any environmental sensitive receivers.

- Summary of EM&A requirements:

  a) All monitoring parameters;
  b) Environmental quality performance limits (Action and Limit levels);
  c) Event/ Action Plans;
  d) Environmental mitigation measures, as recommended in the EIA Report; and
  e) Environmental requirements in contract documents.

- Implementation status - Advice on the implementation status of environmental protection and pollution control/ mitigation measures including measures for ecological and visual impacts, as recommended in the EIA Report (EIAO Register No. AEIAR-229/2021);

- Monitoring Results (in both hard and CD copies) together with the following information:

  a) Monitoring methodology;
  b) Name of laboratory and types of equipment used and calibration details;
  c) Parameters monitored;
  d) Monitoring locations and depth;
  e) Monitoring date, time, frequency, and duration;
  f) Weather conditions during the period;
  g) Graphical plots of the monitored parameters in the month annotated against:
     - Major activities being carried out on site during the period;
     - Weather conditions that may affect the results;
     - Any other factors which might affect the monitoring results; and
     - Quality assurance/ Quality control results and detection limits.

- Report on Non-compliance, Complaints, Notifications of Summons and Successful Prosecutions:

  a) Record of all non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels);
  b) Record of all complaints received (written or verbal) for each media, including locations and nature of complaint investigation, liaison and consultation undertaken, actions and follow-up procedures taken, results and summary;
  c) Record of all notifications of summons and successful prosecutions for breaches of the current environmental protection/ pollution control legislations, including locations and nature of the breaches, investigation, follow-up actions taken, results and summary;
  d) Review of the reasons for and the implications of non-compliance, complaints, summons and prosecutions including review of pollution sources and working procedures;
  e) Description of the actions taken in the event of non-compliance and deficiency reporting and any follow-up procedures related to earlier noncompliance.

- Others:

a) An account of the future key issues as reviewed from the works programme and work method statements;
b) Report and advice on the waste management status; and
c) Upcoming monitoring schedule and complaint log summarizing the EM&A of the period.

12.2.3 The subsequent EM&A reports shall include the following:

- 1 - 2 pages executive summary:

  a) Breaches of Action and Limit Levels;
  b) Complaint Log;
  c) Notifications of any summons and successful prosecutions; and
  d) Reporting Changes.

- Basic Project information:

  a) Project organisation including key personnel contact names and telephone numbers;
  b) Construction Programme;
  c) Management structure; and
  d) Works undertaken during the month.

- Environmental status;

  a) Works undertaken during the month with illustrations (such as location of works); and
  b) Drawing showing the project area, the locations of the monitoring and control stations.

- Implementation status - Advice on the implementation status of environmental protection and pollution control/ mitigation measures including measures for ecological and visual impacts, as recommended in the EIA Report (EIAO Register No. AEIAR-229/2021).

- Monitoring results (in both hard and CD copies) together with the following information:

  a) Monitoring methodology;
  b) Name of laboratory and types of equipment used and calibration details;
  c) Parameters monitored;
  d) Monitoring locations and depth;
  e) Monitoring date, time, frequency, and duration;
  f) Weather conditions during the period;
  g) Graphical plots of the monitored parameters in the month annotated against:
     - Major activities being carried out on site during the period;
     - Weather conditions that may affect the results;
     - Any other factors which might affect the monitoring results; and
     - Quality assurance/ Quality control results and detection limits.

- Report on non-compliance, complaints, notifications of summons and successful prosecutions:

  a) Record of all non-compliance (exceedances) of the environmental quality performance limits (Action and Limit levels);
  b) Record of all complaints received (written or verbal) for each media, including locations and nature of complaint investigation, liaison and consultation undertaken, actions and follow-up procedures taken, results and summary;
  c) Record of all notifications of summons and successful prosecutions for breaches of the current environmental protection/ pollution control legislations, including locations and nature of the breaches, investigation, follow-up actions taken, results and summary;
  d) Review of the reasons for and the implications of non-compliance, complaints, summons and prosecutions including review of pollution sources and working procedures;
  e) Description of the actions taken in the event of non-compliance and deficiency reporting and any follow-up procedures related to earlier noncompliance.

- Others:

  a) An account of the future key issues as reviewed from the works programme and work method statements;
  b) Report and advise on the waste management status; and

c) Upcoming monitoring schedule and complaint log summarizing the EM&A of the period.

- Appendix:

a) Action/ Limit Levels;
b) Graphical plot of monitored parameters over the past four reporting period with major activities being carried out on site during the period, weather condition during the period and other factor which might affect the monitoring results;
c) Monitoring schedule for the present and next reporting month;
d) Cumulative complaints statistics, notifications of summons and successful prosecutions;
e) Details of complaints, outstanding issues and deficiencies; and
f) Outstanding issues and deficiencies.

12.3 Quarter EM&A Summary Report

12.3.1 The Quarter EM&A Summary Report shall contain at least the following information. Apart from these, the first quarterly summary report should also confirm that the monitoring work is proving effective and that it is generating data with the necessary statistical power to categorically identify or confirm the absence of impact attributable to the works.

- Executive summary;
- Basic project information including a synopsis of the project organization contacts of key management, and a synopsis of work undertaken during the course of the project or past twelve months;
- A brief summary of EM&A requirements including:

a) environmental mitigation measures, as recommended in the EIA Report;
b) environmental impact hypotheses tested;
c) Action/ Limit Levels;
d) All monitoring parameters; and
e) Event and Action Plans.

- A summary of the implementation status of environmental protection and pollution control/ mitigation measures as recommended in the EIA report summarized in the updated implementation schedule;
- Drawings showing the proposed project site, any environmental sensitive receivers and the locations of the monitoring and control stations;
- Graphical plots and the statistical analysis of the trends of monitored parameters over the course of the project for all monitoring stations against;

a) The major activities being carried out on site during the period;
b) Weather conditions during the period; and
c) Any other factors which might affect the monitoring results.

- Advice on the solid and liquid waste management status;
- A summary of non-compliance (exceedances) of the environmental quality performance limits (Action/ Limit Levels);
- A review of the reasons for and the implications of non-compliance including review of pollution sources and working procedures as appropriate;
- Where measurement of suspended solids is required, a quarterly assessment of construction impacts on suspended solids at the project site, including, but not limited to, a comparison of the difference between the quarterly mean and 1.3 times of the ambient mean, which is defined as 30% increase of the baseline data or the EPD data, of the related parameters by using appropriate statistical procedures. Suggestion of appropriate mitigation measures if the quarterly assessment analytical results demonstrate that the quarterly mean is significantly higher than the 1.3 times of the ambient mean ($p < 0.05$) on water quality;

- A description of the actions taken in the event of non-compliance and any follow-up procedures related to earlier non-compliance;
- A summary record of all complaints received (written or verbal) for each media liaison and consultation undertaken, action and follow-up procedures taken;
- A summary record of notifications of summons and successful prosecutions for breathes of the current environmental protection/ pollution control legislations including locations and nature of the breaches, investigation, follow-up actions taken and results;
- A review of the validity of EIA Report predictions and identification of shortcomings in EIA Report recommendations;
- A review of the effectiveness and efficiency of the mitigation measures;
- A review of success of the EM&A programme to cost effectively identify deterioration and to initiate prompt effective mitigation action when necessary; and
- A conclusion on the environmental acceptability of the project.

12.4 Final EM&A Summary Report

12.4.1 The Final EM&A Summary Report shall contain at least the following information:

- Executive summary (1-2 pages);
- Drawings showing the proposed project site, any environmental sensitive receivers and the locations of the monitoring and control stations;
- Basic project information including a synopsis of the project organization contacts of key management, and a synopsis of work undertaken during the course of the project or past twelve months;
- A brief summary of EM&A requirements including:

    a) environmental mitigation measures, as recommended in the EIA Report;
    b) environmental impact hypotheses tested;
    c) Action/ Limit Levels;
    d) All monitoring parameters; and
    e) Event and Action Plans.

- A summary of the implementation status of environmental protection and pollution control/ mitigation measures as recommended in the EIA Report summarized in the updated implementation schedule;
- Graphical plots and the statistical analysis of the trends of monitored parameters over the course of the project for all monitoring stations against:

    a) The major activities being carried out on site during the period;
    b) Weather conditions during the period; and
    c) Any other factors which might affect the monitoring results.

- A summary of non-compliance (exceedances) of the environmental quality performance limits (Action/ Limit Levels);
- A review of the reasons for and the implications of non-compliance including review of pollution sources and working procedures as appropriate;
- A description of the actions taken in the event of non-compliance;
- A summary record of all complaints received (written or verbal) for each media liaison and consultation undertaken, action and follow-up procedures taken;
- A summary record of notifications of summons and successful prosecutions for breaches of the current environmental protection/ pollution control legislations including locations and nature of the breaches, investigation, follow-up actions taken and results;

- A review of the validity of EIA Report predictions and identification of shortcomings in EIA Report recommendations;
- A review of the effectiveness and efficiency of the mitigation measures;
- A review of success of the EM&A programme to cost effectively identify deterioration and to initiate prompt effective mitigation action when necessary; and
- A conclusion on the environmental acceptability of the project.

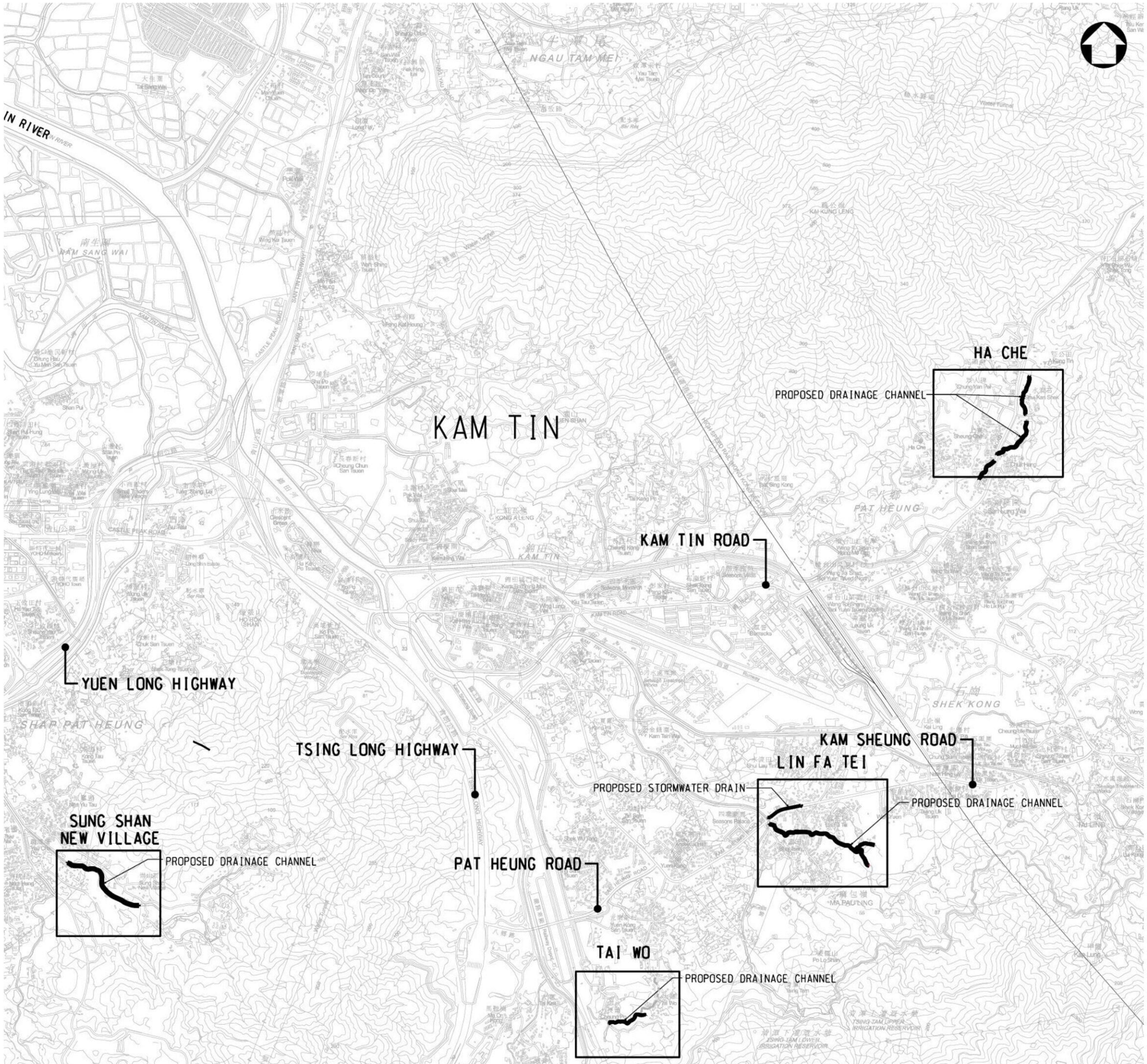
12.5 Data Keeping

12.5.1 The site document such as the monitoring field records, laboratory analysis records, site inspection forms etc. are not required to be included in the monthly EM&A reports for submission. However, all documents and records shall be well kept by the ET and be ready for inspection upon request. All documents and data shall be kept for at least one year after completion of the construction contract.

12.6 Interim Notifications of Environmental Quality Limit Exceedances

12.6.1 Interim notifications of exceedances in accordance with the Event and Action Plans will be issued to the Contractor, the IEC and the ER within 24 hours of the identification of an exceedance. The notification shall be followed with advice to the ER on the results of investigation, proposed action and any necessary follow-up proposals in case of exceedance. A sample template for interim notifications is provided in **Appendix 6**.

Figures



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-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT

Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

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

Drawing Title
SITE LOCATION PLAN

Scale	Designed	Drawn	Checked	Authorised
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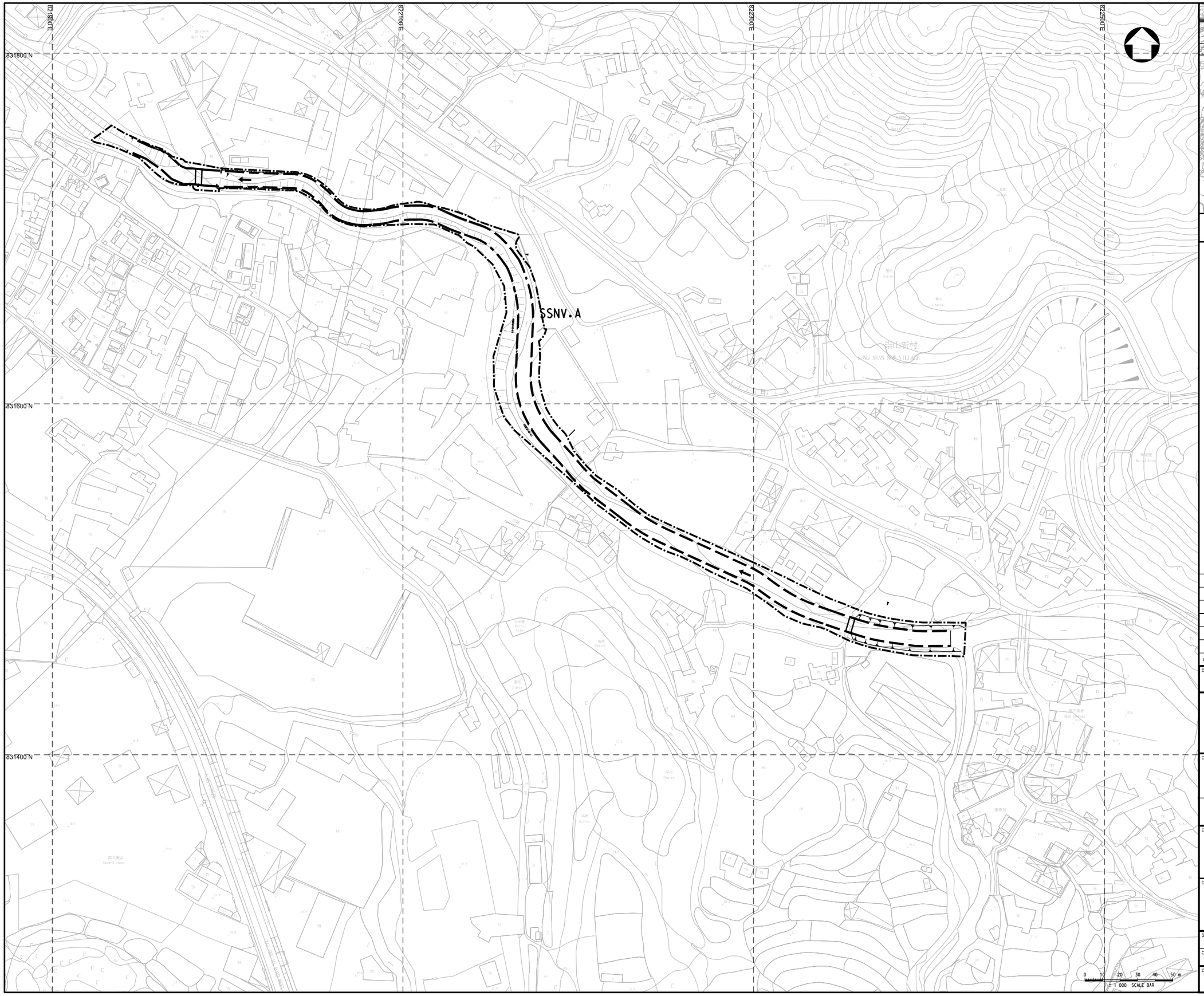

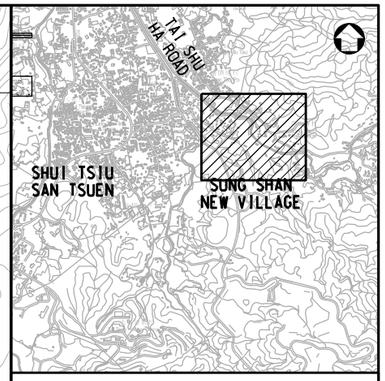

KEY PLAN
N.T.S.

LEGEND:
- WORKS BOUNDARY
- RECTANGULAR CHANNEL

Rev.	Date	Description	By	Chk'd	App'd
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A	OCT 2022	TENDER ADDENDUM NO.3	SHC	WCTT	KP
-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT
Suitability: -

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Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

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

Drawing Title
SUNG SHAN NEW VILLAGE -
GENERAL LAYOUT PLAN

Scale	Designed	Drawn	Checked	Authorised
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Drawing Number: Figure 1.2
Revision:

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825700 E

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大嵩

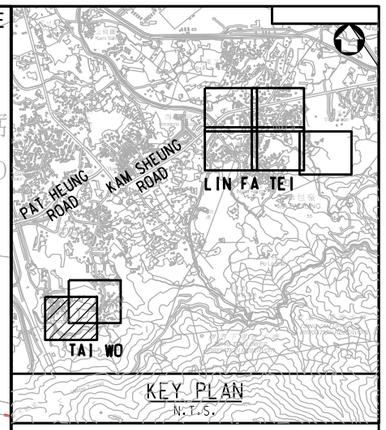
TAI WO

900CU

遊樂場
Playground

教堂
Church

啓業花園
Kai Yip Garden



KEY PLAN
N.T.S.

LEGEND:

WORKS BOUNDARY

RECTANGULAR CHANNEL

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-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT

Suitability: -

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Client

渠務署
Drainage Services Department

工程管理部
Project Management Division

Contract Title

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

Drawing Title

TAI WO -
GENERAL LAYOUT PLAN

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Original Size	Date	Date	Date	Date
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Drawing Number: Figure 1.3

Revision: A

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KAM SHEUNG ROAD
LIN FA TEI
SHUI TSAN TIN

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0 12.5 25 37.5 50 62.5 m
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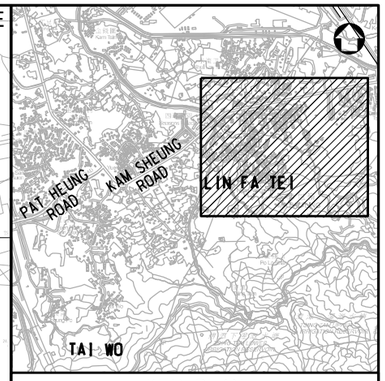

KEY PLAN
N.T.S.

LEGEND:
- WORKS BOUNDARY
- RECTANGULAR CHANNEL
- 450CU — COVERED U-CHANNEL WITH NON-HEAVY DUTY PRECAST CONCRETE COVER
- MANHOLE

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

Drawing Status: CONTRACT
Suitability: -

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Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

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

Drawing Title
LIN FA TEI -
GENERAL LAYOUT PLAN

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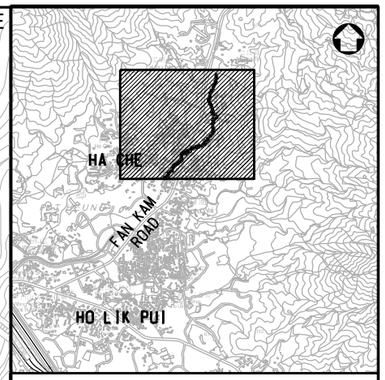

KEY PLAN
N.T.S.

LEGEND:
- WORKS BOUNDARY
- RECTANGULAR CHANNEL

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

Drawing Status: CONTRACT
Suitability: -

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Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

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

Drawing Title
HA CHE -
GENERAL LAYOUT PLAN

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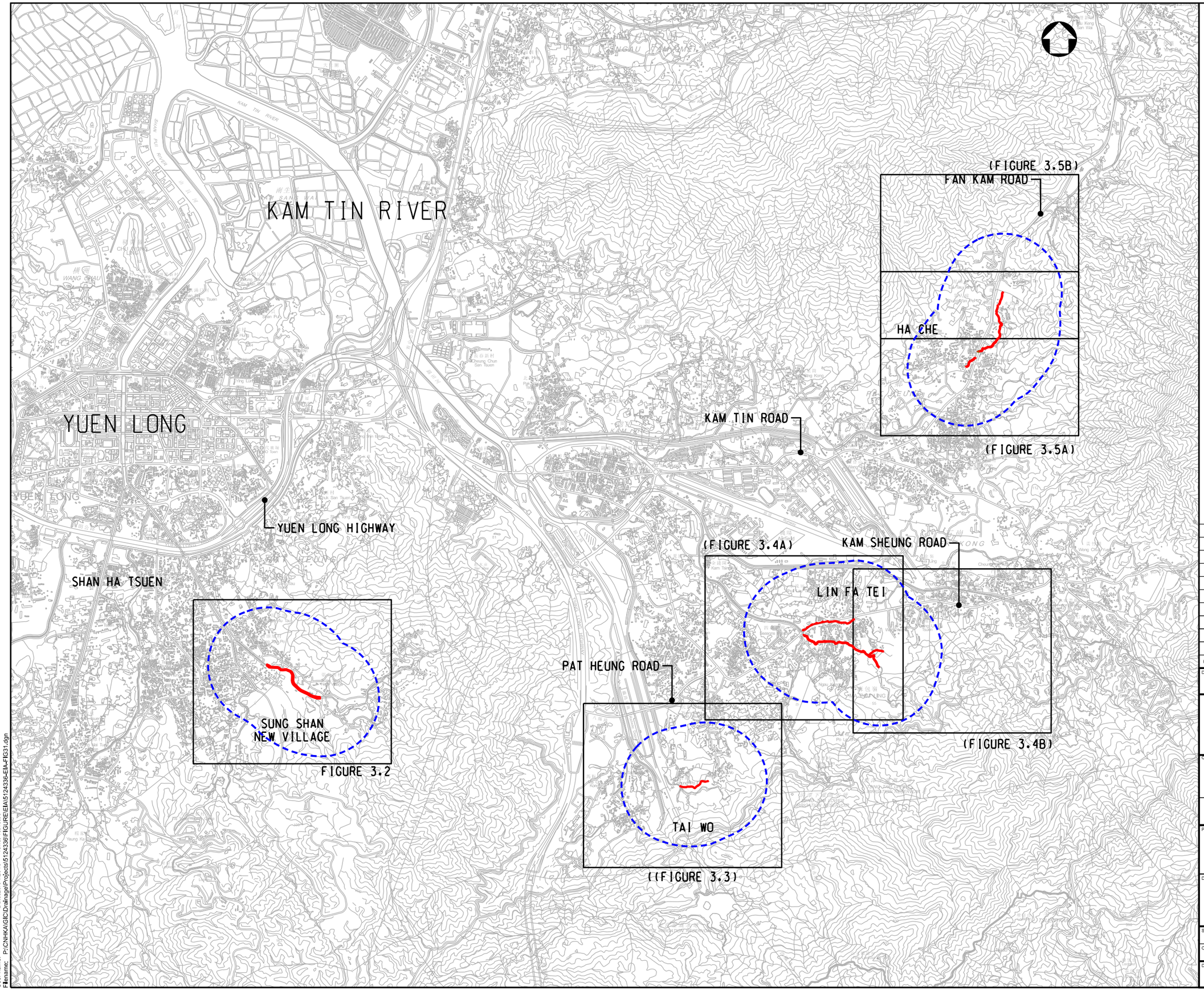

LEGEND:

- PROPOSED DRAINAGE WORKS
- 500m AIR STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
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A	09/16	SECOND ISSUE	WSL	RWKC	JEC
-	10/15	FIRST ISSUE	RC	WW	WW

Drawing Status: DETAILED DESIGN

Suitable for: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: AIR QUALITY IMPACT ASSESSEMENT - KEY PLAN

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KEY PLAN
N.T.S.

SSNV1
SSNV2
SSNV3
SSNV4
SSNV5
SSNV6

SUNG SHAN
NEW VILLAGE

LEGEND:

- SSNV1 — AIR SENSITIVE RECEIVERS
- PROJECT WORK BOUNDARY
- PROPOSED RECTANGULAR CHANNEL
- 500m AIR STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
C	10/20	UPDATE ALIGNMENT	WSL	WCTT	WKML
B	04/19	THIRD ISSUE	WSL	WCTT	JEC
A	04/18	SECOND ISSUE	WSL	WCTT	JEC
-	08/17	FIRST ISSUE	WSL	WCTT	JEC

Drawing Status: DETAILED DESIGN
Suitability: -

ATKINS

Client: 渠務署 Drainage Services Department
工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: LOCATION OF REPRESENTATIVE AIR SENSITIVE RECEIVERS AT SUNG SHAN NEW VILLAGE

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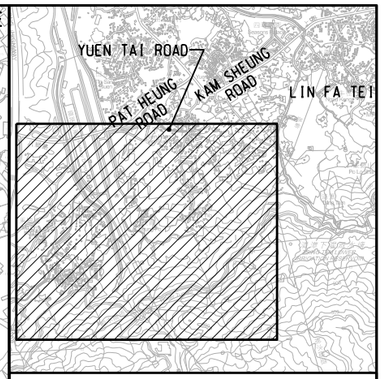

KEY PLAN
N.T.S.

LEGEND:

- TW1 — AIR SENSITIVE RECEIVERS
- PROJECT WORK BOUNDARY
- PROPOSED RECTANGULAR CHANNEL
- 500m AIR STUDY AREA

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Drawing Status: DETAILED DESIGN

Suitability: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: LOCATION OF REPRESENTATIVE AIR SENSITIVE RECEIVERS AT TAI WO

Scale	Designed	Drawn	Checked	Authorised
1 : 5000	WSL	AC	WCTT	JEC
Original Size: A3	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017

Drawing Number: FIGURE 3.3

Revision: C

User name: CHEUI8306 Date:11/1/2020 Time: 8:28:18 PM
Filename: P:\CNHKA\GIS\Drainage\Projects\5124336\FIGURE\EIA\5124336-EIA-FIG33.dgn

DO NOT SCALE

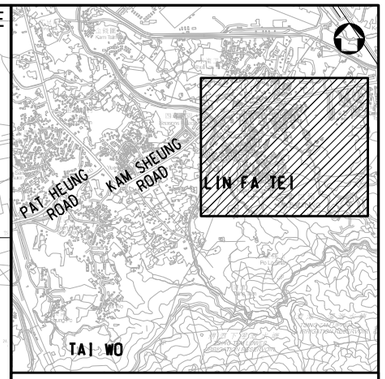
826800 E 827000 E 827200 E 827400 E 827600 E

832200 N
832000 N
831800 N

LFT7
KAM SHEUNG ROAD
LFT8
LFT9
LIN FA TEI
蓮花地
ANIMAL ESCAPE RAMP
LFT6
LFT10
CAT LADDER
CAT LADDER
LFT4
CAT LADDER
LFT5
LFT3
SHUI TSAN TIN
ANIMAL ESCAPE RAMPS
CAT LADDER
LFT1
LFT2
CAT LADDER

0 12.5 25 37.5 50 62.5 m
1 : 1250 SCALE BAR

Millimetres 100 0 10



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-6001 TO 6005.

LFT9
Air Sensitive Receiver

Rev.	Date	Description	By	Chk'd	Appr'd
A	NOV 2022	TENDER ADDENDUM NO. 4	SHC	WCTT	KP
-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT
Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client: 渠務署 Drainage Services Department

工程管理部
Project Management Division

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

Drawing Title:
LOCATION OF
REPRESENTATIVE AIR
SENSITIVE RECEIVERS AT LIN
FA TEI

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

Drawing Number: Figure 3.4
Revision: A

User name: LEUN3329 Date:07/02/2023 Time:17:25:18
Filename: P:\CNHKA\GIC\Project\5124336 - CE 22_2013 (DS) Yuen Long-Stage 1\Contract DC2022\02\Contract Doc\Volume 3\15-Drawings\LFT\5124336-TD-C2-GEN-6000_A.dgn

DO NOT SCALE

FOR CONTINUATION
SEE FIGURE 3.5b

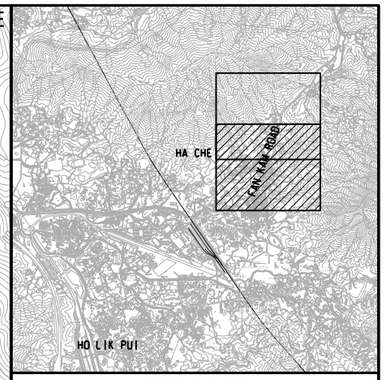
MATCH LINE

SHEUNG CHE TSUEN

CHUK HANG

FAN KAM ROAD

HC1
HC2
HC3
HC4
HC5
HC6
HC7



KEY PLAN
N.T.S.

LEGEND:

- HC1 — AIR SENSITIVE RECEIVERS
- PROJECT WORK BOUNDARY
- PROPOSED RECTANGULAR CHANNEL
- 500m AIR STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
C	11/20	UPDATE ALIGNMENT	WSL	WCTT	WKML
B	04/19	THIRD ISSUE	WSL	WCTT	JEC
A	04/18	SECOND ISSUE	WSL	WCTT	JEC
-	08/17	FIRST ISSUE	WSL	WCTT	JEC

Drawing Status: DETAILED DESIGN
Suitability: -

ATKINS

Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

Project Title
DRAINAGE IMPROVEMENT WORKS
IN YUEN LONG STAGE 1 - INVESTIGATION,
DESIGN AND CONSTRUCTION
CE 22/2013 (DS)

Drawing Title
LOCATION OF REPRESENTATIVE
AIR SENSITIVE RECEIVERS
AT HA CHE (SHEET 1 OF 2)

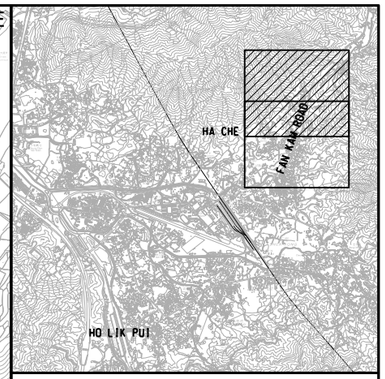
Scale	Designed	Drawn	Checked	Authorised
1 : 5000	WSL	AC	WCTT	JEC
Original Size: A3	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017

Drawing Number: FIGURE 3.5A
Revision: C

User name: CHEUI8306 Date:11/3/2020 Time: 7:36:15 PM
Filename: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\5124336-EIA-FIG35A.dgn

Millimetres 0 10 100

DO NOT SCALE



KEY PLAN
N.T.S.

FAN KAM ROAD

HC6

HC5

SHEUNG CHE TSUEN

FAN KAM ROAD

MATCH LINE
FOR CONTINUATION
SEE FIGURE 3.5a

LEGEND:

- HC1 — AIR SENSITIVE RECEIVERS
- PROJECT WORK BOUNDARY
- PROPOSED RECTANGULAR CHANNEL
- 500m AIR STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
B	11/20	UPDATE ALIGNMENT	WSL	WCTT	JEC
A	04/18	SECOND ISSUE	WSL	WCTT	JEC
-	08/17	FIRST ISSUE	WSL	WCTT	JEC

Drawing Status

Suitability

ATKINS

Client
渠務署
Drainage Services Department

工程管理部
Project Management Division

Project Title
DRAINAGE IMPROVEMENT WORKS
IN YUEN LONG STAGE 1 - INVESTIGATION,
DESIGN AND CONSTRUCTION
CE 22/2013 (DS)

Drawing Title
LOCATION OF REPRESENTATIVE
AIR SENSITIVE RECEIVERS
AT HA CHE (SHEET 2 OF 2)

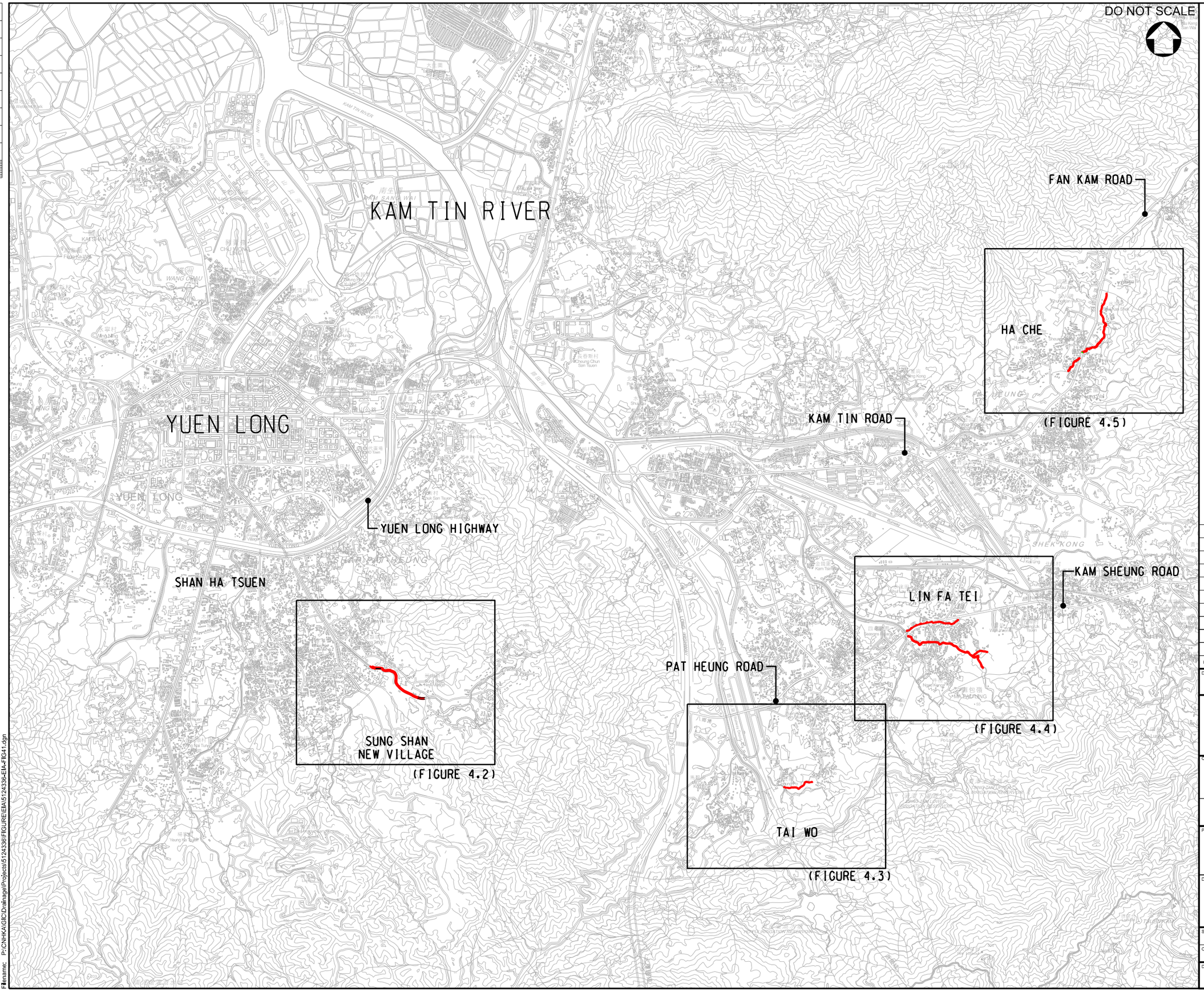
Scale	Designed	Drawn	Checked	Authorised
1 : 5000	WSL	AC	WCTT	JEC
Original Size	Date	Date	Date	Date
A3	AUG 2017	AUG 2017	AUG 2017	AUG 2017

Drawing Number
FIGURE 3.5B

Revision
B

Millimetres 0 10 100

User name: CHEUI8306 Date:11/3/2020 Time: 7:35:11 PM
Filename: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\5124336-EIA-FIG35B.dgn



LEGEND:

- PROPOSED DRAINAGE WORKS
- 300m NOISE STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
C	11/20	UPDATE ALIGNMENT	WSL	WCTT	WKML
B	04/18	THIRD ISSUE	WSL	WCTT	JEC
A	09/16	SECOND ISSUE	WSL	RWKC	JEC
-	10/15	FIRST ISSUE	RC	WW	WW

Drawing Status: DETAILED DESIGN

Suitability: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: NOISE IMPACT ASSESSMENT - KEY PLAN

Scale	Designed	Drawn	Checked	Authorised
AS SHOWN	RC	AC	WW	WW
Original Size: A3	Date: OCT 2015	Date: OCT 2015	Date: OCT 2015	Date: OCT 2015

Drawing Number: FIGURE 4.1

Revision: C

User name: CHEUI8306 Date:11/1/2020 Time: 8:46:30 PM
Filename: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\5124336-EIA-FIG41.dgn

DO NOT SCALE

SSNV1
SSNV2
SSNV3
SSNV4
SSNV5
SSNV6
SSNV7

SUNG SHAN
NEW VILLAGE

KEY PLAN
N.T.S.

NOTES:

1. FOR KEY PLAN REFER TO FIGURE 4.1.

LEGEND:

SSNV 1 — NOISE SENSITIVE RECEIVERS

PROJECT WORK BOUNDARY

PROPOSED RECTANGULAR CHANNEL

300m NOISE STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
C	11/20	UPDATE ALIGNMENT	WSL	WCTT	WKML
B	04/19	THIRD ISSUE	WSL	WCTT	JEC
A	04/18	SECOND ISSUE	WSL	WCTT	JEC
-	08/17	FIRST ISSUE	WSL	WCTT	JEC

Drawing Status: DETAILED DESIGN

Suitability: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: LOCATION OF REPRESENTATIVE NOISE SENSITIVE RECEIVERS AT SUNG SHAN NEW VILLAGE

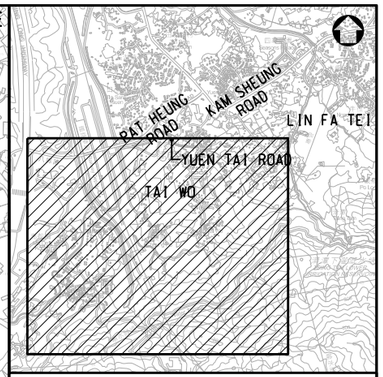
Scale	Designed	Drawn	Checked	Authorised
1 : 5000	WSL	AC	WCTT	JEC
Original Size: A3	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017

Drawing Number: FIGURE 4.2

Revision: C

User name: CHEU8306 Date:1/6/2021 Time:9:21:49 AM
FileName: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\5124336-EIA-FIG42.dgn

DO NOT SCALE



KEY PLAN
N.T.S.

CHEUNG PO

TAI WO

TW1

TW2

TW3

TW4

NOTES:

1. FOR KEY PLAN REFER TO FIGURE 4.1.

LEGEND:

TW1 — NOISE SENSITIVE RECEIVERS

PROJECT WORK BOUNDARY

PROPOSED RECTANGULAR CHANNEL

300m NOISE STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
C	11/20	UPDATE ALIGNMENT	WSL	WCTT	WKML
B	04/19	THIRD ISSUE	WSL	WCTT	JEC
A	04/18	SECOND ISSUE	WSL	WCTT	JEC
-	08/17	FIRST ISSUE	WSL	WCTT	JEC

Drawing Status: DETAILED DESIGN

Suitability: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: LOCATION OF REPRESENTATIVE NOISE SENSITIVE RECEIVERS AT TAI WO

Scale	Designed	Drawn	Checked	Authorised
1 : 5000	WSL	AC	WCTT	JEC
Original Size: A3	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017

Drawing Number: FIGURE 4.3

Revision: C

User name: CHEUI8306 Date:1/5/2021 Time: 9:27:45 AM
Filename: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\5124336-EIA-FIG43.dgn

Millimetres 0 10 100

DO NOT SCALE

826900 E 827200 E 827500 E 827800 E

832200 N

832000 N

831800 N

KAM SHEUNG ROAD

LIN FA TEI

SHUI TSAN TIN

ANIMAL ESCAPE RAMP

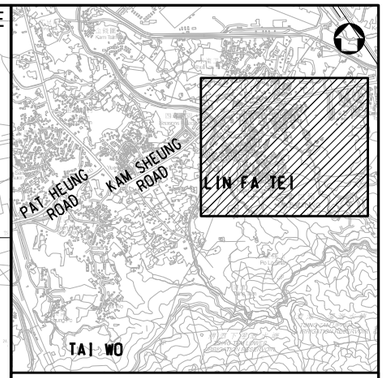
ANIMAL ESCAPE RAMPS

CAT LADDER

LFT1 LFT2 LFT3 LFT4 LFT5 LFT6 LFT7 LFT8 LFT9 LFT10 LFT11 LFT12 LFT13 LFT14

0 12.5 25 37.5 50 62.5 m
1 : 1 250 SCALE BAR

Millimetres 0 10 100



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-6001 TO 6005.

LFT14
Representative Noise Sensitive Receiver

Rev.	Date	Description	By	Chk'd	Appr'd
A	NOV 2022	TENDER ADDENDUM NO. 4	SHC	WCTT	KP
-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT
Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

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

Drawing Title
LOCATION OF
REPRESENTATIVE NOISE
SENSITIVE RECEIVERS AT LIN
FA TEI

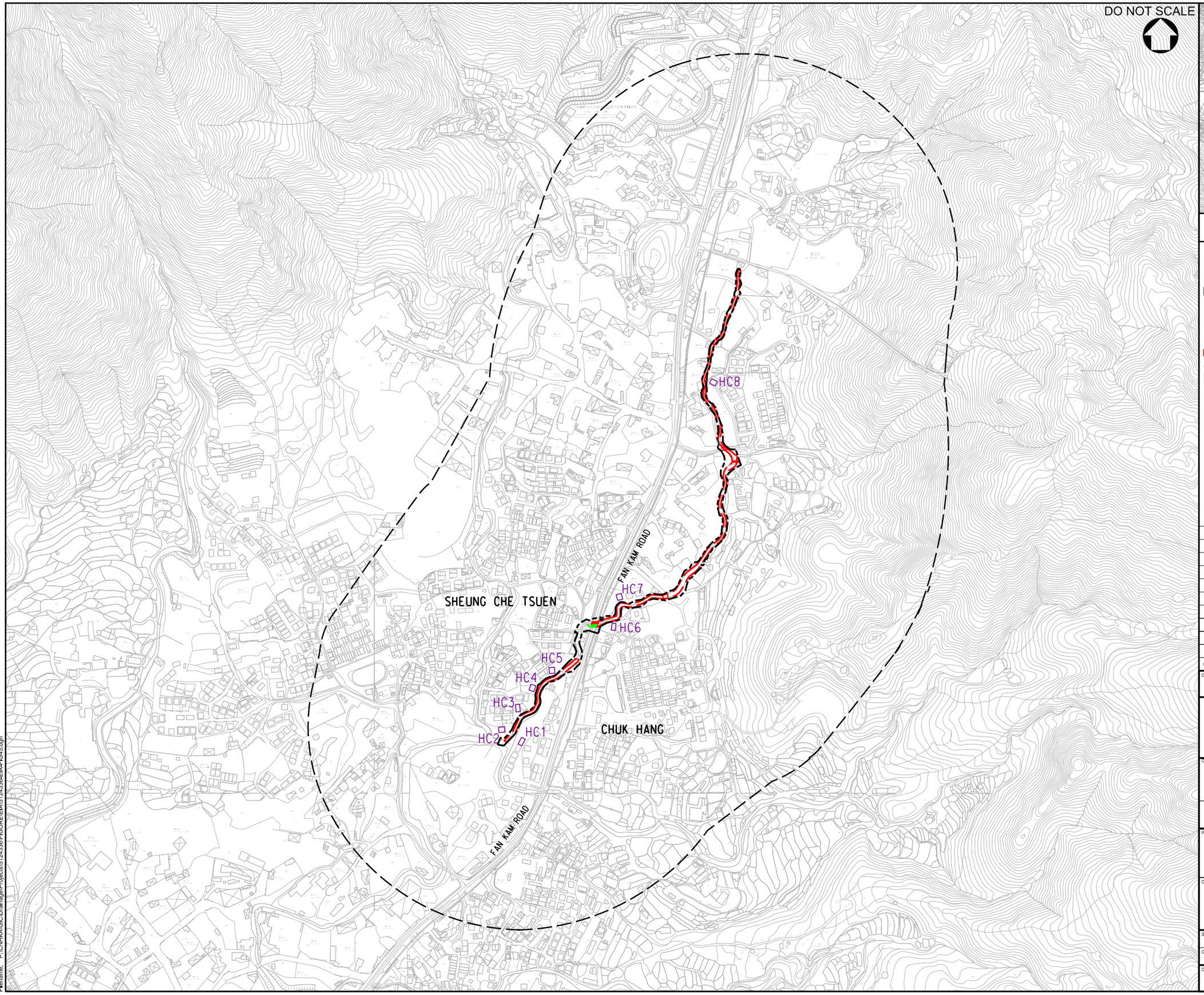
Scale	Designed	Drawn	Checked	Authorised
1 : 1250	SHC	AC	WCTT	KP
Original Size	Date	Date	Date	Date
A1	JUL 2022	JUL 2022	JUL 2022	JUL 2022

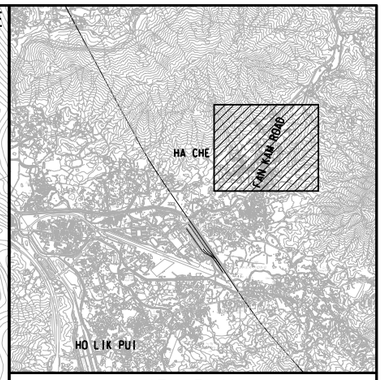
Drawing Number: Figure 4.4
Revision: A

User name: LEUN3329 Date:07/02/2023 Time:17:25:18
Filename: P:\CNHKA\GIC\Project\5124336 - CE 22_2013 (DS) Yuen Long-Stage 1\Contract DC2022\02\Contract Doc\Volume 3\15-Drawings\LFT\5124336-TD-C2-GEN-6000_A.dgn

DO NOT SCALE

Millimetres 0 10 100





KEY PLAN
N.T.S.

NOTES:

1. FOR KEY PLAN REFER TO FIGURE 4.1.

LEGEND:

HC 1 — NOISE SENSITIVE RECEIVERS

PROJECT WORK BOUNDARY

PROPOSED RECTANGULAR CHANNEL

300m NOISE STUDY AREA

Rev.	Date	Description	By	Chk'd	App'd
C	11/20	UPDATE ALIGNMENT	WSL	WCTT	WKML
B	04/19	THIRD ISSUE	WSL	WCTT	JEC
A	04/18	SECOND ISSUE	WSL	WCTT	JEC
-	08/17	FIRST ISSUE	WSL	WCTT	JEC

Drawing Status: DETAILED DESIGN — Suitable for: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

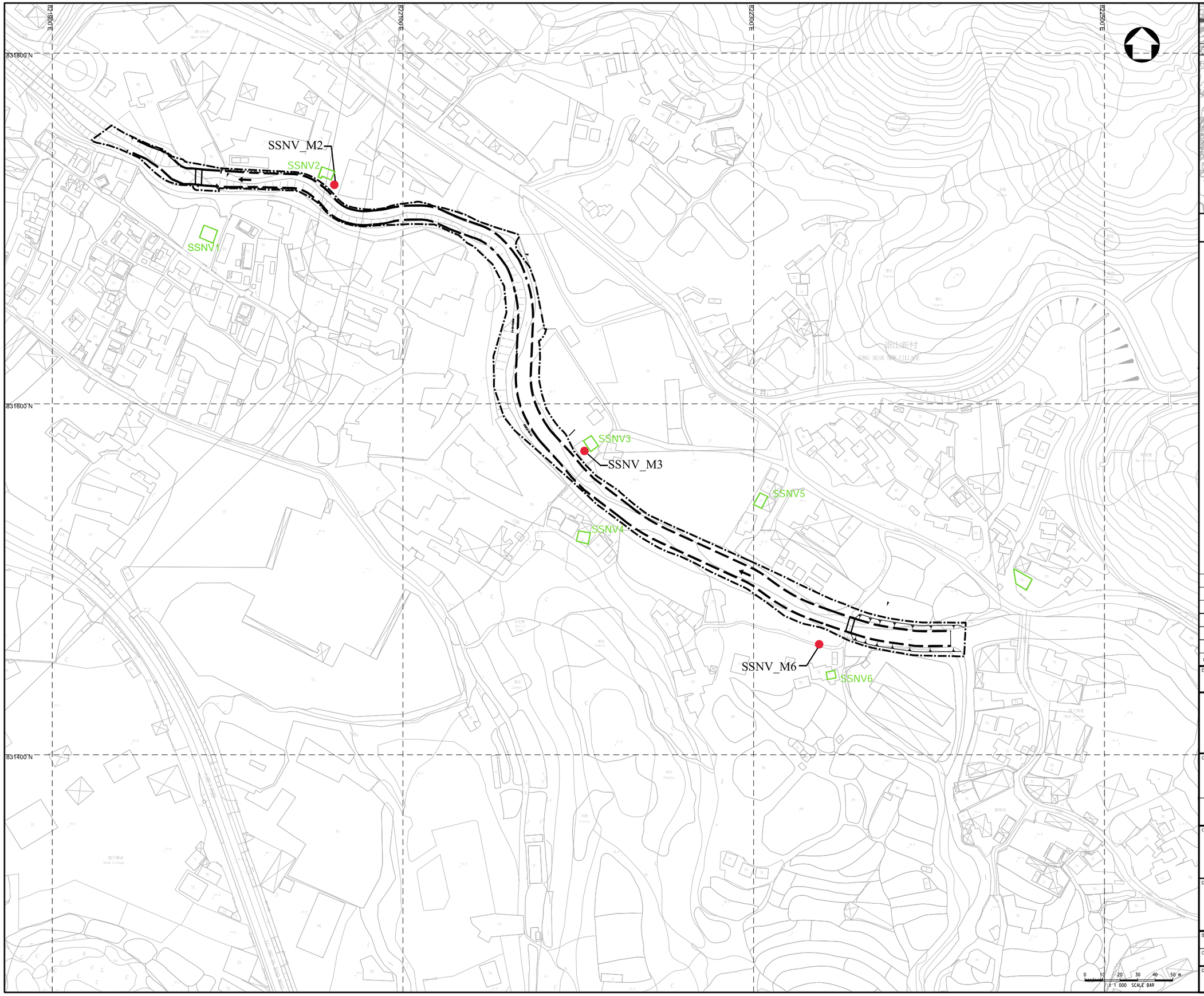
Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

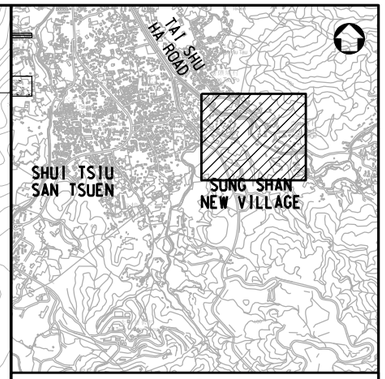
Drawing Title: LOCATION OF REPRESENTATIVE NOISE SENSITIVE RECEIVERS AT HA CHE

Scale	Designed	Drawn	Checked	Authorised
1 : 5000	WSL	AC	WCTT	JEC
Original Size: A3	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017	Date: AUG 2017

Drawing Number: FIGURE 4.5 — Revision: C

User name: CHEU8306 Date:1/5/2021 Time: 9:48:11 AM
File name: P:\CN\HKA\GIC\Drainage\Projects\5124336\FIG\IRE\EIA\5124336-EIA-FIG45.dgn





KEY PLAN
N.T.S.

LEGEND:

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

REMARK:
Baseline and impact monitoring stations include SSNV_M2, SSNV_M3 and SSNV_M6.

Rev.	Date	Description	By	Chk'd	App'd
A	OCT 2022	TENDER ADDENDUM NO.3	SHC	WCTT	KP
-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT
Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

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

Drawing Title
Noise Monitoring Locations at Sung Shan New Village

Scale	Designed	Drawn	Checked	Authorised
1 : 1000	SHC	AC	WCTT	KP
Original Size: A1	Date: JUL 2022	Date: JUL 2022	Date: JUL 2022	Date: JUL 2022

Drawing Number: Figure 4.6
Revision:

DO NOT SCALE

Millimetres 100 0 10

825500 E

825600 E

825700 E

830800 N

830700 N

CHEUNG PO

大嵩

TAI WO

TAI WO

TW_M2

TW_M3

TW1

TW2

TW3

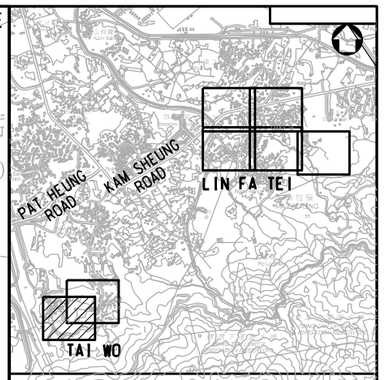
900CU

遊樂場
Playground

教堂
Church

啓業花園
Kai Yip Garden

0 5 10 15 20 25 m
1 : 500 SCALE BAR



KEY PLAN
N.T.S.

LEGEND:

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

REMARK:
Baseline and impact monitoring stations include TW_M2 and TW_M3.

Rev.	Date	Description	By	Chk'd	Appr'd
A	OCT 2022	TENDER ADDENDUM NO.3	SHC	WCTT	KP
-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT

Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client
渠務署
Drainage Services Department

工程管理部
Project Management Division

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

Drawing Title
Noise Monitoring Locations at Tai Wo

Scale	Designed	Drawn	Checked	Authorised
1 : 500	SHC	AC	WCTT	KP
Original Size	Date	Date	Date	Date
A1	JUL 2022	JUL 2022	JUL 2022	JUL 2022

Drawing Number: Figure 4.7

Revision: A

DO NOT SCALE

826900 E 827000 E 827100 E 827200 E

832200 N

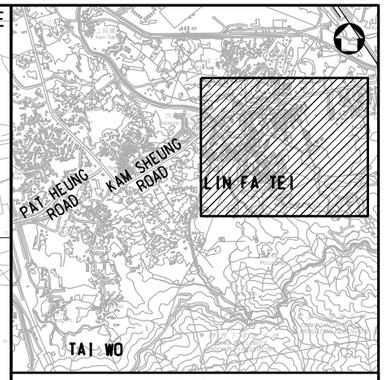
832000 N

831800 N

Millimetres 100 0 10

LFT_M11
KAM SHEUNG ROAD
LFT10
LFT11
LFT12
LFT14
LFT13
LFT_M13
LIN FA TEI
LFT9
LFT8
LFT_M7
LFT7
LFT_M5
LFT5
LFT4
LFT_M3A
LFT6
LFT3
LFT_M3
LFT_M1
LFT1
LFT2
SHUI TSAN TIN

0 12.5 25 37.5 50 62.5 m
1 : 1 250 SCALE BAR



KEY PLAN
N.T.S.

LEGEND:

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

REMARK:
Baseline and impact monitoring stations include LFT_M1, LFT_M3A, LFT_M5, LFT_M7, and LFT_M11.

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

Drawing Status: CONTRACT
Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

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

Drawing Title
Noise Monitoring Locations at Lin Fa Tei

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

Drawing Number: Figure 4.8
Revision:

DO NOT SCALE

Millimetres 100 0 10

822700 E

834800 N

834600 N

834400 N

HA CHE

HC_M6

HC8

HC7

HC6

HC_M4

HC_M3

HC5

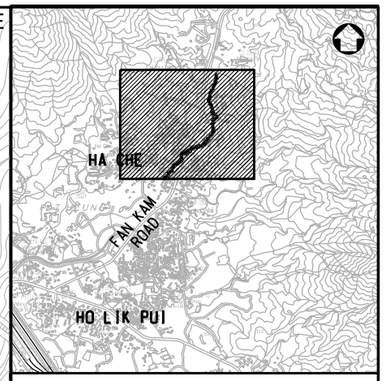
HC4

HC_M3A

HC3

HC2

HC1



KEY PLAN
N.T.S.

LEGEND:

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

REMARK:
Baseline and impact monitoring stations include HC_M3A, HC_M4 and HC_M6.

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

Drawing Status: CONTRACT

Suitability:

ATKINS
Member of the SNC-Lavalin Group

Client:
渠務署
Drainage Services Department

工程管理部
Project Management Division

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

Drawing Title:
Noise Monitoring Locations at Ha Che

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

Drawing Number: Figure 4.9

Revision:

0 50 100 200 300 400 Meters

Dog-legged Clubtail (larva)

Aquilaria sinensis (seedling)

WSR_SSNV1

WSR_SSNV5

Aquilaria sinensis (sapling)

Gnetum luofuense

Common Rat Snake

Aquilaria sinensis (seedling)

Aquilaria sinensis (sapling/ young tree)

WSR_SSNV2

WSR_SSNV3

WSR_SSNV4

WSR_SSNV6

Species of Conservation Concern

Work Limit Boundary

500m Study Area

Habitat

Agricultural Land

Pond

Watercourse

Grassland

Grassland/Shrubland

Secondary Woodland

Plantation

Waste Ground

Urban/Residential Area

ATKINS

Project Title:

Agreement No. CE 22/2013 (DS)
Drainage Improvement Works in Yuen Long, Stage 1
Investigation, Design and Construction

Figure Title:

Water Sensitive Receivers
At Sung Shan New Village

Drawn by:	ST	Scale:	1:4,980 on A3
Checked By:	EL	Date:	Sep 2019
Approved by:	JC		
Figure Number:	Figure 6.1	Revision:	2

Document Path: D:\Project\CE222013(DS) PER and EIA\Info\GIS files\mxd\Figure5_habitatmap_SCS_SungShanNewVillage_20181002.mxd

0 50 100 200 300 400 Meters

Species of Conservation Concern
500m Study Area
Work Limit Boundary
Agricultural Land
Pond
Marsh
Mitigation Wetland
Watercourse
Seasonally Wet Grassland
Grassland
Grassland/Shrubland
Secondary Woodland
Orchard
Plantation
Waste Ground
Urban/Residential Area

WSR_TW5
Chinese Bullforg,
Small Snakehead
WSR_TW4
Metallic Cerulean
WSR_TW2
Leopard Cat
Centaur Oak Blue
Aquilaria sinensis
Metallic Cerulean
Somanniathelphusa zanklon
Scarlet Basker
Chinese Rasbora
Dog-legged Clubtail (larva),
Club-tailed Cruiser (larva),
Chinese Rasbora,
Small Snakehead
Marauder Clubtail (larva)
Dog-legged Clubtail (larva)
WSR_TW1
Brown Wood Frog
Somanniathelphusa zanklon
WSR_TW3
Brown Wood Frog,
Dog-legged Clubtail (larva),
Glassy Bluebottle
Small Snakehead

ATKINS

Project Title:

Agreement No. CE 22/2013 (DS)
Drainage Improvement Works in Yuen Long, Stage 1
Investigation, Design and Construction

Figure Title:

Water Sensitive Receivers
At Tai Wo

Drawn by:	ST	Scale:	1:5,003 on A3
Checked By:	EL	Date:	Sep 2019
Approved by:	JC		
Figure Number:	Figure 6.2	Revision:	2

Document Path: D:\Project\CE22013(DS) PER and EIA\Info\GIS files\mxd\Figure6_habitatmap_SCS_TaiWo_20181002.mxd

0 50 100 200 300 400 Meters

WSR_LFT6
WSR_LFT5
WSR_LFT4
WSR_LFT2
WSR_LFT3
WSR_LFT1
WSR_LFT7
WSR_LFT8
Adianthus fordii
Club-tailed Cruiser (larva),
Emerald Cascader (larva)
Aquilaria sinensis (seedling)
Somatochlora zanklon
Aquilaria sinensis (young tree)

- Species of Conservation Concern
- Work Limit Boundary
- 500m Study Area
- Agricultural Land
- Pond
- Marsh
- Watercourse
- Seasonally Wet Grassland
- Grassland
- Secondary Woodland
- Orchard
- Plantation
- Waste Ground
- Urban/Residential Area

ATKINS

Project Title:

Agreement No. CE 22/2013 (DS)
Drainage Improvement Works in Yuen Long, Stage 1
Investigation, Design and Construction

Figure Title:

Water Sensitive Receivers
At Lin Fa Tei

Drawn by:	ST	Scale:	1:6,611 on A3
Checked By:	EL	Date:	Oct 2018
Approved by:	JC		
Figure Number:	Figure 6.3	Revision:	1

Document Path: D:\Project\CE222013(DS) PER and EIA\Info\GIS files\mxd\Figure7ab_habitatmap_SCS_LinFaTei_20181002.mxd

0 50 100 200 300 400 Meters

Aquilaria sinensis (seedling)

Camellia japonica, *Michelia figo*

Cryptocotamon anacoluthon, *Somanniathelphusa zanklon*

WSR_HC6

Aquilaria sinensis (sapling)

Cryptocotamon anacoluthon, *Somanniathelphusa zanklon*

Aquilaria sinensis (seedling)

WSR_HC4

Gnetum luofuense

Cibotium barometz, Hong Kong Newt, *Cryptocotamon anacoluthon*, *Somanniathelphusa zanklon*

WSR_HC1

WSR_HC3

Masked Palm Civet

WSR_HC2

Aquilaria sinensis (sapling)

WSR_HC5

- Species of Conservation Concern
- 500m Study Area
- Work Limit Boundary
- Agricultural Land
- Pond
- Watercourse
- Grassland
- Grassland/Shrubland
- Secondary Woodland
- Fung Shui Wood
- Orchard
- Plantation
- Waste Ground
- Urban/Residential Area

ATKINS

Project Title:

Agreement No. CE 22/2013 (DS)
Drainage Improvement Works in Yuen Long, Stage 1 Investigation, Design and Construction

Figure Title:

Water Sensitive Receivers At Ha Che

Drawn by:	ST	Scale:	1:6,820 on A3
Checked By:	EL	Date:	Oct 2018
Approved by:	JC		
Figure Number:	Figure 6.4	Revision:	1

Document Path: D:\Project\CE22013(DS) PER and EIA\Info\GIS files\mxd\Figure8ab_habitatmap_SCS_HaChe_20181002.mxd

0 50 100 200 300 400 Meters

C1A

C2

C3A

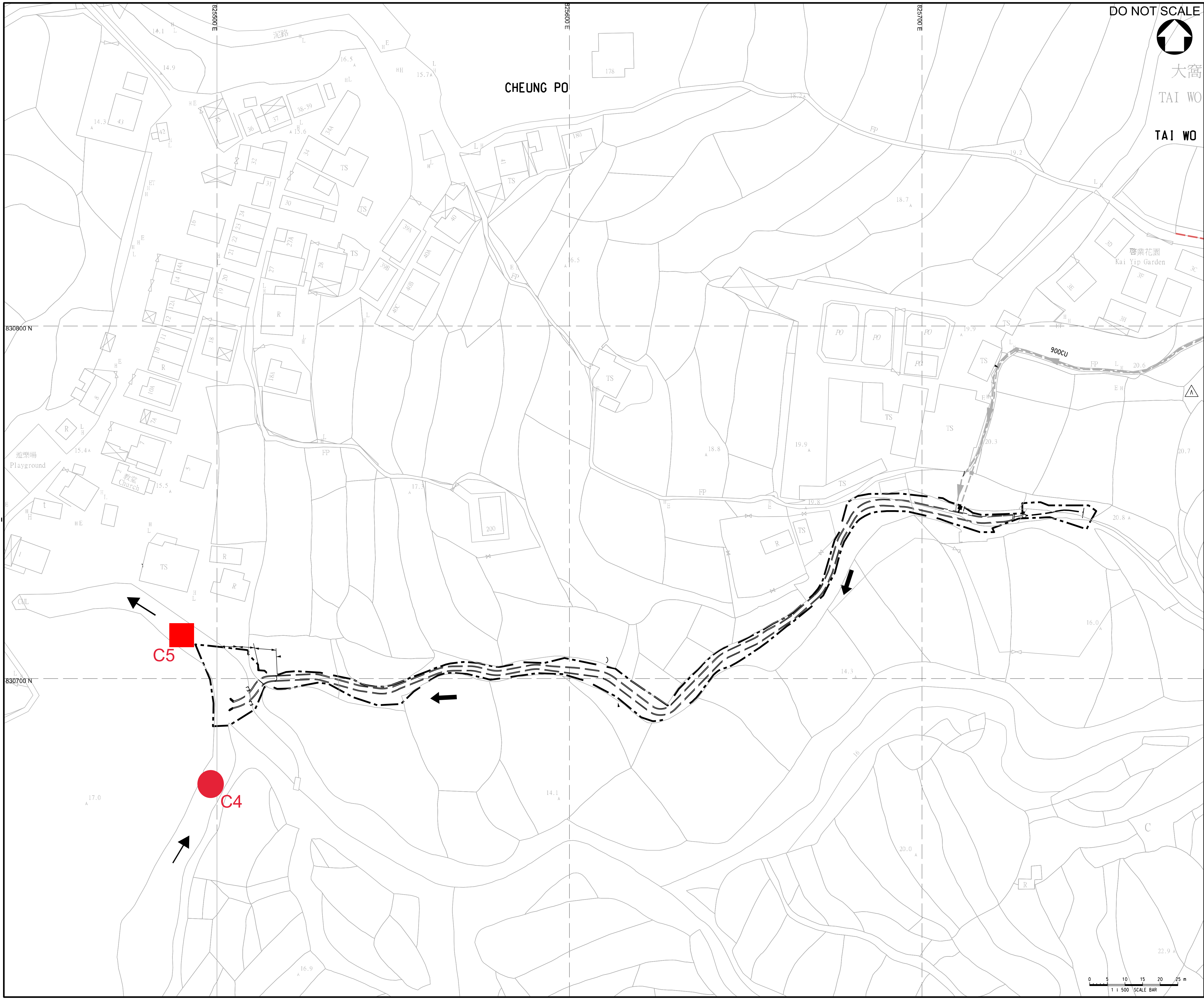
Legend:

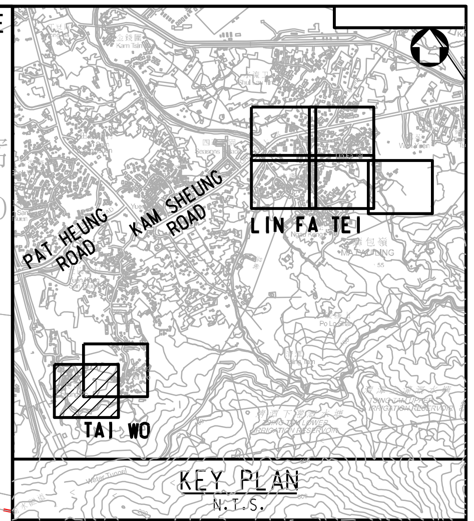
- Work Limit Boundary
- 500 m study area
- Control Station
- Alternative Control Station
- Alternative Impact Station
- Flow direction

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

Drawn by:	Scale: 1:5,000 on A3	
Checked By:	Date:	
Approved by:		
Figure Number: Figure 6.5		Revision: R5





LEGEND:

- WORKS BOUNDARY
- RECTANGULAR CHANNEL
- Control Station
- Impact Station
- Flow Direction

Rev.	Date	Description	By	Chk'd	App'd
A	OCT 2022	TENDER ADDENDUM NO.3	SHC	WCTT	KP
-	JUL 2022	ISSUE FOR TENDER	SHC	WCTT	KP

Drawing Status: CONTRACT

Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client
渠務署
Drainage Services Department
工程管理部
Project Management Division

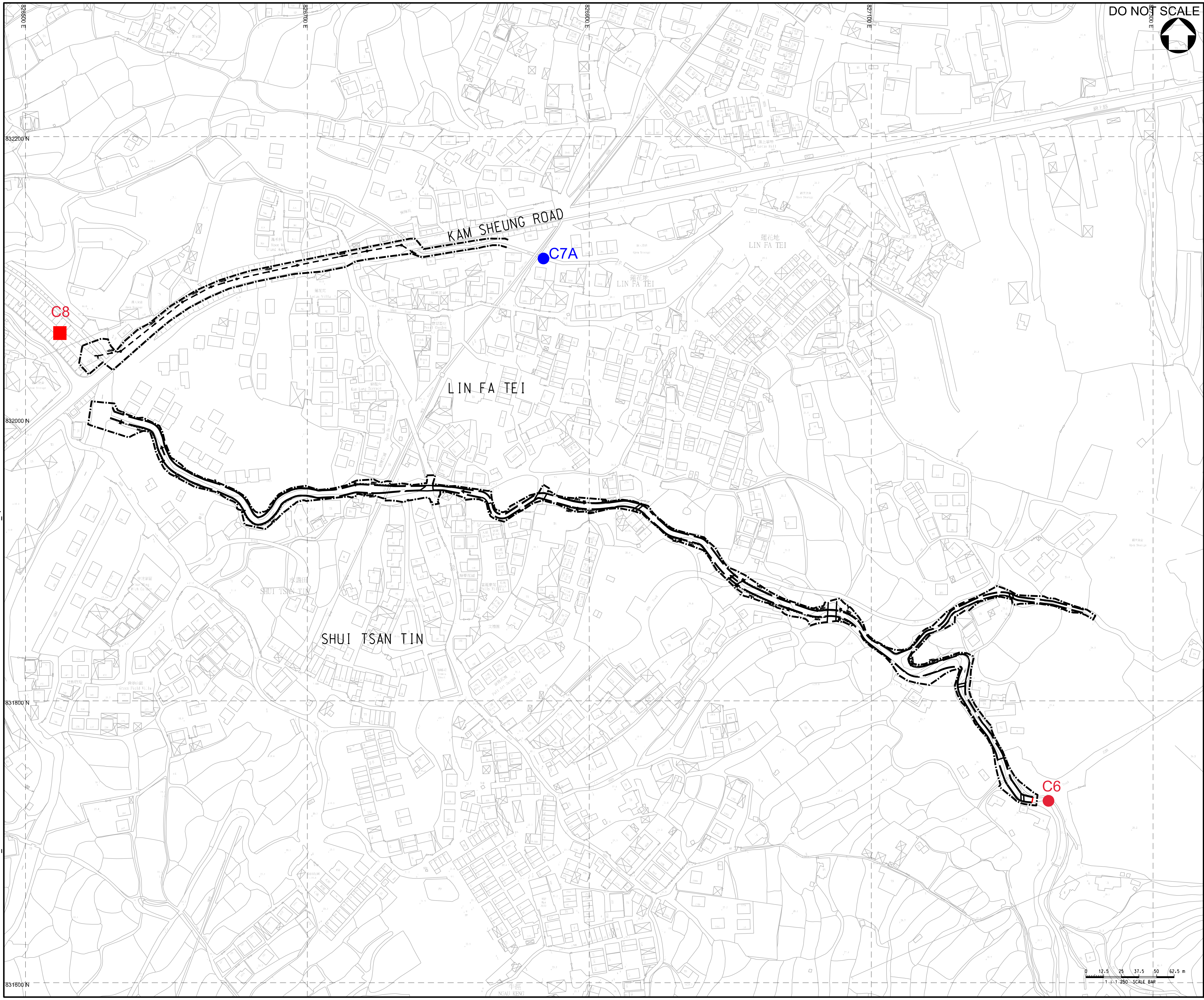
Contract Title
CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

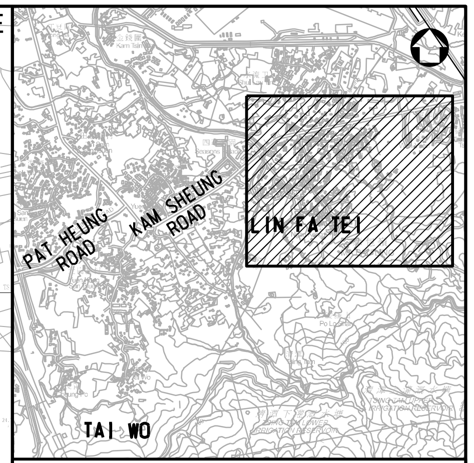
Drawing Title
Water Quality Monitoring Locations
at Tai Wo

Scale	Designed	Drawn	Checked	Authorised
1 : 500	SHC	AC	WCTT	KP
Original Size: A1	Date: JUL 2022	Date: JUL 2022	Date: JUL 2022	Date: JUL 2022

Drawing Number: Figure 6.6

Revision:





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

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

Drawing Status: CONTRACT

Suitability: -

ATKINS
Member of the SNC-Lavalin Group

Client
渠務署
Drainage Services Department
工程管理部
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

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

Drawing Number: Figure 6.7

Revision

0 50 100 200 300 400
Meters

C9

C10

LEGEND:

WORKS BOUNDARY

RECTANGULAR CHANNEL

Control Station

Impact Station

Flow Direction

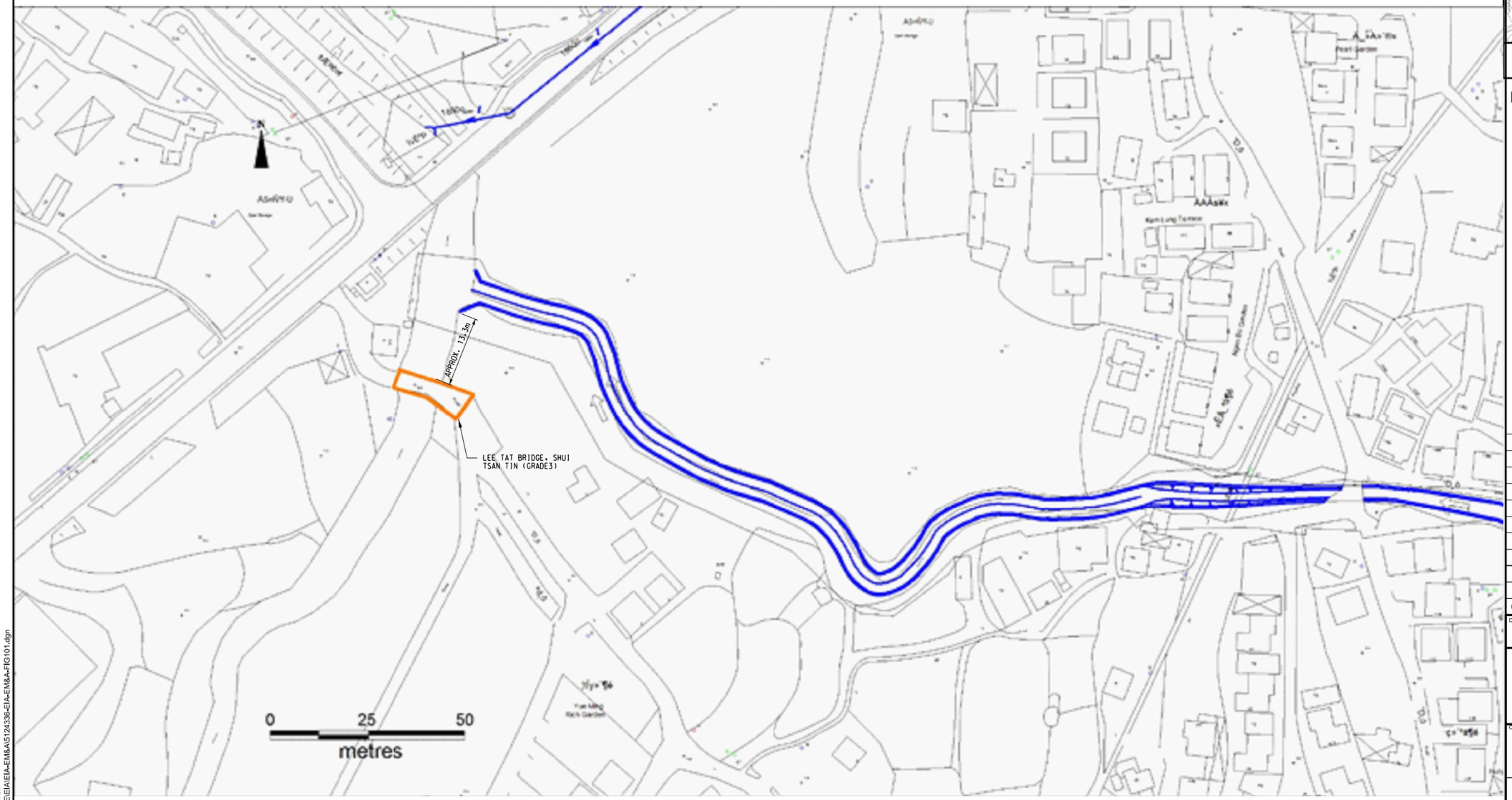
Project Title:
CONTRACT NO. DC/2022/02
DRAINAGE IMPROVEMENT WORKS
AT YUEN LONG -
STAGE 2

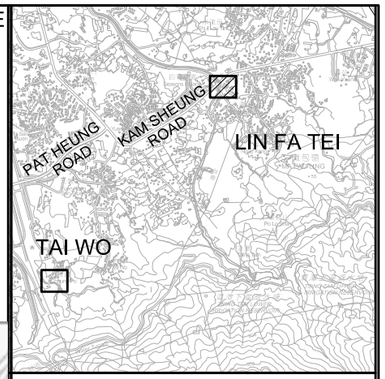
Figure Title:
Water Quality Monitoring Locations at Ha Che

Drawn by:	Scale: 1:6,500 on A3	
Checked By:	Date:	
Approved by:		
Figure Number: Figure 6.8		Revision: R1

DO NOT SCALE

Millimetres 0 10 100





KEY PLAN
N.T.S.

LEGEND:

PROPOSED DRAINAGE WORKS

GRADED HISTORICAL BUILDINGS

Rev.	Date	Description	By	Chk'd	App'd
B	SEP 20	THIRD ISSUE	WSL	WCTT	WKML
A	OCT 19	SECOND ISSUE	WSL	WCTT	WKML
-	JAN 16	FIRST ISSUE	WSL	HYBL	JEC

Drawing Status: DETAILED DESIGN

Suitability: -

ATKINS

Client

渠務署
Drainage Services Department

工程管理部
Project Management Division

Project Title

DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title

GRADED HISTORIC BUILDING WITHIN LIN FA TEI AREA

Scale	Designed	Drawn	Checked	Authorised
1 : 250	WSL	AC	HYBL	JEC
Original Size	Date	Date	Date	Date
A1	JAN 2016	JAN 2016	JAN 2016	JAN 2016

Drawing Number: FIGURE 10.1

Revision: B

User name: CHEU8306 Date:12/16/2020 Time:9:35:04 AM
Filename: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\EIA-EM&A\5124336-EIA-EM&A-FIG101.dgn

DO NOT SCALE

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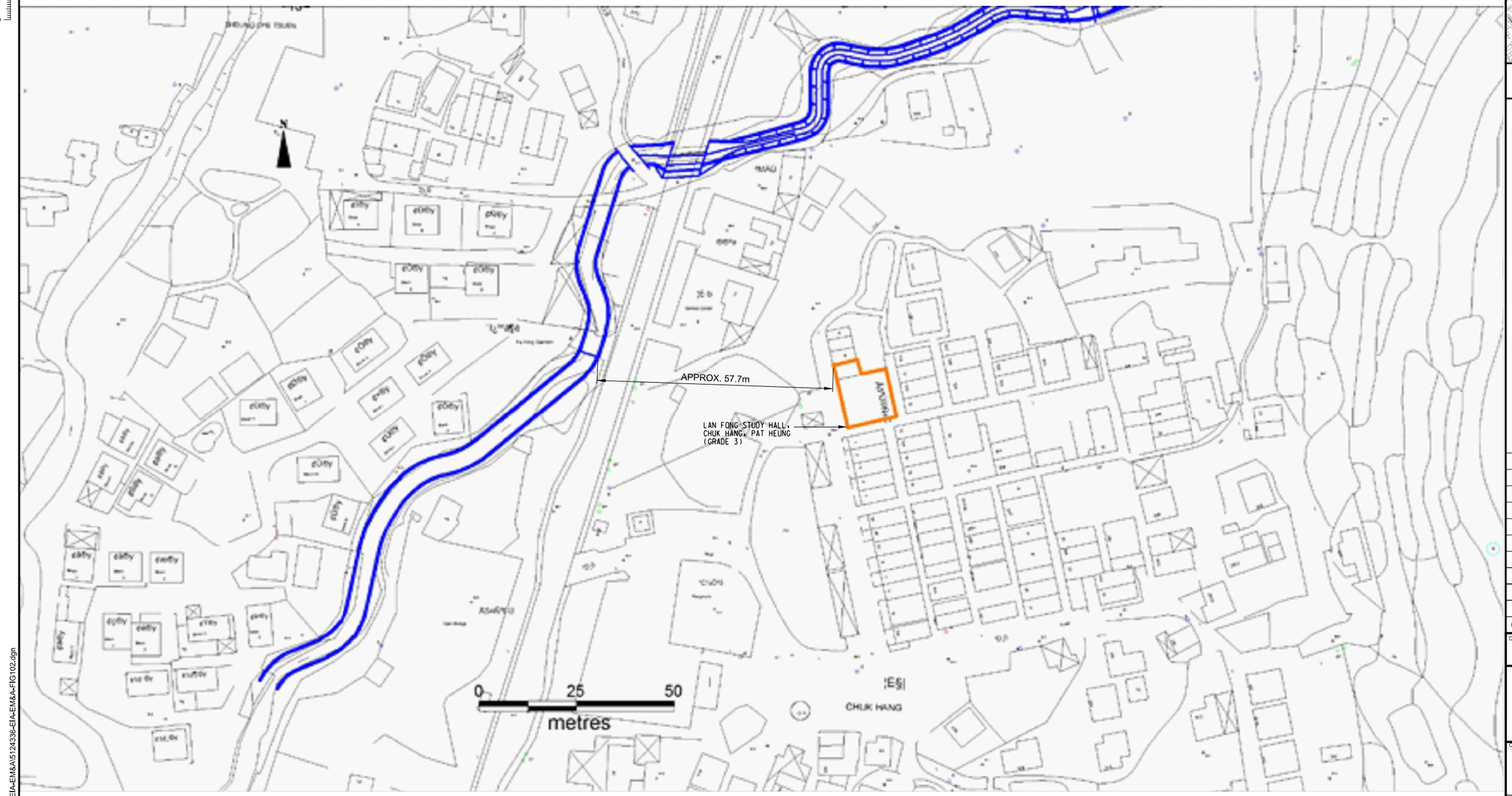
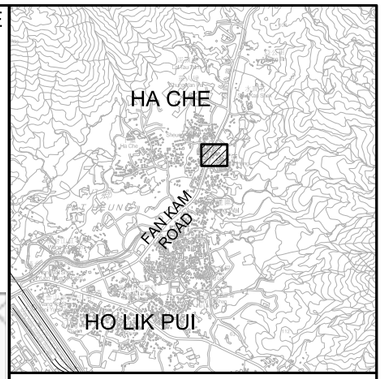




KEY PLAN
N.T.S.

LEGEND:

PROPOSED DRAINAGE WORKS

GRADED HISTORICAL BUILDINGS

Rev.	Date	Description	By	Chk'd	App'd
B	SEP 20	THIRD ISSUE	WSL	WCTT	WKML
A	OCT 19	SECOND ISSUE	WSL	WCTT	WKML
-	JAN 16	FIRST ISSUE	WSL	HYBL	JEC

Drawing Status: DETAILED DESIGN

Suitability: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: GRADED HISTORIC BUILDING WITHIN HA CHE AREA

Scale	Designed	Drawn	Checked	Authorised
1 : 250	WSL	AC	HYBL	JEC
Original Size: A1	Date: JAN 2016	Date: JAN 2016	Date: JAN 2016	Date: JAN 2016

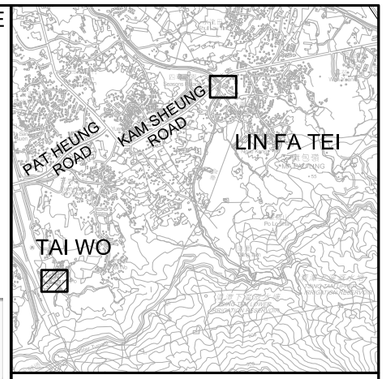
Drawing Number: FIGURE 10.2

Revision: B

User name: CHEUI8306 Date:12/15/2020 Time: 2:40:48 PM
Filename: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\EIA-EM&A\5124336-EIA-EM&A-FIG102.dgn

DO NOT SCALE

Millimetres 0 10 100



KEY PLAN
N.T.S.

LEGEND:

PROPOSED DRAINAGE WORKS

GRADED HISTORICAL BUILDINGS

Rev.	Date	Description	By	Chk'd	App'd
B	SEP 20	THIRD ISSUE	WSL	WCTT	WKML
A	OCT 19	SECOND ISSUE	WSL	WCTT	WKML
-	JAN 16	FIRST ISSUE	WSL	HYBL	JEC

Drawing Status: DETAILED DESIGN

Suitability: -

ATKINS

Client: 渠務署 Drainage Services Department

工程管理部 Project Management Division

Project Title: DRAINAGE IMPROVEMENT WORKS IN YUEN LONG STAGE 1 - INVESTIGATION, DESIGN AND CONSTRUCTION CE 22/2013 (DS)

Drawing Title: GRADED HISTORIC BUILDING WITHIN TAI WO AREA

Scale	Designed	Drawn	Checked	Authorised
1 : 250	WSL	AC	HYBL	JEC
Original Size: A1	Date: JAN 2016	Date: JAN 2016	Date: JAN 2016	Date: JAN 2016

Drawing Number: FIGURE 10.3

Revision: B

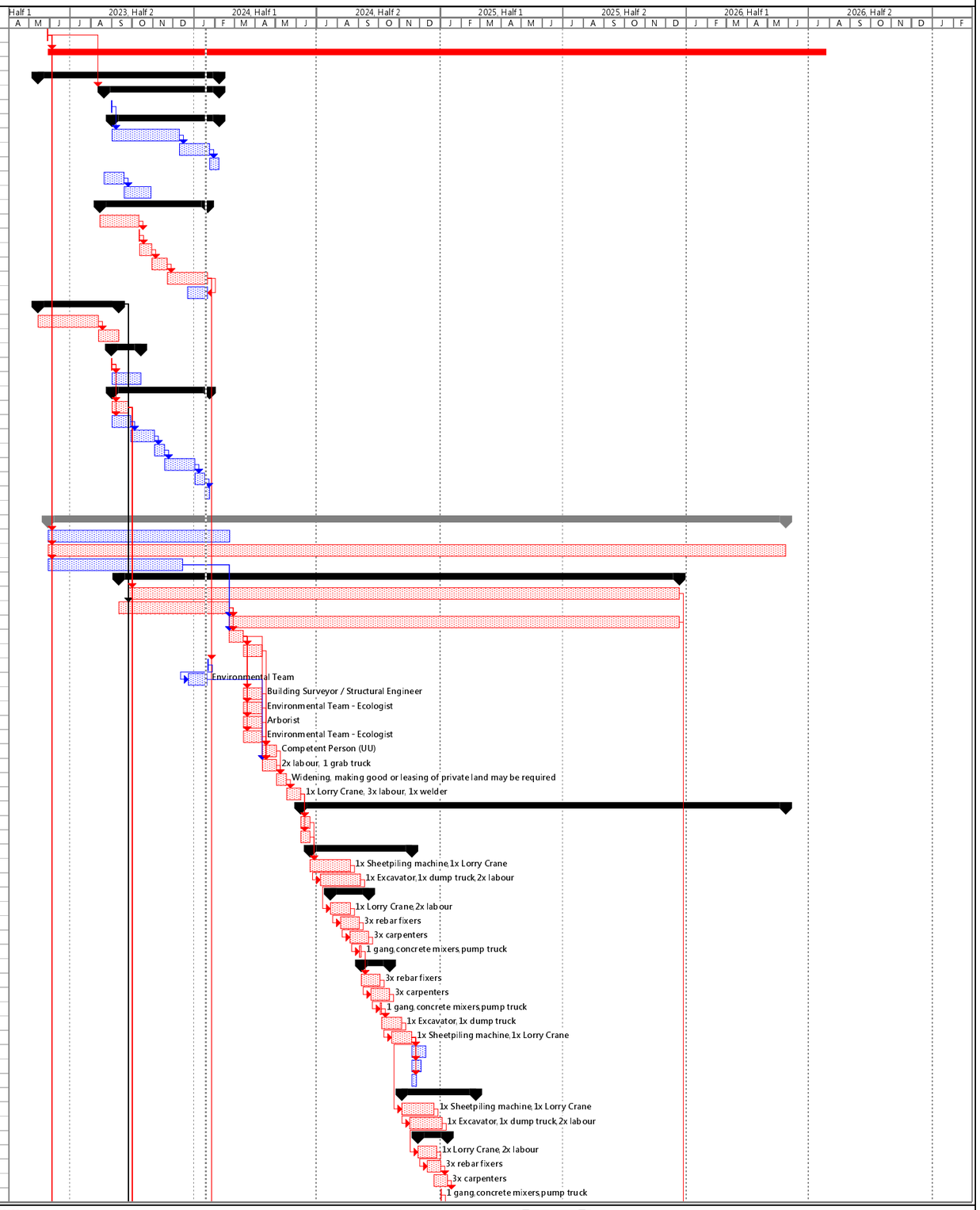
User name: CHEUB306 Date:12/16/2020 Time: 9:37:03 AM
Filename: P:\CNHKA\GIC\Drainage\Projects\5124336\FIGURE\EIA\EIA-EM&A\5124336-EIA-EM&A-FIG103.dgn

Appendices

Appendix 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	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
1	**Starting date**	**1 day**	**Mon 23/5/29**	**Mon 23/5/29**	**Mon 23/5/29**	**Mon 23/5/29**	**Mon 23/5/29**	**Mon 23/5/29**	**0 days**	
23	**Planned Completion Day of whole of the works (1155day)**	**1155 days**	**Tue 23/5/30**	**Mon 26/7/27**	**Tue 23/5/30**	**Mon 26/7/27**	**Tue 23/5/30**	**Mon 26/7/27**	**0 days**	
24										
25	**Project establishment**	**269 days**	**Mon 23/5/15**	**Wed 24/2/7**	**Mon 23/5/15**	**Wed 24/2/7**	**Mon 23/5/15**	**Mon 26/7/27**	**0 days**	
26	**Project Manager's Accommodation**	**171 days**	**Mon 23/8/21**	**Wed 24/2/7**	**Mon 23/8/21**	**Wed 24/2/7**	**Wed 26/2/18**	**Mon 26/7/27**	**901 days**	
27	PMI001 - Possession of Works Area at 22 Fan Kam road [A]	1 day	Fri 23/9/1	Fri 23/9/1	Fri 23/9/1	Fri 23/9/1	Wed 26/2/18	Wed 26/2/18	901 days	0
28	**Rennovation and Certification of ex. PM accommodation**	**159 days**	**Sat 23/9/2**	**Wed 24/2/7**	**Sat 23/9/2**	**Wed 24/2/7**	**Thu 26/2/19**	**Mon 26/7/27**	**901 days**	**0**
29	Inspection and review of ex. PM accommodation	100 days	Sat 23/9/2	Sun 23/12/10	Sat 23/9/2	Sun 23/12/10	Thu 26/2/19	Fri 26/5/29	901 days	
30	Arranging time slot with RSS for power and server down	45 days	Mon 23/12/11	Wed 24/1/24	Mon 23/12/11	Wed 24/1/24	Sat 26/5/30	Mon 26/7/13	901 days	0
31	Issuance of check certificates	14 days	Thu 24/1/25	Wed 24/2/7	Thu 24/1/25	Wed 24/2/7	Tue 26/7/14	Mon 26/7/27	901 days	
32	C11 Tendering procedure for EDMS & DWSS [A]	30 days	Mon 23/8/21	Tue 23/9/19	Mon 23/8/21	Tue 23/9/19	Tue 26/5/19	Wed 26/6/17	1002 days	0
33	Installation and commissioning of EDMS & DWSS [A]	40 days	Wed 23/9/20	Sun 23/10/29	Wed 23/9/20	Sun 23/10/29	Thu 26/6/18	Mon 26/7/27	1002 days	0
34	**Environmental Team (ET) procurement**	**160 days**	**Tue 23/8/15**	**Sun 24/1/21**	**Tue 23/8/15**	**Sun 24/1/21**	**Tue 23/8/15**	**Mon 26/7/27**	**0 days**	
35	C9 Tendering procedure [A]	58 days	Tue 23/8/15	Wed 23/10/11	Tue 23/8/15	Wed 23/10/11	Tue 23/8/15	Wed 23/10/11	0 days	0
36	Commencement for ET (Aurecon) [A]	1 day	Thu 23/10/12	Thu 23/10/12	Thu 23/10/12	Thu 23/10/12	Thu 23/10/12	Thu 23/10/12	0 days	0
37	Proposal and Acceptance of ET Members [A]	18 days	Fri 23/10/13	Mon 23/10/30	Fri 23/10/13	Mon 23/10/30	Fri 23/10/13	Mon 23/10/30	0 days	0
38	Updating and Acceptance of EM&A Manual [A]	23 days	Tue 23/10/31	Wed 23/11/22	Tue 23/10/31	Wed 23/11/22	Tue 23/10/31	Wed 23/11/22	0 days	0
39	Notice of Commencement of Construction to EPD [A]	60 days	Thu 23/11/23	Sun 24/1/21	Thu 23/11/23	Sun 24/1/21	Thu 23/11/23	Sun 24/1/21	0 days	0
40	Complete necessary submissions to EPD	30 days	Sat 23/12/23	Sun 24/1/21	Sat 23/12/23	Sun 24/1/21	Sun 26/6/28	Mon 26/7/27	918 days	
45	**Setup Public Liaison Team**	**120 days**	**Mon 23/5/15**	**Mon 23/9/11**	**Mon 23/5/15**	**Mon 23/9/11**	**Mon 23/5/15**	**Mon 23/9/11**	**0 days**	
46	Recruitment of Public Liaison Officer [A]	90 days	Mon 23/5/15	Sat 23/8/12	Mon 23/5/15	Sat 23/8/12	Mon 23/5/15	Sat 23/8/12	0 days	0
47	Appointment and Acceptance of Public Liaison Officer [A]	30 days	Sun 23/8/13	Mon 23/9/11	Sun 23/8/13	Mon 23/9/11	Sun 23/8/13	Mon 23/9/11	0 days	0
55	**Works Area establishment**	**44 days**	**Fri 23/9/1**	**Sat 23/10/14**	**Fri 23/9/1**	**Sat 23/10/14**	**Fri 23/9/1**	**Mon 26/7/27**	**0 days**	
56	PMI001 - Possession of Works Area at 22 Fan Kam road [A]	1 day	Fri 23/9/1	Fri 23/9/1	Fri 23/9/1	Fri 23/9/1	Fri 23/9/1	Fri 23/9/1	0 days	0
57	Establish concrete haul road and slab [A]	43 days	Sat 23/9/2	Sat 23/10/14	Sat 23/9/2	Sat 23/10/14	Mon 26/6/15	Mon 26/7/27	1017 days	0
58	**Contractor's Accommodation (office and welfare facilities)**	**145 days**	**Sat 23/9/2**	**Wed 24/1/24**	**Sat 23/9/2**	**Wed 24/1/24**	**Sat 23/9/2**	**Mon 26/7/27**	**0 days**	
59	Establish temporary site office (containers) [A]	24 days	Sat 23/9/2	Mon 23/9/25	Sat 23/9/2	Mon 23/9/25	Sat 23/9/2	Mon 23/9/25	0 days	0
67	C9 Tendering procedure for Contractor's Site Office [A]	28 days	Sat 23/9/2	Fri 23/9/29	Sat 23/9/2	Fri 23/9/29	Thu 26/3/5	Wed 26/4/1	915 days	0
68	Proposal and Acceptance of Temp. Works Design and Method Statement [A]	35 days	Sat 23/9/30	Fri 23/11/3	Sat 23/9/30	Fri 23/11/3	Thu 26/4/2	Wed 26/5/6	915 days	0
69	Construction of Footing [A]	15 days	Sat 23/11/4	Sat 23/11/18	Sat 23/11/4	Sat 23/11/18	Thu 26/5/7	Thu 26/5/21	915 days	0
70	Construction of Structure	45 days	Sun 23/11/19	Tue 24/1/2	Sun 23/11/19	Tue 24/1/2	Fri 26/5/22	Sun 26/7/5	915 days	0
71	Interior furnishment and Furnitures	15 days	Wed 24/1/3	Wed 24/1/17	Wed 24/1/3	Wed 24/1/17	Mon 26/7/6	Mon 26/7/20	915 days	0
72	Move-in	7 days	Thu 24/1/18	Wed 24/1/24	Thu 24/1/18	Wed 24/1/24	Tue 26/7/21	Mon 26/7/27	915 days	0
73										
74	**Section I**	**1095 days**	**Tue 23/5/30**	**Thu 26/5/28**	**Tue 23/5/30**	**Thu 26/5/28**	**Tue 23/5/30**	**Mon 26/7/27**	**0 days**	
2	access date of Portion A	270 days	Tue 23/5/30	Fri 24/2/23	Tue 23/5/30	Fri 24/2/23	Fri 25/10/31	Mon 26/7/27	885 days	0
3	Period of section I (Sung Shan New Village)	1095 days	Tue 23/5/30	Thu 26/5/28	Tue 23/5/30	Thu 26/5/28	Tue 23/5/30	Thu 26/5/28	0 days	0
4	Early access (partial) [A]	200 days	Tue 23/5/30	Fri 23/12/15	Tue 23/5/30	Fri 23/12/15	Tue 23/8/8	Fri 24/2/23	70 days	0
5	**Site Establishment**	**832 days**	**Tue 23/9/12**	**Sun 25/12/21**	**Tue 23/9/12**	**Sun 25/12/21**	**Tue 23/9/12**	**Sun 25/12/21**	**0 days**	
6	Prepare and Accept Temp. Works Design and Method Statement	818 days	Tue 23/9/26	Sun 25/12/21	Tue 23/9/26	Sun 25/12/21	Tue 23/9/26	Sun 25/12/21	0 days	0
7	Public Liaison and Negotiation with Village Rep.	164 days	Tue 23/9/12	Thu 24/2/22	Tue 23/9/12	Thu 24/2/22	Tue 23/9/12	Thu 24/2/22	0 days	0
8	Initial Survey	668 days	Fri 24/2/23	Sun 25/12/21	Fri 24/2/23	Sun 25/12/21	Fri 24/2/23	Sun 25/12/21	0 days	0
9	Initial Safety & Environmental measures	21 days	Fri 24/2/23	Thu 24/3/14	Fri 24/2/23	Thu 24/3/14	Fri 24/2/23	Thu 24/3/14	0 days	0
12	Setup of instrumentation and monitoring	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
14	EIAO Commencement of Construction	1 day	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Sat 24/4/13	Sat 24/4/13	82 days	0
15	Environmental Baseline Monitoring	28 days	Sun 23/12/24	Sat 24/1/20	Sun 23/12/24	Sat 24/1/20	Fri 24/3/15	Thu 24/4/11	82 days	0
16	Condition Survey	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
17	Freshwater Crab Translocation Plan	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
18	Tree Survey	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
19	Vegetation Survey	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
20	UU detection	21 days	Fri 24/4/12	Thu 24/5/2	Fri 24/4/12	Thu 24/5/2	Fri 24/4/12	Thu 24/5/2	0 days	0
21	Site Clearance	21 days	Fri 24/4/12	Thu 24/5/2	Fri 24/4/12	Thu 24/5/2	Fri 24/4/12	Thu 24/5/2	0 days	0
22	Establish access(es) to channels	15 days	Fri 24/5/3	Fri 24/5/17	Fri 24/5/3	Fri 24/5/17	Fri 24/5/3	Fri 24/5/17	0 days	0
23	Guarding / Barrier / Hoarding	21 days	Sat 24/5/18	Fri 24/6/7	Sat 24/5/18	Fri 24/6/7	Sat 24/5/18	Fri 24/6/7	0 days	0
24	**Drainage Channels Works**	**720 days**	**Sat 24/6/8**	**Thu 26/5/28**	**Sat 24/6/8**	**Thu 26/5/28**	**Sat 24/6/8**	**Mon 26/7/27**	**0 days**	
25	Demolish & relocate metal frame YLL796/B/6	14 days	Sat 24/6/8	Fri 24/6/21	Sat 24/6/8	Fri 24/6/21	Sat 24/6/8	Fri 24/6/21	0 days	0
26	Demolish & relocate metal frame YLL796/B/7-8	14 days	Sat 24/6/8	Fri 24/6/21	Sat 24/6/8	Fri 24/6/21	Sat 24/6/8	Fri 24/6/21	0 days	0
27	**CH.A500.00~ CH.A608.13**	**151 days**	**Sat 24/6/22**	**Tue 24/11/19**	**Sat 24/6/22**	**Tue 24/11/19**	**Sat 24/6/22**	**Tue 24/11/19**	**0 days**	
28	Sheetpiling & Temp. Drainage Diversion	60 days	Sat 24/6/22	Tue 24/8/20	Sat 24/6/22	Tue 24/8/20	Sat 24/6/22	Tue 24/8/20	0 days	3
29	Excavation and Lateral Support	60 days	Sun 24/7/7	Wed 24/9/4	Sun 24/7/7	Wed 24/9/4	Sun 24/7/7	Wed 24/9/4	0 days	3
30	**Ground and Edge Beams**	**57 days**	**Mon 24/7/22**	**Mon 24/9/16**	**Mon 24/7/22**	**Mon 24/9/16**	**Mon 24/7/22**	**Mon 24/9/16**	**0 days**	
31	Install precast portion (ground beam)	30 days	Mon 24/7/22	Tue 24/8/20	Mon 24/7/22	Tue 24/8/20	Mon 24/7/22	Tue 24/8/20	0 days	0
32	Rebar Fixing	28 days	Tue 24/8/6	Mon 24/9/2	Tue 24/8/6	Mon 24/9/2	Tue 24/8/6	Mon 24/9/2	0 days	2
33	Formwork Erection and Cast-in items	28 days	Tue 24/8/20	Mon 24/9/16	Tue 24/8/20	Mon 24/9/16	Tue 24/8/20	Mon 24/9/16	0 days	2
34	Concreting	3 days	Tue 24/9/3	Thu 24/9/5	Tue 24/9/3	Thu 24/9/5	Tue 24/9/3	Thu 24/9/5	0 days	2
35	**Walls**	**42 days**	**Fri 24/9/6**	**Thu 24/10/17**	**Fri 24/9/6**	**Thu 24/10/17**	**Fri 24/9/6**	**Thu 24/10/17**	**0 days**	
36	Rebar Fixing	28 days	Fri 24/9/6	Thu 24/10/3	Fri 24/9/6	Thu 24/10/3	Fri 24/9/6	Thu 24/10/3	0 days	2
37	Formwork Erection and Cast-in items	28 days	Fri 24/9/20	Thu 24/10/17	Fri 24/9/20	Thu 24/10/17	Fri 24/9/20	Thu 24/10/17	0 days	2
38	Concreting	2 days	Fri 24/10/4	Sat 24/10/5	Fri 24/10/4	Sat 24/10/5	Fri 24/10/4	Sat 24/10/5	0 days	2
39	Backfilling and Compaction	30 days	Sun 24/10/6	Mon 24/11/4	Sun 24/10/6	Mon 24/11/4	Sun 24/10/6	Mon 24/11/4	0 days	0
40	Removal of Sheetpiles	30 days	Mon 24/10/21	Tue 24/11/19	Mon 24/10/21	Tue 24/11/19	Mon 24/10/21	Tue 24/11/19	0 days	0
41	Modify ex. Channel at Outlet	21 days	Wed 24/11/20	Tue 24/12/10	Wed 24/11/20	Tue 24/12/10	Tue 26/7/7	Mon 26/7/27	594 days	0
42	Excavate & Backfill ex. Unregistered feature	14 days	Wed 24/11/20	Tue 24/12/3	Wed 24/11/20	Tue 24/12/3	Tue 26/7/14	Mon 26/7/27	601 days	0
43	Relocate/Divert ex. Utilities	7 days	Wed 24/11/20	Tue 24/11/26	Wed 24/11/20	Tue 24/11/26	Tue 26/7/21	Mon 26/7/27	608 days	0
44	**CH.A400.00~ CH.A500.00**	**110 days**	**Tue 24/11/5**	**Sat 25/2/22**	**Tue 24/11/5**	**Sat 25/2/22**	**Tue 24/11/5**	**Sat 25/2/22**	**0 days**	
45	Sheetpiling & Temp. Drainage Diversion	48 days	Tue 24/11/5	Sun 24/12/22	Tue 24/11/5	Sun 24/12/22	Tue 24/11/5	Sun 24/12/22	0 days	2
46	Excavation and Lateral Support	48 days	Sun 24/11/17	Fri 25/1/3	Sun 24/11/17	Fri 25/1/3	Sun 24/11/17	Fri 25/1/3	0 days	2
47	**Ground and Edge Beams**	**44 days**	**Fri 24/11/29**	**Sat 25/1/11**	**Fri 24/11/29**	**Sat 25/1/11**	**Fri 24/11/29**	**Sat 25/1/11**	**0 days**	
48	Install precast portion (ground beam)	28 days	Fri 24/11/29	Thu 24/12/26	Fri 24/11/29	Thu 24/12/26	Fri 24/11/29	Thu 24/12/26	0 days	0
49	Rebar Fixing	20 days	Fri 24/12/13	Wed 25/1/1	Fri 24/12/13	Wed 25/1/1	Fri 24/12/13	Wed 25/1/1	0 days	1
50	Formwork Erection and Cast-in items	20 days	Mon 24/12/23	Sat 25/1/11	Mon 24/12/23	Sat 25/1/11	Mon 24/12/23	Sat 25/1/11	0 days	1
51	Concreting	1 day	Thu 25/1/2	Thu 25/1/2	Thu 25/1/2	Thu 25/1/2	Thu 25/1/2	Thu 25/1/2	0 days	0



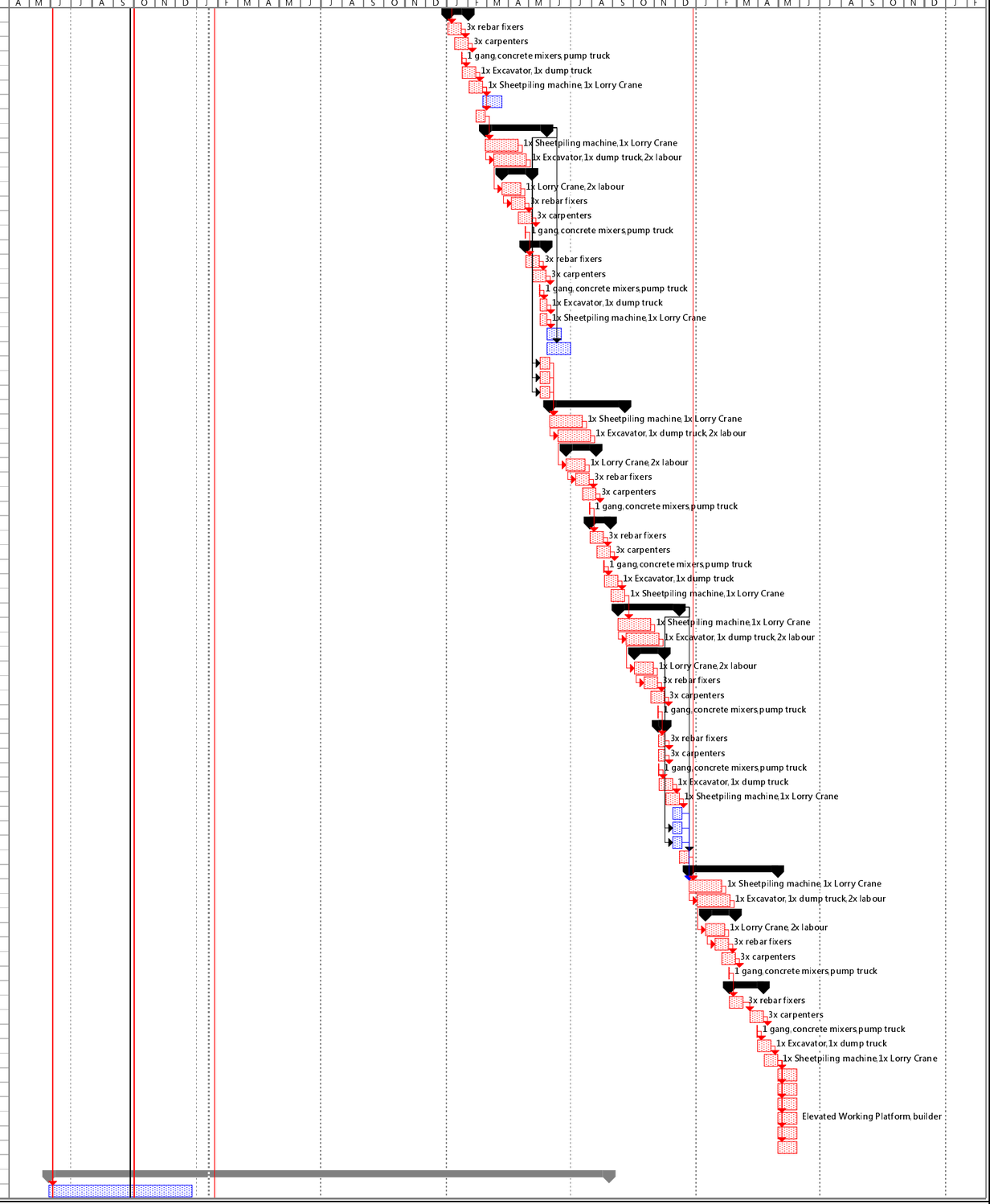
Revision.: 4.0 Date: 31 December 2023

´Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
52	**Walls**	**30 days**	**Fri 25/1/3**	**Sat 25/2/1**	**Fri 25/1/3**	**Sat 25/2/1**	**Fri 25/1/3**	**Sat 25/2/1**	**0 days**	
53	Rebar Fixing	20 days	Fri 25/1/3	Wed 25/1/22	Fri 25/1/3	Wed 25/1/22	Fri 25/1/3	Wed 25/1/22	0 days	1
54	Formwork Erection and Cast-in items	20 days	Mon 25/1/13	Sat 25/2/1	Mon 25/1/13	Sat 25/2/1	Mon 25/1/13	Sat 25/2/1	0 days	1
55	Concreting	1 day	Thu 25/1/23	Thu 25/1/23	Thu 25/1/23	Thu 25/1/23	Thu 25/1/23	Thu 25/1/23	0 days	0
56	Backfilling and Compaction	20 days	Fri 25/1/24	Wed 25/2/12	Fri 25/1/24	Wed 25/2/12	Fri 25/1/24	Wed 25/2/12	0 days	0
57	Removal of Sheetpiles	20 days	Mon 25/2/3	Sat 25/2/22	Mon 25/2/3	Sat 25/2/22	Mon 25/2/3	Sat 25/2/22	0 days	0
58	Pedestrian Crossing no. 1	28 days	Sun 25/2/23	Sat 25/3/22	Sun 25/2/23	Sat 25/3/22	Tue 26/6/30	Mon 26/7/27	492 days	0
59	Demolish & relocate metal frame YLL796/B/9	14 days	Thu 25/2/13	Wed 25/2/26	Thu 25/2/13	Wed 25/2/26	Thu 25/2/13	Wed 25/2/26	0 days	0
60	**CH.A300.00~ CH.A400.00**	**90 days**	**Thu 25/2/27**	**Tue 25/5/27**	**Thu 25/2/27**	**Tue 25/5/27**	**Thu 25/2/27**	**Tue 25/5/27**	**0 days**	
61	Sheetpiling & Temp. Drainage Diversion	48 days	Thu 25/2/27	Tue 25/4/15	Thu 25/2/27	Tue 25/4/15	Thu 25/2/27	Tue 25/4/15	0 days	2
62	Excavation and Lateral Support	48 days	Tue 25/3/11	Sun 25/4/27	Tue 25/3/11	Sun 25/4/27	Tue 25/3/11	Sun 25/4/27	0 days	2
63	**Ground and Edge Beams**	**44 days**	**Sun 25/3/23**	**Mon 25/5/5**	**Sun 25/3/23**	**Mon 25/5/5**	**Sun 25/3/23**	**Mon 25/5/5**	**0 days**	
64	Install precast portion (ground beam)	28 days	Sun 25/3/23	Sat 25/4/19	Sun 25/3/23	Sat 25/4/19	Sun 25/3/23	Sat 25/4/19	0 days	0
65	Rebar Fixing	20 days	Sun 25/4/6	Fri 25/4/25	Sun 25/4/6	Fri 25/4/25	Sun 25/4/6	Fri 25/4/25	0 days	1
66	Formwork Erection and Cast-in items	20 days	Wed 25/4/16	Mon 25/5/5	Wed 25/4/16	Mon 25/5/5	Wed 25/4/16	Mon 25/5/5	0 days	1
67	Concreting	1 day	Sat 25/4/26	Sat 25/4/26	Sat 25/4/26	Sat 25/4/26	Sat 25/4/26	Sat 25/4/26	0 days	0
68	**Walls**	**30 days**	**Sun 25/4/27**	**Mon 25/5/26**	**Sun 25/4/27**	**Mon 25/5/26**	**Sun 25/4/27**	**Mon 25/5/26**	**0 days**	
69	Rebar Fixing	20 days	Sun 25/4/27	Fri 25/5/16	Sun 25/4/27	Fri 25/5/16	Sun 25/4/27	Fri 25/5/16	0 days	1
70	Formwork Erection and Cast-in items	20 days	Wed 25/5/7	Mon 25/5/26	Wed 25/5/7	Mon 25/5/26	Wed 25/5/7	Mon 25/5/26	0 days	1
71	Concreting	1 day	Sat 25/5/17	Sat 25/5/17	Sat 25/5/17	Sat 25/5/17	Sat 25/5/17	Sat 25/5/17	0 days	0
72	Backfilling and Compaction	10 days	Sun 25/5/18	Tue 25/5/27	Sun 25/5/18	Tue 25/5/27	Sun 25/5/18	Tue 25/5/27	0 days	0
73	Removal of Sheetpiles	10 days	Sun 25/5/18	Tue 25/5/27	Sun 25/5/18	Tue 25/5/27	Sun 25/5/18	Tue 25/5/27	0 days	0
74	Animal Escape Ramp	21 days	Wed 25/5/28	Tue 25/6/17	Wed 25/5/28	Tue 25/6/17	Tue 26/7/7	Mon 26/7/27	405 days	0
75	1:2 slope works	35 days	Wed 25/5/28	Tue 25/7/1	Wed 25/5/28	Tue 25/7/1	Tue 26/6/23	Mon 26/7/27	391 days	5
76	Demolish & relocate wall, hoarding YLL796/B/13,13B	14 days	Sun 25/5/18	Sat 25/5/31	Sun 25/5/18	Sat 25/5/31	Sun 25/5/18	Sat 25/5/31	0 days	0
77	Demolish & relocate OSC YLL796/B/14A,14B	14 days	Sun 25/5/18	Sat 25/5/31	Sun 25/5/18	Sat 25/5/31	Sun 25/5/18	Sat 25/5/31	0 days	0
78	Demolish & relocate fence & wall YLL796/B/14	14 days	Sun 25/5/18	Sat 25/5/31	Sun 25/5/18	Sat 25/5/31	Sun 25/5/18	Sat 25/5/31	0 days	0
79	**CH.A200.00~ CH.A300.00**	**110 days**	**Sun 25/6/1**	**Thu 25/9/18**	**Sun 25/6/1**	**Thu 25/9/18**	**Sun 25/6/1**	**Thu 25/9/18**	**0 days**	
80	Sheetpiling & Temp. Drainage Diversion	48 days	Sun 25/6/1	Fri 25/7/18	Sun 25/6/1	Fri 25/7/18	Sun 25/6/1	Fri 25/7/18	0 days	2
81	Excavation and Lateral Support	48 days	Fri 25/6/13	Wed 25/7/30	Fri 25/6/13	Wed 25/7/30	Fri 25/6/13	Wed 25/7/30	0 days	2
82	**Ground and Edge Beams**	**44 days**	**Wed 25/6/25**	**Thu 25/8/7**	**Wed 25/6/25**	**Thu 25/8/7**	**Wed 25/6/25**	**Thu 25/8/7**	**0 days**	
83	Install precast portion (ground beam)	28 days	Wed 25/6/25	Tue 25/7/22	Wed 25/6/25	Tue 25/7/22	Wed 25/6/25	Tue 25/7/22	0 days	0
84	Rebar Fixing	20 days	Wed 25/7/9	Mon 25/7/28	Wed 25/7/9	Mon 25/7/28	Wed 25/7/9	Mon 25/7/28	0 days	1
85	Formwork Erection and Cast-in items	20 days	Sat 25/7/19	Thu 25/8/7	Sat 25/7/19	Thu 25/8/7	Sat 25/7/19	Thu 25/8/7	0 days	1
86	Concreting	1 day	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	0 days	0
87	**Walls**	**30 days**	**Wed 25/7/30**	**Thu 25/8/28**	**Wed 25/7/30**	**Thu 25/8/28**	**Wed 25/7/30**	**Thu 25/8/28**	**0 days**	
88	Rebar Fixing	20 days	Wed 25/7/30	Mon 25/8/18	Wed 25/7/30	Mon 25/8/18	Wed 25/7/30	Mon 25/8/18	0 days	1
89	Formwork Erection and Cast-in items	20 days	Sat 25/8/9	Thu 25/8/28	Sat 25/8/9	Thu 25/8/28	Sat 25/8/9	Thu 25/8/28	0 days	1
90	Concreting	1 day	Tue 25/8/19	Tue 25/8/19	Tue 25/8/19	Tue 25/8/19	Tue 25/8/19	Tue 25/8/19	0 days	0
91	Backfilling and Compaction	20 days	Wed 25/8/20	Mon 25/9/8	Wed 25/8/20	Mon 25/9/8	Wed 25/8/20	Mon 25/9/8	0 days	0
92	Removal of Sheetpiles	20 days	Sat 25/8/30	Thu 25/9/18	Sat 25/8/30	Thu 25/9/18	Sat 25/8/30	Thu 25/9/18	0 days	0
93	**CH.A100.00~ CH.A200.00**	**90 days**	**Tue 25/9/9**	**Sun 25/12/7**	**Tue 25/9/9**	**Sun 25/12/7**	**Tue 25/9/9**	**Sun 25/12/7**	**0 days**	
94	Sheetpiling & Temp. Drainage Diversion	48 days	Tue 25/9/9	Sun 25/10/26	Tue 25/9/9	Sun 25/10/26	Tue 25/9/9	Sun 25/10/26	0 days	2
95	Excavation and Lateral Support	48 days	Sun 25/9/21	Fri 25/11/7	Sun 25/9/21	Fri 25/11/7	Sun 25/9/21	Fri 25/11/7	0 days	2
96	**Ground and Edge Beams**	**44 days**	**Fri 25/10/3**	**Sat 25/11/15**	**Fri 25/10/3**	**Sat 25/11/15**	**Fri 25/10/3**	**Sat 25/11/15**	**0 days**	
97	Install precast portion (ground beam)	28 days	Fri 25/10/3	Thu 25/10/30	Fri 25/10/3	Thu 25/10/30	Fri 25/10/3	Thu 25/10/30	0 days	0
98	Rebar Fixing	20 days	Fri 25/10/17	Wed 25/11/5	Fri 25/10/17	Wed 25/11/5	Fri 25/10/17	Wed 25/11/5	0 days	1
99	Formwork Erection and Cast-in items	20 days	Mon 25/10/27	Sat 25/11/15	Mon 25/10/27	Sat 25/11/15	Mon 25/10/27	Sat 25/11/15	0 days	1
100	Concreting	1 day	Thu 25/11/6	Thu 25/11/6	Thu 25/11/6	Thu 25/11/6	Thu 25/11/6	Thu 25/11/6	0 days	0
101	**Walls**	**10 days**	**Fri 25/11/7**	**Sun 25/11/16**	**Fri 25/11/7**	**Sun 25/11/16**	**Fri 25/11/7**	**Sun 25/11/16**	**0 days**	
102	Rebar Fixing	10 days	Fri 25/11/7	Sun 25/11/16	Fri 25/11/7	Sun 25/11/16	Fri 25/11/7	Sun 25/11/16	0 days	1
103	Formwork Erection and Cast-in items	10 days	Fri 25/11/7	Sun 25/11/16	Fri 25/11/7	Sun 25/11/16	Fri 25/11/7	Sun 25/11/16	0 days	1
104	Concreting	1 day	Fri 25/11/7	Fri 25/11/7	Fri 25/11/7	Fri 25/11/7	Fri 25/11/7	Fri 25/11/7	0 days	0
105	Backfilling and Compaction	20 days	Sat 25/11/8	Thu 25/11/27	Sat 25/11/8	Thu 25/11/27	Sat 25/11/8	Thu 25/11/27	0 days	0
106	Removal of Sheetpiles	20 days	Tue 25/11/18	Sun 25/12/7	Tue 25/11/18	Sun 25/12/7	Tue 25/11/18	Sun 25/12/7	0 days	0
107	Demolish & relocate wall and porch YLL796/B/5,5A	14 days	Fri 25/11/28	Thu 25/12/11	Fri 25/11/28	Thu 25/12/11	Mon 25/12/8	Sun 25/12/21	10 days	0
108	Demolish & relocate booth, metal frame YLL796/B/16	14 days	Fri 25/11/28	Thu 25/12/11	Fri 25/11/28	Thu 25/12/11	Mon 25/12/8	Sun 25/12/21	10 days	0
109	Demolish & relocate wall YLL796/B/17	14 days	Fri 25/11/28	Thu 25/12/11	Fri 25/11/28	Thu 25/12/11	Mon 25/12/8	Sun 25/12/21	10 days	0
110	Relocate/Divert ex. Utilities	14 days	Mon 25/12/8	Sun 25/12/21	Mon 25/12/8	Sun 25/12/21	Mon 25/12/8	Sun 25/12/21	0 days	0
111	**CH.A0.00~CH.A100.00**	**130 days**	**Mon 25/12/22**	**Thu 26/4/30**	**##########**	**Thu 26/4/30**	**##########**	**Thu 26/4/30**	**0 days**	
112	Sheetpiling & Temp. Drainage Diversion	48 days	Mon 25/12/22	Sat 26/2/7	Mon 25/12/22	Sat 26/2/7	Mon 25/12/22	Sat 26/2/7	0 days	2
113	Excavation and Lateral Support	48 days	Sat 26/1/3	Thu 26/2/19	Sat 26/1/3	Thu 26/2/19	Sat 26/1/3	Thu 26/2/19	0 days	2
114	**Ground and Edge Beams**	**44 days**	**Thu 26/1/15**	**Fri 26/2/27**	**Thu 26/1/15**	**Fri 26/2/27**	**Thu 26/1/15**	**Fri 26/2/27**	**0 days**	
115	Install precast portion (ground beam)	28 days	Thu 26/1/15	Wed 26/2/11	Thu 26/1/15	Wed 26/2/11	Thu 26/1/15	Wed 26/2/11	0 days	0
116	Rebar Fixing	20 days	Thu 26/1/29	Tue 26/2/17	Thu 26/1/29	Tue 26/2/17	Thu 26/1/29	Tue 26/2/17	0 days	1
117	Formwork Erection and Cast-in items	20 days	Sun 26/2/8	Fri 26/2/27	Sun 26/2/8	Fri 26/2/27	Sun 26/2/8	Fri 26/2/27	0 days	1
118	Concreting	1 day	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	0 days	0
119	**Walls**	**50 days**	**Thu 26/2/19**	**Thu 26/4/9**	**Thu 26/2/19**	**Thu 26/4/9**	**Thu 26/2/19**	**Thu 26/4/9**	**0 days**	
120	Rebar Fixing	20 days	Thu 26/2/19	Tue 26/3/10	Thu 26/2/19	Tue 26/3/10	Thu 26/2/19	Tue 26/3/10	0 days	1
121	Formwork Erection and Cast-in items	20 days	Sat 26/3/21	Thu 26/4/9	Sat 26/3/21	Thu 26/4/9	Sat 26/3/21	Thu 26/4/9	0 days	1
122	Concreting	1 day	Tue 26/3/31	Tue 26/3/31	Tue 26/3/31	Tue 26/3/31	Tue 26/3/31	Tue 26/3/31	0 days	0
123	Backfilling and Compaction	20 days	Wed 26/4/1	Mon 26/4/20	Wed 26/4/1	Mon 26/4/20	Wed 26/4/1	Mon 26/4/20	0 days	0
124	Removal of Sheetpiles	20 days	Sat 26/4/11	Thu 26/4/30	Sat 26/4/11	Thu 26/4/30	Sat 26/4/11	Thu 26/4/30	0 days	0
125	Pedestrian Crossing no. 2	28 days	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	0 days	0
126	Connection to ex. Stream	28 days	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	0 days	0
127	U-channels	28 days	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	0 days	0
128	Facing stone	28 days	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	0 days	0
129	ABWF works	28 days	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	0 days	0
130	Bedding works	28 days	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	Fri 26/5/1	Thu 26/5/28	0 days	0
75										
76	Section II	820 days	Tue 23/5/30	Tue 25/8/26	Tue 23/5/30	Tue 25/8/26	Tue 23/5/30	Wed 26/8/26	0 days	
2	access date of Portion B	210 days	Tue 23/5/30	Mon 23/12/25	Tue 23/5/30	Mon 23/12/25	Tue 25/12/30	Mon 26/7/27	945 days	0



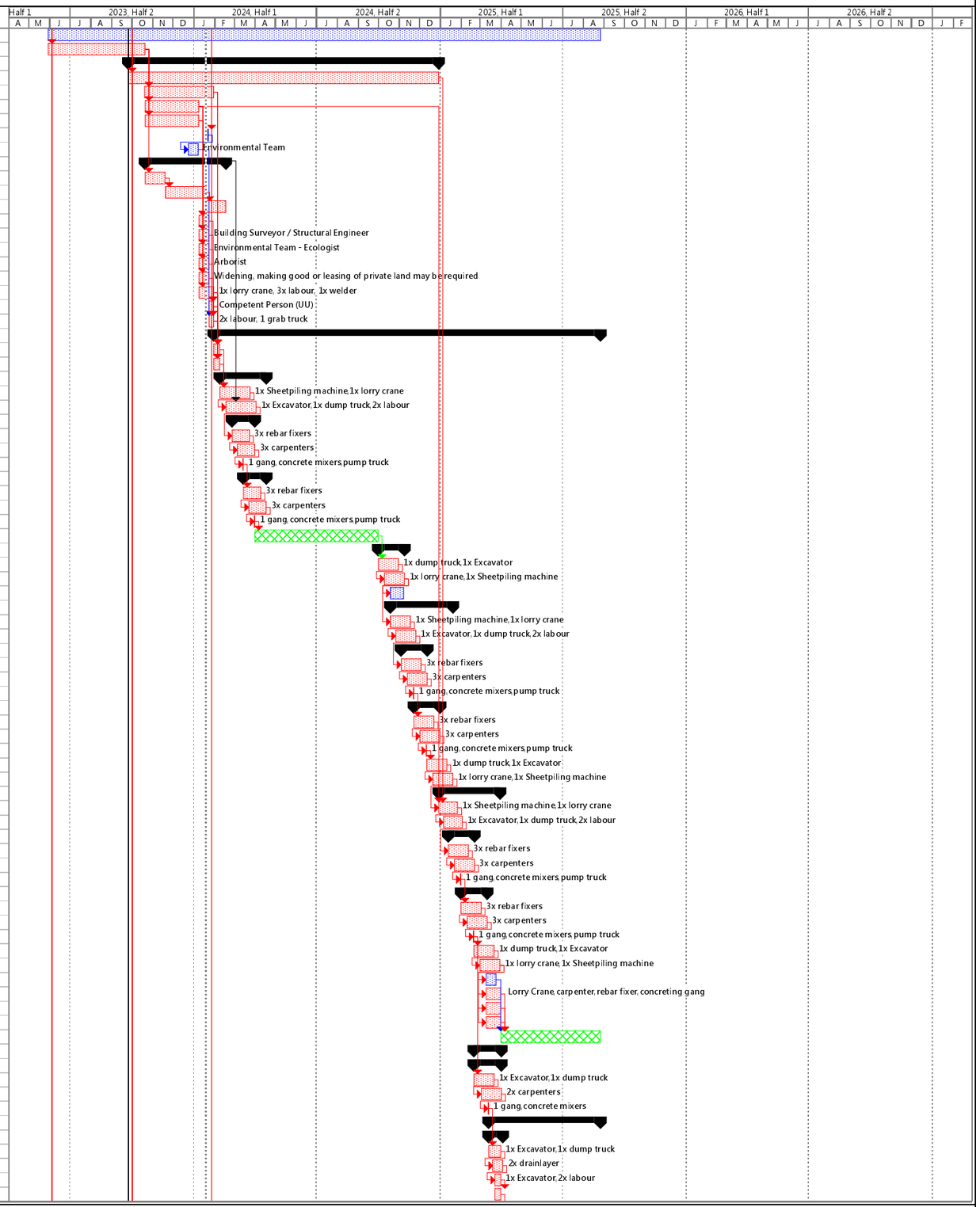
Revision.: 4.0 Date: 31 December 2023

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
3	section II (Tai Wo)	820 days	Tue 23/5/30	Tue 25/8/26	Tue 23/5/30	Tue 25/8/26	Wed 24/5/29	Wed 26/8/26	365 days	0
4	Early access [A]	144 days	Tue 23/5/30	Fri 23/10/20	Tue 23/5/30	Fri 23/10/20	Tue 23/5/30	Fri 23/10/20	0 days	0
5	**Site Establishment**	**461 days**	**Tue 23/9/26**	**Sun 24/12/29**	**Tue 23/9/26**	**Sun 24/12/29**	**Tue 23/9/26**	**Sun 24/12/29**	**0 days**	
6	Prepare and Accept Temp. Works Design and Method Statement	461 days	Tue 23/9/26	Sun 24/12/29	Tue 23/9/26	Sun 24/12/29	Tue 23/9/26	Sun 24/12/29	0 days	0
7	Public Liaison and Negotiation with Village Rep.	103 days	Fri 23/10/20	Tue 24/1/30	Fri 23/10/20	Tue 24/1/30	Fri 23/10/20	Tue 24/1/30	0 days	0
8	Initial Survey	80 days	Sat 23/10/21	Mon 24/1/8	Sat 23/10/21	Mon 24/1/8	Sat 23/10/21	Mon 24/1/8	0 days	0
9	Initial Safety & Environmental measures	80 days	Sat 23/10/21	Mon 24/1/8	Sat 23/10/21	Mon 24/1/8	Sat 23/10/21	Mon 24/1/8	0 days	0
11	EIAO Commencement of Construction	1 day	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Wed 24/2/7	Wed 24/2/7	16 days	0
12	Environmental Baseline Monitoring	15 days	Sun 23/12/24	Sun 24/1/7	Sun 23/12/24	Sun 24/1/7	Tue 24/1/9	Tue 24/1/23	16 days	0
13	**Subcontracting of works**	**120 days**	**Sat 23/10/21**	**Sat 24/2/17**	**Sat 23/10/21**	**Sat 24/2/17**	**Sat 23/10/21**	**Sat 24/2/17**	**0 days**	
14	Preparation of tendering documents	30 days	Sat 23/10/21	Sun 23/11/19	Sat 23/10/21	Sun 23/11/19	Sat 23/10/21	Sun 23/11/19	0 days	0
15	EWN007 Ambiguities on drawings	60 days	Mon 23/11/20	Thu 24/1/18	Mon 23/11/20	Thu 24/1/18	Mon 23/11/20	Thu 24/1/18	0 days	0
16	C9 Tendering procedure for Tai Wo RC works	30 days	Fri 24/1/19	Sat 24/2/17	Fri 24/1/19	Sat 24/2/17	Fri 24/1/19	Sat 24/2/17	0 days	0
18	Setup of instrumentation and monitoring	15 days	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	0 days	0
19	Condition Survey	15 days	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	0 days	0
20	Freshwater Crab Translocation Plan	15 days	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	0 days	0
21	Tree Survey	15 days	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	0 days	0
22	Establish access(es) to channels	15 days	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	Tue 24/1/9	Tue 24/1/23	0 days	0
23	Guarding / Barrier / Hoarding	22 days	Tue 24/1/9	Tue 24/1/30	Tue 24/1/9	Tue 24/1/30	Tue 24/1/9	Tue 24/1/30	0 days	0
24	UU detection	7 days	Wed 24/1/24	Tue 24/1/30	Wed 24/1/24	Tue 24/1/30	Wed 24/1/24	Tue 24/1/30	0 days	0
25	Site Clearance	7 days	Wed 24/1/24	Tue 24/1/30	Wed 24/1/24	Tue 24/1/30	Wed 24/1/24	Tue 24/1/30	0 days	0
26	**Drainage Channels Works (Dry Season Oct-Mar only)**	**574 days**	**Wed 24/1/31**	**Tue 25/8/26**	**Wed 24/1/31**	**Tue 25/8/26**	**Wed 24/1/31**	**Mon 26/7/27**	**0 days**	
27	Demolish fences and temp. structure	9 days	Wed 24/1/31	Thu 24/2/8	Wed 24/1/31	Thu 24/2/8	Wed 24/1/31	Thu 24/2/8	0 days	0
28	Demolish & relocate hoarding, fencing YLL803	9 days	Wed 24/1/31	Thu 24/2/8	Wed 24/1/31	Thu 24/2/8	Wed 24/1/31	Thu 24/2/8	0 days	0
29	**CH.A200~ CH.A288.29**	69 days	**Fri 24/2/9**	**Wed 24/4/17**	**Fri 24/2/9**	**Wed 24/4/17**	**Fri 24/2/9**	**Wed 24/4/17**	**0 days**	
30	Sheetpiling & Temp. Drainage Diversion (for non-open-cut portions)	45 days	Fri 24/2/9	Sun 24/3/24	Fri 24/2/9	Sun 24/3/24	Fri 24/2/9	Sun 24/3/24	0 days	1
31	Excavation and Lateral Support	45 days	Sun 24/2/18	Tue 24/4/2	Sun 24/2/18	Tue 24/4/2	Sun 24/2/18	Tue 24/4/2	0 days	1
32	**Base Slab**	34 days	**Tue 24/2/27**	**Sun 24/3/31**	**Tue 24/2/27**	**Sun 24/3/31**	**Tue 24/2/27**	**Sun 24/3/31**	**0 days**	
33	Rebar Fixing	26 days	Tue 24/2/27	Sat 24/3/23	Tue 24/2/27	Sat 24/3/23	Tue 24/2/27	Sat 24/3/23	0 days	1
34	Formwork Erection and Cast-in items	26 days	Wed 24/3/6	Sun 24/3/31	Wed 24/3/6	Sun 24/3/31	Wed 24/3/6	Sun 24/3/31	0 days	1
35	Concreting	1 day	Thu 24/3/14	Thu 24/3/14	Thu 24/3/14	Thu 24/3/14	Thu 24/3/14	Thu 24/3/14	0 days	0
36	**Walls**	34 days	**Fri 24/3/15**	**Wed 24/4/17**	**Fri 24/3/15**	**Wed 24/4/17**	**Fri 24/3/15**	**Wed 24/4/17**	**0 days**	**0**
37	Rebar Fixing	26 days	Fri 24/3/15	Tue 24/4/9	Fri 24/3/15	Tue 24/4/9	Fri 24/3/15	Tue 24/4/9	0 days	1
38	Formwork Erection and Cast-in items	26 days	Sat 24/3/23	Wed 24/4/17	Sat 24/3/23	Wed 24/4/17	Sat 24/3/23	Wed 24/4/17	0 days	1
39	Concreting	1 day	Sun 24/3/31	Sun 24/3/31	Sun 24/3/31	Sun 24/3/31	Sun 24/3/31	Sun 24/3/31	0 days	0
40	No works for wet season	183 days	Mon 24/4/1	Mon 24/9/30	Mon 24/4/1	Mon 24/9/30	Mon 24/4/1	Mon 24/9/30	0 days	0
41	**CH.A200~ CH.A288.29 (continue)**	39 days	**Tue 24/10/1**	**Fri 24/11/8**	**Tue 24/10/1**	**Fri 24/11/8**	**Tue 24/10/1**	**Fri 24/11/8**	**0 days**	
42	Backfilling and Compaction	30 days	Tue 24/10/1	Wed 24/10/30	Tue 24/10/1	Wed 24/10/30	Tue 24/10/1	Wed 24/10/30	0 days	0
43	Removal of Sheetpiles	30 days	Thu 24/10/10	Fri 24/11/8	Thu 24/10/10	Fri 24/11/8	Thu 24/10/10	Fri 24/11/8	0 days	0
44	Connection to ex. Channel at Outlet	20 days	Sat 24/10/19	Thu 24/11/7	Sat 24/10/19	Thu 24/11/7	Wed 26/7/8	Mon 26/7/27	627 days	0
45	**CH.A100~ CH.A200**	93 days	**Sat 24/10/19**	**Sun 25/1/19**	**Sat 24/10/19**	**Sun 25/1/19**	**Sat 24/10/19**	**Sun 25/1/19**	**0 days**	
46	Sheetpiling & Temp. Drainage Diversion (for non-open-cut portions)	30 days	Sat 24/10/19	Sun 24/11/17	Sat 24/10/19	Sun 24/11/17	Sat 24/10/19	Sun 24/11/17	0 days	1
47	Excavation and Lateral Support	30 days	Sun 24/10/27	Mon 24/11/25	Sun 24/10/27	Mon 24/11/25	Sun 24/10/27	Mon 24/11/25	0 days	1
48	**Base Slab**	39 days	**Mon 24/11/4**	**Thu 24/12/12**	**Mon 24/11/4**	**Thu 24/12/12**	**Mon 24/11/4**	**Thu 24/12/12**	**0 days**	
49	Rebar Fixing	30 days	Mon 24/11/4	Tue 24/12/3	Mon 24/11/4	Tue 24/12/3	Mon 24/11/4	Tue 24/12/3	0 days	1
50	Formwork Erection and Cast-in items	30 days	Wed 24/11/13	Thu 24/12/12	Wed 24/11/13	Thu 24/12/12	Wed 24/11/13	Thu 24/12/12	0 days	1
51	Concreting	1 day	Fri 24/11/22	Fri 24/11/22	Fri 24/11/22	Fri 24/11/22	Fri 24/11/22	Fri 24/11/22	0 days	0
52	**Walls**	39 days	**Sat 24/11/23**	**Tue 24/12/31**	**Sat 24/11/23**	**Tue 24/12/31**	**Sat 24/11/23**	**Tue 24/12/31**	**0 days**	
53	Rebar Fixing	30 days	Sat 24/11/23	Sun 24/12/22	Sat 24/11/23	Sun 24/12/22	Sat 24/11/23	Sun 24/12/22	0 days	1
54	Formwork Erection and Cast-in items	30 days	Mon 24/12/2	Tue 24/12/31	Mon 24/12/2	Tue 24/12/31	Mon 24/12/2	Tue 24/12/31	0 days	1
55	Concreting	1 day	Wed 24/12/11	Wed 24/12/11	Wed 24/12/11	Wed 24/12/11	Wed 24/12/11	Wed 24/12/11	0 days	0
56	Backfilling and Compaction	30 days	Thu 24/12/12	Fri 25/1/10	Thu 24/12/12	Fri 25/1/10	Thu 24/12/12	Fri 25/1/10	0 days	0
57	Removal of Sheetpiles	30 days	Sat 24/12/21	Sun 25/1/19	Sat 24/12/21	Sun 25/1/19	Sat 24/12/21	Sun 25/1/19	0 days	0
58	**CH.A19.69~ CH.A100**	91 days	**Mon 24/12/30**	**Sun 25/3/30**	##########	**Sun 25/3/30**	##########	**Sun 25/3/30**	**0 days**	**0**
59	Sheetpiling & Temp. Drainage Diversion (for non-open-cut portions)	28 days	Mon 24/12/30	Sun 25/1/26	Mon 24/12/30	Sun 25/1/26	Mon 24/12/30	Sun 25/1/26	0 days	1
60	Excavation and Lateral Support	28 days	Mon 25/1/6	Sun 25/2/2	Mon 25/1/6	Sun 25/2/2	Mon 25/1/6	Sun 25/2/2	0 days	1
61	**Base Slab**	39 days	**Mon 25/1/13**	**Thu 25/2/20**	**Mon 25/1/13**	**Thu 25/2/20**	**Mon 25/1/13**	**Thu 25/2/20**	**0 days**	**0**
62	Rebar Fixing	30 days	Mon 25/1/13	Tue 25/2/11	Mon 25/1/13	Tue 25/2/11	Mon 25/1/13	Tue 25/2/11	0 days	1
63	Formwork Erection and Cast-in items	30 days	Wed 25/1/22	Thu 25/2/20	Wed 25/1/22	Thu 25/2/20	Wed 25/1/22	Thu 25/2/20	0 days	1
64	Concreting	1 day	Fri 25/1/31	Fri 25/1/31	Fri 25/1/31	Fri 25/1/31	Fri 25/1/31	Fri 25/1/31	0 days	0
65	**Walls**	39 days	**Sat 25/2/1**	**Tue 25/3/11**	**Sat 25/2/1**	**Tue 25/3/11**	**Sat 25/2/1**	**Tue 25/3/11**	**0 days**	
66	Rebar Fixing	30 days	Sat 25/2/1	Sun 25/3/2	Sat 25/2/1	Sun 25/3/2	Sat 25/2/1	Sun 25/3/2	0 days	1
67	Formwork Erection and Cast-in items	30 days	Mon 25/2/10	Tue 25/3/11	Mon 25/2/10	Tue 25/3/11	Mon 25/2/10	Tue 25/3/11	0 days	1
68	Concreting	1 day	Wed 25/2/19	Wed 25/2/19	Wed 25/2/19	Wed 25/2/19	Wed 25/2/19	Wed 25/2/19	0 days	0
69	Backfilling and Compaction	30 days	Thu 25/2/20	Fri 25/3/21	Thu 25/2/20	Fri 25/3/21	Thu 25/2/20	Fri 25/3/21	0 days	0
70	Removal of Sheetpiles	30 days	Sat 25/3/1	Sun 25/3/30	Sat 25/3/1	Sun 25/3/30	Sat 25/3/1	Sun 25/3/30	0 days	0
71	900 pipe with flap valve	15 days	Mon 25/3/10	Mon 25/3/24	Mon 25/3/10	Mon 25/3/24	Mon 25/3/17	Mon 25/3/31	7 days	0
72	Box Culvert & Pedestrian Crossing	22 days	Mon 25/3/10	Mon 25/3/31	Mon 25/3/10	Mon 25/3/31	Mon 25/3/10	Mon 25/3/31	0 days	0
73	ABWF works	22 days	Mon 25/3/10	Mon 25/3/31	Mon 25/3/10	Mon 25/3/31	Mon 25/3/10	Mon 25/3/31	0 days	0
74	Bedding works	22 days	Mon 25/3/10	Mon 25/3/31	Mon 25/3/10	Mon 25/3/31	Mon 25/3/10	Mon 25/3/31	0 days	0
75	No works for wet season	148 days	Tue 25/4/1	Tue 25/8/26	Tue 25/4/1	Tue 25/8/26	Tue 25/4/1	Tue 25/8/26	0 days	0
76	**U-Channel Works**	41 days	**Thu 25/2/20**	**Tue 25/4/1**	**Thu 25/2/20**	**Tue 25/4/1**	**Thu 25/2/20**	**Tue 25/4/1**	**0 days**	
77	**CH.A0.00~ CH.A16.40,900CU,L=16.40**	41 days	**Thu 25/2/20**	**Tue 25/4/1**	**Thu 25/2/20**	**Tue 25/4/1**	**Thu 25/2/20**	**Tue 25/4/1**	**0 days**	
78	Excavation and Lateral Support	30 days	Thu 25/2/20	Fri 25/3/21	Thu 25/2/20	Fri 25/3/21	Thu 25/2/20	Fri 25/3/21	0 days	1
79	Channel Formwork Erection	30 days	Mon 25/3/3	Tue 25/4/1	Mon 25/3/3	Tue 25/4/1	Mon 25/3/3	Tue 25/4/1	0 days	1
80	Concreting	1 day	Thu 25/3/13	Thu 25/3/13	Thu 25/3/13	Thu 25/3/13	Thu 25/3/13	Thu 25/3/13	0 days	0
81	**Drain Laying Works**	166 days	**Fri 25/3/14**	**Tue 25/8/26**	**Fri 25/3/14**	**Tue 25/8/26**	**Fri 25/3/14**	**Tue 25/8/26**	**0 days**	
82	**CH.A16.40~ CH.A19.69,900PC,B,L=3.30,D=1.5**	21 days	**Fri 25/3/14**	**Thu 25/4/3**	**Fri 25/3/14**	**Thu 25/4/3**	**Fri 25/3/14**	**Thu 25/4/3**	**0 days**	
83	Excavation and Lateral Support	18 days	Fri 25/3/14	Mon 25/3/31	Fri 25/3/14	Mon 25/3/31	Fri 25/3/14	Mon 25/3/31	0 days	0
84	Drain Laying	15 days	Thu 25/3/20	Thu 25/4/3	Thu 25/3/20	Thu 25/4/3	Thu 25/3/20	Thu 25/4/3	0 days	0
85	Bedding and Backfilling	9 days	Sun 25/3/23	Mon 25/3/31	Sun 25/3/23	Mon 25/3/31	Sun 25/3/23	Mon 25/3/31	0 days	0
86	Reinstatement	9 days	Sun 25/3/23	Mon 25/3/31	Sun 25/3/23	Mon 25/3/31	Sun 25/3/23	Mon 25/3/31	0 days	0



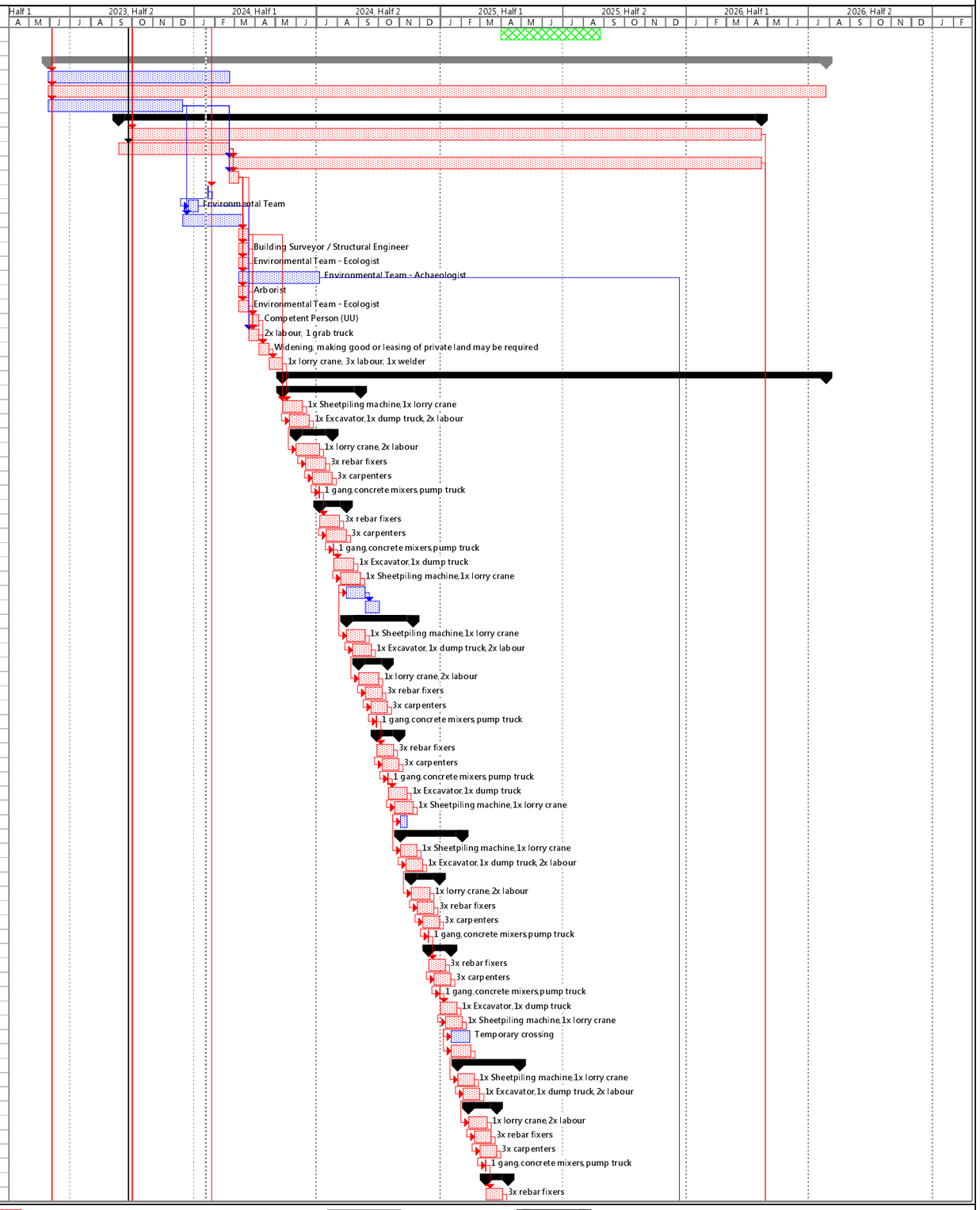
Revision.: 4.0 Date: 31 December 2023

´Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
87	No works for wet season	148 days	Tue 25/4/1	Tue 25/8/26	Tue 25/4/1	Tue 25/8/26	Tue 25/4/1	Tue 25/8/26	0 days	0
77										
78	**Section III**	**1155 days**	**Tue 23/5/30**	**Mon 26/7/27**	**Tue 23/5/30**	**Mon 26/7/27**	**Tue 23/5/30**	**Mon 26/7/27**	**0 days**	
2	access date of Portion C1 & C2	270 days	Tue 23/5/30	Fri 24/2/23	Tue 23/5/30	Fri 24/2/23	Fri 25/10/31	Mon 26/7/27	885 days	0
3	section III (Lin Fa Tei)	1155 days	Tue 23/5/30	Mon 26/7/27	Tue 23/5/30	Mon 26/7/27	Tue 23/5/30	Mon 26/7/27	0 days	0
4	Early access (partial) [A]	200 days	Tue 23/5/30	Fri 23/12/15	Tue 23/5/30	Fri 23/12/15	Tue 23/8/8	Fri 24/2/23	70 days	0
5	**Site Establishment**	**954 days**	**Tue 23/9/12**	**Wed 26/4/22**	**Tue 23/9/12**	**Wed 26/4/22**	**Tue 23/9/12**	**Mon 26/7/27**	**0 days**	
6	Prepare and Accept Temp. Works Design and Method Statement	940 days	Tue 23/9/26	Wed 26/4/22	Tue 23/9/26	Wed 26/4/22	Tue 23/9/26	Wed 26/4/22	0 days	0
7	Public Liaison and Negotiation with Village Rep.	164 days	Tue 23/9/12	Thu 24/2/22	Tue 23/9/12	Thu 24/2/22	Tue 23/9/12	Thu 24/2/22	0 days	0
8	Initial Survey	790 days	Fri 24/2/23	Wed 26/4/22	Fri 24/2/23	Wed 26/4/22	Fri 24/2/23	Wed 26/4/22	0 days	0
10	Initial Safety & Environmental measures	14 days	Fri 24/2/23	Thu 24/3/7	Fri 24/2/23	Thu 24/3/7	Fri 24/2/23	Thu 24/3/7	0 days	0
12	EIAO Commencement of Construction	1 day	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Sat 24/4/6	Sat 24/4/6	75 days	0
14	Environmental Baseline Monitoring	15 days	Sun 23/12/24	Sun 24/1/7	Sun 23/12/24	Sun 24/1/7	Fri 24/3/8	Fri 24/3/22	75 days	0
15	Subcontracting of works	90 days	Sat 23/12/16	Thu 24/3/14	Sat 23/12/16	Thu 24/3/14	Wed 26/4/29	Mon 26/7/27	865 days	0
16	Setup of instrumentation and monitoring	15 days	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	0 days	0
17	Condition Survey	15 days	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	0 days	0
18	Freshwater Crab Translocation Plan	15 days	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	0 days	0
19	Archaeological Survey	120 days	Fri 24/3/8	Fri 24/7/5	Fri 24/3/8	Fri 24/7/5	Sun 25/8/24	Sun 25/12/21	534 days	0
20	Tree Survey	15 days	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	0 days	0
21	Vegetation Survey	15 days	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	Fri 24/3/8	Fri 24/3/22	0 days	0
22	UU detection	15 days	Sat 24/3/23	Sat 24/4/6	Sat 24/3/23	Sat 24/4/6	Sat 24/3/23	Sat 24/4/6	0 days	0
23	Site Clearance	15 days	Sat 24/3/23	Sat 24/4/6	Sat 24/3/23	Sat 24/4/6	Sat 24/3/23	Sat 24/4/6	0 days	0
24	Establish access(es) to channels	15 days	Sun 24/4/7	Sun 24/4/21	Sun 24/4/7	Sun 24/4/21	Sun 24/4/7	Sun 24/4/21	0 days	0
25	Guarding / Barrier / Hoarding	20 days	Mon 24/4/22	Sat 24/5/11	Mon 24/4/22	Sat 24/5/11	Mon 24/4/22	Sat 24/5/11	0 days	0
26	**Drainage Channels Works**	**807 days**	**Sun 24/5/12**	**Mon 26/7/27**	**Sun 24/5/12**	**Mon 26/7/27**	**Sun 24/5/12**	**Mon 26/7/27**	**0 days**	
27	**CH.A818.86~ CH.A700.00**	**116 days**	**Sun 24/5/12**	**Wed 24/9/4**	**Sun 24/5/12**	**Wed 24/9/4**	**Sun 24/5/12**	**Wed 24/9/4**	**0 days**	
28	Sheetpiling & Temp. Drainage Diversion	30 days	Sun 24/5/12	Mon 24/6/10	Sun 24/5/12	Mon 24/6/10	Sun 24/5/12	Mon 24/6/10	0 days	1
29	Excavation and Lateral Support	30 days	Wed 24/5/22	Thu 24/6/20	Wed 24/5/22	Thu 24/6/20	Wed 24/5/22	Thu 24/6/20	0 days	1
30	**Ground and Edge Beams**	**54 days**	**Sat 24/6/1**	**Wed 24/7/24**	**Sat 24/6/1**	**Wed 24/7/24**	**Sat 24/6/1**	**Wed 24/7/24**	**0 days**	
31	Install precast portion (ground beam)	35 days	Sat 24/6/1	Fri 24/7/5	Sat 24/6/1	Fri 24/7/5	Sat 24/6/1	Fri 24/7/5	0 days	0
32	Rebar Fixing	30 days	Sat 24/6/15	Sun 24/7/14	Sat 24/6/15	Sun 24/7/14	Sat 24/6/15	Sun 24/7/14	0 days	1
33	Formwork Erection and Cast-in items	30 days	Tue 24/6/25	Wed 24/7/24	Tue 24/6/25	Wed 24/7/24	Tue 24/6/25	Wed 24/7/24	0 days	1
34	Concreting	1 day	Fri 24/7/5	Fri 24/7/5	Fri 24/7/5	Fri 24/7/5	Fri 24/7/5	Fri 24/7/5	0 days	0
35	**Walls**	**40 days**	**Sat 24/7/6**	**Wed 24/8/14**	**Sat 24/7/6**	**Wed 24/8/14**	**Sat 24/7/6**	**Wed 24/8/14**	**0 days**	
36	Rebar Fixing	30 days	Sat 24/7/6	Sun 24/8/4	Sat 24/7/6	Sun 24/8/4	Sat 24/7/6	Sun 24/8/4	0 days	1
37	Formwork Erection and Cast-in items	30 days	Tue 24/7/16	Wed 24/8/14	Tue 24/7/16	Wed 24/8/14	Tue 24/7/16	Wed 24/8/14	0 days	1
38	Concreting	1 day	Fri 24/7/26	Fri 24/7/26	Fri 24/7/26	Fri 24/7/26	Fri 24/7/26	Fri 24/7/26	0 days	0
39	Backfilling and Compaction	30 days	Sat 24/7/27	Sun 24/8/25	Sat 24/7/27	Sun 24/8/25	Sat 24/7/27	Sun 24/8/25	0 days	0
40	Removal of Sheetpiles	30 days	Tue 24/8/6	Wed 24/9/4	Tue 24/8/6	Wed 24/9/4	Tue 24/8/6	Wed 24/9/4	0 days	0
41	Relocate Septic Tank & Soakaway Pit	28 days	Thu 24/8/15	Wed 24/9/11	Thu 24/8/15	Wed 24/9/11	Tue 26/6/9	Mon 26/7/6	663 days	4
42	Animal Escape Ramp	21 days	Thu 24/9/12	Wed 24/10/2	Thu 24/9/12	Wed 24/10/2	Tue 26/7/7	Mon 26/7/27	663 days	0
43	**CH.A600.00~ CH.A700.00**	**99 days**	**Thu 24/8/15**	**Thu 24/11/21**	**Thu 24/8/15**	**Thu 24/11/21**	**Thu 24/8/15**	**Thu 24/11/21**	**0 days**	
44	Sheetpiling & Temp. Drainage Diversion	28 days	Thu 24/8/15	Wed 24/9/11	Thu 24/8/15	Wed 24/9/11	Thu 24/8/15	Wed 24/9/11	0 days	1
45	Excavation and Lateral Support	28 days	Sat 24/8/24	Fri 24/9/20	Sat 24/8/24	Fri 24/9/20	Sat 24/8/24	Fri 24/9/20	0 days	1
46	**Ground and Edge Beams**	**43 days**	**Mon 24/9/2**	**Mon 24/10/14**	**Mon 24/9/2**	**Mon 24/10/14**	**Mon 24/9/2**	##########	**0 days**	
47	Install precast portion (ground beam)	30 days	Mon 24/9/2	Tue 24/10/1	Mon 24/9/2	Tue 24/10/1	Mon 24/9/2	Tue 24/10/1	0 days	0
48	Rebar Fixing	25 days	Thu 24/9/12	Sun 24/10/6	Thu 24/9/12	Sun 24/10/6	Thu 24/9/12	Sun 24/10/6	0 days	1
49	Formwork Erection and Cast-in items	25 days	Fri 24/9/20	Mon 24/10/14	Fri 24/9/20	Mon 24/10/14	Fri 24/9/20	Mon 24/10/14	0 days	1
50	Concreting	1 day	Sat 24/9/28	Sat 24/9/28	Sat 24/9/28	Sat 24/9/28	Sat 24/9/28	Sat 24/9/28	0 days	0
51	**Walls**	**33 days**	**Sun 24/9/29**	**Thu 24/10/31**	**Sun 24/9/29**	**Thu 24/10/31**	**Sun 24/9/29**	**Thu 24/10/31**	**0 days**	
52	Rebar Fixing	25 days	Sun 24/9/29	Wed 24/10/23	Sun 24/9/29	Wed 24/10/23	Sun 24/9/29	Wed 24/10/23	0 days	1
53	Formwork Erection and Cast-in items	25 days	Mon 24/10/7	Thu 24/10/31	Mon 24/10/7	Thu 24/10/31	Mon 24/10/7	Thu 24/10/31	0 days	1
54	Concreting	1 day	Tue 24/10/15	Tue 24/10/15	Tue 24/10/15	Tue 24/10/15	Tue 24/10/15	Tue 24/10/15	0 days	0
55	Backfilling and Compaction	28 days	Wed 24/10/16	Tue 24/11/12	Wed 24/10/16	Tue 24/11/12	Wed 24/10/16	Tue 24/11/12	0 days	0
56	Removal of Sheetpiles	28 days	Fri 24/10/25	Thu 24/11/21	Fri 24/10/25	Thu 24/11/21	Fri 24/10/25	Thu 24/11/21	0 days	0
57	Protection to ex. Dongjiang Water Main	10 days	Sun 24/11/3	Tue 24/11/12	Sun 24/11/3	Tue 24/11/12	Sat 26/7/18	Mon 26/7/27	622 days	0
58	**CH.A500.00~ CH.A600.00**	**92 days**	**Sun 24/11/3**	**Sun 25/2/2**	**Sun 24/11/3**	**Sun 25/2/2**	**Sun 24/11/3**	**Sun 25/2/2**	**0 days**	
59	Sheetpiling & Temp. Drainage Diversion	25 days	Sun 24/11/3	Wed 24/11/27	Sun 24/11/3	Wed 24/11/27	Sun 24/11/3	Wed 24/11/27	0 days	1
60	Excavation and Lateral Support	25 days	Mon 24/11/11	Thu 24/12/5	Mon 24/11/11	Thu 24/12/5	Mon 24/11/11	Thu 24/12/5	0 days	1
61	**Ground and Edge Beams**	**42 days**	**Tue 24/11/19**	**Mon 24/12/30**	**Tue 24/11/19**	**Mon 24/12/30**	**Tue 24/11/19**	##########	**0 days**	
62	Install precast portion (ground beam)	28 days	Tue 24/11/19	Mon 24/12/16	Tue 24/11/19	Mon 24/12/16	Tue 24/11/19	Mon 24/12/16	0 days	0
63	Rebar Fixing	25 days	Thu 24/11/28	Sun 24/12/22	Thu 24/11/28	Sun 24/12/22	Thu 24/11/28	Sun 24/12/22	0 days	1
64	Formwork Erection and Cast-in items	25 days	Fri 24/12/6	Mon 24/12/30	Fri 24/12/6	Mon 24/12/30	Fri 24/12/6	Mon 24/12/30	0 days	1
65	Concreting	1 day	Sat 24/12/14	Sat 24/12/14	Sat 24/12/14	Sat 24/12/14	Sat 24/12/14	Sat 24/12/14	0 days	0
66	**Walls**	**33 days**	**Sun 24/12/15**	**Thu 25/1/16**	**Sun 24/12/15**	**Thu 25/1/16**	**Sun 24/12/15**	**Thu 25/1/16**	**0 days**	
67	Rebar Fixing	25 days	Sun 24/12/15	Wed 25/1/8	Sun 24/12/15	Wed 25/1/8	Sun 24/12/15	Wed 25/1/8	0 days	1
68	Formwork Erection and Cast-in items	25 days	Mon 24/12/23	Thu 25/1/16	Mon 24/12/23	Thu 25/1/16	Mon 24/12/23	Thu 25/1/16	0 days	1
69	Concreting	1 day	Tue 24/12/31	Tue 24/12/31	Tue 24/12/31	Tue 24/12/31	Tue 24/12/31	Tue 24/12/31	0 days	0
70	Backfilling and Compaction	25 days	Wed 25/1/1	Sat 25/1/25	Wed 25/1/1	Sat 25/1/25	Wed 25/1/1	Sat 25/1/25	0 days	0
71	Removal of Sheetpiles	25 days	Thu 25/1/9	Sun 25/2/2	Thu 25/1/9	Sun 25/2/2	Thu 25/1/9	Sun 25/2/2	0 days	0
72	Pedestrian & Vehicular Crossing no. 4	28 days	Fri 25/1/17	Thu 25/2/13	Fri 25/1/17	Thu 25/2/13	Tue 26/6/30	Mon 26/7/27	529 days	4
73	Demolish & relocate retaining wall YLL796/A/20-22	30 days	Fri 25/1/17	Sat 25/2/15	Fri 25/1/17	Sat 25/2/15	Fri 25/1/17	Sat 25/2/15	0 days	0
74	**CH.A400.00~ CH.A500.00**	**92 days**	**Mon 25/1/27**	**Mon 25/4/28**	**Mon 25/1/27**	**Mon 25/4/28**	**Mon 25/1/27**	**Mon 25/4/28**	**0 days**	
75	Sheetpiling & Temp. Drainage Diversion	25 days	Mon 25/1/27	Thu 25/2/20	Mon 25/1/27	Thu 25/2/20	Mon 25/1/27	Thu 25/2/20	0 days	1
76	Excavation and Lateral Support	25 days	Tue 25/2/4	Fri 25/2/28	Tue 25/2/4	Fri 25/2/28	Tue 25/2/4	Fri 25/2/28	0 days	1
77	**Ground and Edge Beams**	**42 days**	**Wed 25/2/12**	**Tue 25/3/25**	**Wed 25/2/12**	**Tue 25/3/25**	**Wed 25/2/12**	**Tue 25/3/25**	**0 days**	
78	Install precast portion (ground beam)	28 days	Wed 25/2/12	Tue 25/3/11	Wed 25/2/12	Tue 25/3/11	Wed 25/2/12	Tue 25/3/11	0 days	0
79	Rebar Fixing	25 days	Fri 25/2/21	Mon 25/3/17	Fri 25/2/21	Mon 25/3/17	Fri 25/2/21	Mon 25/3/17	0 days	1
80	Formwork Erection and Cast-in items	25 days	Sat 25/3/1	Tue 25/3/25	Sat 25/3/1	Tue 25/3/25	Sat 25/3/1	Tue 25/3/25	0 days	1
81	Concreting	1 day	Sun 25/3/9	Sun 25/3/9	Sun 25/3/9	Sun 25/3/9	Sun 25/3/9	Sun 25/3/9	0 days	0
82	**Walls**	**33 days**	**Mon 25/3/10**	**Fri 25/4/11**	**Mon 25/3/10**	**Fri 25/4/11**	**Mon 25/3/10**	**Fri 25/4/11**	**0 days**	
83	Rebar Fixing	25 days	Mon 25/3/10	Thu 25/4/3	Mon 25/3/10	Thu 25/4/3	Mon 25/3/10	Thu 25/4/3	0 days	1



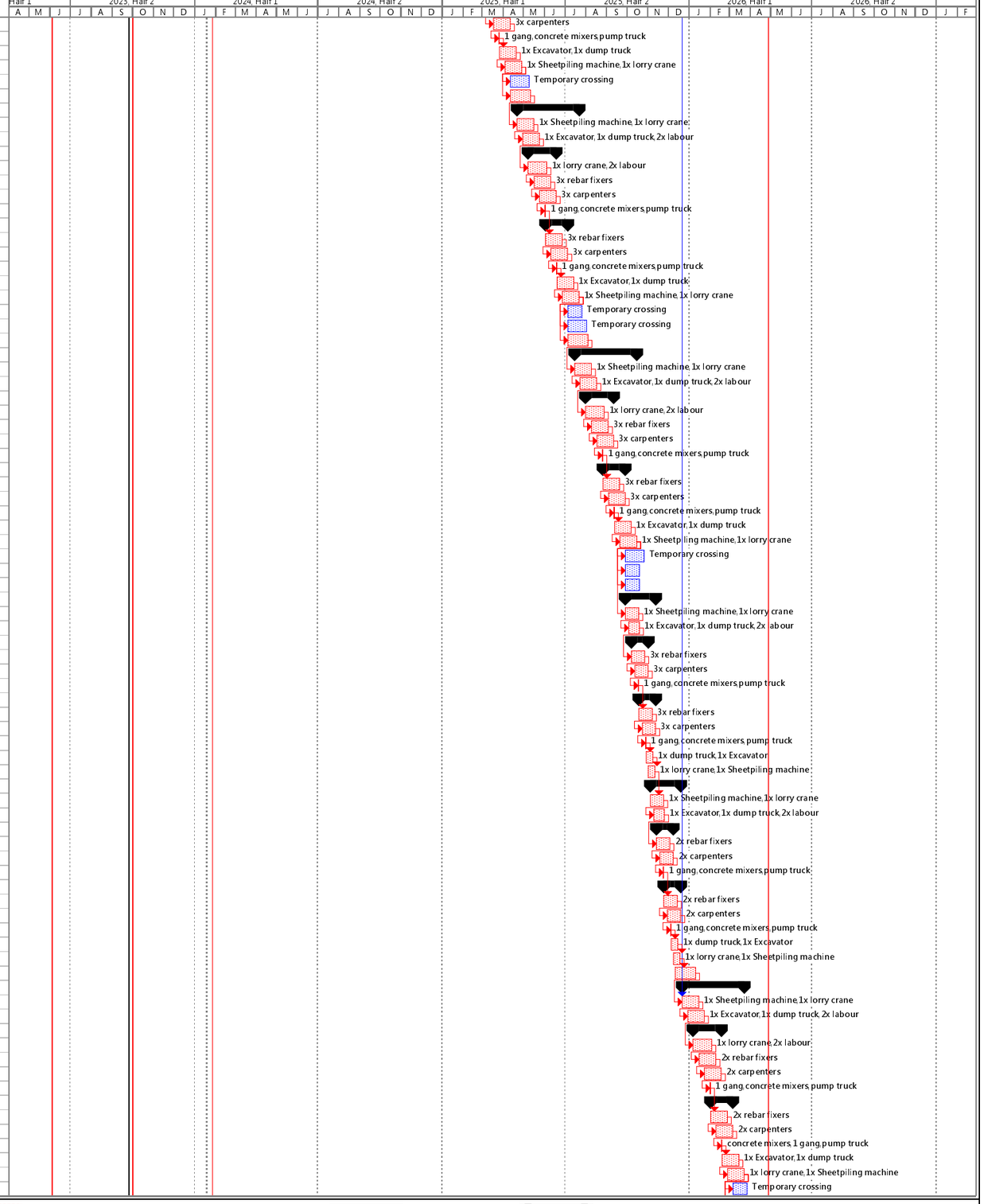
Revision.: 4.0 Date: 31 December 2023

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
84	Formwork Erection and Cast-in items	25 days	Tue 25/3/18	Fri 25/4/11	Tue 25/3/18	Fri 25/4/11	Tue 25/3/18	Fri 25/4/11	0 days	1
85	Concreting	1 day	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	0 days	0
86	Backfilling and Compaction	25 days	Thu 25/3/27	Sun 25/4/20	Thu 25/3/27	Sun 25/4/20	Thu 25/3/27	Sun 25/4/20	0 days	0
87	Removal of Sheetpiles	25 days	Fri 25/4/4	Mon 25/4/28	Fri 25/4/4	Mon 25/4/28	Fri 25/4/4	Mon 25/4/28	0 days	0
88	Pedestrian & Vehicular Crossing no. 3	28 days	Sat 25/4/12	Fri 25/5/9	Sat 25/4/12	Fri 25/5/9	Tue 26/6/30	Mon 26/7/27	444 days	4
89	Demolish & relocate retaining wall YLL796/A/14-15	30 days	Sat 25/4/12	Sun 25/5/11	Sat 25/4/12	Sun 25/5/11	Sat 25/4/12	Sun 25/5/11	0 days	0
90	**CH.A300.00~ CH.A400.00**	**92 days**	**Tue 25/4/22**	**Tue 25/7/22**	**Tue 25/4/22**	**Tue 25/7/22**	**Tue 25/4/22**	**Tue 25/7/22**	**0 days**	
91	Sheetpiling & Temp. Drainage Diversion	25 days	Tue 25/4/22	Fri 25/5/16	Tue 25/4/22	Fri 25/5/16	Tue 25/4/22	Fri 25/5/16	0 days	1
92	Excavation and Lateral Support	25 days	Wed 25/4/30	Sat 25/5/24	Wed 25/4/30	Sat 25/5/24	Wed 25/4/30	Sat 25/5/24	0 days	1
93	**Ground and Edge Beams**	**42 days**	**Thu 25/5/8**	**Wed 25/6/18**	**Thu 25/5/8**	**Wed 25/6/18**	**Thu 25/5/8**	**Wed 25/6/18**	**0 days**	
94	Install precast portion (ground beam)	28 days	Thu 25/5/8	Wed 25/6/4	Thu 25/5/8	Wed 25/6/4	Thu 25/5/8	Wed 25/6/4	0 days	0
95	Rebar Fixing	25 days	Sat 25/5/17	Tue 25/6/10	Sat 25/5/17	Tue 25/6/10	Sat 25/5/17	Tue 25/6/10	0 days	1
96	Formwork Erection and Cast-in items	25 days	Sun 25/5/25	Wed 25/6/18	Sun 25/5/25	Wed 25/6/18	Sun 25/5/25	Wed 25/6/18	0 days	1
97	Concreting	1 day	Mon 25/6/2	Mon 25/6/2	Mon 25/6/2	Mon 25/6/2	Mon 25/6/2	Mon 25/6/2	0 days	0
98	**Walls**	**33 days**	**Tue 25/6/3**	**Sat 25/7/5**	**Tue 25/6/3**	**Sat 25/7/5**	**Tue 25/6/3**	**Sat 25/7/5**	**0 days**	
99	Rebar Fixing	25 days	Tue 25/6/3	Fri 25/6/27	Tue 25/6/3	Fri 25/6/27	Tue 25/6/3	Fri 25/6/27	0 days	1
100	Formwork Erection and Cast-in items	25 days	Wed 25/6/11	Sat 25/7/5	Wed 25/6/11	Sat 25/7/5	Wed 25/6/11	Sat 25/7/5	0 days	1
101	Concreting	1 day	Thu 25/6/19	Thu 25/6/19	Thu 25/6/19	Thu 25/6/19	Thu 25/6/19	Thu 25/6/19	0 days	0
102	Backfilling and Compaction	25 days	Fri 25/6/20	Mon 25/7/14	Fri 25/6/20	Mon 25/7/14	Fri 25/6/20	Mon 25/7/14	0 days	0
103	Removal of Sheetpiles	25 days	Sat 25/6/28	Tue 25/7/22	Sat 25/6/28	Tue 25/7/22	Sat 25/6/28	Tue 25/7/22	0 days	0
104	Pedestrian Crossing no. 4	21 days	Sun 25/7/6	Sat 25/7/26	Sun 25/7/6	Sat 25/7/26	Tue 26/7/7	Mon 26/7/27	366 days	3
105	Pedestrian & Vehicular Crossing no. 2	28 days	Sun 25/7/6	Sat 25/8/2	Sun 25/7/6	Sat 25/8/2	Tue 26/6/30	Mon 26/7/27	359 days	4
106	Demolish & relocate retaining wall YLL795/A/4-5	30 days	Sun 25/7/6	Mon 25/8/4	Sun 25/7/6	Mon 25/8/4	Sun 25/7/6	Mon 25/8/4	0 days	0
107	**CH.A200.00~ CH.A300.00**	**92 days**	**Wed 25/7/16**	**Wed 25/10/15**	**Wed 25/7/16**	**Wed 25/10/15**	**Wed 25/7/16**	**Wed 25/10/15**	**0 days**	
108	Sheetpiling & Temp. Drainage Diversion	25 days	Wed 25/7/16	Sat 25/8/9	Wed 25/7/16	Sat 25/8/9	Wed 25/7/16	Sat 25/8/9	0 days	1
109	Excavation and Lateral Support	25 days	Thu 25/7/24	Sun 25/8/17	Thu 25/7/24	Sun 25/8/17	Thu 25/7/24	Sun 25/8/17	0 days	1
110	**Ground and Edge Beams**	**42 days**	**Fri 25/8/1**	**Thu 25/9/11**	**Fri 25/8/1**	**Thu 25/9/11**	**Fri 25/8/1**	**Thu 25/9/11**	**0 days**	
111	Install precast portion (ground beam)	28 days	Fri 25/8/1	Thu 25/8/28	Fri 25/8/1	Thu 25/8/28	Fri 25/8/1	Thu 25/8/28	0 days	0
112	Rebar Fixing	25 days	Sun 25/8/10	Wed 25/9/3	Sun 25/8/10	Wed 25/9/3	Sun 25/8/10	Wed 25/9/3	0 days	1
113	Formwork Erection and Cast-in items	25 days	Mon 25/8/18	Thu 25/9/11	Mon 25/8/18	Thu 25/9/11	Mon 25/8/18	Thu 25/9/11	0 days	1
114	Concreting	1 day	Tue 25/8/26	Tue 25/8/26	Tue 25/8/26	Tue 25/8/26	Tue 25/8/26	Tue 25/8/26	0 days	0
115	**Walls**	**33 days**	**Wed 25/8/27**	**Sun 25/9/28**	**Wed 25/8/27**	**Sun 25/9/28**	**Wed 25/8/27**	**Sun 25/9/28**	**0 days**	
116	Rebar Fixing	25 days	Wed 25/8/27	Sat 25/9/20	Wed 25/8/27	Sat 25/9/20	Wed 25/8/27	Sat 25/9/20	0 days	1
117	Formwork Erection and Cast-in items	25 days	Thu 25/9/4	Sun 25/9/28	Thu 25/9/4	Sun 25/9/28	Thu 25/9/4	Sun 25/9/28	0 days	1
118	Concreting	1 day	Fri 25/9/12	Fri 25/9/12	Fri 25/9/12	Fri 25/9/12	Fri 25/9/12	Fri 25/9/12	0 days	0
119	Backfilling and Compaction	25 days	Sat 25/9/13	Tue 25/10/7	Sat 25/9/13	Tue 25/10/7	Sat 25/9/13	Tue 25/10/7	0 days	0
120	Removal of Sheetpiles	25 days	Sun 25/9/21	Wed 25/10/15	Sun 25/9/21	Wed 25/10/15	Sun 25/9/21	Wed 25/10/15	0 days	0
121	Pedestrian & Vehicular Crossing no. 1	28 days	Mon 25/9/29	Sun 25/10/26	Mon 25/9/29	Sun 25/10/26	Tue 26/6/30	Mon 26/7/27	274 days	4
122	CLP Cable Trough	21 days	Mon 25/9/29	Sun 25/10/19	Mon 25/9/29	Sun 25/10/19	Tue 26/7/7	Mon 26/7/27	281 days	3
123	Animal Escape Ramps	21 days	Mon 25/9/29	Sun 25/10/19	Mon 25/9/29	Sun 25/10/19	Tue 26/7/7	Mon 26/7/27	281 days	0
124	**CH.B149.77~ CH.A200.00**	**45 days**	**Mon 25/9/29**	**Wed 25/11/12**	**Mon 25/9/29**	**Wed 25/11/12**	**Mon 25/9/29**	**Wed 25/11/12**	**0 days**	
125	Sheetpiling & Temp. Drainage Diversion	20 days	Mon 25/9/29	Sat 25/10/18	Mon 25/9/29	Sat 25/10/18	Mon 25/9/29	Sat 25/10/18	0 days	0
126	Excavation and Lateral Support	16 days	Sat 25/10/4	Sun 25/10/19	Sat 25/10/4	Sun 25/10/19	Sat 25/10/4	Sun 25/10/19	0 days	0
127	**Ground and Edge Beams**	**25 days**	**Wed 25/10/8**	**Sat 25/11/1**	**Wed 25/10/8**	**Sat 25/11/1**	**Wed 25/10/8**	**Sat 25/11/1**	**0 days**	
128	Rebar Fixing	20 days	Wed 25/10/8	Mon 25/10/27	Wed 25/10/8	Mon 25/10/27	Wed 25/10/8	Mon 25/10/27	0 days	0
129	Formwork Erection and Cast-in items	20 days	Mon 25/10/13	Sat 25/11/1	Mon 25/10/13	Sat 25/11/1	Mon 25/10/13	Sat 25/11/1	0 days	0
130	Concreting	1 day	Sat 25/10/18	Sat 25/10/18	Sat 25/10/18	Sat 25/10/18	Sat 25/10/18	Sat 25/10/18	0 days	0
131	**Walls**	**25 days**	**Sun 25/10/19**	**Wed 25/11/12**	**Sun 25/10/19**	**Wed 25/11/12**	**Sun 25/10/19**	**Wed 25/11/12**	**0 days**	
132	Rebar Fixing	20 days	Sun 25/10/19	Fri 25/11/7	Sun 25/10/19	Fri 25/11/7	Sun 25/10/19	Fri 25/11/7	0 days	0
133	Formwork Erection and Cast-in items	20 days	Fri 25/10/24	Wed 25/11/12	Fri 25/10/24	Wed 25/11/12	Fri 25/10/24	Wed 25/11/12	0 days	0
134	Concreting	1 day	Wed 25/10/29	Wed 25/10/29	Wed 25/10/29	Wed 25/10/29	Wed 25/10/29	Wed 25/10/29	0 days	0
135	Backfilling and Compaction	10 days	Thu 25/10/30	Sat 25/11/8	Thu 25/10/30	Sat 25/11/8	Thu 25/10/30	Sat 25/11/8	0 days	0
136	Removal of Sheetpiles	10 days	Sun 25/11/2	Tue 25/11/11	Sun 25/11/2	Tue 25/11/11	Sun 25/11/2	Tue 25/11/11	0 days	0
137	**CH.B100.00~ CH.B149.77**	**45 days**	**Wed 25/11/5**	**Fri 25/12/19**	**Wed 25/11/5**	**Fri 25/12/19**	**Wed 25/11/5**	**Fri 25/12/19**	**0 days**	
138	Sheetpiling & Temp. Drainage Diversion	20 days	Wed 25/11/5	Mon 25/11/24	Wed 25/11/5	Mon 25/11/24	Wed 25/11/5	Mon 25/11/24	0 days	0
139	Excavation and Lateral Support	16 days	Mon 25/11/10	Tue 25/11/25	Mon 25/11/10	Tue 25/11/25	Mon 25/11/10	Tue 25/11/25	0 days	0
140	**Ground and Edge Beams**	**25 days**	**Fri 25/11/14**	**Mon 25/12/8**	**Fri 25/11/14**	**Mon 25/12/8**	**Fri 25/11/14**	**Mon 25/12/8**	**0 days**	
141	Rebar Fixing	20 days	Fri 25/11/14	Wed 25/12/3	Fri 25/11/14	Wed 25/12/3	Fri 25/11/14	Wed 25/12/3	0 days	0
142	Formwork Erection and Cast-in items	20 days	Wed 25/11/19	Mon 25/12/8	Wed 25/11/19	Mon 25/12/8	Wed 25/11/19	Mon 25/12/8	0 days	0
143	Concreting	1 day	Mon 25/11/24	Mon 25/11/24	Mon 25/11/24	Mon 25/11/24	Mon 25/11/24	Mon 25/11/24	0 days	0
144	**Walls**	**25 days**	**Tue 25/11/25**	**Fri 25/12/19**	**Tue 25/11/25**	**Fri 25/12/19**	**Tue 25/11/25**	**Fri 25/12/19**	**0 days**	
145	Rebar Fixing	20 days	Tue 25/11/25	Sun 25/12/14	Tue 25/11/25	Sun 25/12/14	Tue 25/11/25	Sun 25/12/14	0 days	0
146	Formwork Erection and Cast-in items	20 days	Sun 25/11/30	Fri 25/12/19	Sun 25/11/30	Fri 25/12/19	Sun 25/11/30	Fri 25/12/19	0 days	0
147	Concreting	1 day	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	0 days	0
148	Backfilling and Compaction	10 days	Sat 25/12/6	Mon 25/12/15	Sat 25/12/6	Mon 25/12/15	Sat 25/12/6	Mon 25/12/15	0 days	0
149	Removal of Sheetpiles	10 days	Tue 25/12/9	Thu 25/12/18	Tue 25/12/9	Thu 25/12/18	Tue 25/12/9	Thu 25/12/18	0 days	0
150	Demolition of pedestrian crossing	30 days	Fri 25/12/12	Sat 26/1/10	Fri 25/12/12	Sat 26/1/10	Fri 25/12/12	Sat 26/1/10	0 days	0
151	**CH.B0.00~CH.B100.00**	**92 days**	**Mon 25/12/22**	**Mon 26/3/23**	**##########**	**Mon 26/3/23**	**##########**	**Mon 26/3/23**	**0 days**	
152	Sheetpiling & Temp. Drainage Diversion	25 days	Mon 25/12/22	Thu 26/1/15	Mon 25/12/22	Thu 26/1/15	Mon 25/12/22	Thu 26/1/15	0 days	1
153	Excavation and Lateral Support	25 days	Tue 25/12/30	Fri 26/1/23	Tue 25/12/30	Fri 26/1/23	Tue 25/12/30	Fri 26/1/23	0 days	1
154	**Ground and Edge Beams**	**42 days**	**Wed 26/1/7**	**Tue 26/2/17**	**Wed 26/1/7**	**Tue 26/2/17**	**Wed 26/1/7**	**Tue 26/2/17**	**0 days**	
155	Install precast portion (ground beam)	28 days	Wed 26/1/7	Tue 26/2/3	Wed 26/1/7	Tue 26/2/3	Wed 26/1/7	Tue 26/2/3	0 days	0
156	Rebar Fixing	25 days	Fri 26/1/16	Mon 26/2/9	Fri 26/1/16	Mon 26/2/9	Fri 26/1/16	Mon 26/2/9	0 days	1
157	Formwork Erection and Cast-in items	25 days	Sat 26/1/24	Tue 26/2/17	Sat 26/1/24	Tue 26/2/17	Sat 26/1/24	Tue 26/2/17	0 days	1
158	Concreting	1 day	Sun 26/2/1	Sun 26/2/1	Sun 26/2/1	Sun 26/2/1	Sun 26/2/1	Sun 26/2/1	0 days	0
159	**Walls**	**33 days**	**Mon 26/2/2**	**Fri 26/3/6**	**Mon 26/2/2**	**Fri 26/3/6**	**Mon 26/2/2**	**Fri 26/3/6**	**0 days**	
160	Rebar Fixing	25 days	Mon 26/2/2	Thu 26/2/26	Mon 26/2/2	Thu 26/2/26	Mon 26/2/2	Thu 26/2/26	0 days	1
161	Formwork Erection and Cast-in items	25 days	Tue 26/2/10	Fri 26/3/6	Tue 26/2/10	Fri 26/3/6	Tue 26/2/10	Fri 26/3/6	0 days	1
162	Concreting	1 day	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	Wed 26/2/18	0 days	0
163	Backfilling and Compaction	25 days	Thu 26/2/19	Sun 26/3/15	Thu 26/2/19	Sun 26/3/15	Thu 26/2/19	Sun 26/3/15	0 days	0
164	Removal of Sheetpiles	25 days	Fri 26/2/27	Mon 26/3/23	Fri 26/2/27	Mon 26/3/23	Fri 26/2/27	Mon 26/3/23	0 days	0
165	Pedestrian Crossing no. 3	21 days	Sat 26/3/7	Fri 26/3/27	Sat 26/3/7	Fri 26/3/27	Tue 26/7/7	Mon 26/7/27	122 days	3



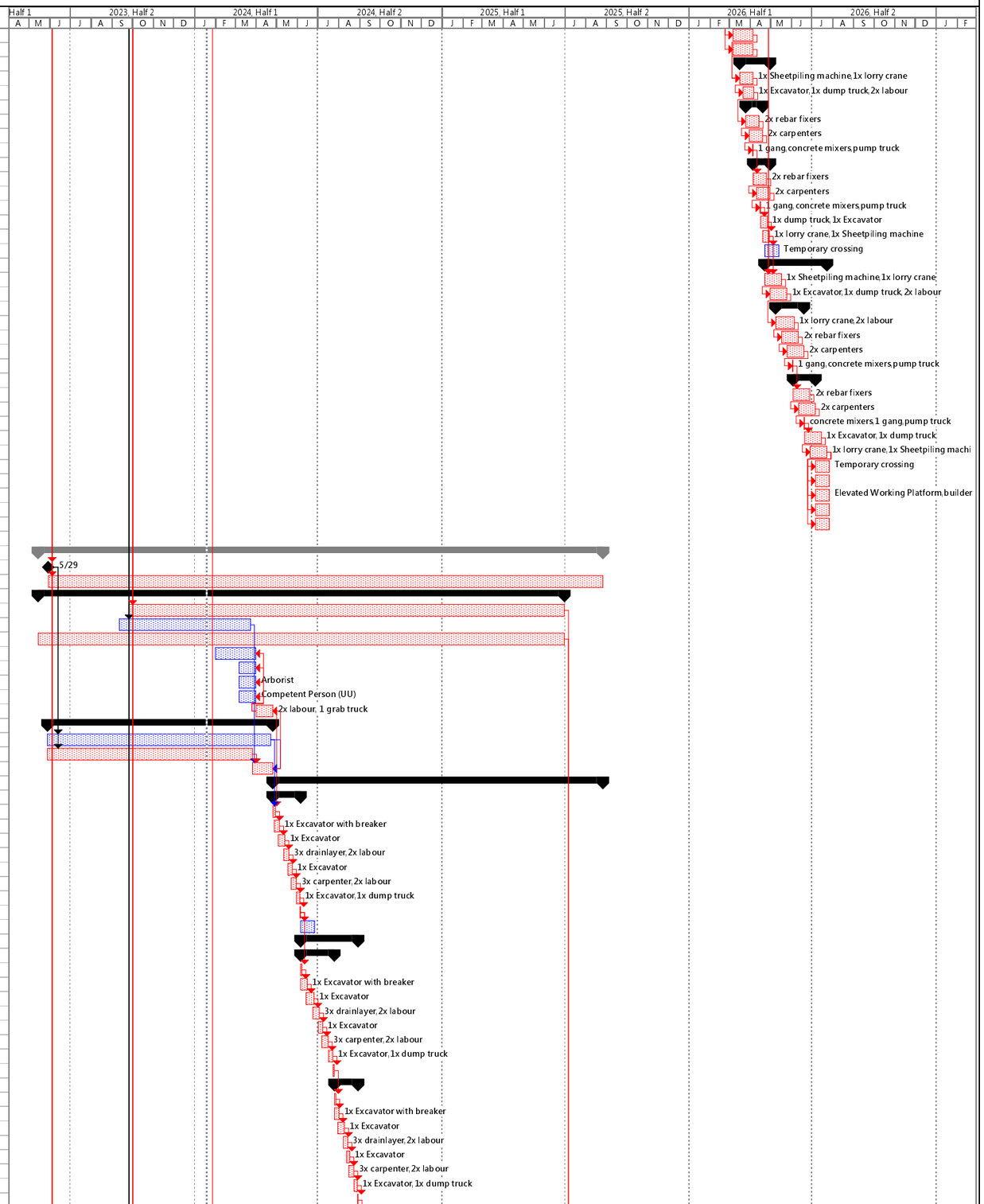
Revision.: 4.0 Date: 31 December 2023

´Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
166	Demolish & relocate AFCD Weir & pedestrian crossing	30 days	Sat 26/3/7	Sun 26/4/5	Sat 26/3/7	Sun 26/4/5	Sat 26/3/7	Sun 26/4/5	0 days	0
167	Demolish & relocate retaining wall YLL796/A/5-6	30 days	Sat 26/3/7	Sun 26/4/5	Sat 26/3/7	Sun 26/4/5	Sat 26/3/7	Sun 26/4/5	0 days	0
168	**CH.A100.00~ CH.B149.77**	**45 days**	**Tue 26/3/17**	**Thu 26/4/30**	**Tue 26/3/17**	**Thu 26/4/30**	**Tue 26/3/17**	**Thu 26/4/30**	**0 days**	
169	Sheetpiling & Temp. Drainage Diversion	20 days	Tue 26/3/17	Sun 26/4/5	Tue 26/3/17	Sun 26/4/5	Tue 26/3/17	Sun 26/4/5	0 days	0
170	Excavation and Lateral Support	16 days	Sun 26/3/22	Mon 26/4/6	Sun 26/3/22	Mon 26/4/6	Sun 26/3/22	Mon 26/4/6	0 days	0
171	**Ground and Edge Beams**	**25 days**	**Thu 26/3/26**	**Sun 26/4/19**	**Thu 26/3/26**	**Sun 26/4/19**	**Thu 26/3/26**	**Sun 26/4/19**	**0 days**	
172	Rebar Fixing	20 days	Thu 26/3/26	Tue 26/4/14	Thu 26/3/26	Tue 26/4/14	Thu 26/3/26	Tue 26/4/14	0 days	0
173	Formwork Erection and Cast-in items	20 days	Tue 26/3/31	Sun 26/4/19	Tue 26/3/31	Sun 26/4/19	Tue 26/3/31	Sun 26/4/19	0 days	0
174	Concreting	1 day	Sun 26/4/5	Sun 26/4/5	Sun 26/4/5	Sun 26/4/5	Sun 26/4/5	Sun 26/4/5	0 days	0
175	**Walls**	**25 days**	**Mon 26/4/6**	**Thu 26/4/30**	**Mon 26/4/6**	**Thu 26/4/30**	**Mon 26/4/6**	**Thu 26/4/30**	**0 days**	
176	Rebar Fixing	20 days	Mon 26/4/6	Sat 26/4/25	Mon 26/4/6	Sat 26/4/25	Mon 26/4/6	Sat 26/4/25	0 days	0
177	Formwork Erection and Cast-in items	20 days	Sat 26/4/11	Thu 26/4/30	Sat 26/4/11	Thu 26/4/30	Sat 26/4/11	Thu 26/4/30	0 days	0
178	Concreting	1 day	Thu 26/4/16	Thu 26/4/16	Thu 26/4/16	Thu 26/4/16	Thu 26/4/16	Thu 26/4/16	0 days	0
179	Backfilling and Compaction	10 days	Fri 26/4/17	Sun 26/4/26	Fri 26/4/17	Sun 26/4/26	Fri 26/4/17	Sun 26/4/26	0 days	0
180	Removal of Sheetpiles	10 days	Mon 26/4/20	Wed 26/4/29	Mon 26/4/20	Wed 26/4/29	Mon 26/4/20	Wed 26/4/29	0 days	0
181	Pedestrian Crossing no. 2	21 days	Thu 26/4/23	Wed 26/5/13	Thu 26/4/23	Wed 26/5/13	Tue 26/7/7	Mon 26/7/27	75 days	3
182	**CH.A0.00~CH.A100.00**	**92 days**	**Thu 26/4/23**	**Thu 26/7/23**	**Thu 26/4/23**	**Thu 26/7/23**	**Thu 26/4/23**	**Thu 26/7/23**	**0 days**	
183	Sheetpiling & Temp. Drainage Diversion	25 days	Thu 26/4/23	Sun 26/5/17	Thu 26/4/23	Sun 26/5/17	Thu 26/4/23	Sun 26/5/17	0 days	1
184	Excavation and Lateral Support	25 days	Fri 26/5/1	Mon 26/5/25	Fri 26/5/1	Mon 26/5/25	Fri 26/5/1	Mon 26/5/25	0 days	1
185	**Ground and Edge Beams**	**42 days**	**Sat 26/5/9**	**Fri 26/6/19**	**Sat 26/5/9**	**Fri 26/6/19**	**Sat 26/5/9**	**Fri 26/6/19**	**0 days**	
186	Install precast portion (ground beam)	28 days	Sat 26/5/9	Fri 26/6/5	Sat 26/5/9	Fri 26/6/5	Sat 26/5/9	Fri 26/6/5	0 days	0
187	Rebar Fixing	25 days	Mon 26/5/18	Thu 26/6/11	Mon 26/5/18	Thu 26/6/11	Mon 26/5/18	Thu 26/6/11	0 days	1
188	Formwork Erection and Cast-in items	25 days	Tue 26/5/26	Fri 26/6/19	Tue 26/5/26	Fri 26/6/19	Tue 26/5/26	Fri 26/6/19	0 days	1
189	Concreting	1 day	Wed 26/6/3	Wed 26/6/3	Wed 26/6/3	Wed 26/6/3	Wed 26/6/3	Wed 26/6/3	0 days	0
190	**Walls**	**33 days**	**Thu 26/6/4**	**Mon 26/7/6**	**Thu 26/6/4**	**Mon 26/7/6**	**Thu 26/6/4**	**Mon 26/7/6**	**0 days**	
191	Rebar Fixing	25 days	Thu 26/6/4	Sun 26/6/28	Thu 26/6/4	Sun 26/6/28	Thu 26/6/4	Sun 26/6/28	0 days	1
192	Formwork Erection and Cast-in items	25 days	Fri 26/6/12	Mon 26/7/6	Fri 26/6/12	Mon 26/7/6	Fri 26/6/12	Mon 26/7/6	0 days	1
193	Concreting	1 day	Sat 26/6/20	Sat 26/6/20	Sat 26/6/20	Sat 26/6/20	Sat 26/6/20	Sat 26/6/20	0 days	0
194	Backfilling and Compaction	25 days	Sun 26/6/21	Wed 26/7/15	Sun 26/6/21	Wed 26/7/15	Sun 26/6/21	Wed 26/7/15	0 days	0
195	Removal of Sheetpiles	25 days	Mon 26/6/29	Thu 26/7/23	Mon 26/6/29	Thu 26/7/23	Mon 26/6/29	Thu 26/7/23	0 days	0
196	Pedestrian Crossing no. 1	21 days	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	0 days	0
197	U-channels	21 days	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	0 days	0
198	Facing stone	21 days	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	0 days	0
199	ABWF works	21 days	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	0 days	0
200	Bedding works	21 days	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	Tue 26/7/7	Mon 26/7/27	0 days	0
79										
80	**Section VI**	**835 days**	**Mon 23/5/15**	**Tue 25/8/26**	**Mon 23/5/15**	**Tue 25/8/26**	**Mon 23/5/15**	**Mon 26/7/27**	**0 days**	
2	access date of Portion C3	0 days	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	0 days	0
3	section VI (Lin Fa Tei - Kam Sheung Road)	820 days	Tue 23/5/30	Tue 25/8/26	Tue 23/5/30	Tue 25/8/26	Tue 23/5/30	Tue 25/8/26	0 days	0
4	**Site Establishment**	**778 days**	**Mon 23/5/15**	**Mon 25/6/30**	**Mon 23/5/15**	**Mon 25/6/30**	**Mon 23/5/15**	**Mon 26/7/27**	**0 days**	
5	Prepare and Accept Temp. Works Design and Method Statement	644 days	Tue 23/9/26	Mon 25/6/30	Tue 23/9/26	Mon 25/6/30	Tue 23/9/26	Mon 25/6/30	0 days	0
6	Public Liaison and Negotiation with Village Rep.	194 days	Tue 23/9/12	Sat 24/3/23	Tue 23/9/12	Sat 24/3/23	Fri 23/9/15	Tue 24/3/26	3 days	0
7	Initial Survey	778 days	Mon 23/5/15	Mon 25/6/30	Mon 23/5/15	Mon 25/6/30	Mon 23/5/15	Mon 25/6/30	0 days	0
9	Initial Safety & Environmental measures	60 days	Thu 24/2/1	Mon 24/4/1	Thu 24/2/1	Mon 24/4/1	Fri 26/5/29	Mon 26/7/27	848 days	0
11	Setup of instrumentation and monitoring	25 days	Thu 24/3/7	Mon 24/4/1	Thu 24/3/7	Mon 24/4/1	Fri 26/7/3	Mon 26/7/27	848 days	0
12	Tree Survey	25 days	Thu 24/3/7	Mon 24/4/1	Thu 24/3/7	Mon 24/4/1	Fri 26/7/3	Mon 26/7/27	848 days	0
13	UU detection	25 days	Thu 24/3/7	Mon 24/4/1	Thu 24/3/7	Mon 24/4/1	Fri 26/7/3	Mon 26/7/27	848 days	0
14	Site Clearance	25 days	Mon 24/4/1	Thu 24/4/25	Mon 24/4/1	Thu 24/4/25	Mon 24/4/1	Thu 24/4/25	0 days	0
15	**Temporary Traffic Arrangement**	**333 days**	**Mon 23/5/29**	**Thu 24/4/25**	**Mon 23/5/29**	**Thu 24/4/25**	**Mon 23/5/29**	**Thu 24/4/25**	**0 days**	
16	Application of XP	330 days	Mon 23/5/29	Mon 24/4/22	Mon 23/5/29	Mon 24/4/22	Thu 23/6/1	Thu 24/4/25	3 days	0
17	Submission of TTA and Arrange TMLG	303 days	Mon 23/5/29	Tue 24/3/26	Mon 23/5/29	Tue 24/3/26	Mon 23/5/29	Tue 24/3/26	0 days	0
18	Approval of TTA	30 days	Wed 24/3/27	Thu 24/4/25	Wed 24/3/27	Thu 24/4/25	Wed 24/3/27	Thu 24/4/25	0 days	0
19	**Drain Laying Works**	**488 days**	**Fri 24/4/26**	**Tue 25/8/26**	**Fri 24/4/26**	**Tue 25/8/26**	**Fri 24/4/26**	**Mon 26/7/27**	**0 days**	
20	**LFT.D5~ NKT Channel 1650PC,B,L=14.5,D=3.54**	**41 days**	**Fri 24/4/26**	**Wed 24/6/5**	**Fri 24/4/26**	**Wed 24/6/5**	**Fri 24/4/26**	**Wed 24/6/5**	**0 days**	
21	TTA Implementation (trial run)	4 days	Fri 24/4/26	Mon 24/4/29	Fri 24/4/26	Mon 24/4/29	Fri 24/4/26	Mon 24/4/29	0 days	0
22	Breaking Ground	8 days	Sun 24/4/28	Sun 24/5/5	Sun 24/4/28	Sun 24/5/5	Sun 24/4/28	Sun 24/5/5	0 days	0
23	Excavation and Lateral Support	10 days	Sat 24/5/4	Mon 24/5/13	Sat 24/5/4	Mon 24/5/13	Sat 24/5/4	Mon 24/5/13	0 days	1
24	Drain Laying	8 days	Sun 24/5/12	Sun 24/5/19	Sun 24/5/12	Sun 24/5/19	Sun 24/5/12	Sun 24/5/19	0 days	0
25	Bedding and Backfilling	7 days	Sat 24/5/18	Fri 24/5/24	Sat 24/5/18	Fri 24/5/24	Sat 24/5/18	Fri 24/5/24	0 days	0
26	Manhole Construction	8 days	Thu 24/5/23	Thu 24/5/30	Thu 24/5/23	Thu 24/5/30	Thu 24/5/23	Thu 24/5/30	0 days	0
27	Reinstatement	5 days	Fri 24/5/31	Tue 24/6/4	Fri 24/5/31	Tue 24/6/4	Fri 24/5/31	Tue 24/6/4	0 days	0
28	TTA Removal	1 day	Wed 24/6/5	Wed 24/6/5	Wed 24/6/5	Wed 24/6/5	Wed 24/6/5	Wed 24/6/5	0 days	0
29	Proposed flap valve	21 days	Thu 24/6/6	Wed 24/6/26	Thu 24/6/6	Wed 24/6/26	Tue 26/7/7	Mon 26/7/27	761 days	0
30	**LFT.D4~ LFT.D5,1650PC,B,L=50.95,D=3.417**	**85 days**	**Thu 24/6/6**	**Thu 24/8/29**	**Thu 24/6/6**	**Thu 24/8/29**	**Thu 24/6/6**	**Thu 24/8/29**	**0 days**	
31	**Stage 1**	**50 days**	**Thu 24/6/6**	**Thu 24/7/25**	**Thu 24/6/6**	**Thu 24/7/25**	**Thu 24/6/6**	**Thu 24/7/25**	**0 days**	
32	TTA Implementation	2 days	Thu 24/6/6	Fri 24/6/7	Thu 24/6/6	Fri 24/6/7	Thu 24/6/6	Fri 24/6/7	0 days	0
33	Breaking Ground	10 days	Thu 24/6/6	Sat 24/6/15	Thu 24/6/6	Sat 24/6/15	Thu 24/6/6	Sat 24/6/15	0 days	2
34	Excavation and Lateral Support	12 days	Fri 24/6/14	Tue 24/6/25	Fri 24/6/14	Tue 24/6/25	Fri 24/6/14	Tue 24/6/25	0 days	2
35	Drain Laying	10 days	Mon 24/6/24	Wed 24/7/3	Mon 24/6/24	Wed 24/7/3	Mon 24/6/24	Wed 24/7/3	0 days	2
36	Bedding and Backfilling	7 days	Tue 24/7/2	Mon 24/7/8	Tue 24/7/2	Mon 24/7/8	Tue 24/7/2	Mon 24/7/8	0 days	0
37	Manhole Construction	10 days	Sun 24/7/7	Tue 24/7/16	Sun 24/7/7	Tue 24/7/16	Sun 24/7/7	Tue 24/7/16	0 days	2
38	Reinstatement	7 days	Wed 24/7/17	Tue 24/7/23	Wed 24/7/17	Tue 24/7/23	Wed 24/7/17	Tue 24/7/23	0 days	0
39	TTA Removal	2 days	Wed 24/7/24	Thu 24/7/25	Wed 24/7/24	Thu 24/7/25	Wed 24/7/24	Thu 24/7/25	0 days	0
40	**Stage 2**	**35 days**	**Fri 24/7/26**	**Thu 24/8/29**	**Fri 24/7/26**	**Thu 24/8/29**	**Fri 24/7/26**	**Thu 24/8/29**	**0 days**	
41	TTA Implementation	2 days	Fri 24/7/26	Sat 24/7/27	Fri 24/7/26	Sat 24/7/27	Fri 24/7/26	Sat 24/7/27	0 days	0
42	Breaking Ground	7 days	Fri 24/7/26	Thu 24/8/1	Fri 24/7/26	Thu 24/8/1	Fri 24/7/26	Thu 24/8/1	0 days	2
43	Excavation and Lateral Support	10 days	Wed 24/7/31	Fri 24/8/9	Wed 24/7/31	Fri 24/8/9	Wed 24/7/31	Fri 24/8/9	0 days	2
44	Drain Laying	7 days	Thu 24/8/8	Wed 24/8/14	Thu 24/8/8	Wed 24/8/14	Thu 24/8/8	Wed 24/8/14	0 days	2
45	Bedding and Backfilling	5 days	Tue 24/8/13	Sat 24/8/17	Tue 24/8/13	Sat 24/8/17	Tue 24/8/13	Sat 24/8/17	0 days	0
46	Manhole Construction	8 days	Fri 24/8/16	Fri 24/8/23	Fri 24/8/16	Fri 24/8/23	Fri 24/8/16	Fri 24/8/23	0 days	2
47	Reinstatement	5 days	Sat 24/8/24	Wed 24/8/28	Sat 24/8/24	Wed 24/8/28	Sat 24/8/24	Wed 24/8/28	0 days	0
48	TTA Removal	1 day	Thu 24/8/29	Thu 24/8/29	Thu 24/8/29	Thu 24/8/29	Thu 24/8/29	Thu 24/8/29	0 days	0



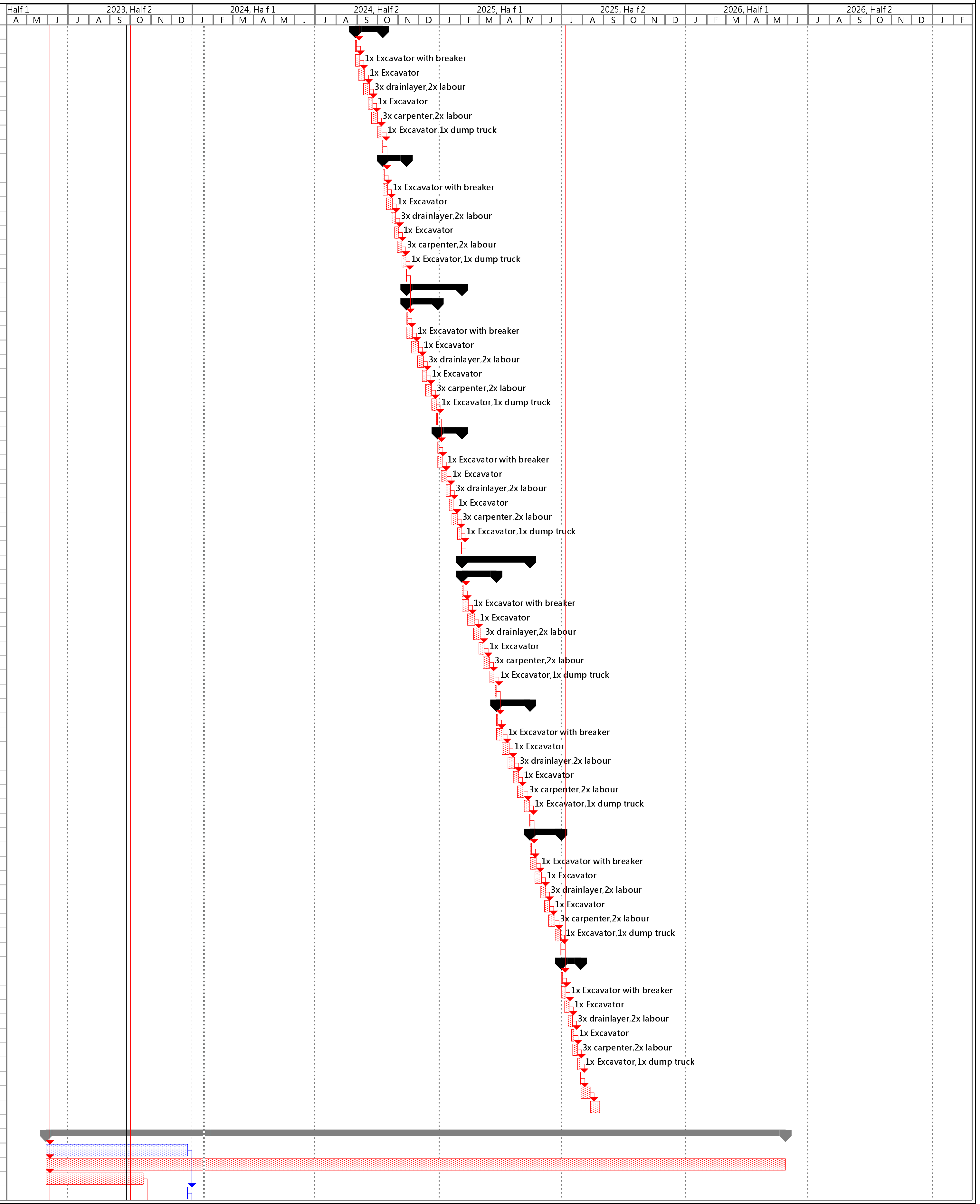
Revision.: 4.0 Date: 31 December 2023

´Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
49	**LFT.D3a~LFT.D4,1650PC,B,L=22.88,D=3.418**	**41 days**	**Fri 24/8/30**	**Wed 24/10/9**	**Fri 24/8/30**	**Wed 24/10/9**	**Fri 24/8/30**	**Wed 24/10/9**	**0 days**	
50	TTA Implementation	2 days	Fri 24/8/30	Sat 24/8/31	Fri 24/8/30	Sat 24/8/31	Fri 24/8/30	Sat 24/8/31	0 days	0
51	Breaking Ground	7 days	Fri 24/8/30	Thu 24/9/5	Fri 24/8/30	Thu 24/9/5	Fri 24/8/30	Thu 24/9/5	0 days	0
52	Excavation and Lateral Support	9 days	Wed 24/9/4	Thu 24/9/12	Wed 24/9/4	Thu 24/9/12	Wed 24/9/4	Thu 24/9/12	0 days	2
53	Drain Laying	9 days	Wed 24/9/11	Thu 24/9/19	Wed 24/9/11	Thu 24/9/19	Wed 24/9/11	Thu 24/9/19	0 days	2
54	Bedding and Backfilling	7 days	Wed 24/9/18	Tue 24/9/24	Wed 24/9/18	Tue 24/9/24	Wed 24/9/18	Tue 24/9/24	0 days	0
55	Manhole Construction	9 days	Mon 24/9/23	Tue 24/10/1	Mon 24/9/23	Tue 24/10/1	Mon 24/9/23	Tue 24/10/1	0 days	2
56	Reinstatement	7 days	Wed 24/10/2	Tue 24/10/8	Wed 24/10/2	Tue 24/10/8	Wed 24/10/2	Tue 24/10/8	0 days	0
57	TTA Removal	1 day	Wed 24/10/9	Wed 24/10/9	Wed 24/10/9	Wed 24/10/9	Wed 24/10/9	Wed 24/10/9	0 days	0
58	**LFT.D3~LFT.D3a,1650PC,B,L=13.9,D=3.418**	**35 days**	**Thu 24/10/10**	**Wed 24/11/13**	**Thu 24/10/10**	**Wed 24/11/13**	**Thu 24/10/10**	**Wed 24/11/13**	**0 days**	
59	TTA Implementation	2 days	Thu 24/10/10	Fri 24/10/11	Thu 24/10/10	Fri 24/10/11	Thu 24/10/10	Fri 24/10/11	0 days	0
60	Breaking Ground	7 days	Thu 24/10/10	Wed 24/10/16	Thu 24/10/10	Wed 24/10/16	Thu 24/10/10	Wed 24/10/16	0 days	0
61	Excavation and Lateral Support	9 days	Tue 24/10/15	Wed 24/10/23	Tue 24/10/15	Wed 24/10/23	Tue 24/10/15	Wed 24/10/23	0 days	1
62	Drain Laying	7 days	Tue 24/10/22	Mon 24/10/28	Tue 24/10/22	Mon 24/10/28	Tue 24/10/22	Mon 24/10/28	0 days	0
63	Bedding and Backfilling	6 days	Sun 24/10/27	Fri 24/11/1	Sun 24/10/27	Fri 24/11/1	Sun 24/10/27	Fri 24/11/1	0 days	0
64	Manhole Construction	7 days	Thu 24/10/31	Wed 24/11/6	Thu 24/10/31	Wed 24/11/6	Thu 24/10/31	Wed 24/11/6	0 days	0
65	Reinstatement	6 days	Thu 24/11/7	Tue 24/11/12	Thu 24/11/7	Tue 24/11/12	Thu 24/11/7	Tue 24/11/12	0 days	0
66	TTA Removal	1 day	Wed 24/11/13	Wed 24/11/13	Wed 24/11/13	Wed 24/11/13	Wed 24/11/13	Wed 24/11/13	0 days	0
67	**LFT.D2~LFT.D3,1650PC,B,L=39,D=3.34**	82 days	**Thu 24/11/14**	**Mon 25/2/3**	**Thu 24/11/14**	**Mon 25/2/3**	**Thu 24/11/14**	**Mon 25/2/3**	**0 days**	
68	**Stage 1**	**46 days**	**Thu 24/11/14**	**Sun 24/12/29**	**Thu 24/11/14**	**Sun 24/12/29**	**Thu 24/11/14**	**Sun 24/12/29**	**0 days**	
69	TTA Implementation	2 days	Thu 24/11/14	Fri 24/11/15	Thu 24/11/14	Fri 24/11/15	Thu 24/11/14	Fri 24/11/15	0 days	0
70	Breaking Ground	9 days	Thu 24/11/14	Fri 24/11/22	Thu 24/11/14	Fri 24/11/22	Thu 24/11/14	Fri 24/11/22	0 days	2
71	Excavation and Lateral Support	11 days	Thu 24/11/21	Sun 24/12/1	Thu 24/11/21	Sun 24/12/1	Thu 24/11/21	Sun 24/12/1	0 days	2
72	Drain Laying	9 days	Sat 24/11/30	Sun 24/12/8	Sat 24/11/30	Sun 24/12/8	Sat 24/11/30	Sun 24/12/8	0 days	2
73	Bedding and Backfilling	7 days	Sat 24/12/7	Fri 24/12/13	Sat 24/12/7	Fri 24/12/13	Sat 24/12/7	Fri 24/12/13	0 days	0
74	Manhole Construction	9 days	Thu 24/12/12	Fri 24/12/20	Thu 24/12/12	Fri 24/12/20	Thu 24/12/12	Fri 24/12/20	0 days	2
75	Reinstatement	7 days	Sat 24/12/21	Fri 24/12/27	Sat 24/12/21	Fri 24/12/27	Sat 24/12/21	Fri 24/12/27	0 days	0
76	TTA Removal	2 days	Sat 24/12/28	Sun 24/12/29	Sat 24/12/28	Sun 24/12/29	Sat 24/12/28	Sun 24/12/29	0 days	0
77	**Stage 2**	**36 days**	**Mon 24/12/30**	**Mon 25/2/3**	**###########**	**Mon 25/2/3**	**###########**	**Mon 25/2/3**	**0 days**	
78	TTA Implementation	2 days	Mon 24/12/30	Tue 24/12/31	Mon 24/12/30	Tue 24/12/31	Mon 24/12/30	Tue 24/12/31	0 days	0
79	Breaking Ground	7 days	Mon 24/12/30	Sun 25/1/5	Mon 24/12/30	Sun 25/1/5	Mon 24/12/30	Sun 25/1/5	0 days	0
80	Excavation and Lateral Support	9 days	Sat 25/1/4	Sun 25/1/12	Sat 25/1/4	Sun 25/1/12	Sat 25/1/4	Sun 25/1/12	0 days	1
81	Drain Laying	7 days	Sat 25/1/11	Fri 25/1/17	Sat 25/1/11	Fri 25/1/17	Sat 25/1/11	Fri 25/1/17	0 days	1
82	Bedding and Backfilling	6 days	Thu 25/1/16	Tue 25/1/21	Thu 25/1/16	Tue 25/1/21	Thu 25/1/16	Tue 25/1/21	0 days	0
83	Manhole Construction	8 days	Mon 25/1/20	Mon 25/1/27	Mon 25/1/20	Mon 25/1/27	Mon 25/1/20	Mon 25/1/27	0 days	1
84	Reinstatement	6 days	Tue 25/1/28	Sun 25/2/2	Tue 25/1/28	Sun 25/2/2	Tue 25/1/28	Sun 25/2/2	0 days	0
85	TTA Removal	1 day	Mon 25/2/3	Mon 25/2/3	Mon 25/2/3	Mon 25/2/3	Mon 25/2/3	Mon 25/2/3	0 days	0
86	**LFT.D1b~LFT.D2,1650PC,B,L=45.56,D=3.34**	**101 days**	**Tue 25/2/4**	**Thu 25/5/15**	**Tue 25/2/4**	**Thu 25/5/15**	**Tue 25/2/4**	**Thu 25/5/15**	**0 days**	
87	**Stage 1**	**51 days**	**Tue 25/2/4**	**Wed 25/3/26**	**Tue 25/2/4**	**Wed 25/3/26**	**Tue 25/2/4**	**Wed 25/3/26**	**0 days**	
88	TTA Implementation	2 days	Tue 25/2/4	Wed 25/2/5	Tue 25/2/4	Wed 25/2/5	Tue 25/2/4	Wed 25/2/5	0 days	0
89	Breaking Ground	10 days	Tue 25/2/4	Thu 25/2/13	Tue 25/2/4	Thu 25/2/13	Tue 25/2/4	Thu 25/2/13	0 days	2
90	Excavation and Lateral Support	11 days	Wed 25/2/12	Sat 25/2/22	Wed 25/2/12	Sat 25/2/22	Wed 25/2/12	Sat 25/2/22	0 days	2
91	Drain Laying	10 days	Fri 25/2/21	Sun 25/3/2	Fri 25/2/21	Sun 25/3/2	Fri 25/2/21	Sun 25/3/2	0 days	2
92	Bedding and Backfilling	8 days	Sat 25/3/1	Sat 25/3/8	Sat 25/3/1	Sat 25/3/8	Sat 25/3/1	Sat 25/3/8	0 days	0
93	Manhole Construction	10 days	Fri 25/3/7	Sun 25/3/16	Fri 25/3/7	Sun 25/3/16	Fri 25/3/7	Sun 25/3/16	0 days	2
94	Reinstatement	8 days	Mon 25/3/17	Mon 25/3/24	Mon 25/3/17	Mon 25/3/24	Mon 25/3/17	Mon 25/3/24	0 days	0
95	TTA Removal	2 days	Tue 25/3/25	Wed 25/3/26	Tue 25/3/25	Wed 25/3/26	Tue 25/3/25	Wed 25/3/26	0 days	0
96	**Stage 2**	**50 days**	**Thu 25/3/27**	**Thu 25/5/15**	**Thu 25/3/27**	**Thu 25/5/15**	**Thu 25/3/27**	**Thu 25/5/15**	**0 days**	
97	TTA Implementation	2 days	Thu 25/3/27	Fri 25/3/28	Thu 25/3/27	Fri 25/3/28	Thu 25/3/27	Fri 25/3/28	0 days	0
98	Breaking Ground	10 days	Thu 25/3/27	Sat 25/4/5	Thu 25/3/27	Sat 25/4/5	Thu 25/3/27	Sat 25/4/5	0 days	2
99	Excavation and Lateral Support	11 days	Fri 25/4/4	Mon 25/4/14	Fri 25/4/4	Mon 25/4/14	Fri 25/4/4	Mon 25/4/14	0 days	2
100	Drain Laying	10 days	Sun 25/4/13	Tue 25/4/22	Sun 25/4/13	Tue 25/4/22	Sun 25/4/13	Tue 25/4/22	0 days	2
101	Bedding and Backfilling	8 days	Mon 25/4/21	Mon 25/4/28	Mon 25/4/21	Mon 25/4/28	Mon 25/4/21	Mon 25/4/28	0 days	0
102	Manhole Construction	10 days	Sun 25/4/27	Tue 25/5/6	Sun 25/4/27	Tue 25/5/6	Sun 25/4/27	Tue 25/5/6	0 days	2
103	Reinstatement	8 days	Wed 25/5/7	Wed 25/5/14	Wed 25/5/7	Wed 25/5/14	Wed 25/5/7	Wed 25/5/14	0 days	0
104	TTA Removal	1 day	Thu 25/5/15	Thu 25/5/15	Thu 25/5/15	Thu 25/5/15	Thu 25/5/15	Thu 25/5/15	0 days	0
105	**LFT.D1a~LFT.D1b,1650PC,B,L=25.59,D=3.411**	**46 days**	**Fri 25/5/16**	**Mon 25/6/30**	**Fri 25/5/16**	**Mon 25/6/30**	**Fri 25/5/16**	**Mon 25/6/30**	**0 days**	
106	TTA Implementation	2 days	Fri 25/5/16	Sat 25/5/17	Fri 25/5/16	Sat 25/5/17	Fri 25/5/16	Sat 25/5/17	0 days	0
107	Breaking Ground	9 days	Fri 25/5/16	Sat 25/5/24	Fri 25/5/16	Sat 25/5/24	Fri 25/5/16	Sat 25/5/24	0 days	0
108	Excavation and Lateral Support	10 days	Fri 25/5/23	Sun 25/6/1	Fri 25/5/23	Sun 25/6/1	Fri 25/5/23	Sun 25/6/1	0 days	2
109	Drain Laying	8 days	Sat 25/5/31	Sat 25/6/7	Sat 25/5/31	Sat 25/6/7	Sat 25/5/31	Sat 25/6/7	0 days	2
110	Bedding and Backfilling	8 days	Fri 25/6/6	Fri 25/6/13	Fri 25/6/6	Fri 25/6/13	Fri 25/6/6	Fri 25/6/13	0 days	1
111	Manhole Construction	10 days	Thu 25/6/12	Sat 25/6/21	Thu 25/6/12	Sat 25/6/21	Thu 25/6/12	Sat 25/6/21	0 days	2
112	Reinstatement	8 days	Sun 25/6/22	Sun 25/6/29	Sun 25/6/22	Sun 25/6/29	Sun 25/6/22	Sun 25/6/29	0 days	1
113	TTA Removal	1 day	Mon 25/6/30	Mon 25/6/30	Mon 25/6/30	Mon 25/6/30	Mon 25/6/30	Mon 25/6/30	0 days	0
114	**LFT.D1~LFT.D1a,1650PC,B,L=5.65,D=3.411**	**29 days**	**Tue 25/7/1**	**Tue 25/7/29**	**Tue 25/7/1**	**Tue 25/7/29**	**Tue 25/7/1**	**Tue 25/7/29**	**0 days**	
115	TTA Implementation	2 days	Tue 25/7/1	Wed 25/7/2	Tue 25/7/1	Wed 25/7/2	Tue 25/7/1	Wed 25/7/2	0 days	0
116	Breaking Ground	7 days	Tue 25/7/1	Mon 25/7/7	Tue 25/7/1	Mon 25/7/7	Tue 25/7/1	Mon 25/7/7	0 days	0
117	Excavation and Lateral Support	7 days	Sun 25/7/6	Sat 25/7/12	Sun 25/7/6	Sat 25/7/12	Sun 25/7/6	Sat 25/7/12	0 days	1
118	Drain Laying	7 days	Fri 25/7/11	Thu 25/7/17	Fri 25/7/11	Thu 25/7/17	Fri 25/7/11	Thu 25/7/17	0 days	1
119	Bedding and Backfilling	4 days	Wed 25/7/16	Sat 25/7/19	Wed 25/7/16	Sat 25/7/19	Wed 25/7/16	Sat 25/7/19	0 days	0
120	Manhole Construction	7 days	Fri 25/7/18	Thu 25/7/24	Fri 25/7/18	Thu 25/7/24	Fri 25/7/18	Thu 25/7/24	0 days	0
121	Reinstatement	4 days	Fri 25/7/25	Mon 25/7/28	Fri 25/7/25	Mon 25/7/28	Fri 25/7/25	Mon 25/7/28	0 days	0
122	TTA Removal	1 day	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	Tue 25/7/29	0 days	0
123	CCTV inspection and T&C	14 days	Wed 25/7/30	Tue 25/8/12	Wed 25/7/30	Tue 25/8/12	Wed 25/7/30	Tue 25/8/12	0 days	4
124	Final Reinstatement	14 days	Wed 25/8/13	Tue 25/8/26	Wed 25/8/13	Tue 25/8/26	Wed 25/8/13	Tue 25/8/26	0 days	4
81										
82	**Section IV**	**1095 days**	**Tue 23/5/30**	**Thu 26/5/28**	**Tue 23/5/30**	**Thu 26/5/28**	**Tue 23/5/30**	**Mon 26/7/27**	**0 days**	
2	access date of Portion D	210 days	Tue 23/5/30	Mon 23/12/25	Tue 23/5/30	Mon 23/12/25	Thu 25/9/18	Wed 26/4/15	842 days	0
3	section IV (Ha Che)	1095 days	Tue 23/5/30	Thu 26/5/28	Tue 23/5/30	Thu 26/5/28	Tue 23/5/30	Thu 26/5/28	0 days	0
4	Early access (portion)	144 days	Tue 23/5/30	Fri 23/10/20	Tue 23/5/30	Fri 23/10/20	Tue 23/5/30	Fri 23/10/20	0 days	0
5	Access to remaining STLA	1 day	Mon 23/12/25	Mon 23/12/25	Mon 23/12/25	Mon 23/12/25	Wed 26/4/15	Wed 26/4/15	842 days	0



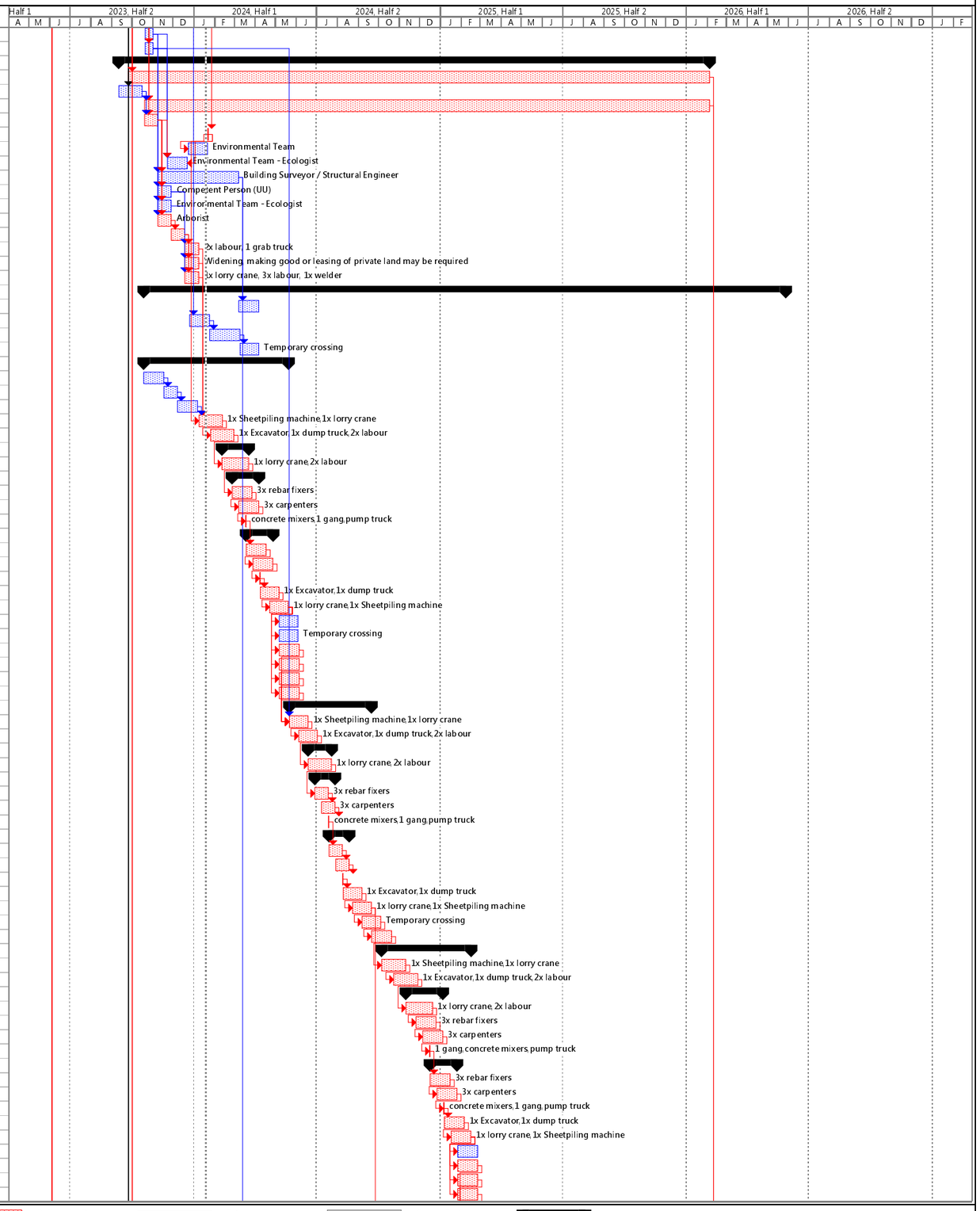
Revision.: 4.0 Date: 31 December 2023

´Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
6	Private Land Leasing (PL1)	12 days	Sat 23/10/21	Wed 23/11/1	Sat 23/10/21	Wed 23/11/1	Sat 23/10/28	Wed 23/11/8	7 days	0
7	Private Land Leasing (PL2)	12 days	Sat 23/10/21	Wed 23/11/1	Sat 23/10/21	Wed 23/11/1	Sat 23/10/28	Wed 23/11/8	7 days	0
8	**Site Establishment**	**877 days**	**Tue 23/9/12**	**Wed 26/2/4**	**Tue 23/9/12**	**Wed 26/2/4**	**Fri 23/9/15**	**Mon 26/7/27**	**3 days**	
9	Prepare and Accept Temp. Works Design and Method Statement	863 days	Tue 23/9/26	Wed 26/2/4	Tue 23/9/26	Wed 26/2/4	Tue 23/9/26	Wed 26/2/4	0 days	0
10	Public Liaison and Negotiation with Village Rep.	35 days	Tue 23/9/12	Mon 23/10/16	Tue 23/9/12	Mon 23/10/16	Fri 23/9/15	Thu 23/10/19	3 days	0
11	Initial Survey	839 days	Fri 23/10/20	Wed 26/2/4	Fri 23/10/20	Wed 26/2/4	Fri 23/10/20	Wed 26/2/4	0 days	0
13	Initial Safety & Environmental measures	20 days	Fri 23/10/20	Wed 23/11/8	Fri 23/10/20	Wed 23/11/8	Fri 23/10/20	Wed 23/11/8	0 days	0
15	EIAO Commencement of Construction	1 day	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	Mon 24/1/22	0 days	0
17	Environmental Baseline Monitoring	29 days	Sun 23/12/24	Sun 24/1/21	Sun 23/12/24	Sun 24/1/21	Mon 26/6/29	Mon 26/7/27	918 days	0
18	Freshwater Crab Translocation Plan	30 days	Thu 23/11/23	Sat 23/12/23	Thu 23/11/23	Sat 23/12/23	Sun 26/6/28	Mon 26/7/27	948 days	0
19	Condition Survey (Shui Kan Shek, Fu Hing Garden, Twin 1500)	120 days	Thu 23/11/9	Thu 24/3/7	Thu 23/11/9	Thu 24/3/7	Sat 26/2/28	Sat 26/6/27	842 days	0
20	UU detection	20 days	Thu 23/11/9	Tue 23/11/28	Thu 23/11/9	Tue 23/11/28	Wed 23/11/29	Mon 23/12/18	20 days	0
21	Vegetation Survey [A]	20 days	Thu 23/11/9	Tue 23/11/28	Thu 23/11/9	Tue 23/11/28	Wed 23/11/29	Mon 23/12/18	20 days	0
22	Tree Survey and Felling [A]	20 days	Thu 23/11/9	Tue 23/11/28	Thu 23/11/9	Tue 23/11/28	Thu 23/11/9	Tue 23/11/28	0 days	0
23	Setup of instrumentation and monitoring	20 days	Wed 23/11/29	Mon 23/12/18	Wed 23/11/29	Mon 23/12/18	Wed 23/11/29	Mon 23/12/18	0 days	0
24	Site Clearance	21 days	Tue 23/12/19	Mon 24/1/8	Tue 23/12/19	Mon 24/1/8	Tue 23/12/19	Mon 24/1/8	0 days	0
25	Establish access(es) to channels	21 days	Tue 23/12/19	Mon 24/1/8	Tue 23/12/19	Mon 24/1/8	Tue 23/12/19	Mon 24/1/8	0 days	0
26	Guarding / Barrier / Hoarding	21 days	Tue 23/12/19	Mon 24/1/8	Tue 23/12/19	Mon 24/1/8	Tue 23/12/19	Mon 24/1/8	0 days	0
27	**Drainage Channel Works (East)**	**953 days**	**Thu 23/10/19**	**Thu 26/5/28**	**Thu 23/10/19**	**Thu 26/5/28**	**Sat 23/10/21**	**Mon 26/7/27**	**2 days**	
28	HC05 CH.A284.946~CH.A339.556 (Ex. CH Str. Assessment)	30 days	Fri 24/3/8	Sat 24/4/6	Fri 24/3/8	Sat 24/4/6	Sun 26/6/28	Mon 26/7/27	842 days	0
29	Demolish & relocate wall, gate YLL797/2	30 days	Tue 23/12/26	Wed 24/1/24	Tue 23/12/26	Wed 24/1/24	Thu 26/4/16	Fri 26/5/15	842 days	0
30	HC01 CH.A11.13~CH.A18.14	45 days	Thu 24/1/25	Sat 24/3/9	Thu 24/1/25	Sat 24/3/9	Sat 26/5/16	Mon 26/6/29	842 days	5
31	Pedestrian & Vehicular Crossing no. 1 (Box Culvert no. 1)	28 days	Sun 24/3/10	Sat 24/4/6	Sun 24/3/10	Sat 24/4/6	Tue 26/6/30	Mon 26/7/27	842 days	0
32	**HC02 CH.A18.14~CH.A120.261 (BC1~2)**	**215 days**	**Thu 23/10/19**	**Mon 24/5/20**	**Thu 23/10/19**	**Mon 24/5/20**	**Sat 23/10/21**	**Mon 24/5/20**	**0 days**	
33	EWN/007 NCE/001 Ambiguity on Drawings	30 days	Thu 23/10/19	Fri 23/11/17	Thu 23/10/19	Fri 23/11/17	Sat 23/10/21	Sun 23/11/19	2 days	0
34	C9 tender for Precast units	20 days	Sat 23/11/18	Thu 23/12/7	Sat 23/11/18	Thu 23/12/7	Mon 23/11/20	Sat 23/12/9	2 days	0
35	Fabrication of Precast units	30 days	Fri 23/12/8	Sat 24/1/6	Fri 23/12/8	Sat 24/1/6	Sun 23/12/10	Mon 24/1/8	2 days	0
36	Sheetpiling & Temp. Drainage Diversion	35 days	Tue 24/1/9	Mon 24/2/12	Tue 24/1/9	Mon 24/2/12	Tue 24/1/9	Mon 24/2/12	0 days	1
37	Excavation and Lateral Support	35 days	Fri 24/1/26	Thu 24/2/29	Fri 24/1/26	Thu 24/2/29	Fri 24/1/26	Thu 24/2/29	0 days	1
38	**Walls**	**40 days**	**Mon 24/2/12**	**Fri 24/3/22**	**Mon 24/2/12**	**Fri 24/3/22**	**Mon 24/2/12**	**Fri 24/3/22**	**0 days**	
39	Install precast portion (double beam)	40 days	Mon 24/2/12	Fri 24/3/22	Mon 24/2/12	Fri 24/3/22	Mon 24/2/12	Fri 24/3/22	0 days	0
40	**Ground Beams**	**40 days**	**Tue 24/2/27**	**Sat 24/4/6**	**Tue 24/2/27**	**Sat 24/4/6**	**Tue 24/2/27**	**Sat 24/4/6**	**0 days**	
41	Rebar Fixing	30 days	Tue 24/2/27	Wed 24/3/27	Tue 24/2/27	Wed 24/3/27	Tue 24/2/27	Wed 24/3/27	0 days	1
42	Formwork Erection and Cast-in items	30 days	Fri 24/3/8	Sat 24/4/6	Fri 24/3/8	Sat 24/4/6	Fri 24/3/8	Sat 24/4/6	0 days	1
43	Concreting	1 day	Mon 24/3/18	Mon 24/3/18	Mon 24/3/18	Mon 24/3/18	Mon 24/3/18	Mon 24/3/18	0 days	0
44	**Other in-situ portions**	**40 days**	**Tue 24/3/19**	**Sat 24/4/27**	**Tue 24/3/19**	**Sat 24/4/27**	**Tue 24/3/19**	**Sat 24/4/27**	**0 days**	
45	Rebar Fixing	30 days	Tue 24/3/19	Wed 24/4/17	Tue 24/3/19	Wed 24/4/17	Tue 24/3/19	Wed 24/4/17	0 days	1
46	Formwork Erection and Cast-in items	30 days	Fri 24/3/29	Sat 24/4/27	Fri 24/3/29	Sat 24/4/27	Fri 24/3/29	Sat 24/4/27	0 days	1
47	Concreting	1 day	Mon 24/4/8	Mon 24/4/8	Mon 24/4/8	Mon 24/4/8	Mon 24/4/8	Mon 24/4/8	0 days	0
48	Backfilling and Compaction	28 days	Tue 24/4/9	Mon 24/5/6	Tue 24/4/9	Mon 24/5/6	Tue 24/4/9	Mon 24/5/6	0 days	0
49	Removal of Sheetpiles	28 days	Tue 24/4/23	Mon 24/5/20	Tue 24/4/23	Mon 24/5/20	Tue 24/4/23	Mon 24/5/20	0 days	0
50	Animal Escape Ramp	28 days	Tue 24/5/7	Mon 24/6/3	Tue 24/5/7	Mon 24/6/3	Tue 26/6/30	Mon 26/7/27	784 days	0
51	Pedestrian & Vehicular Crossing no. 2 (Box Culvert no. 2)	28 days	Tue 24/5/7	Mon 24/6/3	Tue 24/5/7	Mon 24/6/3	Tue 26/6/30	Mon 26/7/27	784 days	0
52	Demolish & relocate toilet YLL797/5	30 days	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	0 days	0
53	Demolish & relocate container YLL797/6	30 days	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	0 days	0
54	Demolish & relocate porch YLL797/7	30 days	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	0 days	0
55	Demolish & relocate fencing, retaining wall YLL797/10,11	30 days	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	Tue 24/5/7	Wed 24/6/5	0 days	0
56	**HC03 CH.A126.235~CH.A187.706 (BC2~3)**	**122 days**	**Wed 24/5/22**	**Fri 24/9/20**	**Wed 24/5/22**	**Fri 24/9/20**	**Wed 24/5/22**	**Fri 24/9/20**	**0 days**	
57	Sheetpiling & Temp. Drainage Diversion	28 days	Wed 24/5/22	Tue 24/6/18	Wed 24/5/22	Tue 24/6/18	Wed 24/5/22	Tue 24/6/18	0 days	2
58	Excavation and Lateral Support	28 days	Wed 24/6/5	Tue 24/7/2	Wed 24/6/5	Tue 24/7/2	Wed 24/6/5	Tue 24/7/2	0 days	2
59	**Walls**	**35 days**	**Wed 24/6/19**	**Tue 24/7/23**	**Wed 24/6/19**	**Tue 24/7/23**	**Wed 24/6/19**	**Tue 24/7/23**	**0 days**	
60	Install precast portion (double beam)	35 days	Wed 24/6/19	Tue 24/7/23	Wed 24/6/19	Tue 24/7/23	Wed 24/6/19	Tue 24/7/23	0 days	0
61	**Ground Beams**	**30 days**	**Sat 24/6/29**	**Sun 24/7/28**	**Sat 24/6/29**	**Sun 24/7/28**	**Sat 24/6/29**	**Sun 24/7/28**	**0 days**	
62	Rebar Fixing	20 days	Sat 24/6/29	Thu 24/7/18	Sat 24/6/29	Thu 24/7/18	Sat 24/6/29	Thu 24/7/18	0 days	2
63	Formwork Erection and Cast-in items	20 days	Tue 24/7/9	Sun 24/7/28	Tue 24/7/9	Sun 24/7/28	Tue 24/7/9	Sun 24/7/28	0 days	2
64	Concreting	1 day	Fri 24/7/19	Fri 24/7/19	Fri 24/7/19	Fri 24/7/19	Fri 24/7/19	Fri 24/7/19	0 days	0
65	**Other in-situ portions**	**30 days**	**Sat 24/7/20**	**Sun 24/8/18**	**Sat 24/7/20**	**Sun 24/8/18**	**Sat 24/7/20**	**Sun 24/8/18**	**0 days**	
66	Rebar Fixing	20 days	Sat 24/7/20	Thu 24/8/8	Sat 24/7/20	Thu 24/8/8	Sat 24/7/20	Thu 24/8/8	0 days	2
67	Formwork Erection and Cast-in items	20 days	Tue 24/7/30	Sun 24/8/18	Tue 24/7/30	Sun 24/8/18	Tue 24/7/30	Sun 24/8/18	0 days	2
68	Concreting	1 day	Fri 24/8/9	Fri 24/8/9	Fri 24/8/9	Fri 24/8/9	Fri 24/8/9	Fri 24/8/9	0 days	0
69	Backfilling and Compaction	28 days	Sat 24/8/10	Fri 24/9/6	Sat 24/8/10	Fri 24/9/6	Sat 24/8/10	Fri 24/9/6	0 days	0
70	Removal of Sheetpiles	28 days	Sat 24/8/24	Fri 24/9/20	Sat 24/8/24	Fri 24/9/20	Sat 24/8/24	Fri 24/9/20	0 days	0
72	Pedestrian & Vehicular Crossing no. 1 (Box Culvert no. 3)	28 days	Sat 24/9/7	Fri 24/10/4	Sat 24/9/7	Fri 24/10/4	Sat 24/9/7	Fri 24/10/4	0 days	0
73	Demolish & relocate drainage channel YLL797/12	30 days	Sat 24/9/21	Sun 24/10/20	Sat 24/9/21	Sun 24/10/20	Sat 24/9/21	Sun 24/10/20	0 days	0
74	**HC04 CH.A195.853~CH.A284.946 (BC3~Ex. CH)**	**133 days**	**Sun 24/10/6**	**Sat 25/2/15**	**Sun 24/10/6**	**Sat 25/2/15**	**Sun 24/10/6**	**Sat 25/2/15**	**0 days**	
75	Sheetpiling & Temp. Drainage Diversion	36 days	Sun 24/10/6	Sun 24/11/10	Sun 24/10/6	Sun 24/11/10	Sun 24/10/6	Sun 24/11/10	0 days	2
76	Excavation and Lateral Support	36 days	Thu 24/10/24	Thu 24/11/28	Thu 24/10/24	Thu 24/11/28	Thu 24/10/24	Thu 24/11/28	0 days	2
77	**Ground and Edge Beams**	**55 days**	**Mon 24/11/11**	**Sat 25/1/4**	**##########**	**Sat 25/1/4**	**##########**	**Sat 25/1/4**	**0 days**	
78	Install precast portion (ground beam)	40 days	Mon 24/11/11	Fri 24/12/20	Mon 24/11/11	Fri 24/12/20	Mon 24/11/11	Fri 24/12/20	0 days	0
79	Rebar Fixing	30 days	Tue 24/11/26	Wed 24/12/25	Tue 24/11/26	Wed 24/12/25	Tue 24/11/26	Wed 24/12/25	0 days	2
80	Formwork Erection and Cast-in items	30 days	Fri 24/12/6	Sat 25/1/4	Fri 24/12/6	Sat 25/1/4	Fri 24/12/6	Sat 25/1/4	0 days	2
81	Concreting	1 day	Mon 24/12/16	Mon 24/12/16	Mon 24/12/16	Mon 24/12/16	Mon 24/12/16	Mon 24/12/16	0 days	0
82	**Walls**	**40 days**	**Tue 24/12/17**	**Sat 25/1/25**	**Tue 24/12/17**	**Sat 25/1/25**	**Tue 24/12/17**	**Sat 25/1/25**	**0 days**	
83	Rebar Fixing	30 days	Tue 24/12/17	Wed 25/1/15	Tue 24/12/17	Wed 25/1/15	Tue 24/12/17	Wed 25/1/15	0 days	2
84	Formwork Erection and Cast-in items	30 days	Fri 24/12/27	Sat 25/1/25	Fri 24/12/27	Sat 25/1/25	Fri 24/12/27	Sat 25/1/25	0 days	2
85	Concreting	1 day	Mon 25/1/6	Mon 25/1/6	Mon 25/1/6	Mon 25/1/6	Mon 25/1/6	Mon 25/1/6	0 days	0
86	Backfilling and Compaction	30 days	Tue 25/1/7	Wed 25/2/5	Tue 25/1/7	Wed 25/2/5	Tue 25/1/7	Wed 25/2/5	0 days	0
87	Removal of Sheetpiles	30 days	Fri 25/1/17	Sat 25/2/15	Fri 25/1/17	Sat 25/2/15	Fri 25/1/17	Sat 25/2/15	0 days	0
88	2x300 pipe with flap valve	30 days	Mon 25/1/27	Tue 25/2/25	Mon 25/1/27	Tue 25/2/25	Sun 26/6/28	Mon 26/7/27	517 days	4
89	Demolish & relocate metal frame YLL797/28,30,33	30 days	Mon 25/1/27	Tue 25/2/25	Mon 25/1/27	Tue 25/2/25	Mon 25/1/27	Tue 25/2/25	0 days	0
90	Demolish & relocate storage YLL797/29	30 days	Mon 25/1/27	Tue 25/2/25	Mon 25/1/27	Tue 25/2/25	Mon 25/1/27	Tue 25/2/25	0 days	0
91	Demolish & relocate retaining wall YLL797/32	30 days	Mon 25/1/27	Tue 25/2/25	Mon 25/1/27	Tue 25/2/25	Mon 25/1/27	Tue 25/2/25	0 days	0



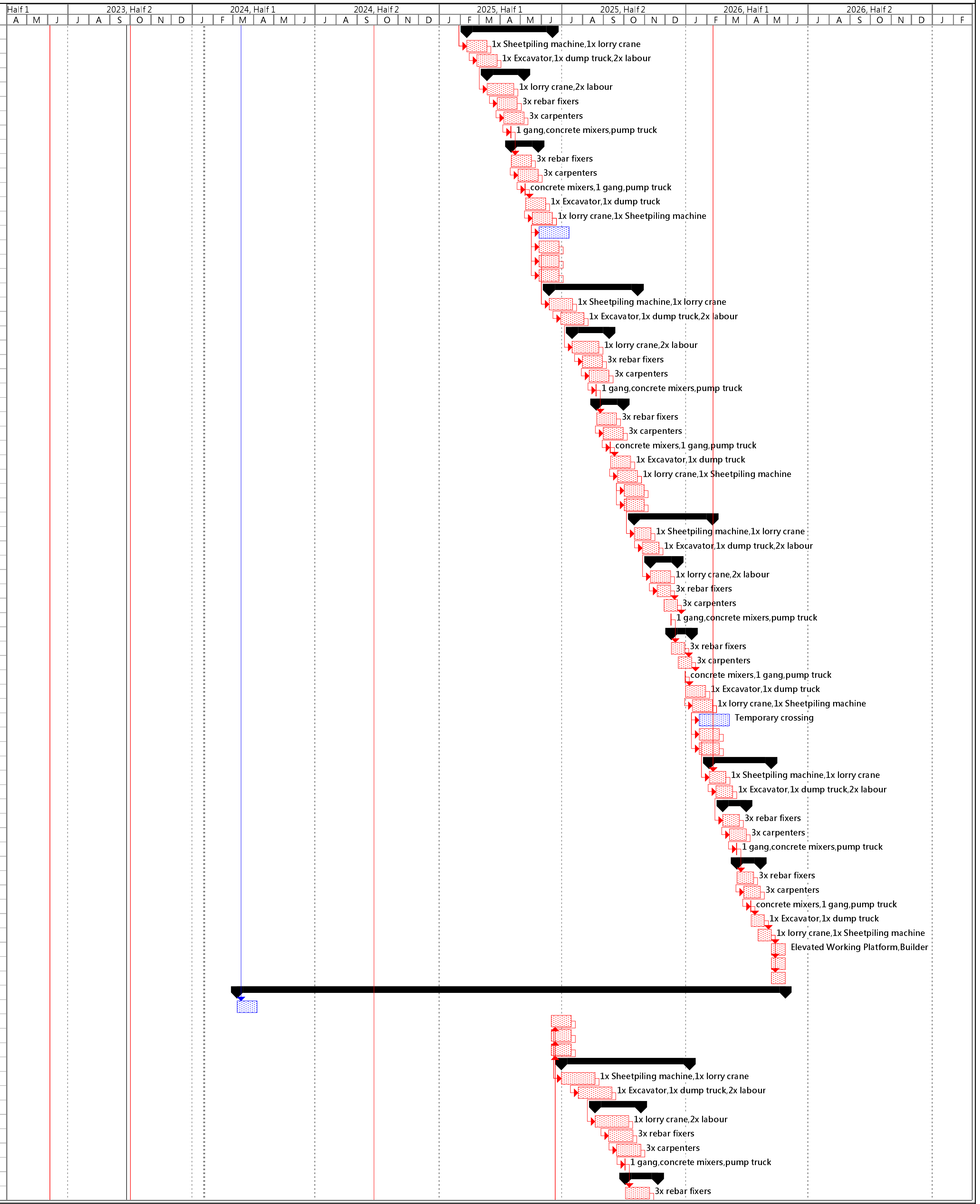
Revision.: 4.0 Date: 31 December 2023

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
92	**HC06 CH.A339.556~CH.A400.00**	**127 days**	**Tue 25/2/11**	**Tue 25/6/17**	**Tue 25/2/11**	**Tue 25/6/17**	**Tue 25/2/11**	**Tue 25/6/17**	**0 days**	
93	Sheetpiling & Temp. Drainage Diversion	30 days	Tue 25/2/11	Wed 25/3/12	Tue 25/2/11	Wed 25/3/12	Tue 25/2/11	Wed 25/3/12	0 days	2
94	Excavation and Lateral Support	30 days	Wed 25/2/26	Thu 25/3/27	Wed 25/2/26	Thu 25/3/27	Wed 25/2/26	Thu 25/3/27	0 days	2
95	**Ground and Edge Beams**	**55 days**	**Thu 25/3/13**	**Tue 25/5/6**	**Thu 25/3/13**	**Tue 25/5/6**	**Thu 25/3/13**	**Tue 25/5/6**	**0 days**	
96	Install precast portion (ground beam)	40 days	Thu 25/3/13	Mon 25/4/21	Thu 25/3/13	Mon 25/4/21	Thu 25/3/13	Mon 25/4/21	0 days	0
97	Rebar Fixing	30 days	Fri 25/3/28	Sat 25/4/26	Fri 25/3/28	Sat 25/4/26	Fri 25/3/28	Sat 25/4/26	0 days	2
98	Formwork Erection and Cast-in items	30 days	Mon 25/4/7	Tue 25/5/6	Mon 25/4/7	Tue 25/5/6	Mon 25/4/7	Tue 25/5/6	0 days	2
99	Concreting	1 day	Thu 25/4/17	Thu 25/4/17	Thu 25/4/17	Thu 25/4/17	Thu 25/4/17	Thu 25/4/17	0 days	0
100	**Walls**	**40 days**	**Fri 25/4/18**	**Tue 25/5/27**	**Fri 25/4/18**	**Tue 25/5/27**	**Fri 25/4/18**	**Tue 25/5/27**	**0 days**	
101	Rebar Fixing	30 days	Fri 25/4/18	Sat 25/5/17	Fri 25/4/18	Sat 25/5/17	Fri 25/4/18	Sat 25/5/17	0 days	2
102	Formwork Erection and Cast-in items	30 days	Mon 25/4/28	Tue 25/5/27	Mon 25/4/28	Tue 25/5/27	Mon 25/4/28	Tue 25/5/27	0 days	2
103	Concreting	1 day	Thu 25/5/8	Thu 25/5/8	Thu 25/5/8	Thu 25/5/8	Thu 25/5/8	Thu 25/5/8	0 days	0
104	Backfilling and Compaction	30 days	Fri 25/5/9	Sat 25/6/7	Fri 25/5/9	Sat 25/6/7	Fri 25/5/9	Sat 25/6/7	0 days	0
105	Removal of Sheetpiles	30 days	Mon 25/5/19	Tue 25/6/17	Mon 25/5/19	Tue 25/6/17	Mon 25/5/19	Tue 25/6/17	0 days	0
106	Temp support to 3x ex. cable bridge	45 days	Thu 25/5/29	Sat 25/7/12	Thu 25/5/29	Sat 25/7/12	Sat 26/6/13	Mon 26/7/27	380 days	4
107	Demolish & relocate porch YLL797/34,37	30 days	Thu 25/5/29	Fri 25/6/27	Thu 25/5/29	Fri 25/6/27	Thu 25/5/29	Fri 25/6/27	0 days	0
108	Demolish & relocate car body YLL797/36	30 days	Thu 25/5/29	Fri 25/6/27	Thu 25/5/29	Fri 25/6/27	Thu 25/5/29	Fri 25/6/27	0 days	0
109	Demolish & relocate godown YLL797/35	30 days	Thu 25/5/29	Fri 25/6/27	Thu 25/5/29	Fri 25/6/27	Thu 25/5/29	Fri 25/6/27	0 days	0
110	**HC07 CH.A400.00~CH.A500.00**	**131 days**	**Fri 25/6/13**	**Tue 25/10/21**	**Fri 25/6/13**	**Tue 25/10/21**	**Fri 25/6/13**	**Tue 25/10/21**	**0 days**	
111	Sheetpiling & Temp. Drainage Diversion	35 days	Fri 25/6/13	Thu 25/7/17	Fri 25/6/13	Thu 25/7/17	Fri 25/6/13	Thu 25/7/17	0 days	2
112	Excavation and Lateral Support	35 days	Mon 25/6/30	Sun 25/8/3	Mon 25/6/30	Sun 25/8/3	Mon 25/6/30	Sun 25/8/3	0 days	2
113	**Ground and Edge Beams**	**55 days**	**Thu 25/7/17**	**Tue 25/9/9**	**Thu 25/7/17**	**Tue 25/9/9**	**Thu 25/7/17**	**Tue 25/9/9**	**0 days**	
114	Install precast portion (ground beam)	40 days	Thu 25/7/17	Mon 25/8/25	Thu 25/7/17	Mon 25/8/25	Thu 25/7/17	Mon 25/8/25	0 days	0
115	Rebar Fixing	30 days	Fri 25/8/1	Sat 25/8/30	Fri 25/8/1	Sat 25/8/30	Fri 25/8/1	Sat 25/8/30	0 days	2
116	Formwork Erection and Cast-in items	30 days	Mon 25/8/11	Tue 25/9/9	Mon 25/8/11	Tue 25/9/9	Mon 25/8/11	Tue 25/9/9	0 days	2
117	Concreting	1 day	Thu 25/8/21	Thu 25/8/21	Thu 25/8/21	Thu 25/8/21	Thu 25/8/21	Thu 25/8/21	0 days	0
118	**Walls**	**40 days**	**Fri 25/8/22**	**Tue 25/9/30**	**Fri 25/8/22**	**Tue 25/9/30**	**Fri 25/8/22**	**Tue 25/9/30**	**0 days**	
119	Rebar Fixing	30 days	Fri 25/8/22	Sat 25/9/20	Fri 25/8/22	Sat 25/9/20	Fri 25/8/22	Sat 25/9/20	0 days	2
120	Formwork Erection and Cast-in items	30 days	Mon 25/9/1	Tue 25/9/30	Mon 25/9/1	Tue 25/9/30	Mon 25/9/1	Tue 25/9/30	0 days	2
121	Concreting	1 day	Thu 25/9/11	Thu 25/9/11	Thu 25/9/11	Thu 25/9/11	Thu 25/9/11	Thu 25/9/11	0 days	0
122	Backfilling and Compaction	30 days	Fri 25/9/12	Sat 25/10/11	Fri 25/9/12	Sat 25/10/11	Fri 25/9/12	Sat 25/10/11	0 days	0
123	Removal of Sheetpiles	30 days	Mon 25/9/22	Tue 25/10/21	Mon 25/9/22	Tue 25/10/21	Mon 25/9/22	Tue 25/10/21	0 days	0
124	Demolish & relocate porch, hoarding YLL797/44	30 days	Thu 25/10/2	Fri 25/10/31	Thu 25/10/2	Fri 25/10/31	Thu 25/10/2	Fri 25/10/31	0 days	0
125	Demolish & relocate porch YLL797/38,39	30 days	Thu 25/10/2	Fri 25/10/31	Thu 25/10/2	Fri 25/10/31	Thu 25/10/2	Fri 25/10/31	0 days	0
126	**HC08 CH.A500.00~CH.A546.816**	**116 days**	**Fri 25/10/17**	**Mon 26/2/9**	**Fri 25/10/17**	**Mon 26/2/9**	**Fri 25/10/17**	**Mon 26/2/9**	**0 days**	
127	Sheetpiling & Temp. Drainage Diversion	25 days	Fri 25/10/17	Mon 25/11/10	Fri 25/10/17	Mon 25/11/10	Fri 25/10/17	Mon 25/11/10	0 days	2
128	Excavation and Lateral Support	25 days	Wed 25/10/29	Sat 25/11/22	Wed 25/10/29	Sat 25/11/22	Wed 25/10/29	Sat 25/11/22	0 days	2
129	**Ground and Edge Beams**	**40 days**	**Mon 25/11/10**	**Fri 25/12/19**	**###########**	**Fri 25/12/19**	**###########**	**Fri 25/12/19**	**0 days**	
130	Install precast portion (ground beam)	30 days	Mon 25/11/10	Tue 25/12/9	Mon 25/11/10	Tue 25/12/9	Mon 25/11/10	Tue 25/12/9	0 days	0
131	Rebar Fixing	20 days	Thu 25/11/20	Tue 25/12/9	Thu 25/11/20	Tue 25/12/9	Thu 25/11/20	Tue 25/12/9	0 days	2
132	Formwork Erection and Cast-in items	20 days	Sun 25/11/30	Fri 25/12/19	Sun 25/11/30	Fri 25/12/19	Sun 25/11/30	Fri 25/12/19	0 days	2
133	Concreting	1 day	Wed 25/12/10	Wed 25/12/10	Wed 25/12/10	Wed 25/12/10	Wed 25/12/10	Wed 25/12/10	0 days	0
134	**Walls**	**30 days**	**Thu 25/12/11**	**Fri 26/1/9**	**Thu 25/12/11**	**Fri 26/1/9**	**Thu 25/12/11**	**Fri 26/1/9**	**0 days**	
135	Rebar Fixing	20 days	Thu 25/12/11	Tue 25/12/30	Thu 25/12/11	Tue 25/12/30	Thu 25/12/11	Tue 25/12/30	0 days	2
136	Formwork Erection and Cast-in items	20 days	Sun 25/12/21	Fri 26/1/9	Sun 25/12/21	Fri 26/1/9	Sun 25/12/21	Fri 26/1/9	0 days	2
137	Concreting	1 day	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	0 days	0
138	Backfilling and Compaction	30 days	Thu 26/1/1	Fri 26/1/30	Thu 26/1/1	Fri 26/1/30	Thu 26/1/1	Fri 26/1/30	0 days	0
139	Removal of Sheetpiles	30 days	Sun 26/1/11	Mon 26/2/9	Sun 26/1/11	Mon 26/2/9	Sun 26/1/11	Mon 26/2/9	0 days	0
140	Pedestrian & Vehicular Crossing no. 3 (Box Culvert no. 4)	45 days	Wed 26/1/21	Fri 26/3/6	Wed 26/1/21	Fri 26/3/6	Sat 26/6/13	Mon 26/7/27	143 days	4
141	Demolish & relocate hoarding, wall YLL797/40	30 days	Wed 26/1/21	Thu 26/2/19	Wed 26/1/21	Thu 26/2/19	Wed 26/1/21	Thu 26/2/19	0 days	0
142	Demolish & relocate storage YLL797/42	30 days	Wed 26/1/21	Thu 26/2/19	Wed 26/1/21	Thu 26/2/19	Wed 26/1/21	Thu 26/2/19	0 days	0
143	**HC09 CH.A546.816~CH.A611.404**	**92 days**	**Thu 26/2/5**	**Thu 26/5/7**	**Thu 26/2/5**	**Thu 26/5/7**	**Thu 26/2/5**	**Thu 26/5/7**	**0 days**	
144	Sheetpiling & Temp. Drainage Diversion	25 days	Thu 26/2/5	Sun 26/3/1	Thu 26/2/5	Sun 26/3/1	Thu 26/2/5	Sun 26/3/1	0 days	1
145	Excavation and Lateral Support	25 days	Sun 26/2/15	Wed 26/3/11	Sun 26/2/15	Wed 26/3/11	Sun 26/2/15	Wed 26/3/11	0 days	1
146	**Base Slab**	**35 days**	**Wed 26/2/25**	**Tue 26/3/31**	**Wed 26/2/25**	**Tue 26/3/31**	**Wed 26/2/25**	**Tue 26/3/31**	**0 days**	
147	Rebar Fixing	25 days	Wed 26/2/25	Sat 26/3/21	Wed 26/2/25	Sat 26/3/21	Wed 26/2/25	Sat 26/3/21	0 days	1
148	Formwork Erection and Cast-in items	25 days	Sat 26/3/7	Tue 26/3/31	Sat 26/3/7	Tue 26/3/31	Sat 26/3/7	Tue 26/3/31	0 days	1
149	Concreting	1 day	Tue 26/3/17	Tue 26/3/17	Tue 26/3/17	Tue 26/3/17	Tue 26/3/17	Tue 26/3/17	0 days	0
150	**Walls and Roof Slab**	**35 days**	**Wed 26/3/18**	**Tue 26/4/21**	**Wed 26/3/18**	**Tue 26/4/21**	**Wed 26/3/18**	**Tue 26/4/21**	**0 days**	
151	Rebar Fixing	25 days	Wed 26/3/18	Sat 26/4/11	Wed 26/3/18	Sat 26/4/11	Wed 26/3/18	Sat 26/4/11	0 days	1
152	Formwork Erection and Cast-in items	25 days	Sat 26/3/28	Tue 26/4/21	Sat 26/3/28	Tue 26/4/21	Sat 26/3/28	Tue 26/4/21	0 days	1
153	Concreting	1 day	Tue 26/4/7	Tue 26/4/7	Tue 26/4/7	Tue 26/4/7	Tue 26/4/7	Tue 26/4/7	0 days	0
154	Backfilling and Compaction	20 days	Wed 26/4/8	Mon 26/4/27	Wed 26/4/8	Mon 26/4/27	Wed 26/4/8	Mon 26/4/27	0 days	0
155	Removal of Sheetpiles	20 days	Sat 26/4/18	Thu 26/5/7	Sat 26/4/18	Thu 26/5/7	Sat 26/4/18	Thu 26/5/7	0 days	0
156	Facing stone	21 days	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	0 days	0
157	ABWF works	21 days	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	0 days	0
158	Bedding works	21 days	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	0 days	0
159	**Drainage Channel Works (West)**	**812 days**	**Fri 24/3/8**	**Thu 26/5/28**	**Fri 24/3/8**	**Thu 26/5/28**	**Mon 25/6/16**	**Mon 26/7/27**	**60 days**	
160	HC11 CH.A674.419~CH.A740.619 (Ex. CH Str. Assessment)	30 days	Fri 24/3/8	Sat 24/4/6	Fri 24/3/8	Sat 24/4/6	Sun 26/6/28	Mon 26/7/27	842 days	0
162	Demolish ex. Geotechnical feature 6NE-B/R19	30 days	Mon 25/6/16	Tue 25/7/15	Mon 25/6/16	Tue 25/7/15	Mon 25/6/16	Tue 25/7/15	0 days	0
163	Demolish ex. Geotechnical feature 6NE-B/R19	30 days	Mon 25/6/16	Tue 25/7/15	Mon 25/6/16	Tue 25/7/15	Mon 25/6/16	Tue 25/7/15	0 days	0
164	Demolish & relocate boundary wall, platform, gate YLL797/46	30 days	Mon 25/6/16	Tue 25/7/15	Mon 25/6/16	Tue 25/7/15	Mon 25/6/16	Tue 25/7/15	0 days	0
165	**HC12 CH.A740.619~CH.A863.619**	**190 days**	**Tue 25/7/1**	**Tue 26/1/6**	**Tue 25/7/1**	**Tue 26/1/6**	**Tue 25/7/1**	**Tue 26/1/6**	**0 days**	
166	Sheetpiling & Temp. Drainage Diversion	50 days	Tue 25/7/1	Tue 25/8/19	Tue 25/7/1	Tue 25/8/19	Tue 25/7/1	Tue 25/8/19	0 days	2
167	Excavation and Lateral Support	50 days	Sat 25/7/26	Sat 25/9/13	Sat 25/7/26	Sat 25/9/13	Sat 25/7/26	Sat 25/9/13	0 days	2
168	**Ground and Edge Beams**	**68 days**	**Wed 25/8/20**	**Sun 25/10/26**	**Wed 25/8/20**	**Sun 25/10/26**	**Wed 25/8/20**	**Sun 25/10/26**	**0 days**	
169	Install precast portion (ground beam)	50 days	Wed 25/8/20	Wed 25/10/8	Wed 25/8/20	Wed 25/10/8	Wed 25/8/20	Wed 25/10/8	0 days	0
170	Rebar Fixing	36 days	Tue 25/9/9	Tue 25/10/14	Tue 25/9/9	Tue 25/10/14	Tue 25/9/9	Tue 25/10/14	0 days	2
171	Formwork Erection and Cast-in items	36 days	Sun 25/9/21	Sun 25/10/26	Sun 25/9/21	Sun 25/10/26	Sun 25/9/21	Sun 25/10/26	0 days	2
172	Concreting	1 day	Fri 25/10/3	Fri 25/10/3	Fri 25/10/3	Fri 25/10/3	Fri 25/10/3	Fri 25/10/3	0 days	0
173	**Walls**	**48 days**	**Sat 25/10/4**	**Thu 25/11/20**	**Sat 25/10/4**	**Thu 25/11/20**	**Sat 25/10/4**	**Thu 25/11/20**	**0 days**	
174	Rebar Fixing	36 days	Sat 25/10/4	Sat 25/11/8	Sat 25/10/4	Sat 25/11/8	Sat 25/10/4	Sat 25/11/8	0 days	2

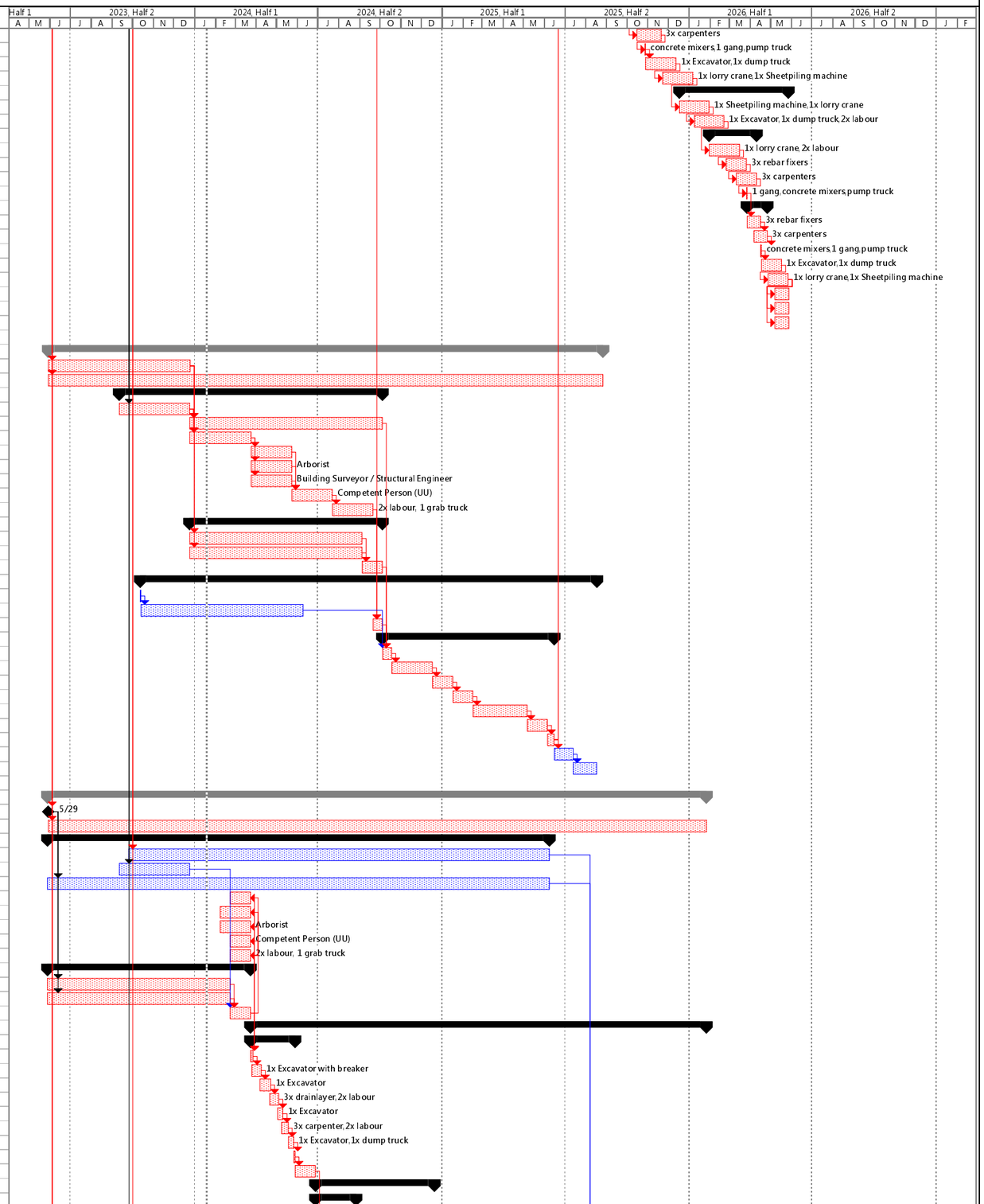


Revision.: 4.0	Date: 31 December 2023	´Task	Progress	Summary	Rolled Up Critical Task	Rolled Up Progress	External Tasks
		Critical Task	Milestone	Rolled Up Task	Rolled Up Milestone	Split	Project Summary
		Group By Summary	Deadline				

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
175	Formwork Erection and Cast-in items	36 days	Thu 25/10/16	Thu 25/11/20	Thu 25/10/16	Thu 25/11/20	Thu 25/10/16	Thu 25/11/20	0 days	2
176	Concreting	1 day	Tue 25/10/28	Tue 25/10/28	Tue 25/10/28	Tue 25/10/28	Tue 25/10/28	Tue 25/10/28	0 days	0
177	Backfilling and Compaction	45 days	Wed 25/10/29	Fri 25/12/12	Wed 25/10/29	Fri 25/12/12	Wed 25/10/29	Fri 25/12/12	0 days	0
178	Removal of Sheetpiles	45 days	Sun 25/11/23	Tue 26/1/6	Sun 25/11/23	Tue 26/1/6	Sun 25/11/23	Tue 26/1/6	0 days	0
179	**HC13 CH.A863.619~ CH.A905.630**	**161 days**	**Thu 25/12/18**	**Wed 26/5/27**	**Thu 25/12/18**	**Wed 26/5/27**	**Thu 25/12/18**	**Wed 26/5/27**	**0 days**	
180	Sheetpiling & Temp. Drainage Diversion	44 days	Thu 25/12/18	Fri 26/1/30	Thu 25/12/18	Fri 26/1/30	Thu 25/12/18	Fri 26/1/30	0 days	2
181	Excavation and Lateral Support	44 days	Fri 26/1/9	Sat 26/2/21	Fri 26/1/9	Sat 26/2/21	Fri 26/1/9	Sat 26/2/21	0 days	2
182	**Ground and Edge Beams**	**70 days**	**Sat 26/1/31**	**Fri 26/4/10**	**Sat 26/1/31**	**Fri 26/4/10**	**Sat 26/1/31**	**Fri 26/4/10**	**0 days**	
183	Install precast portion (ground beam)	45 days	Sat 26/1/31	Mon 26/3/16	Sat 26/1/31	Mon 26/3/16	Sat 26/1/31	Mon 26/3/16	0 days	0
184	Rebar Fixing	30 days	Wed 26/2/25	Thu 26/3/26	Wed 26/2/25	Thu 26/3/26	Wed 26/2/25	Thu 26/3/26	0 days	2
185	Formwork Erection and Cast-in items	30 days	Thu 26/3/12	Fri 26/4/10	Thu 26/3/12	Fri 26/4/10	Thu 26/3/12	Fri 26/4/10	0 days	2
186	Concreting	1 day	Fri 26/3/27	Fri 26/3/27	Fri 26/3/27	Fri 26/3/27	Fri 26/3/27	Fri 26/3/27	0 days	0
187	**Walls**	**30 days**	**Sat 26/3/28**	**Sun 26/4/26**	**Sat 26/3/28**	**Sun 26/4/26**	**Sat 26/3/28**	**Sun 26/4/26**	**0 days**	
188	Rebar Fixing	20 days	Sat 26/3/28	Thu 26/4/16	Sat 26/3/28	Thu 26/4/16	Sat 26/3/28	Thu 26/4/16	0 days	2
189	Formwork Erection and Cast-in items	20 days	Tue 26/4/7	Sun 26/4/26	Tue 26/4/7	Sun 26/4/26	Tue 26/4/7	Sun 26/4/26	0 days	2
190	Concreting	1 day	Fri 26/4/17	Fri 26/4/17	Fri 26/4/17	Fri 26/4/17	Fri 26/4/17	Fri 26/4/17	0 days	0
191	Backfilling and Compaction	30 days	Sat 26/4/18	Sun 26/5/17	Sat 26/4/18	Sun 26/5/17	Sat 26/4/18	Sun 26/5/17	0 days	0
192	Removal of Sheetpiles	30 days	Tue 26/4/28	Wed 26/5/27	Tue 26/4/28	Wed 26/5/27	Tue 26/4/28	Wed 26/5/27	0 days	0
193	Facing stone	21 days	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	0 days	0
194	ABWF works	21 days	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	0 days	0
195	Bedding works	21 days	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	Fri 26/5/8	Thu 26/5/28	0 days	0
83										
84	**Section VII**	**820 days**	**Tue 23/5/30**	**Tue 25/8/26**	**Tue 23/5/30**	**Tue 25/8/26**	**Tue 23/5/30**	**Tue 25/8/26**	**0 days**	
2	access date of Portion D	210 days	Tue 23/5/30	Mon 23/12/25	Tue 23/5/30	Mon 23/12/25	Tue 23/5/30	Mon 23/12/25	0 days	0
3	section VII (Ha Che - Fam Kam Road)	820 days	Tue 23/5/30	Tue 25/8/26	Tue 23/5/30	Tue 25/8/26	Tue 23/5/30	Tue 25/8/26	0 days	0
4	**Site Establishment**	**389 days**	**Tue 23/9/12**	**Fri 24/10/4**	**Tue 23/9/12**	**Fri 24/10/4**	**Tue 23/9/12**	**Fri 24/10/4**	**0 days**	
5	Public Liaison and Negotiation with Village Rep. [A]	104 days	Tue 23/9/12	Sun 23/12/24	Tue 23/9/12	Sun 23/12/24	Tue 23/9/12	Sun 23/12/24	0 days	0
6	Initial Survey	285 days	Mon 23/12/25	Fri 24/10/4	Mon 23/12/25	Fri 24/10/4	Mon 23/12/25	Fri 24/10/4	0 days	0
8	Initial Safety & Environmental measures	91 days	Mon 23/12/25	Sun 24/3/24	Mon 23/12/25	Sun 24/3/24	Mon 23/12/25	Sun 24/3/24	0 days	0
9	Setup of instrumentation and monitoring	60 days	Mon 24/3/25	Thu 24/5/23	Mon 24/3/25	Thu 24/5/23	Mon 24/3/25	Thu 24/5/23	0 days	0
10	Tree Survey	60 days	Mon 24/3/25	Thu 24/5/23	Mon 24/3/25	Thu 24/5/23	Mon 24/3/25	Thu 24/5/23	0 days	0
11	Condition Survey	60 days	Mon 24/3/25	Thu 24/5/23	Mon 24/3/25	Thu 24/5/23	Mon 24/3/25	Thu 24/5/23	0 days	0
12	UU detection	60 days	Fri 24/5/24	Mon 24/7/22	Fri 24/5/24	Mon 24/7/22	Fri 24/5/24	Mon 24/7/22	0 days	0
13	Site Clearance	60 days	Tue 24/7/23	Fri 24/9/20	Tue 24/7/23	Fri 24/9/20	Tue 24/7/23	Fri 24/9/20	0 days	0
14	**Temporary Traffic Arrangement**	**285 days**	**Mon 23/12/25**	**Fri 24/10/4**	**##########**	**Fri 24/10/4**	**##########**	**Fri 24/10/4**	**0 days**	
15	Application of XP	255 days	Mon 23/12/25	Wed 24/9/4	Mon 23/12/25	Wed 24/9/4	Mon 23/12/25	Wed 24/9/4	0 days	0
16	Submission of TTA and Arrange TMLG	255 days	Mon 23/12/25	Wed 24/9/4	Mon 23/12/25	Wed 24/9/4	Mon 23/12/25	Wed 24/9/4	0 days	0
17	Approval of TTA	30 days	Thu 24/9/5	Fri 24/10/4	Thu 24/9/5	Fri 24/10/4	Thu 24/9/5	Fri 24/10/4	0 days	0
18	**Drain Laying Works**	**675 days**	**Fri 23/10/13**	**Sun 25/8/17**	**Fri 23/10/13**	**Sun 25/8/17**	**Wed 24/2/7**	**Tue 25/8/26**	**9 days**	
19	EWN/002 Insufficient space for Twin pipes	1 day	Fri 23/10/13	Fri 23/10/13	Fri 23/10/13	Fri 23/10/13	Wed 24/2/7	Wed 24/2/7	117 days	0
20	Temp. Works Design for alternative method	240 days	Sat 23/10/14	Sun 24/6/9	Sat 23/10/14	Sun 24/6/9	Thu 24/2/8	Fri 24/10/4	117 days	0
22	Protection to ex. Dongjiang Water Main	14 days	Sat 24/9/21	Fri 24/10/4	Sat 24/9/21	Fri 24/10/4	Sat 24/9/21	Fri 24/10/4	0 days	0
23	**HC10 CH.A611.404~ CH.A674.419 (Fan Kam Road)**	**254 days**	**Sat 24/10/5**	**Sun 25/6/15**	**Sat 24/10/5**	**Sun 25/6/15**	**Sat 24/10/5**	**Sun 25/6/15**	**0 days**	
24	Mobilisation of plant	14 days	Sat 24/10/5	Fri 24/10/18	Sat 24/10/5	Fri 24/10/18	Sat 24/10/5	Fri 24/10/18	0 days	0
25	Installation of pipe roofing	60 days	Sat 24/10/19	Tue 24/12/17	Sat 24/10/19	Tue 24/12/17	Sat 24/10/19	Tue 24/12/17	0 days	10
26	Demolition of existing drainage structure	30 days	Wed 24/12/18	Thu 25/1/16	Wed 24/12/18	Thu 25/1/16	Wed 24/12/18	Thu 25/1/16	0 days	3
27	Installation of temporary support	30 days	Fri 25/1/17	Sat 25/2/15	Fri 25/1/17	Sat 25/2/15	Fri 25/1/17	Sat 25/2/15	0 days	5
28	Construction of alternative box-culvert	80 days	Sun 25/2/16	Tue 25/5/6	Sun 25/2/16	Tue 25/5/6	Sun 25/2/16	Tue 25/5/6	0 days	10
29	Removal of temporary support	30 days	Wed 25/5/7	Thu 25/6/5	Wed 25/5/7	Thu 25/6/5	Wed 25/5/7	Thu 25/6/5	0 days	3
30	Demoblisation	10 days	Fri 25/6/6	Sun 25/6/15	Fri 25/6/6	Sun 25/6/15	Fri 25/6/6	Sun 25/6/15	0 days	0
34	CCTV inspection	28 days	Mon 25/6/16	Sun 25/7/13	Mon 25/6/16	Sun 25/7/13	Wed 25/6/25	Tue 25/7/22	9 days	4
35	Reinstatement	35 days	Mon 25/7/14	Sun 25/8/17	Mon 25/7/14	Sun 25/8/17	Wed 25/7/23	Tue 25/8/26	9 days	5
85										
86	**Section V**	**974 days**	**Mon 23/5/29**	**Mon 26/1/26**	**Mon 23/5/29**	**Mon 26/1/26**	**Mon 23/5/29**	**Mon 26/7/27**	**0 days**	
2	access date of Portion E1	0 days	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	Mon 23/5/29	0 days	0
3	section V (Shan Ha Tsuen - Shan Ha Road)	973 days	Tue 23/5/30	Mon 26/1/26	Tue 23/5/30	Mon 26/1/26	Tue 23/5/30	Mon 26/1/26	0 days	0
4	**Site Establishment**	**742 days**	**Mon 23/5/29**	**Sun 25/6/8**	**Mon 23/5/29**	**Sun 25/6/8**	**Fri 23/7/28**	**Thu 25/8/7**	**60 days**	
5	Prepare and Accept Temp. Works Design and Method Statement	622 days	Tue 23/9/26	Sun 25/6/8	Tue 23/9/26	Sun 25/6/8	Sat 23/11/25	Thu 25/8/7	60 days	0
6	Public Liaison and Negotiation with Village Rep. [A]	104 days	Tue 23/9/12	Sun 23/12/24	Tue 23/9/12	Sun 23/12/24	Sat 23/11/11	Thu 24/2/22	60 days	0
7	Initial Survey	742 days	Mon 23/5/29	Sun 25/6/8	Mon 23/5/29	Sun 25/6/8	Fri 23/7/28	Thu 25/8/7	60 days	0
9	Initial Safety & Environmental measures	30 days	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	0 days	0
11	Setup of instrumentation and monitoring	45 days	Thu 24/2/8	Sat 24/3/23	Thu 24/2/8	Sat 24/3/23	Thu 24/2/8	Sat 24/3/23	0 days	0
12	Tree Survey	45 days	Thu 24/2/8	Sat 24/3/23	Thu 24/2/8	Sat 24/3/23	Thu 24/2/8	Sat 24/3/23	0 days	0
13	UU detection	30 days	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	0 days	0
14	Site Clearance	30 days	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	0 days	0
15	**Temporary Traffic Arrangement**	**300 days**	**Mon 23/5/29**	**Sat 24/3/23**	**Mon 23/5/29**	**Sat 24/3/23**	**Mon 23/5/29**	**Sat 24/3/23**	**0 days**	
16	Application of XP	270 days	Mon 23/5/29	Thu 24/2/22	Mon 23/5/29	Thu 24/2/22	Mon 23/5/29	Thu 24/2/22	0 days	0
17	Submission of TTA and Arrange TMLG	270 days	Mon 23/5/29	Thu 24/2/22	Mon 23/5/29	Thu 24/2/22	Mon 23/5/29	Thu 24/2/22	0 days	0
18	Approval of TTA	30 days	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	Fri 24/2/23	Sat 24/3/23	0 days	0
19	**Drain Laying Works**	**674 days**	**Sun 24/3/24**	**Mon 26/1/26**	**Sun 24/3/24**	**Mon 26/1/26**	**Sun 24/3/24**	**Mon 26/1/26**	**0 days**	
20	**SHT.A05~ SHT.A06A 1500PC,B,L=13.12,D=3.15**	**66 days**	**Sun 24/3/24**	**Tue 24/5/28**	**Sun 24/3/24**	**Tue 24/5/28**	**Sun 24/3/24**	**Tue 24/5/28**	**0 days**	
21	TTA Implementation	4 days	Sun 24/3/24	Wed 24/3/27	Sun 24/3/24	Wed 24/3/27	Sun 24/3/24	Wed 24/3/27	0 days	0
22	Breaking Ground	14 days	Tue 24/3/26	Mon 24/4/8	Tue 24/3/26	Mon 24/4/8	Tue 24/3/26	Mon 24/4/8	0 days	1
23	Excavation and Lateral Support	16 days	Sun 24/4/7	Mon 24/4/22	Sun 24/4/7	Mon 24/4/22	Sun 24/4/7	Mon 24/4/22	0 days	2
24	Drain Laying	14 days	Sun 24/4/21	Sat 24/5/4	Sun 24/4/21	Sat 24/5/4	Sun 24/4/21	Sat 24/5/4	0 days	2
25	Bedding and Backfilling	8 days	Fri 24/5/3	Fri 24/5/10	Fri 24/5/3	Fri 24/5/10	Fri 24/5/3	Fri 24/5/10	0 days	0
26	Manhole Construction	10 days	Thu 24/5/9	Sat 24/5/18	Thu 24/5/9	Sat 24/5/18	Thu 24/5/9	Sat 24/5/18	0 days	1
27	Reinstatement	8 days	Sun 24/5/19	Sun 24/5/26	Sun 24/5/19	Sun 24/5/26	Sun 24/5/19	Sun 24/5/26	0 days	0
28	TTA Removal	2 days	Mon 24/5/27	Tue 24/5/28	Mon 24/5/27	Tue 24/5/28	Mon 24/5/27	Tue 24/5/28	0 days	0
29	Connection of ex. 900pipe to SHT.A06A	30 days	Wed 24/5/29	Thu 24/6/27	Wed 24/5/29	Thu 24/6/27	Wed 24/5/29	Thu 24/6/27	0 days	0
30	**SHT.A04~ SHT.A05,1500PC,B,L=81.31,D=3.44**	**176 days**	**Fri 24/6/28**	**Fri 24/12/20**	**Fri 24/6/28**	**Fri 24/12/20**	**Fri 24/6/28**	**Fri 24/12/20**	**0 days**	
31	**Stage 1**	**60 days**	**Fri 24/6/28**	**Mon 24/8/26**	**Fri 24/6/28**	**Mon 24/8/26**	**Fri 24/6/28**	**Mon 24/8/26**	**0 days**	



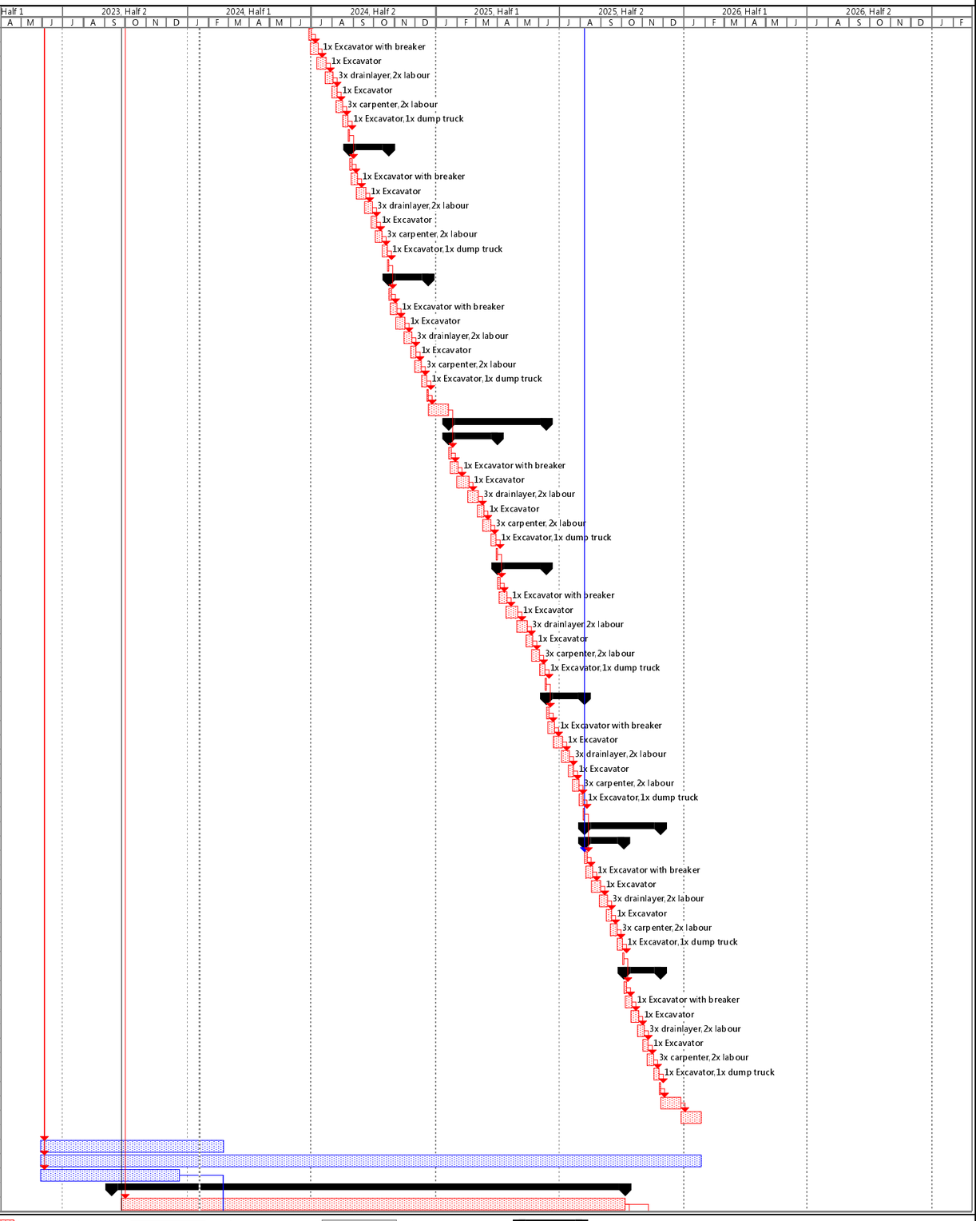
Revision.: 4.0 Date: 31 December 2023

´Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
32	TTA Implementation	4 days	Fri 24/6/28	Mon 24/7/1	Fri 24/6/28	Mon 24/7/1	Fri 24/6/28	Mon 24/7/1	0 days	0
33	Breaking Ground	12 days	Sun 24/6/30	Thu 24/7/11	Sun 24/6/30	Thu 24/7/11	Sun 24/6/30	Thu 24/7/11	0 days	1
34	Excavation and Lateral Support	14 days	Wed 24/7/10	Tue 24/7/23	Wed 24/7/10	Tue 24/7/23	Wed 24/7/10	Tue 24/7/23	0 days	2
35	Drain Laying	12 days	Mon 24/7/22	Fri 24/8/2	Mon 24/7/22	Fri 24/8/2	Mon 24/7/22	Fri 24/8/2	0 days	2
36	Bedding and Backfilling	8 days	Thu 24/8/1	Thu 24/8/8	Thu 24/8/1	Thu 24/8/8	Thu 24/8/1	Thu 24/8/8	0 days	0
37	Manhole Construction	10 days	Wed 24/8/7	Fri 24/8/16	Wed 24/8/7	Fri 24/8/16	Wed 24/8/7	Fri 24/8/16	0 days	1
38	Reinstatement	8 days	Sat 24/8/17	Sat 24/8/24	Sat 24/8/17	Sat 24/8/24	Sat 24/8/17	Sat 24/8/24	0 days	0
39	TTA Removal	2 days	Sun 24/8/25	Mon 24/8/26	Sun 24/8/25	Mon 24/8/26	Sun 24/8/25	Mon 24/8/26	0 days	0
40	**Stage 2**	**58 days**	**Tue 24/8/27**	**Wed 24/10/23**	**Tue 24/8/27**	**Wed 24/10/23**	**Tue 24/8/27**	**Wed 24/10/23**	**0 days**	
41	TTA Implementation	4 days	Tue 24/8/27	Fri 24/8/30	Tue 24/8/27	Fri 24/8/30	Tue 24/8/27	Fri 24/8/30	0 days	0
42	Breaking Ground	10 days	Thu 24/8/29	Sat 24/9/7	Thu 24/8/29	Sat 24/9/7	Thu 24/8/29	Sat 24/9/7	0 days	1
43	Excavation and Lateral Support	14 days	Fri 24/9/6	Thu 24/9/19	Fri 24/9/6	Thu 24/9/19	Fri 24/9/6	Thu 24/9/19	0 days	2
44	Drain Laying	12 days	Wed 24/9/18	Sun 24/9/29	Wed 24/9/18	Sun 24/9/29	Wed 24/9/18	Sun 24/9/29	0 days	2
45	Bedding and Backfilling	8 days	Sat 24/9/28	Sat 24/10/5	Sat 24/9/28	Sat 24/10/5	Sat 24/9/28	Sat 24/10/5	0 days	0
46	Manhole Construction	10 days	Fri 24/10/4	Sun 24/10/13	Fri 24/10/4	Sun 24/10/13	Fri 24/10/4	Sun 24/10/13	0 days	1
47	Reinstatement	8 days	Mon 24/10/14	Mon 24/10/21	Mon 24/10/14	Mon 24/10/21	Mon 24/10/14	Mon 24/10/21	0 days	0
48	TTA Removal	2 days	Tue 24/10/22	Wed 24/10/23	Tue 24/10/22	Wed 24/10/23	Tue 24/10/22	Wed 24/10/23	0 days	0
49	**Stage 3**	**58 days**	**Thu 24/10/24**	**Fri 24/12/20**	**Thu 24/10/24**	**Fri 24/12/20**	**Thu 24/10/24**	**Fri 24/12/20**	**0 days**	
50	TTA Implementation	4 days	Thu 24/10/24	Sun 24/10/27	Thu 24/10/24	Sun 24/10/27	Thu 24/10/24	Sun 24/10/27	0 days	0
51	Breaking Ground	10 days	Sat 24/10/26	Mon 24/11/4	Sat 24/10/26	Mon 24/11/4	Sat 24/10/26	Mon 24/11/4	0 days	1
52	Excavation and Lateral Support	14 days	Sun 24/11/3	Sat 24/11/16	Sun 24/11/3	Sat 24/11/16	Sun 24/11/3	Sat 24/11/16	0 days	2
53	Drain Laying	12 days	Fri 24/11/15	Tue 24/11/26	Fri 24/11/15	Tue 24/11/26	Fri 24/11/15	Tue 24/11/26	0 days	2
54	Bedding and Backfilling	8 days	Mon 24/11/25	Mon 24/12/2	Mon 24/11/25	Mon 24/12/2	Mon 24/11/25	Mon 24/12/2	0 days	0
55	Manhole Construction	10 days	Sun 24/12/1	Tue 24/12/10	Sun 24/12/1	Tue 24/12/10	Sun 24/12/1	Tue 24/12/10	0 days	1
56	Reinstatement	8 days	Wed 24/12/11	Wed 24/12/18	Wed 24/12/11	Wed 24/12/18	Wed 24/12/11	Wed 24/12/18	0 days	0
57	TTA Removal	2 days	Thu 24/12/19	Fri 24/12/20	Thu 24/12/19	Fri 24/12/20	Thu 24/12/19	Fri 24/12/20	0 days	0
58	Connection of ex. 900pipe to SHT.A05	30 days	Sat 24/12/21	Sun 25/1/19	Sat 24/12/21	Sun 25/1/19	Sat 24/12/21	Sun 25/1/19	0 days	0
59	**SHT.A3A~SHT.A04,1500PC,B,L=49.29,D=3.65**	**144 days**	**Mon 25/1/20**	**Thu 25/6/12**	**Mon 25/1/20**	**Thu 25/6/12**	**Mon 25/1/20**	**Thu 25/6/12**	**0 days**	
60	**Stage 1**	**72 days**	**Mon 25/1/20**	**Tue 25/4/1**	**Mon 25/1/20**	**Tue 25/4/1**	**Mon 25/1/20**	**Tue 25/4/1**	**0 days**	
61	TTA Implementation	4 days	Mon 25/1/20	Thu 25/1/23	Mon 25/1/20	Thu 25/1/23	Mon 25/1/20	Thu 25/1/23	0 days	0
62	Breaking Ground	12 days	Wed 25/1/22	Sun 25/2/2	Wed 25/1/22	Sun 25/2/2	Wed 25/1/22	Sun 25/2/2	0 days	1
63	Excavation and Lateral Support	18 days	Sat 25/2/1	Tue 25/2/18	Sat 25/2/1	Tue 25/2/18	Sat 25/2/1	Tue 25/2/18	0 days	2
64	Drain Laying	16 days	Mon 25/2/17	Tue 25/3/4	Mon 25/2/17	Tue 25/3/4	Mon 25/2/17	Tue 25/3/4	0 days	2
65	Bedding and Backfilling	10 days	Mon 25/3/3	Wed 25/3/12	Mon 25/3/3	Wed 25/3/12	Mon 25/3/3	Wed 25/3/12	0 days	0
66	Manhole Construction	12 days	Tue 25/3/11	Sat 25/3/22	Tue 25/3/11	Sat 25/3/22	Tue 25/3/11	Sat 25/3/22	0 days	1
67	Reinstatement	8 days	Sun 25/3/23	Sun 25/3/30	Sun 25/3/23	Sun 25/3/30	Sun 25/3/23	Sun 25/3/30	0 days	0
68	TTA Removal	2 days	Mon 25/3/31	Tue 25/4/1	Mon 25/3/31	Tue 25/4/1	Mon 25/3/31	Tue 25/4/1	0 days	0
69	**Stage 2**	**72 days**	**Wed 25/4/2**	**Thu 25/6/12**	**Wed 25/4/2**	**Thu 25/6/12**	**Wed 25/4/2**	**Thu 25/6/12**	**0 days**	
70	TTA Implementation	4 days	Wed 25/4/2	Sat 25/4/5	Wed 25/4/2	Sat 25/4/5	Wed 25/4/2	Sat 25/4/5	0 days	0
71	Breaking Ground	12 days	Fri 25/4/4	Tue 25/4/15	Fri 25/4/4	Tue 25/4/15	Fri 25/4/4	Tue 25/4/15	0 days	1
72	Excavation and Lateral Support	18 days	Mon 25/4/14	Thu 25/5/1	Mon 25/4/14	Thu 25/5/1	Mon 25/4/14	Thu 25/5/1	0 days	2
73	Drain Laying	16 days	Wed 25/4/30	Thu 25/5/15	Wed 25/4/30	Thu 25/5/15	Wed 25/4/30	Thu 25/5/15	0 days	2
74	Bedding and Backfilling	10 days	Wed 25/5/14	Fri 25/5/23	Wed 25/5/14	Fri 25/5/23	Wed 25/5/14	Fri 25/5/23	0 days	0
75	Manhole Construction	12 days	Thu 25/5/22	Mon 25/6/2	Thu 25/5/22	Mon 25/6/2	Thu 25/5/22	Mon 25/6/2	0 days	1
76	Reinstatement	8 days	Tue 25/6/3	Tue 25/6/10	Tue 25/6/3	Tue 25/6/10	Tue 25/6/3	Tue 25/6/10	0 days	0
77	TTA Removal	2 days	Wed 25/6/11	Thu 25/6/12	Wed 25/6/11	Thu 25/6/12	Wed 25/6/11	Thu 25/6/12	0 days	0
78	**SHT.A03~SHT.A3A,1500PC,B,L=8.59,D=3.65**	**56 days**	**Fri 25/6/13**	**Thu 25/8/7**	**Fri 25/6/13**	**Thu 25/8/7**	**Fri 25/6/13**	**Thu 25/8/7**	**0 days**	
79	TTA Implementation	4 days	Fri 25/6/13	Mon 25/6/16	Fri 25/6/13	Mon 25/6/16	Fri 25/6/13	Mon 25/6/16	0 days	0
80	Breaking Ground	10 days	Sun 25/6/15	Tue 25/6/24	Sun 25/6/15	Tue 25/6/24	Sun 25/6/15	Tue 25/6/24	0 days	1
81	Excavation and Lateral Support	14 days	Mon 25/6/23	Sun 25/7/6	Mon 25/6/23	Sun 25/7/6	Mon 25/6/23	Sun 25/7/6	0 days	2
82	Drain Laying	12 days	Sat 25/7/5	Wed 25/7/16	Sat 25/7/5	Wed 25/7/16	Sat 25/7/5	Wed 25/7/16	0 days	2
83	Bedding and Backfilling	8 days	Tue 25/7/15	Tue 25/7/22	Tue 25/7/15	Tue 25/7/22	Tue 25/7/15	Tue 25/7/22	0 days	0
84	Manhole Construction	10 days	Mon 25/7/21	Wed 25/7/30	Mon 25/7/21	Wed 25/7/30	Mon 25/7/21	Wed 25/7/30	0 days	1
85	Reinstatement	6 days	Thu 25/7/31	Tue 25/8/5	Thu 25/7/31	Tue 25/8/5	Thu 25/7/31	Tue 25/8/5	0 days	0
86	TTA Removal	2 days	Wed 25/8/6	Thu 25/8/7	Wed 25/8/6	Thu 25/8/7	Wed 25/8/6	Thu 25/8/7	0 days	0
87	**SHT.A02~SHT.A03,1500PC,T,L=32.82,D=3.6**	**112 days**	**Fri 25/8/8**	**Thu 25/11/27**	**Fri 25/8/8**	**Thu 25/11/27**	**Fri 25/8/8**	**Thu 25/11/27**	**0 days**	
88	**Stage 1**	**58 days**	**Fri 25/8/8**	**Sat 25/10/4**	**Fri 25/8/8**	**Sat 25/10/4**	**Fri 25/8/8**	**Sat 25/10/4**	**0 days**	
89	TTA Implementation	4 days	Fri 25/8/8	Mon 25/8/11	Fri 25/8/8	Mon 25/8/11	Fri 25/8/8	Mon 25/8/11	0 days	0
90	Breaking Ground	10 days	Sun 25/8/10	Tue 25/8/19	Sun 25/8/10	Tue 25/8/19	Sun 25/8/10	Tue 25/8/19	0 days	1
91	Excavation and Lateral Support	14 days	Mon 25/8/18	Sun 25/8/31	Mon 25/8/18	Sun 25/8/31	Mon 25/8/18	Sun 25/8/31	0 days	2
92	Drain Laying	12 days	Sat 25/8/30	Wed 25/9/10	Sat 25/8/30	Wed 25/9/10	Sat 25/8/30	Wed 25/9/10	0 days	2
93	Bedding and Backfilling	8 days	Tue 25/9/9	Tue 25/9/16	Tue 25/9/9	Tue 25/9/16	Tue 25/9/9	Tue 25/9/16	0 days	0
94	Manhole Construction	10 days	Mon 25/9/15	Wed 25/9/24	Mon 25/9/15	Wed 25/9/24	Mon 25/9/15	Wed 25/9/24	0 days	1
95	Reinstatement	8 days	Thu 25/9/25	Thu 25/10/2	Thu 25/9/25	Thu 25/10/2	Thu 25/9/25	Thu 25/10/2	0 days	0
96	TTA Removal	2 days	Fri 25/10/3	Sat 25/10/4	Fri 25/10/3	Sat 25/10/4	Fri 25/10/3	Sat 25/10/4	0 days	0
97	**Stage 2**	**54 days**	**Sun 25/10/5**	**Thu 25/11/27**	**Sun 25/10/5**	**Thu 25/11/27**	**Sun 25/10/5**	**Thu 25/11/27**	**0 days**	
98	TTA Implementation	4 days	Sun 25/10/5	Wed 25/10/8	Sun 25/10/5	Wed 25/10/8	Sun 25/10/5	Wed 25/10/8	0 days	0
99	Breaking Ground	10 days	Tue 25/10/7	Thu 25/10/16	Tue 25/10/7	Thu 25/10/16	Tue 25/10/7	Thu 25/10/16	0 days	0
100	Excavation and Lateral Support	12 days	Wed 25/10/15	Sun 25/10/26	Wed 25/10/15	Sun 25/10/26	Wed 25/10/15	Sun 25/10/26	0 days	2
101	Drain Laying	10 days	Sat 25/10/25	Mon 25/11/3	Sat 25/10/25	Mon 25/11/3	Sat 25/10/25	Mon 25/11/3	0 days	2
102	Bedding and Backfilling	8 days	Sun 25/11/2	Sun 25/11/9	Sun 25/11/2	Sun 25/11/9	Sun 25/11/2	Sun 25/11/9	0 days	0
103	Manhole Construction	10 days	Sat 25/11/8	Mon 25/11/17	Sat 25/11/8	Mon 25/11/17	Sat 25/11/8	Mon 25/11/17	0 days	0
104	Reinstatement	8 days	Tue 25/11/18	Tue 25/11/25	Tue 25/11/18	Tue 25/11/25	Tue 25/11/18	Tue 25/11/25	0 days	0
105	TTA Removal	2 days	Wed 25/11/26	Thu 25/11/27	Wed 25/11/26	Thu 25/11/27	Wed 25/11/26	Thu 25/11/27	0 days	0
106	CCTV inspection	30 days	Fri 25/11/28	Sat 25/12/27	Fri 25/11/28	Sat 25/12/27	Fri 25/11/28	Sat 25/12/27	0 days	0
107	Reinstatement	30 days	Sun 25/12/28	Mon 26/1/26	Sun 25/12/28	Mon 26/1/26	Sun 25/12/28	Mon 26/1/26	0 days	0
108										
109	access date of Portion E2	270 days	Tue 23/5/30	Fri 24/2/23	Tue 23/5/30	Fri 24/2/23	Fri 25/10/31	Mon 26/7/27	885 days	0
110	section V (Shan Ha Tsuen)	973 days	Tue 23/5/30	Mon 26/1/26	Tue 23/5/30	Mon 26/1/26	Tue 23/11/28	Mon 26/7/27	182 days	0
111	Early Access (partial) [A]	205 days	Tue 23/5/30	Wed 23/12/20	Tue 23/5/30	Wed 23/12/20	Thu 23/8/3	Fri 24/2/23	65 days	0
112	**Site Establishment**	**756 days**	**Tue 23/9/12**	**Mon 25/10/6**	**Tue 23/9/12**	**Mon 25/10/6**	**Tue 23/9/12**	**Wed 25/11/12**	**0 days**	
113	Prepare and Accept Temp. Works Design and Method Statement	742 days	Tue 23/9/26	Mon 25/10/6	Tue 23/9/26	Mon 25/10/6	Tue 23/9/26	Mon 25/10/6	0 days	0



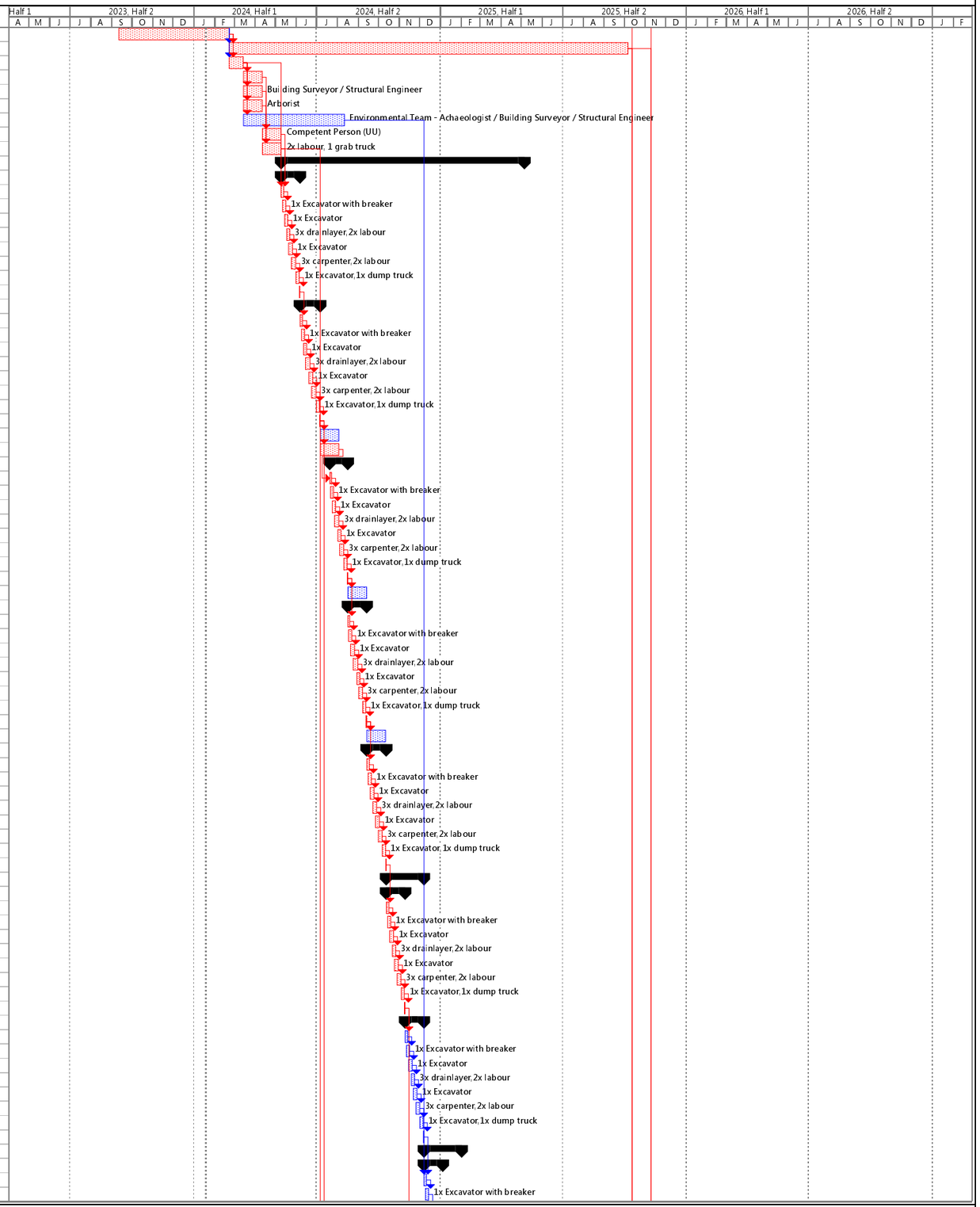
Revision.: 4.0 Date: 31 December 2023

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
114	Public Liaison and Negotiation with Village Rep.	164 days	Tue 23/9/12	Thu 24/2/22	Tue 23/9/12	Thu 24/2/22	Tue 23/9/12	Thu 24/2/22	0 days	0
115	Initial Survey	592 days	Fri 24/2/23	Mon 25/10/6	Fri 24/2/23	Mon 25/10/6	Fri 24/2/23	Mon 25/10/6	0 days	0
116	Initial Safety & Environmental measures	21 days	Fri 24/2/23	Thu 24/3/14	Fri 24/2/23	Thu 24/3/14	Fri 24/2/23	Thu 24/3/14	0 days	0
117	Setup of instrumentation and monitoring	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
118	Condition Survey	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
119	Tree Survey	28 days	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	Fri 24/3/15	Thu 24/4/11	0 days	0
120	Built Heritage Survey	150 days	Fri 24/3/15	Sun 24/8/11	Fri 24/3/15	Sun 24/8/11	Mon 25/6/16	Wed 25/11/12	458 days	0
121	UU detection	28 days	Fri 24/4/12	Thu 24/5/9	Fri 24/4/12	Thu 24/5/9	Fri 24/4/12	Thu 24/5/9	0 days	0
122	Site Clearance	28 days	Fri 24/4/12	Thu 24/5/9	Fri 24/4/12	Thu 24/5/9	Fri 24/4/12	Thu 24/5/9	0 days	0
123	**Drain Laying Works (West)**	**361 days**	**Fri 24/5/10**	**Mon 25/5/5**	**Fri 24/5/10**	**Mon 25/5/5**	**Fri 24/5/10**	**Mon 26/7/27**	**0 days**	
124	**SHT.A01~ SHT.A02,1500PC,B,L=8.39,D=3.6**	**28 days**	**Fri 24/5/10**	**Thu 24/6/6**	**Fri 24/5/10**	**Thu 24/6/6**	**Fri 24/5/10**	**Thu 24/6/6**	**0 days**	
125	TTA implementation	4 days	Fri 24/5/10	Mon 24/5/13	Fri 24/5/10	Mon 24/5/13	Fri 24/5/10	Mon 24/5/13	0 days	0
126	Breaking pavement	5 days	Sun 24/5/12	Thu 24/5/16	Sun 24/5/12	Thu 24/5/16	Sun 24/5/12	Thu 24/5/16	0 days	0
127	Excavation and Lateral Support	5 days	Wed 24/5/15	Sun 24/5/19	Wed 24/5/15	Sun 24/5/19	Wed 24/5/15	Sun 24/5/19	0 days	0
128	Drain Laying	5 days	Sat 24/5/18	Wed 24/5/22	Sat 24/5/18	Wed 24/5/22	Sat 24/5/18	Wed 24/5/22	0 days	0
129	Bedding and Backfilling	6 days	Tue 24/5/21	Sun 24/5/26	Tue 24/5/21	Sun 24/5/26	Tue 24/5/21	Sun 24/5/26	0 days	0
130	Manhole construction	7 days	Sat 24/5/25	Fri 24/5/31	Sat 24/5/25	Fri 24/5/31	Sat 24/5/25	Fri 24/5/31	0 days	0
131	Reinstatement	5 days	Sat 24/6/1	Wed 24/6/5	Sat 24/6/1	Wed 24/6/5	Sat 24/6/1	Wed 24/6/5	0 days	0
132	TTA removal	1 day	Thu 24/6/6	Thu 24/6/6	Thu 24/6/6	Thu 24/6/6	Thu 24/6/6	Thu 24/6/6	0 days	0
133	**SHT.A1A~ SHT.A01,1200PC,B,L=7.675,D=2.14**	**30 days**	**Fri 24/6/7**	**Sat 24/7/6**	**Fri 24/6/7**	**Sat 24/7/6**	**Fri 24/6/7**	**Sat 24/7/6**	**0 days**	
134	TTA implementation	4 days	Fri 24/6/7	Mon 24/6/10	Fri 24/6/7	Mon 24/6/10	Fri 24/6/7	Mon 24/6/10	0 days	0
135	Breaking pavement	5 days	Sun 24/6/9	Thu 24/6/13	Sun 24/6/9	Thu 24/6/13	Sun 24/6/9	Thu 24/6/13	0 days	0
136	Excavation and Lateral Support	5 days	Wed 24/6/12	Sun 24/6/16	Wed 24/6/12	Sun 24/6/16	Wed 24/6/12	Sun 24/6/16	0 days	0
137	Manhole bedding construction	7 days	Sat 24/6/15	Fri 24/6/21	Sat 24/6/15	Fri 24/6/21	Sat 24/6/15	Fri 24/6/21	0 days	0
138	Drain Laying	6 days	Thu 24/6/20	Tue 24/6/25	Thu 24/6/20	Tue 24/6/25	Thu 24/6/20	Tue 24/6/25	0 days	0
139	Manhole construction	7 days	Mon 24/6/24	Sun 24/6/30	Mon 24/6/24	Sun 24/6/30	Mon 24/6/24	Sun 24/6/30	0 days	0
140	Reinstatement	5 days	Mon 24/7/1	Fri 24/7/5	Mon 24/7/1	Fri 24/7/5	Mon 24/7/1	Fri 24/7/5	0 days	0
141	TTA removal	1 day	Sat 24/7/6	Sat 24/7/6	Sat 24/7/6	Sat 24/7/6	Sat 24/7/6	Sat 24/7/6	0 days	0
142	Connection of ex. Pipe to SHT.A01	28 days	Sun 24/7/7	Sat 24/8/3	Sun 24/7/7	Sat 24/8/3	Tue 26/6/30	Mon 26/7/27	723 days	0
143	Temporary decking over ex. UC	28 days	Sun 24/7/7	Sat 24/8/3	Sun 24/7/7	Sat 24/8/3	Sun 24/7/7	Sat 24/8/3	0 days	0
144	**SHT.CP1~ SHT.A1A,550PC,B,L=4.16,D=2.06**	**27 days**	**Sun 24/7/21**	**Fri 24/8/16**	**Sun 24/7/21**	**Fri 24/8/16**	**Sun 24/7/21**	**Fri 24/8/16**	**0 days**	
145	TTA implementation	3 days	Sun 24/7/21	Tue 24/7/23	Sun 24/7/21	Tue 24/7/23	Sun 24/7/21	Tue 24/7/23	0 days	0
146	Breaking pavement	5 days	Mon 24/7/22	Fri 24/7/26	Mon 24/7/22	Fri 24/7/26	Mon 24/7/22	Fri 24/7/26	0 days	0
147	Excavation and Lateral Support	5 days	Thu 24/7/25	Mon 24/7/29	Thu 24/7/25	Mon 24/7/29	Thu 24/7/25	Mon 24/7/29	0 days	0
148	Manhole bedding construction	7 days	Sun 24/7/28	Sat 24/8/3	Sun 24/7/28	Sat 24/8/3	Sun 24/7/28	Sat 24/8/3	0 days	0
149	Drain Laying	5 days	Fri 24/8/2	Tue 24/8/6	Fri 24/8/2	Tue 24/8/6	Fri 24/8/2	Tue 24/8/6	0 days	0
150	Manhole construction	6 days	Mon 24/8/5	Sat 24/8/10	Mon 24/8/5	Sat 24/8/10	Mon 24/8/5	Sat 24/8/10	0 days	0
151	Reinstatement	5 days	Sun 24/8/11	Thu 24/8/15	Sun 24/8/11	Thu 24/8/15	Sun 24/8/11	Thu 24/8/15	0 days	0
152	TTA removal	1 day	Fri 24/8/16	Fri 24/8/16	Fri 24/8/16	Fri 24/8/16	Fri 24/8/16	Fri 24/8/16	0 days	0
153	Connection of ex. 550pipe to SHT.CP1	28 days	Sat 24/8/17	Fri 24/9/13	Sat 24/8/17	Fri 24/9/13	Tue 26/6/30	Mon 26/7/27	682 days	0
154	**SHT.B04~ SHT.A1A,900PC,B,L=13.155D=2.06**	**28 days**	**Sat 24/8/17**	**Fri 24/9/13**	**Sat 24/8/17**	**Fri 24/9/13**	**Sat 24/8/17**	**Fri 24/9/13**	**0 days**	
155	TTA implementation	3 days	Sat 24/8/17	Mon 24/8/19	Sat 24/8/17	Mon 24/8/19	Sat 24/8/17	Mon 24/8/19	0 days	0
156	Breaking pavement	5 days	Sun 24/8/18	Thu 24/8/22	Sun 24/8/18	Thu 24/8/22	Sun 24/8/18	Thu 24/8/22	0 days	0
157	Excavation and Lateral Support	6 days	Wed 24/8/21	Mon 24/8/26	Wed 24/8/21	Mon 24/8/26	Wed 24/8/21	Mon 24/8/26	0 days	0
158	Manhole bedding construction	7 days	Sun 24/8/25	Sat 24/8/31	Sun 24/8/25	Sat 24/8/31	Sun 24/8/25	Sat 24/8/31	0 days	0
159	Drain Laying	5 days	Fri 24/8/30	Tue 24/9/3	Fri 24/8/30	Tue 24/9/3	Fri 24/8/30	Tue 24/9/3	0 days	0
160	Manhole construction	6 days	Mon 24/9/2	Sat 24/9/7	Mon 24/9/2	Sat 24/9/7	Mon 24/9/2	Sat 24/9/7	0 days	0
161	Reinstatement	5 days	Sun 24/9/8	Thu 24/9/12	Sun 24/9/8	Thu 24/9/12	Sun 24/9/8	Thu 24/9/12	0 days	0
162	TTA removal	1 day	Fri 24/9/13	Fri 24/9/13	Fri 24/9/13	Fri 24/9/13	Fri 24/9/13	Fri 24/9/13	0 days	0
163	Connection of ex. UC to SHT.A1A	28 days	Sat 24/9/14	Fri 24/10/11	Sat 24/9/14	Fri 24/10/11	Tue 26/6/30	Mon 26/7/27	654 days	0
164	**SHT.B03~ SHT.B04,900PC,B,L=21,D=1.97**	**29 days**	**Sat 24/9/14**	**Sat 24/10/12**	**Sat 24/9/14**	**Sat 24/10/12**	**Sat 24/9/14**	**Sat 24/10/12**	**0 days**	
165	TTA implementation	4 days	Sat 24/9/14	Tue 24/9/17	Sat 24/9/14	Tue 24/9/17	Sat 24/9/14	Tue 24/9/17	0 days	0
166	Breaking pavement	5 days	Mon 24/9/16	Fri 24/9/20	Mon 24/9/16	Fri 24/9/20	Mon 24/9/16	Fri 24/9/20	0 days	0
167	Excavation and Lateral Support	6 days	Thu 24/9/19	Tue 24/9/24	Thu 24/9/19	Tue 24/9/24	Thu 24/9/19	Tue 24/9/24	0 days	0
168	Manhole bedding construction	6 days	Mon 24/9/23	Sat 24/9/28	Mon 24/9/23	Sat 24/9/28	Mon 24/9/23	Sat 24/9/28	0 days	0
169	Drain Laying	6 days	Fri 24/9/27	Wed 24/10/2	Fri 24/9/27	Wed 24/10/2	Fri 24/9/27	Wed 24/10/2	0 days	0
170	Manhole construction	6 days	Tue 24/10/1	Sun 24/10/6	Tue 24/10/1	Sun 24/10/6	Tue 24/10/1	Sun 24/10/6	0 days	0
171	Reinstatement	5 days	Mon 24/10/7	Fri 24/10/11	Mon 24/10/7	Fri 24/10/11	Mon 24/10/7	Fri 24/10/11	0 days	0
172	TTA removal	1 day	Sat 24/10/12	Sat 24/10/12	Sat 24/10/12	Sat 24/10/12	Sat 24/10/12	Sat 24/10/12	0 days	0
173	**SHT.B02~ SHT.B03,900PC,B,L=36.94,D=1.72**	**56 days**	**Sun 24/10/13**	**Sat 24/12/7**	**Sun 24/10/13**	**Sat 24/12/7**	**Sun 24/10/13**	**Wed 25/11/12**	**0 days**	
174	**Stage 1**	**28 days**	**Sun 24/10/13**	**Sat 24/11/9**	**Sun 24/10/13**	**Sat 24/11/9**	**Sun 24/10/13**	**Sat 24/11/9**	**0 days**	
175	TTA implementation	4 days	Sun 24/10/13	Wed 24/10/16	Sun 24/10/13	Wed 24/10/16	Sun 24/10/13	Wed 24/10/16	0 days	0
176	Breaking pavement	5 days	Tue 24/10/15	Sat 24/10/19	Tue 24/10/15	Sat 24/10/19	Tue 24/10/15	Sat 24/10/19	0 days	0
177	Excavation and Lateral Support	6 days	Fri 24/10/18	Wed 24/10/23	Fri 24/10/18	Wed 24/10/23	Fri 24/10/18	Wed 24/10/23	0 days	0
178	Manhole bedding construction	5 days	Tue 24/10/22	Sat 24/10/26	Tue 24/10/22	Sat 24/10/26	Tue 24/10/22	Sat 24/10/26	0 days	0
179	Drain Laying	6 days	Fri 24/10/25	Wed 24/10/30	Fri 24/10/25	Wed 24/10/30	Fri 24/10/25	Wed 24/10/30	0 days	0
180	Manhole construction	6 days	Tue 24/10/29	Sun 24/11/3	Tue 24/10/29	Sun 24/11/3	Tue 24/10/29	Sun 24/11/3	0 days	0
181	Reinstatement	5 days	Mon 24/11/4	Fri 24/11/8	Mon 24/11/4	Fri 24/11/8	Mon 24/11/4	Fri 24/11/8	0 days	0
182	TTA removal	1 day	Sat 24/11/9	Sat 24/11/9	Sat 24/11/9	Sat 24/11/9	Sat 24/11/9	Sat 24/11/9	0 days	0
183	**Stage 2**	**28 days**	**Sun 24/11/10**	**Sat 24/12/7**	**Sun 24/11/10**	**Sat 24/12/7**	**Thu 25/10/16**	**Wed 25/11/12**	**340 days**	
184	TTA implementation	4 days	Sun 24/11/10	Wed 24/11/13	Sun 24/11/10	Wed 24/11/13	Thu 25/10/16	Sun 25/10/19	340 days	0
185	Breaking pavement	5 days	Tue 24/11/12	Sat 24/11/16	Tue 24/11/12	Sat 24/11/16	Sat 25/10/18	Wed 25/10/22	340 days	0
186	Excavation and Lateral Support	6 days	Fri 24/11/15	Wed 24/11/20	Fri 24/11/15	Wed 24/11/20	Tue 25/10/21	Sun 25/10/26	340 days	0
187	Manhole bedding construction	5 days	Tue 24/11/19	Sat 24/11/23	Tue 24/11/19	Sat 24/11/23	Sat 25/10/25	Wed 25/10/29	340 days	0
188	Drain Laying	6 days	Fri 24/11/22	Wed 24/11/27	Fri 24/11/22	Wed 24/11/27	Tue 25/10/28	Sun 25/11/2	340 days	0
189	Manhole construction	6 days	Tue 24/11/26	Sun 24/12/1	Tue 24/11/26	Sun 24/12/1	Sat 25/11/1	Thu 25/11/6	340 days	0
190	Reinstatement	5 days	Mon 24/12/2	Fri 24/12/6	Mon 24/12/2	Fri 24/12/6	Fri 25/11/7	Tue 25/11/11	340 days	0
191	TTA removal	1 day	Sat 24/12/7	Sat 24/12/7	Sat 24/12/7	Sat 24/12/7	Wed 25/11/12	Wed 25/11/12	340 days	0
192	**SHT.B01~ SHT.B02,900PC,B,L=61.6,D=1.59**	**56 days**	**Sun 24/12/8**	**Sat 25/2/1**	**Sun 24/12/8**	**Sat 25/2/1**	**Thu 25/11/13**	**Wed 26/1/7**	**340 days**	
193	**Stage 1**	**28 days**	**Sun 24/12/8**	**Sat 25/1/4**	**Sun 24/12/8**	**Sat 25/1/4**	**Thu 25/11/13**	**Wed 25/12/10**	**340 days**	
194	TTA implementation	4 days	Sun 24/12/8	Wed 24/12/11	Sun 24/12/8	Wed 24/12/11	Thu 25/11/13	Sun 25/11/16	340 days	0
195	Breaking pavement	5 days	Tue 24/12/10	Sat 24/12/14	Tue 24/12/10	Sat 24/12/14	Sat 25/11/15	Wed 25/11/19	340 days	0



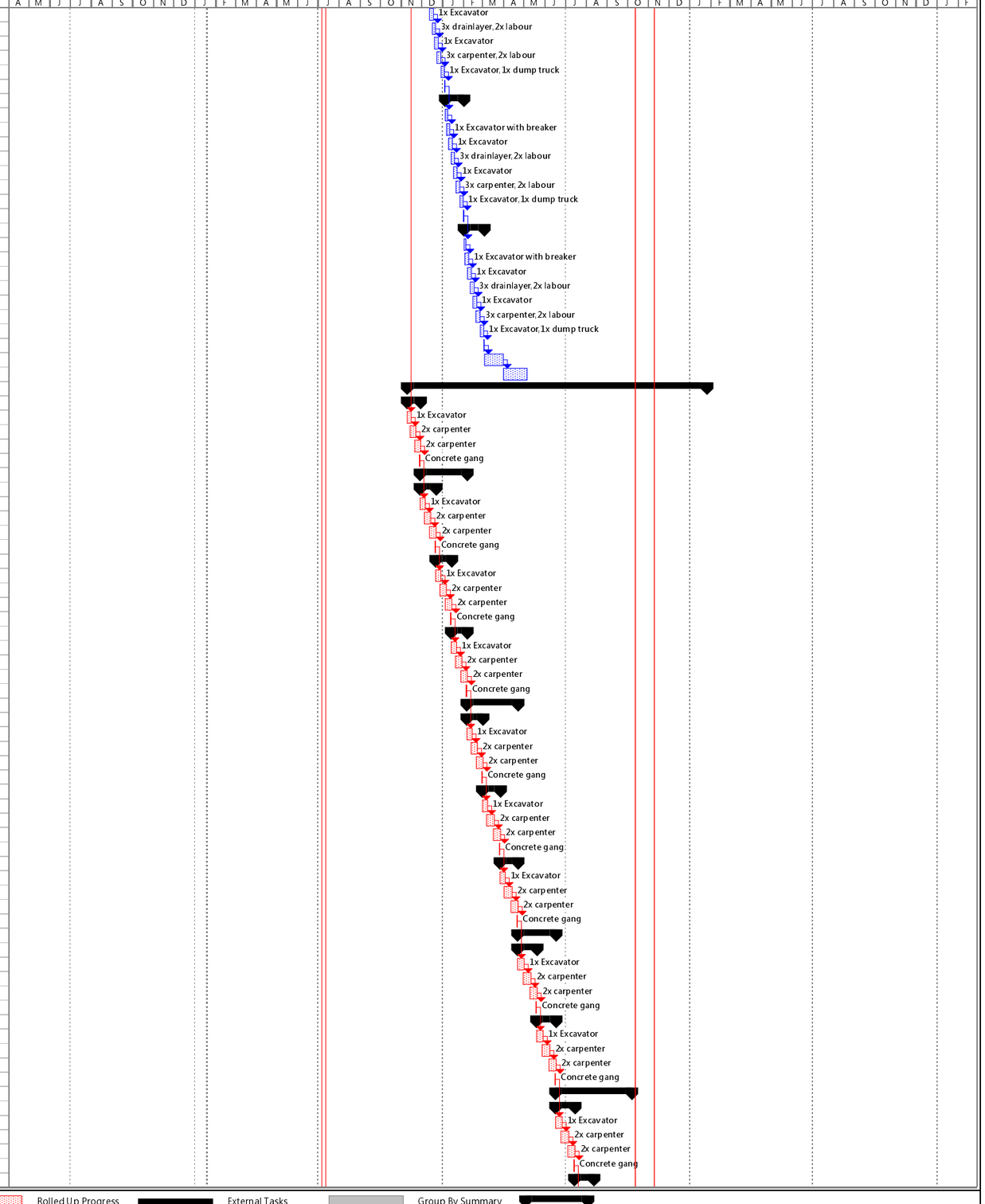
Revision.: 4.0 Date: 31 December 2023

Task | Progress | Summary | Rolled Up Critical Task | Rolled Up Progress | External Tasks | Group By Summary
Critical Task | Milestone | Rolled Up Task | Rolled Up Milestone | Split | Project Summary | Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
196	Excavation and Lateral Support	6 days	Fri 24/12/13	Wed 24/12/18	Fri 24/12/13	Wed 24/12/18	Tue 25/11/18	Sun 25/11/23	340 days	0
197	Manhole bedding construction	5 days	Tue 24/12/17	Sat 24/12/21	Tue 24/12/17	Sat 24/12/21	Sat 25/11/22	Wed 25/11/26	340 days	0
198	Drain Laying	6 days	Fri 24/12/20	Wed 24/12/25	Fri 24/12/20	Wed 24/12/25	Tue 25/11/25	Sun 25/11/30	340 days	0
199	Manhole construction	6 days	Tue 24/12/24	Sun 24/12/29	Tue 24/12/24	Sun 24/12/29	Sat 25/11/29	Thu 25/12/4	340 days	0
200	Reinstatement	5 days	Mon 24/12/30	Fri 25/1/3	Mon 24/12/30	Fri 25/1/3	Fri 25/12/5	Tue 25/12/9	340 days	0
201	TTA removal	1 day	Sat 25/1/4	Sat 25/1/4	Sat 25/1/4	Sat 25/1/4	Wed 25/12/10	Wed 25/12/10	340 days	0
202	**Stage 2**	**28 days**	**Sun 25/1/5**	**Sat 25/2/1**	**Sun 25/1/5**	**Sat 25/2/1**	**Thu 25/12/11**	**Wed 26/1/7**	**340 days**	
203	TTA implementation	4 days	Sun 25/1/5	Wed 25/1/8	Sun 25/1/5	Wed 25/1/8	Thu 25/12/11	Sun 25/12/14	340 days	0
204	Breaking pavement	5 days	Tue 25/1/7	Sat 25/1/11	Tue 25/1/7	Sat 25/1/11	Sat 25/12/13	Wed 25/12/17	340 days	0
205	Excavation and Lateral Support	6 days	Fri 25/1/10	Wed 25/1/15	Fri 25/1/10	Wed 25/1/15	Tue 25/12/16	Sun 25/12/21	340 days	0
206	Manhole bedding construction	5 days	Tue 25/1/14	Sat 25/1/18	Tue 25/1/14	Sat 25/1/18	Sat 25/12/20	Wed 25/12/24	340 days	0
207	Drain Laying	6 days	Fri 25/1/17	Wed 25/1/22	Fri 25/1/17	Wed 25/1/22	Tue 25/12/23	Sun 25/12/28	340 days	0
208	Manhole construction	6 days	Tue 25/1/21	Sun 25/1/26	Tue 25/1/21	Sun 25/1/26	Sat 25/12/27	Thu 26/1/1	340 days	0
209	Reinstatement	5 days	Mon 25/1/27	Fri 25/1/31	Mon 25/1/27	Fri 25/1/31	Fri 26/1/2	Tue 26/1/6	340 days	0
210	TTA removal	1 day	Sat 25/2/1	Sat 25/2/1	Sat 25/2/1	Sat 25/2/1	Wed 26/1/7	Wed 26/1/7	340 days	0
211	**SHT.CP2~ SHT.B01,900PC,B,L=10.36,D=1.59**	**30 days**	**Sun 25/2/2**	**Mon 25/3/3**	**Sun 25/2/2**	**Mon 25/3/3**	**Thu 26/1/8**	**Mon 26/5/25**	**340 days**	
212	TTA implementation	3 days	Sun 25/2/2	Tue 25/2/4	Sun 25/2/2	Tue 25/2/4	Thu 26/1/8	Sat 26/1/10	340 days	0
213	Breaking pavement	6 days	Mon 25/2/3	Sat 25/2/8	Mon 25/2/3	Sat 25/2/8	Fri 26/1/9	Wed 26/1/14	340 days	0
214	Excavation and Lateral Support	6 days	Fri 25/2/7	Wed 25/2/12	Fri 25/2/7	Wed 25/2/12	Tue 26/1/13	Sun 26/1/18	340 days	0
215	Manhole bedding construction	6 days	Tue 25/2/11	Sun 25/2/16	Tue 25/2/11	Sun 25/2/16	Sat 26/1/17	Thu 26/1/22	340 days	0
216	Drain Laying	6 days	Sat 25/2/15	Thu 25/2/20	Sat 25/2/15	Thu 25/2/20	Wed 26/1/21	Mon 26/1/26	340 days	0
217	Manhole construction	7 days	Wed 25/2/19	Tue 25/2/25	Wed 25/2/19	Tue 25/2/25	Wed 26/5/13	Tue 26/5/19	448 days	0
218	Reinstatement	5 days	Wed 25/2/26	Sun 25/3/2	Wed 25/2/26	Sun 25/3/2	Wed 26/5/20	Sun 26/5/24	448 days	0
219	TTA removal	1 day	Mon 25/3/3	Mon 25/3/3	Mon 25/3/3	Mon 25/3/3	Mon 26/5/25	Mon 26/5/25	448 days	0
220	CCTV inspection	28 days	Tue 25/3/4	Mon 25/3/31	Tue 25/3/4	Mon 25/3/31	Tue 26/5/26	Mon 26/6/22	448 days	0
221	Reinstatement	35 days	Tue 25/4/1	Mon 25/5/5	Tue 25/4/1	Mon 25/5/5	Tue 26/6/23	Mon 26/7/27	448 days	0
222	**U-Channel Works (West)**	**443 days**	**Sun 24/11/10**	**Mon 26/1/26**	**Sun 24/11/10**	**Mon 26/1/26**	**Sun 24/11/10**	**Mon 26/1/26**	**0 days**	
223	**SHT.CP2.5~SHT.CP2.300~>900CU(G),L=11.4**	**20 days**	**Sun 24/11/10**	**Fri 24/11/29**	**Sun 24/11/10**	**Fri 24/11/29**	**Sun 24/11/10**	**Fri 24/11/29**	**0 days**	
224	Excavation and Lateral Support	6 days	Sun 24/11/10	Fri 24/11/15	Sun 24/11/10	Fri 24/11/15	Sun 24/11/10	Fri 24/11/15	0 days	0
225	Formwork Erection	9 days	Thu 24/11/14	Fri 24/11/22	Thu 24/11/14	Fri 24/11/22	Thu 24/11/14	Fri 24/11/22	0 days	0
226	Catchpit construcion	9 days	Thu 24/11/21	Fri 24/11/29	Thu 24/11/21	Fri 24/11/29	Thu 24/11/21	Fri 24/11/29	0 days	0
227	Concreting	1 day	Thu 24/11/28	Thu 24/11/28	Thu 24/11/28	Thu 24/11/28	Thu 24/11/28	Thu 24/11/28	0 days	0
228	**SHT.CP3~ SHT.CP2.5,300~>900CU(G),L=66.5**	**70 days**	**Fri 24/11/29**	**Thu 25/2/6**	**Fri 24/11/29**	**Thu 25/2/6**	**Fri 24/11/29**	**Thu 25/2/6**	**0 days**	
229	**Stage 1**	**24 days**	**Fri 24/11/29**	**Sun 24/12/22**	**Fri 24/11/29**	**Sun 24/12/22**	**Fri 24/11/29**	**Sun 24/12/22**	**0 days**	
230	Excavation and Lateral Support	8 days	Fri 24/11/29	Fri 24/12/6	Fri 24/11/29	Fri 24/12/6	Fri 24/11/29	Fri 24/12/6	0 days	0
231	Formwork Erection	10 days	Thu 24/12/5	Sat 24/12/14	Thu 24/12/5	Sat 24/12/14	Thu 24/12/5	Sat 24/12/14	0 days	0
232	Catchpit construcion	10 days	Fri 24/12/13	Sun 24/12/22	Fri 24/12/13	Sun 24/12/22	Fri 24/12/13	Sun 24/12/22	0 days	0
233	Concreting	1 day	Sat 24/12/21	Sat 24/12/21	Sat 24/12/21	Sat 24/12/21	Sat 24/12/21	Sat 24/12/21	0 days	0
234	**Stage 2**	**24 days**	**Sun 24/12/22**	**Tue 25/1/14**	**Sun 24/12/22**	**Tue 25/1/14**	**Sun 24/12/22**	**Tue 25/1/14**	**0 days**	
235	Excavation and Lateral Support	8 days	Sun 24/12/22	Sun 24/12/29	Sun 24/12/22	Sun 24/12/29	Sun 24/12/22	Sun 24/12/29	0 days	0
236	Formwork Erection	10 days	Sat 24/12/28	Mon 25/1/6	Sat 24/12/28	Mon 25/1/6	Sat 24/12/28	Mon 25/1/6	0 days	0
237	Catchpit construcion	10 days	Sun 25/1/5	Tue 25/1/14	Sun 25/1/5	Tue 25/1/14	Sun 25/1/5	Tue 25/1/14	0 days	0
238	Concreting	1 day	Mon 25/1/13	Mon 25/1/13	Mon 25/1/13	Mon 25/1/13	Mon 25/1/13	Mon 25/1/13	0 days	0
239	**Stage 3**	**24 days**	**Tue 25/1/14**	**Thu 25/2/6**	**Tue 25/1/14**	**Thu 25/2/6**	**Tue 25/1/14**	**Thu 25/2/6**	**0 days**	
240	Excavation and Lateral Support	8 days	Tue 25/1/14	Tue 25/1/21	Tue 25/1/14	Tue 25/1/21	Tue 25/1/14	Tue 25/1/21	0 days	0
241	Formwork Erection	10 days	Mon 25/1/20	Wed 25/1/29	Mon 25/1/20	Wed 25/1/29	Mon 25/1/20	Wed 25/1/29	0 days	0
242	Catchpit construcion	10 days	Tue 25/1/28	Thu 25/2/6	Tue 25/1/28	Thu 25/2/6	Tue 25/1/28	Thu 25/2/6	0 days	0
243	Concreting	1 day	Wed 25/2/5	Wed 25/2/5	Wed 25/2/5	Wed 25/2/5	Wed 25/2/5	Wed 25/2/5	0 days	0
244	**SHT.CP3.3~SHT.CP3,300~>450CU(G),L=54.5**	**76 days**	**Thu 25/2/6**	**Tue 25/4/22**	**Thu 25/2/6**	**Tue 25/4/22**	**Thu 25/2/6**	**Tue 25/4/22**	**0 days**	
245	**Stage 1**	**24 days**	**Thu 25/2/6**	**Sat 25/3/1**	**Thu 25/2/6**	**Sat 25/3/1**	**Thu 25/2/6**	**Sat 25/3/1**	**0 days**	
246	Excavation and Lateral Support	8 days	Thu 25/2/6	Thu 25/2/13	Thu 25/2/6	Thu 25/2/13	Thu 25/2/6	Thu 25/2/13	0 days	0
247	Formwork Erection	10 days	Wed 25/2/12	Fri 25/2/21	Wed 25/2/12	Fri 25/2/21	Wed 25/2/12	Fri 25/2/21	0 days	0
248	Catchpit construcion	10 days	Thu 25/2/20	Sat 25/3/1	Thu 25/2/20	Sat 25/3/1	Thu 25/2/20	Sat 25/3/1	0 days	0
249	Concreting	1 day	Fri 25/2/28	Fri 25/2/28	Fri 25/2/28	Fri 25/2/28	Fri 25/2/28	Fri 25/2/28	0 days	0
250	**Stage 2**	**27 days**	**Sat 25/3/1**	**Thu 25/3/27**	**Sat 25/3/1**	**Thu 25/3/27**	**Sat 25/3/1**	**Thu 25/3/27**	**0 days**	
251	Excavation and Lateral Support	8 days	Sat 25/3/1	Sat 25/3/8	Sat 25/3/1	Sat 25/3/8	Sat 25/3/1	Sat 25/3/8	0 days	0
252	Formwork Erection	12 days	Fri 25/3/7	Tue 25/3/18	Fri 25/3/7	Tue 25/3/18	Fri 25/3/7	Tue 25/3/18	0 days	0
253	Catchpit construcion	11 days	Mon 25/3/17	Thu 25/3/27	Mon 25/3/17	Thu 25/3/27	Mon 25/3/17	Thu 25/3/27	0 days	0
254	Concreting	1 day	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	Wed 25/3/26	0 days	0
255	**Stage 3**	**27 days**	**Thu 25/3/27**	**Tue 25/4/22**	**Thu 25/3/27**	**Tue 25/4/22**	**Thu 25/3/27**	**Tue 25/4/22**	**0 days**	
256	Excavation and Lateral Support	8 days	Thu 25/3/27	Thu 25/4/3	Thu 25/3/27	Thu 25/4/3	Thu 25/3/27	Thu 25/4/3	0 days	0
257	Formwork Erection	12 days	Wed 25/4/2	Sun 25/4/13	Wed 25/4/2	Sun 25/4/13	Wed 25/4/2	Sun 25/4/13	0 days	0
258	Catchpit construcion	11 days	Sat 25/4/12	Tue 25/4/22	Sat 25/4/12	Tue 25/4/22	Sat 25/4/12	Tue 25/4/22	0 days	0
259	Concreting	1 day	Mon 25/4/21	Mon 25/4/21	Mon 25/4/21	Mon 25/4/21	Mon 25/4/21	Mon 25/4/21	0 days	0
260	**SHT.CP3.5~SHT.CP3.3,300~>450CU(G),L=43.3**	**57 days**	**Tue 25/4/22**	**Tue 25/6/17**	**Tue 25/4/22**	**Tue 25/6/17**	**Tue 25/4/22**	**Tue 25/6/17**	**0 days**	
261	**Stage 1**	**29 days**	**Tue 25/4/22**	**Tue 25/5/20**	**Tue 25/4/22**	**Tue 25/5/20**	**Tue 25/4/22**	**Tue 25/5/20**	**0 days**	
262	Excavation and Lateral Support	10 days	Tue 25/4/22	Thu 25/5/1	Tue 25/4/22	Thu 25/5/1	Tue 25/4/22	Thu 25/5/1	0 days	0
263	Formwork Erection	12 days	Wed 25/4/30	Sun 25/5/11	Wed 25/4/30	Sun 25/5/11	Wed 25/4/30	Sun 25/5/11	0 days	0
264	Catchpit construcion	11 days	Sat 25/5/10	Tue 25/5/20	Sat 25/5/10	Tue 25/5/20	Sat 25/5/10	Tue 25/5/20	0 days	0
265	Concreting	1 day	Mon 25/5/19	Mon 25/5/19	Mon 25/5/19	Mon 25/5/19	Mon 25/5/19	Mon 25/5/19	0 days	0
266	**Stage 2**	**29 days**	**Tue 25/5/20**	**Tue 25/6/17**	**Tue 25/5/20**	**Tue 25/6/17**	**Tue 25/5/20**	**Tue 25/6/17**	**0 days**	
267	Excavation and Lateral Support	10 days	Tue 25/5/20	Thu 25/5/29	Tue 25/5/20	Thu 25/5/29	Tue 25/5/20	Thu 25/5/29	0 days	0
268	Formwork Erection	12 days	Wed 25/5/28	Sun 25/6/8	Wed 25/5/28	Sun 25/6/8	Wed 25/5/28	Sun 25/6/8	0 days	0
269	Catchpit construcion	11 days	Sat 25/6/7	Tue 25/6/17	Sat 25/6/7	Tue 25/6/17	Sat 25/6/7	Tue 25/6/17	0 days	0
270	Concreting	1 day	Mon 25/6/16	Mon 25/6/16	Mon 25/6/16	Mon 25/6/16	Mon 25/6/16	Mon 25/6/16	0 days	0
271	**End~ SHT.CP3.5,300~>450CU(G),L=107.7**	**113 days**	**Tue 25/6/17**	**Tue 25/10/7**	**Tue 25/6/17**	**Tue 25/10/7**	**Tue 25/6/17**	**Tue 25/10/7**	**0 days**	
272	**Stage 1**	**29 days**	**Tue 25/6/17**	**Tue 25/7/15**	**Tue 25/6/17**	**Tue 25/7/15**	**Tue 25/6/17**	**Tue 25/7/15**	**0 days**	
273	Excavation and Lateral Support	10 days	Tue 25/6/17	Thu 25/6/26	Tue 25/6/17	Thu 25/6/26	Tue 25/6/17	Thu 25/6/26	0 days	0
274	Formwork Erection	12 days	Wed 25/6/25	Sun 25/7/6	Wed 25/6/25	Sun 25/7/6	Wed 25/6/25	Sun 25/7/6	0 days	0
275	Catchpit construcion	11 days	Sat 25/7/5	Tue 25/7/15	Sat 25/7/5	Tue 25/7/15	Sat 25/7/5	Tue 25/7/15	0 days	0
276	Concreting	1 day	Mon 25/7/14	Mon 25/7/14	Mon 25/7/14	Mon 25/7/14	Mon 25/7/14	Mon 25/7/14	0 days	0
277	**Stage 2**	**29 days**	**Tue 25/7/15**	**Tue 25/8/12**	**Tue 25/7/15**	**Tue 25/8/12**	**Tue 25/7/15**	**Tue 25/8/12**	**0 days**	



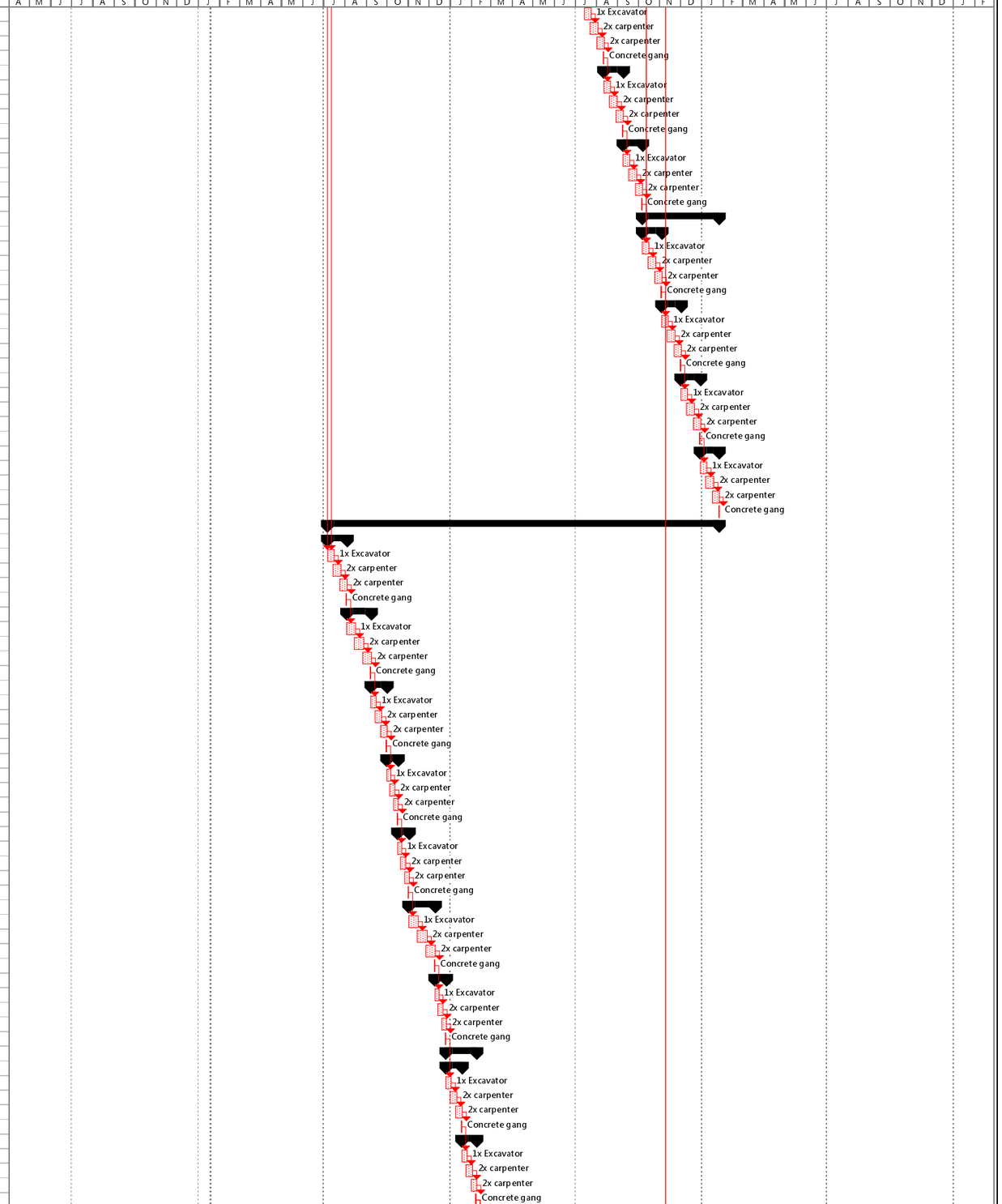
Revision.: 4.0 Date: 31 December 2023

´Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
278	Excavation and Lateral Support	10 days	Tue 25/7/15	Thu 25/7/24	Tue 25/7/15	Thu 25/7/24	Tue 25/7/15	Thu 25/7/24	0 days	0
279	Formwork Erection	12 days	Wed 25/7/23	Sun 25/8/3	Wed 25/7/23	Sun 25/8/3	Wed 25/7/23	Sun 25/8/3	0 days	0
280	Catchpit construcion	11 days	Sat 25/8/2	Tue 25/8/12	Sat 25/8/2	Tue 25/8/12	Sat 25/8/2	Tue 25/8/12	0 days	0
281	Concreting	1 day	Mon 25/8/11	Mon 25/8/11	Mon 25/8/11	Mon 25/8/11	Mon 25/8/11	Mon 25/8/11	0 days	0
282	**Stage 3**	**29 days**	**Tue 25/8/12**	**Tue 25/9/9**	**Tue 25/8/12**	**Tue 25/9/9**	**Tue 25/8/12**	**Tue 25/9/9**	**0 days**	
283	Excavation and Lateral Support	10 days	Tue 25/8/12	Thu 25/8/21	Tue 25/8/12	Thu 25/8/21	Tue 25/8/12	Thu 25/8/21	0 days	0
284	Formwork Erection	12 days	Wed 25/8/20	Sun 25/8/31	Wed 25/8/20	Sun 25/8/31	Wed 25/8/20	Sun 25/8/31	0 days	0
285	Catchpit construcion	11 days	Sat 25/8/30	Tue 25/9/9	Sat 25/8/30	Tue 25/9/9	Sat 25/8/30	Tue 25/9/9	0 days	0
286	Concreting	1 day	Mon 25/9/8	Mon 25/9/8	Mon 25/9/8	Mon 25/9/8	Mon 25/9/8	Mon 25/9/8	0 days	0
287	**Stage 4**	**29 days**	**Tue 25/9/9**	**Tue 25/10/7**	**Tue 25/9/9**	**Tue 25/10/7**	**Tue 25/9/9**	**Tue 25/10/7**	**0 days**	
288	Excavation and Lateral Support	10 days	Tue 25/9/9	Thu 25/9/18	Tue 25/9/9	Thu 25/9/18	Tue 25/9/9	Thu 25/9/18	0 days	0
289	Formwork Erection	12 days	Wed 25/9/17	Sun 25/9/28	Wed 25/9/17	Sun 25/9/28	Wed 25/9/17	Sun 25/9/28	0 days	0
290	Catchpit construcion	11 days	Sat 25/9/27	Tue 25/10/7	Sat 25/9/27	Tue 25/10/7	Sat 25/9/27	Tue 25/10/7	0 days	0
291	Concreting	1 day	Mon 25/10/6	Mon 25/10/6	Mon 25/10/6	Mon 25/10/6	Mon 25/10/6	Mon 25/10/6	0 days	0
292	**End~ ex. UC,450CU(G),L=70**	**112 days**	**Tue 25/10/7**	**Mon 26/1/26**	**Tue 25/10/7**	**Mon 26/1/26**	**Tue 25/10/7**	**Mon 26/1/26**	**0 days**	
293	**Stage 1**	**29 days**	**Tue 25/10/7**	**Tue 25/11/4**	**Tue 25/10/7**	**Tue 25/11/4**	**Tue 25/10/7**	**Tue 25/11/4**	**0 days**	
294	Excavation and Lateral Support	10 days	Tue 25/10/7	Thu 25/10/16	Tue 25/10/7	Thu 25/10/16	Tue 25/10/7	Thu 25/10/16	0 days	0
295	Formwork Erection	12 days	Wed 25/10/15	Sun 25/10/26	Wed 25/10/15	Sun 25/10/26	Wed 25/10/15	Sun 25/10/26	0 days	0
296	Catchpit construcion	11 days	Sat 25/10/25	Tue 25/11/4	Sat 25/10/25	Tue 25/11/4	Sat 25/10/25	Tue 25/11/4	0 days	0
297	Concreting	1 day	Mon 25/11/3	Mon 25/11/3	Mon 25/11/3	Mon 25/11/3	Mon 25/11/3	Mon 25/11/3	0 days	0
298	**Stage 2**	**29 days**	**Tue 25/11/4**	**Tue 25/12/2**	**Tue 25/11/4**	**Tue 25/12/2**	**Tue 25/11/4**	**Tue 25/12/2**	**0 days**	
299	Excavation and Lateral Support	10 days	Tue 25/11/4	Thu 25/11/13	Tue 25/11/4	Thu 25/11/13	Tue 25/11/4	Thu 25/11/13	0 days	0
300	Formwork Erection	12 days	Wed 25/11/12	Sun 25/11/23	Wed 25/11/12	Sun 25/11/23	Wed 25/11/12	Sun 25/11/23	0 days	0
301	Catchpit construcion	11 days	Sat 25/11/22	Tue 25/12/2	Sat 25/11/22	Tue 25/12/2	Sat 25/11/22	Tue 25/12/2	0 days	0
302	Concreting	1 day	Mon 25/12/1	Mon 25/12/1	Mon 25/12/1	Mon 25/12/1	Mon 25/12/1	Mon 25/12/1	0 days	0
303	**Stage 3**	**29 days**	**Tue 25/12/2**	**Tue 25/12/30**	**Tue 25/12/2**	**Tue 25/12/30**	**Tue 25/12/2**	**Tue 25/12/30**	**0 days**	
304	Excavation and Lateral Support	10 days	Tue 25/12/2	Thu 25/12/11	Tue 25/12/2	Thu 25/12/11	Tue 25/12/2	Thu 25/12/11	0 days	0
305	Formwork Erection	12 days	Wed 25/12/10	Sun 25/12/21	Wed 25/12/10	Sun 25/12/21	Wed 25/12/10	Sun 25/12/21	0 days	0
306	Catchpit construcion	11 days	Sat 25/12/20	Tue 25/12/30	Sat 25/12/20	Tue 25/12/30	Sat 25/12/20	Tue 25/12/30	0 days	0
307	Concreting	1 day	Mon 25/12/29	Mon 25/12/29	Mon 25/12/29	Mon 25/12/29	Mon 25/12/29	Mon 25/12/29	0 days	0
308	**Stage 4**	**28 days**	**Tue 25/12/30**	**Mon 26/1/26**	**Tue 25/12/30**	**Mon 26/1/26**	**Tue 25/12/30**	**Mon 26/1/26**	**0 days**	
309	Excavation and Lateral Support	10 days	Tue 25/12/30	Thu 26/1/8	Tue 25/12/30	Thu 26/1/8	Tue 25/12/30	Thu 26/1/8	0 days	0
310	Formwork Erection	12 days	Wed 26/1/7	Sun 26/1/18	Wed 26/1/7	Sun 26/1/18	Wed 26/1/7	Sun 26/1/18	0 days	0
311	Catchpit construcion	10 days	Sat 26/1/17	Mon 26/1/26	Sat 26/1/17	Mon 26/1/26	Sat 26/1/17	Mon 26/1/26	0 days	0
312	Concreting	1 day	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	0 days	0
313	**U-Channel Works (East)**	**569 days**	**Sun 24/7/7**	**Mon 26/1/26**	**Sun 24/7/7**	**Mon 26/1/26**	**Sun 24/7/7**	**Mon 26/7/27**	**0 days**	
314	**SHT.CP11~SHT.CP10E,750CU(HD-G),L=19.8**	**29 days**	**Sun 24/7/7**	**Sun 24/8/4**	**Sun 24/7/7**	**Sun 24/8/4**	**Sun 24/7/7**	**Sun 24/8/4**	**0 days**	
315	Excavation and Lateral Support	10 days	Sun 24/7/7	Tue 24/7/16	Sun 24/7/7	Tue 24/7/16	Sun 24/7/7	Tue 24/7/16	0 days	0
316	Formwork Erection	12 days	Mon 24/7/15	Fri 24/7/26	Mon 24/7/15	Fri 24/7/26	Mon 24/7/15	Fri 24/7/26	0 days	0
317	Catchpit construcion	11 days	Thu 24/7/25	Sun 24/8/4	Thu 24/7/25	Sun 24/8/4	Thu 24/7/25	Sun 24/8/4	0 days	0
318	Concreting	1 day	Sat 24/8/3	Sat 24/8/3	Sat 24/8/3	Sat 24/8/3	Sat 24/8/3	Sat 24/8/3	0 days	0
319	**SHT.CP10E~SHT.CP10D,750CU(HD-G),L=23.7**	**36 days**	**Sun 24/8/4**	**Sun 24/9/8**	**Sun 24/8/4**	**Sun 24/9/8**	**Sun 24/8/4**	**Sun 24/9/8**	**0 days**	
320	Excavation and Lateral Support	13 days	Sun 24/8/4	Fri 24/8/16	Sun 24/8/4	Fri 24/8/16	Sun 24/8/4	Fri 24/8/16	0 days	0
321	Formwork Erection	14 days	Thu 24/8/15	Wed 24/8/28	Thu 24/8/15	Wed 24/8/28	Thu 24/8/15	Wed 24/8/28	0 days	0
322	Catchpit construcion	13 days	Tue 24/8/27	Sun 24/9/8	Tue 24/8/27	Sun 24/9/8	Tue 24/8/27	Sun 24/9/8	0 days	0
323	Concreting	1 day	Sat 24/9/7	Sat 24/9/7	Sat 24/9/7	Sat 24/9/7	Sat 24/9/7	Sat 24/9/7	0 days	0
324	**SHT.CP10D~SHT.CP10C,750CU(HD-G),L=11.9**	**24 days**	**Sun 24/9/8**	**Tue 24/10/1**	**Sun 24/9/8**	**Tue 24/10/1**	**Sun 24/9/8**	**Tue 24/10/1**	**0 days**	
325	Excavation and Lateral Support	8 days	Sun 24/9/8	Sun 24/9/15	Sun 24/9/8	Sun 24/9/15	Sun 24/9/8	Sun 24/9/15	0 days	0
326	Formwork Erection	10 days	Sat 24/9/14	Mon 24/9/23	Sat 24/9/14	Mon 24/9/23	Sat 24/9/14	Mon 24/9/23	0 days	0
327	Catchpit construcion	10 days	Sun 24/9/22	Tue 24/10/1	Sun 24/9/22	Tue 24/10/1	Sun 24/9/22	Tue 24/10/1	0 days	0
328	Concreting	1 day	Mon 24/9/30	Mon 24/9/30	Mon 24/9/30	Mon 24/9/30	Mon 24/9/30	Mon 24/9/30	0 days	0
329	**SHT.CP10C~SHT.CP10B,750CU(HD-G),L=6.5**	**17 days**	**Tue 24/10/1**	**Thu 24/10/17**	**Tue 24/10/1**	**Thu 24/10/17**	**Tue 24/10/1**	**Thu 24/10/17**	**0 days**	
330	Excavation and Lateral Support	6 days	Tue 24/10/1	Sun 24/10/6	Tue 24/10/1	Sun 24/10/6	Tue 24/10/1	Sun 24/10/6	0 days	0
331	Formwork Erection	8 days	Sat 24/10/5	Sat 24/10/12	Sat 24/10/5	Sat 24/10/12	Sat 24/10/5	Sat 24/10/12	0 days	0
332	Catchpit construcion	7 days	Fri 24/10/11	Thu 24/10/17	Fri 24/10/11	Thu 24/10/17	Fri 24/10/11	Thu 24/10/17	0 days	0
333	Concreting	1 day	Wed 24/10/16	Wed 24/10/16	Wed 24/10/16	Wed 24/10/16	Wed 24/10/16	Wed 24/10/16	0 days	0
334	**SHT.CP10B~SHT.CP10A,750CU(HD-G),L=6.4**	**17 days**	**Thu 24/10/17**	**Sat 24/11/2**	**Thu 24/10/17**	**Sat 24/11/2**	**Thu 24/10/17**	**Sat 24/11/2**	**0 days**	
335	Excavation and Lateral Support	6 days	Thu 24/10/17	Tue 24/10/22	Thu 24/10/17	Tue 24/10/22	Thu 24/10/17	Tue 24/10/22	0 days	0
336	Formwork Erection	8 days	Mon 24/10/21	Mon 24/10/28	Mon 24/10/21	Mon 24/10/28	Mon 24/10/21	Mon 24/10/28	0 days	0
337	Catchpit construcion	7 days	Sun 24/10/27	Sat 24/11/2	Sun 24/10/27	Sat 24/11/2	Sun 24/10/27	Sat 24/11/2	0 days	0
338	Concreting	1 day	Fri 24/11/1	Fri 24/11/1	Fri 24/11/1	Fri 24/11/1	Fri 24/11/1	Fri 24/11/1	0 days	0
339	**SHT.CP10A~SHT.CP10,750CU(HD-G),L=26.7**	**39 days**	**Sat 24/11/2**	**Tue 24/12/10**	**Sat 24/11/2**	**Tue 24/12/10**	**Sat 24/11/2**	**Tue 24/12/10**	**0 days**	
340	Excavation and Lateral Support	14 days	Sat 24/11/2	Fri 24/11/15	Sat 24/11/2	Fri 24/11/15	Sat 24/11/2	Fri 24/11/15	0 days	0
341	Formwork Erection	15 days	Thu 24/11/14	Thu 24/11/28	Thu 24/11/14	Thu 24/11/28	Thu 24/11/14	Thu 24/11/28	0 days	0
342	Catchpit construcion	14 days	Wed 24/11/27	Tue 24/12/10	Wed 24/11/27	Tue 24/12/10	Wed 24/11/27	Tue 24/12/10	0 days	0
343	Concreting	1 day	Mon 24/12/9	Mon 24/12/9	Mon 24/12/9	Mon 24/12/9	Mon 24/12/9	Mon 24/12/9	0 days	0
344	**SHT.CP10~SHT.CP9,750CU(HD-G),L=4.3**	**17 days**	**Tue 24/12/10**	**Thu 24/12/26**	**Tue 24/12/10**	**Thu 24/12/26**	**Tue 24/12/10**	**Thu 24/12/26**	**0 days**	
345	Excavation and Lateral Support	6 days	Tue 24/12/10	Sun 24/12/15	Tue 24/12/10	Sun 24/12/15	Tue 24/12/10	Sun 24/12/15	0 days	0
346	Formwork Erection	8 days	Sat 24/12/14	Sat 24/12/21	Sat 24/12/14	Sat 24/12/21	Sat 24/12/14	Sat 24/12/21	0 days	0
347	Catchpit construcion	7 days	Fri 24/12/20	Thu 24/12/26	Fri 24/12/20	Thu 24/12/26	Fri 24/12/20	Thu 24/12/26	0 days	0
348	Concreting	1 day	Wed 24/12/25	Wed 24/12/25	Wed 24/12/25	Wed 24/12/25	Wed 24/12/25	Wed 24/12/25	0 days	0
349	**SHT.CP9~SHT.CP8,600CU(HD-G),L=33.7**	**45 days**	**Thu 24/12/26**	**Sat 25/2/8**	**Thu 24/12/26**	**Sat 25/2/8**	**Thu 24/12/26**	**Sat 25/2/8**	**0 days**	
350	**Stage 1**	**24 days**	**Thu 24/12/26**	**Sat 25/1/18**	**Thu 24/12/26**	**Sat 25/1/18**	**Thu 24/12/26**	**Sat 25/1/18**	**0 days**	
351	Excavation and Lateral Support	8 days	Thu 24/12/26	Thu 25/1/2	Thu 24/12/26	Thu 25/1/2	Thu 24/12/26	Thu 25/1/2	0 days	0
352	Formwork Erection	10 days	Wed 25/1/1	Fri 25/1/10	Wed 25/1/1	Fri 25/1/10	Wed 25/1/1	Fri 25/1/10	0 days	0
353	Catchpit construcion	10 days	Thu 25/1/9	Sat 25/1/18	Thu 25/1/9	Sat 25/1/18	Thu 25/1/9	Sat 25/1/18	0 days	0
354	Concreting	1 day	Fri 25/1/17	Fri 25/1/17	Fri 25/1/17	Fri 25/1/17	Fri 25/1/17	Fri 25/1/17	0 days	0
355	**Stage 2**	**22 days**	**Sat 25/1/18**	**Sat 25/2/8**	**Sat 25/1/18**	**Sat 25/2/8**	**Sat 25/1/18**	**Sat 25/2/8**	**0 days**	
356	Excavation and Lateral Support	8 days	Sat 25/1/18	Sat 25/1/25	Sat 25/1/18	Sat 25/1/25	Sat 25/1/18	Sat 25/1/25	0 days	0
357	Formwork Erection	10 days	Fri 25/1/24	Sun 25/2/2	Fri 25/1/24	Sun 25/2/2	Fri 25/1/24	Sun 25/2/2	0 days	0
358	Catchpit construcion	8 days	Sat 25/2/1	Sat 25/2/8	Sat 25/2/1	Sat 25/2/8	Sat 25/2/1	Sat 25/2/8	0 days	0
359	Concreting	1 day	Fri 25/2/7	Fri 25/2/7	Fri 25/2/7	Fri 25/2/7	Fri 25/2/7	Fri 25/2/7	0 days	0



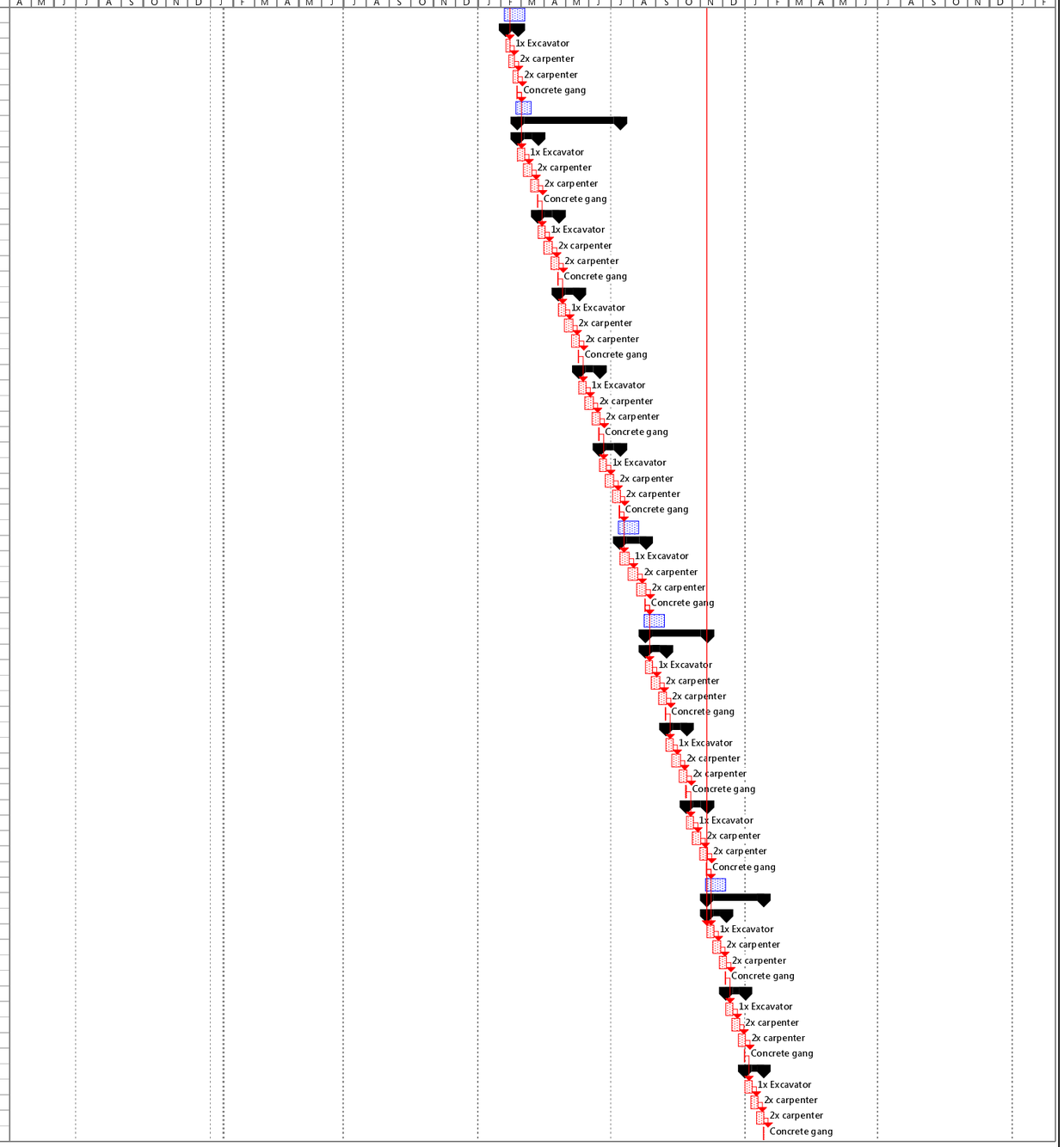
Revision.: 4.0 Date: 31 December 2023

´Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

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}

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

ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Total Slack	TRA
360	Connection of ex. 300CU to SHT.CP8	28 days	Thu 25/2/6	Wed 25/3/5	Thu 25/2/6	Wed 25/3/5	Tue 26/6/30	Mon 26/7/27	509 days	0
361	**SHT.CP8~ SHT.CP7, 600CU(HD-G), L=8.5**	**17 days**	**Sat 25/2/8**	**Mon 25/2/24**	**Sat 25/2/8**	**Mon 25/2/24**	**Sat 25/2/8**	**Mon 25/2/24**	**0 days**	
362	Excavation and Lateral Support	6 days	Sat 25/2/8	Thu 25/2/13	Sat 25/2/8	Thu 25/2/13	Sat 25/2/8	Thu 25/2/13	0 days	0
363	Formwork Erection	8 days	Wed 25/2/12	Wed 25/2/19	Wed 25/2/12	Wed 25/2/19	Wed 25/2/12	Wed 25/2/19	0 days	0
364	Catchpit construcion	7 days	Tue 25/2/18	Mon 25/2/24	Tue 25/2/18	Mon 25/2/24	Tue 25/2/18	Mon 25/2/24	0 days	0
365	Concreting	1 day	Sun 25/2/23	Sun 25/2/23	Sun 25/2/23	Sun 25/2/23	Sun 25/2/23	Sun 25/2/23	0 days	0
366	Reconstruction of U/S end wall	21 days	Sat 25/2/22	Fri 25/3/14	Sat 25/2/22	Fri 25/3/14	Tue 26/7/7	Mon 26/7/27	500 days	0
367	**SHT.CP7~ SHT.CP6, 600CU(HD-G), L=130.8**	**141 days**	**Mon 25/2/24**	**Mon 25/7/14**	**Mon 25/2/24**	**Mon 25/7/14**	**Mon 25/2/24**	**Mon 25/7/14**	**0 days**	
368	**Stage 1**	**29 days**	**Mon 25/2/24**	**Mon 25/3/24**	**Mon 25/2/24**	**Mon 25/3/24**	**Mon 25/2/24**	**Mon 25/3/24**	**0 days**	
369	Excavation and Lateral Support	10 days	Mon 25/2/24	Wed 25/3/5	Mon 25/2/24	Wed 25/3/5	Mon 25/2/24	Wed 25/3/5	0 days	0
370	Formwork Erection	12 days	Tue 25/3/4	Sat 25/3/15	Tue 25/3/4	Sat 25/3/15	Tue 25/3/4	Sat 25/3/15	0 days	0
371	Catchpit construcion	11 days	Fri 25/3/14	Mon 25/3/24	Fri 25/3/14	Mon 25/3/24	Fri 25/3/14	Mon 25/3/24	0 days	0
372	Concreting	1 day	Sun 25/3/23	Sun 25/3/23	Sun 25/3/23	Sun 25/3/23	Sun 25/3/23	Sun 25/3/23	0 days	0
373	**Stage 2**	**29 days**	**Mon 25/3/24**	**Mon 25/4/21**	**Mon 25/3/24**	**Mon 25/4/21**	**Mon 25/3/24**	**Mon 25/4/21**	**0 days**	
374	Excavation and Lateral Support	10 days	Mon 25/3/24	Wed 25/4/2	Mon 25/3/24	Wed 25/4/2	Mon 25/3/24	Wed 25/4/2	0 days	0
375	Formwork Erection	12 days	Tue 25/4/1	Sat 25/4/12	Tue 25/4/1	Sat 25/4/12	Tue 25/4/1	Sat 25/4/12	0 days	0
376	Catchpit construcion	11 days	Fri 25/4/11	Mon 25/4/21	Fri 25/4/11	Mon 25/4/21	Fri 25/4/11	Mon 25/4/21	0 days	0
377	Concreting	1 day	Sun 25/4/20	Sun 25/4/20	Sun 25/4/20	Sun 25/4/20	Sun 25/4/20	Sun 25/4/20	0 days	0
378	**Stage 3**	**29 days**	**Mon 25/4/21**	**Mon 25/5/19**	**Mon 25/4/21**	**Mon 25/5/19**	**Mon 25/4/21**	**Mon 25/5/19**	**0 days**	
379	Excavation and Lateral Support	10 days	Mon 25/4/21	Wed 25/4/30	Mon 25/4/21	Wed 25/4/30	Mon 25/4/21	Wed 25/4/30	0 days	0
380	Formwork Erection	12 days	Tue 25/4/29	Sat 25/5/10	Tue 25/4/29	Sat 25/5/10	Tue 25/4/29	Sat 25/5/10	0 days	0
381	Catchpit construcion	11 days	Fri 25/5/9	Mon 25/5/19	Fri 25/5/9	Mon 25/5/19	Fri 25/5/9	Mon 25/5/19	0 days	0
382	Concreting	1 day	Sun 25/5/18	Sun 25/5/18	Sun 25/5/18	Sun 25/5/18	Sun 25/5/18	Sun 25/5/18	0 days	0
383	**Stage 4**	**29 days**	**Mon 25/5/19**	**Mon 25/6/16**	**Mon 25/5/19**	**Mon 25/6/16**	**Mon 25/5/19**	**Mon 25/6/16**	**0 days**	
384	Excavation and Lateral Support	10 days	Mon 25/5/19	Wed 25/5/28	Mon 25/5/19	Wed 25/5/28	Mon 25/5/19	Wed 25/5/28	0 days	0
385	Formwork Erection	12 days	Tue 25/5/27	Sat 25/6/7	Tue 25/5/27	Sat 25/6/7	Tue 25/5/27	Sat 25/6/7	0 days	0
386	Catchpit construcion	11 days	Fri 25/6/6	Mon 25/6/16	Fri 25/6/6	Mon 25/6/16	Fri 25/6/6	Mon 25/6/16	0 days	0
387	Concreting	1 day	Sun 25/6/15	Sun 25/6/15	Sun 25/6/15	Sun 25/6/15	Sun 25/6/15	Sun 25/6/15	0 days	0
388	**Stage 5**	**29 days**	**Mon 25/6/16**	**Mon 25/7/14**	**Mon 25/6/16**	**Mon 25/7/14**	**Mon 25/6/16**	**Mon 25/7/14**	**0 days**	
389	Excavation and Lateral Support	10 days	Mon 25/6/16	Wed 25/6/25	Mon 25/6/16	Wed 25/6/25	Mon 25/6/16	Wed 25/6/25	0 days	0
390	Formwork Erection	12 days	Tue 25/6/24	Sat 25/7/5	Tue 25/6/24	Sat 25/7/5	Tue 25/6/24	Sat 25/7/5	0 days	0
391	Catchpit construcion	11 days	Fri 25/7/4	Mon 25/7/14	Fri 25/7/4	Mon 25/7/14	Fri 25/7/4	Mon 25/7/14	0 days	0
392	Concreting	1 day	Sun 25/7/13	Sun 25/7/13	Sun 25/7/13	Sun 25/7/13	Sun 25/7/13	Sun 25/7/13	0 days	0
393	Connection of ex. 400CU to SHT.CP6	28 days	Sat 25/7/12	Fri 25/8/8	Sat 25/7/12	Fri 25/8/8	Tue 26/6/30	Mon 26/7/27	353 days	0
394	**SHT.CP6~ SHT.CP5, 600CU(HD-G), L=24.1**	**36 days**	**Mon 25/7/14**	**Mon 25/8/18**	**Mon 25/7/14**	**Mon 25/8/18**	**Mon 25/7/14**	**Mon 25/8/18**	**0 days**	
395	Excavation and Lateral Support	13 days	Mon 25/7/14	Sat 25/7/26	Mon 25/7/14	Sat 25/7/26	Mon 25/7/14	Sat 25/7/26	0 days	0
396	Formwork Erection	14 days	Fri 25/7/25	Thu 25/8/7	Fri 25/7/25	Thu 25/8/7	Fri 25/7/25	Thu 25/8/7	0 days	0
397	Catchpit construcion	13 days	Wed 25/8/6	Mon 25/8/18	Wed 25/8/6	Mon 25/8/18	Wed 25/8/6	Mon 25/8/18	0 days	0
398	Concreting	1 day	Sun 25/8/17	Sun 25/8/17	Sun 25/8/17	Sun 25/8/17	Sun 25/8/17	Sun 25/8/17	0 days	0
399	Connection of ex. 400CU to SHT.CP5	28 days	Sat 25/8/16	Fri 25/9/12	Sat 25/8/16	Fri 25/9/12	Tue 26/6/30	Mon 26/7/27	318 days	0
400	**SHT.CP5~ SHT.CP4, 600CU(HD-G), L=73.9**	**85 days**	**Mon 25/8/18**	**Mon 25/11/10**	**Mon 25/8/18**	**Mon 25/11/10**	**Mon 25/8/18**	##########	**0 days**	
401	**Stage 1**	**29 days**	**Mon 25/8/18**	**Mon 25/9/15**	**Mon 25/8/18**	**Mon 25/9/15**	**Mon 25/8/18**	**Mon 25/9/15**	**0 days**	
402	Excavation and Lateral Support	10 days	Mon 25/8/18	Wed 25/8/27	Mon 25/8/18	Wed 25/8/27	Mon 25/8/18	Wed 25/8/27	0 days	0
403	Formwork Erection	12 days	Tue 25/8/26	Sat 25/9/6	Tue 25/8/26	Sat 25/9/6	Tue 25/8/26	Sat 25/9/6	0 days	0
404	Catchpit construcion	11 days	Fri 25/9/5	Mon 25/9/15	Fri 25/9/5	Mon 25/9/15	Fri 25/9/5	Mon 25/9/15	0 days	0
405	Concreting	1 day	Sun 25/9/14	Sun 25/9/14	Sun 25/9/14	Sun 25/9/14	Sun 25/9/14	Sun 25/9/14	0 days	0
406	**Stage 2**	**29 days**	**Mon 25/9/15**	**Mon 25/10/13**	**Mon 25/9/15**	**Mon 25/10/13**	**Mon 25/9/15**	##########	**0 days**	
407	Excavation and Lateral Support	10 days	Mon 25/9/15	Wed 25/9/24	Mon 25/9/15	Wed 25/9/24	Mon 25/9/15	Wed 25/9/24	0 days	0
408	Formwork Erection	12 days	Tue 25/9/23	Sat 25/10/4	Tue 25/9/23	Sat 25/10/4	Tue 25/9/23	Sat 25/10/4	0 days	0
409	Catchpit construcion	11 days	Fri 25/10/3	Mon 25/10/13	Fri 25/10/3	Mon 25/10/13	Fri 25/10/3	Mon 25/10/13	0 days	0
410	Concreting	1 day	Sun 25/10/12	Sun 25/10/12	Sun 25/10/12	Sun 25/10/12	Sun 25/10/12	Sun 25/10/12	0 days	0
411	**Stage 3**	**29 days**	**Mon 25/10/13**	**Mon 25/11/10**	##########	**Mon 25/11/10**	##########	##########	**0 days**	
412	Excavation and Lateral Support	10 days	Mon 25/10/13	Wed 25/10/22	Mon 25/10/13	Wed 25/10/22	Mon 25/10/13	Wed 25/10/22	0 days	0
413	Formwork Erection	12 days	Tue 25/10/21	Sat 25/11/1	Tue 25/10/21	Sat 25/11/1	Tue 25/10/21	Sat 25/11/1	0 days	0
414	Catchpit construcion	11 days	Fri 25/10/31	Mon 25/11/10	Fri 25/10/31	Mon 25/11/10	Fri 25/10/31	Mon 25/11/10	0 days	0
415	Concreting	1 day	Sun 25/11/9	Sun 25/11/9	Sun 25/11/9	Sun 25/11/9	Sun 25/11/9	Sun 25/11/9	0 days	0
416	Connection of ex. 450CU to SHT.CP4	28 days	Sat 25/11/8	Fri 25/12/5	Sat 25/11/8	Fri 25/12/5	Tue 26/6/30	Mon 26/7/27	234 days	0
417	**SHT.CP4~ End, 525CU(HD-G), L=82.3**	**78 days**	**Mon 25/11/10**	**Mon 26/1/26**	##########	**Mon 26/1/26**	##########	**Mon 26/1/26**	**0 days**	
418	**Stage 1**	**27 days**	**Mon 25/11/10**	**Sat 25/12/6**	##########	**Sat 25/12/6**	##########	**Sat 25/12/6**	**0 days**	
419	Excavation and Lateral Support	10 days	Mon 25/11/10	Wed 25/11/19	Mon 25/11/10	Wed 25/11/19	Mon 25/11/10	Wed 25/11/19	0 days	0
420	Formwork Erection	11 days	Tue 25/11/18	Fri 25/11/28	Tue 25/11/18	Fri 25/11/28	Tue 25/11/18	Fri 25/11/28	0 days	0
421	Catchpit construcion	10 days	Thu 25/11/27	Sat 25/12/6	Thu 25/11/27	Sat 25/12/6	Thu 25/11/27	Sat 25/12/6	0 days	0
422	Concreting	1 day	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	Fri 25/12/5	0 days	0
423	**Stage 2**	**27 days**	**Sat 25/12/6**	**Thu 26/1/1**	**Sat 25/12/6**	**Thu 26/1/1**	**Sat 25/12/6**	**Thu 26/1/1**	**0 days**	
424	Excavation and Lateral Support	10 days	Sat 25/12/6	Mon 25/12/15	Sat 25/12/6	Mon 25/12/15	Sat 25/12/6	Mon 25/12/15	0 days	0
425	Formwork Erection	11 days	Sun 25/12/14	Wed 25/12/24	Sun 25/12/14	Wed 25/12/24	Sun 25/12/14	Wed 25/12/24	0 days	0
426	Catchpit construcion	10 days	Tue 25/12/23	Thu 26/1/1	Tue 25/12/23	Thu 26/1/1	Tue 25/12/23	Thu 26/1/1	0 days	0
427	Concreting	1 day	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	Wed 25/12/31	0 days	0
428	**Stage 3**	**26 days**	**Thu 26/1/1**	**Mon 26/1/26**	**Thu 26/1/1**	**Mon 26/1/26**	**Thu 26/1/1**	**Mon 26/1/26**	**0 days**	
429	Excavation and Lateral Support	10 days	Thu 26/1/1	Sat 26/1/10	Thu 26/1/1	Sat 26/1/10	Thu 26/1/1	Sat 26/1/10	0 days	0
430	Formwork Erection	10 days	Fri 26/1/9	Sun 26/1/18	Fri 26/1/9	Sun 26/1/18	Fri 26/1/9	Sun 26/1/18	0 days	0
431	Catchpit construcion	10 days	Sat 26/1/17	Mon 26/1/26	Sat 26/1/17	Mon 26/1/26	Sat 26/1/17	Mon 26/1/26	0 days	0
432	Concreting	1 day	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	Mon 26/1/26	0 days	0



Revision.: 4.0 Date: 31 December 2023

´Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

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}

Appendix 2 Implementation Schedule of Recommended Mitigation Measures

Table A2-1 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?
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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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	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

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?
		maintained throughout the entire construction period.				
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• 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
S.3.8.1	S.3.2.3	• NRMMs should be approved or exempted with a label issued by EPD. The label should be displayed	Emission from NRMM during Construction Phase	Contractor(s)	At all construction areas of the site	Air Pollution Control (Non-road Mobile

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?
		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.			during the entire construction period	Machinery) (Emission) Regulation
S.3.8.1	S.3.2.3	• 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	-
Operational Phase						
N/A	N/A	None specific.	N/A	N/A	N/A	N/A

Table A2-2 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?
Construction Phase						
S.4.6.6	S. 4.8.1	Use of quiet PMEs 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
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
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
S.4.7.1	S. 4.8.1	• 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

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?
		• 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.				
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
Operational Phase						
N/A	N/A	None specific	N/A	N/A	N/A	N/A

Table A2-3 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?
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
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
S.5.9.3	S.5.2.2	Good Site Practice • 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. • 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;	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

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?
		• 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; • 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.				

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?
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
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
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
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

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?
S.5.9.9	S.5.2.4	The *Aquilaria sinensis* (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
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
Operation Phase						
S.5.9.22	S5.3.1	The following mitigation measures should be implemented during the operation phase of the project: • Any maintenance activities within the channel bed should be scheduled in the dry season and beyond the breeding season of the freshwater crab, which normally spawning in the wet season; • Staff awareness training on the ecological importance of the riverine habitats and inhabited wildlife and remind the team to minimize unnecessary disturbance to the channel; • Vegetation maintenance of the embankment should avoid trespassing into the channel bed as far as practicable, and should focus on those plant species found to be too invasive or exotic in origin; • The use of powered equipment should be with cautions to avoid accidental spillage of oil or fuel into the water body; • If application of fungicide or pesticide is required to treat plant disease or eradicate any insect pest (such as fire ant) along the channel side or within the embankment, only ecological friendly pesticide or fungicide with no detrimental effect on the water quality or aquatic fauna should be applied;	Ecological - to minimize the potential ecological impact associated with maintenance activities	Maintenance Contractor	All sites during operation	Contractual requirements

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?
		• Any dredging or desilting if required should be undertaken in dry season and section-by-section to disperse any wildlife that may be sheltering in the immediate area, and vehicle access and the use of powered equipment should be minimized as far as practicable.				
S.5.11.6	S.5.2.14	Monitor the establishment of the riverine habitat in accordance with the approved plan once the staged reinstatement work of the work section completed, and the monitoring of restored riverine habitat should be at least 3 years.	Ecological – monitor the recovery of the riverine system	ET	Upon completion of the staged reinstatement work at all sites	EIA, contractual requirements

Table A2-4 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?
Construction Phase						
S.6.7.2	S.6.2.3	The mitigation measures should cover, but not limited to the following Best Management Practices: • 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; • Boundaries of earthworks should be marked and surrounded by dykes or embankments for flood protection, as necessary; • Silt removal facilities, channels and manholes should be maintained and cleaned regularly to ensure the proper function; • 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,	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

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?
		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 discharge of wastewater should be kept to a minimum; • 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.				
S.6.7.4	S6.2.3	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	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

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?
		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. • 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 after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means; • All drainage facilities and erosion and sediment control structures, 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;				

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?
		• Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers; • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 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 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; • 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;				

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?
		• 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.				
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
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
S.6.7.7 & S.6.7.8	S.6.2.3	Sewage from Workforce • 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 m^3/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 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.	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

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?
S.6.7.10 - S.6.7.15	S.6.2.3	Widening of Drainage Channels • 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 pile, 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 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; • 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 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;	Water quality control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO

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?
		• 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	Cast in-situ Construction • Minimise the area of the site which generates contaminated stormwater runoff; • Provide a separate dedicated drainage system to discharge clean stormwater from the site; • 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.	Water quality control during construction	Contractor(s)	At all construction areas of the site during the entire construction period	WPCO
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

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?
S.6.7.18	S.6.2.3	Mitigation measures to avoid potential impact to Cheung Po EIS • The construction work in Tai Wo should be scheduled in the dry season and sand bags or other similar facilities should be 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; • 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.	Water quality control during construction	Contractor(s)	At Tai Wo Area during the entire construction period	WPCO
Operation Phase						
S.6.7.19	S.6.2.3	• Maintenance of the drainage should be programmed to annual silt removal when the accumulated silt will adversely affect the hydraulic capacity of the channel (except during emergency situations where flooding risk is imminent). Desilting should be carried out by hand or light machinery during the dry season (October to March) when water flow is low; • Containment structures (such as sandbags barrier) should be provided for the active desilting works area to facilitate a dry or at least confined working area within the watercourses; • Where no maintenance access is available for the channel, temporary access to the works site should be carefully planned and located to minimize disturbance caused to the watercourse, adjacent vegetation and nearby sensitive receivers; • The use of lesser or smaller construction plants should be considered to reduce disturbance to the channel bed where fish habitats are located and to the nearby sensitive receivers; and	Maintenance desilting works	Project proponent	N/A	ProPECC PN 1/23

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?
		• The use of concrete or the like should be avoided or minimized.				

Table A2-5 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?
Construction Phase						
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	Waste Disposal Ordinance

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?
		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;				
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction period	Waste Disposal (Chemical Waste) (General) Regulation

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?
		Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by the EPD;				
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	• 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
S.7.5.1	S.7.2.5	Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices.	Waste management during construction	Contractor(s)	At all construction areas of the site during the entire construction	ETWB TCW No. 19/2005

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?
		• Segregation and storage different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • 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.				
Operation Phase						
N/A	N/A	None specific	N/A	N/A	N/A	N/A

Table A2-6 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?
Construction Phase						
S.8.8.1	S.8.2.1	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: • 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
Operation Phase						
N/A	N/A	None specific	N/A	N/A	N/A	N/A

Table A2-7 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?
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
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
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
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

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?
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
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
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
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
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
Operation Phase						
S.12.1.2 of Appendix 9-1	S.9.2	Design and Construction of the Works, including hard work and soft work OM01- Detailed Design Considerations	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM

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?
		Detailed design of development components should reduce landscape footprint and visibility of structures. The area allowed for necessary structures should be reduced to a practical minimum.				
S.12.1.2 of Appendix 9-1	S.9.2	OM02 - Aesthetically Pleasing Design The form, textures, finishes and colours of the proposed development components should be compatible with the existing surroundings. Light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white may be utilised where technically feasible to reduce the visibility of the development components, including all roadwork, buildings and noise barriers etc. To further improve visual amenity, natural building materials such as stone and timber, should be preferably adopted for architectural features, where technically feasible.	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM
S.12.1.2 of Appendix 9-1	S.9.2	OM03 – Responsive Design of Channel alignments The proposed use of a responsive design for the disposition of the main elements of the proposed drainage scheme including the routing of the channel to enable the preservation of significant landscape elements, such as large trees and the development of aesthetic treatments in response to the urban context within which the projects are to be implemented. The disposition and height profile of the developments and above ground utilities structures to respond to the existing context particularly the existing landform and preserved trees. Proposals designed to minimise the single use of space for functional and utility purposes and promote integrated design solutions. Create a subtle transition at the edges of the sites to enhance the sense of visual integration with the existing context and avoid abrupt transitions between the existing and proposed built environment.	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM

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?
S.12.1.2 of Appendix 9-1	S.9.2	OM04 – Design of Engineering Structures The design of the proposed Engineering Structures such as the proposed retaining culverts and footbridges should pay particular attention to the appearance and construction methods. The detailed design landscape consultants shall work in unison with the engineers on the aesthetic aspects of the structures and their relationship with the landscape. Planting would be used wherever possible to minimise the apparent height of structures and to soften their appearance in medium and long distance views. The design of engineering structures shall avoid any unnecessary visual clutter; this would be achieved through the co-ordination of the various engineering disciplines involved to arrive at integrated design solutions.	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM
S.12.1.2 of Appendix 9-1	S.9.2	OM05 – Design of Retaining Walls and Channel Embankments The proposed treatment of Retaining Wall and Slopes will be undertaken in accordance with GEO Publication No. 1/2000 "Technical Guidelines on Landscape Treatment and Bio-engineering for Man-made Slopes and Retaining Walls" as well as DSD Practice Note No. 1/2015 Guidelines on Environmental and Ecological Considerations for River Channel Design. These engineering structures will be aesthetically enhanced through the use of soft landscape works including tree and shrub planting to give man-made slopes a more natural appearance blending into the local rural landscape. Whip sized tree planting is preferred on the face of soil cut slopes. The smaller, younger plant stock will adapt to their new growing conditions more quickly than larger sized stock and establish a naturalistic effect more rapidly. Larger sized tree stock shall be mixed with whip sized trees to create a more diverse woodland structure and enhance the screening effect	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM

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?
		from day one. Hydroseeding will be applied on slope that has a gradient more than 30 degree.				
S.12.1.2 of Appendix 9-1	S.9.2	OM06 – Compensatory Planting Proposals at Channel Edges All compensatory planting of trees is to be carried out in accordance with ETWB TCW No. 10/2013. A total woodland compensation area of 5.54 ha is proposed. The planting proposals will utilise native species. Some compensatory shrub and ground cover planting will also be provided within the channel edge area to create more structurally diverse woodland and a layered vegetated edge to the watercourse.	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM
S.12.1.2 of Appendix 9-1	S.9.2	OM07 – Channel Bed and Embankment Toe Greening Develop practical greening and ecological enhancements in accordance with DSD Practice Note No. 1/2015 Guidelines on Environmental and Ecological Considerations for River Channel Design.	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM
S.12.1.2 of Appendix 9-1	S.9.2	OM08 – Vertical and Trailing Greening Vertical planting should be established to soften the hard, vertical surfaces of the proposed development components. These components will include walls of the proposed culvert sand retaining walls. Planting to utilise climbing and trailing plants. Location and extent of vertical greening subject to detailed design.	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM
S.12.1.2 of Appendix 9-1	S.9.2	OM09 – Green Paving Where technically feasible utilise a green paving approach such as grasscrete or grass-grid to maximise the area of planting and reduce the area of hard paving. Location and extent of green paving subject to detailed design.	To minimize landscape and visual impact	DSD and its management and maintenance agents	Work sites	EIAO-TM

Table A2-8 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?
Construction Phase						
Table 10-3	Table 10.1	Lee Tat Bridge (GB-01) • 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; • 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	Cultural heritage protection	Contractors	During the construction period, for Lee Tat Bridge (GB-01)	AMO Guidelines on CHIA; EIAO-TM

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?
		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.				
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
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
Table 10-1	S.10.2.1 – S.10.2.2	• 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.	Identification of archaeological remains, deposits and material within survey area Identification of archaeological extent	Qualified archaeologist engaged by Contractor	Prior to construction phase	Antiquities and Monuments Ordinance
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
Operation Phase						

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?
N/A	N/A	None specific	N/A	N/A	N/A	N/A

Appendix 3 Field Data Record Sheet for Noise Measurement

Monitoring Location			
Weather			
Temperature (°C)			
Wind Strength (m/s)			
Model and Serial number of Calibrator			
Calibration (dB(A))	Before / After	Before / After	Before / After
Model and Serial Number of Noise Meter			
Type of Measurement	Free field / Façade	Free field / Façade	Free field / Façade
Measurement Time	-	-	-
$L_{Aeq\ (5min)}$			
$L_{10\ (5min)}$			
$L_{90\ (5min)}$			
Major noise source(s) during measurement			

Recorded By	Sign: Date:	Sign: Date:	Sign: Date:
Checked By	Sign: Date:	Sign: Date:	Sign: Date:

Appendix 4 Water Quality Monitoring Plan

Water Quality Monitoring Plan

1. General Information

1.1. Background

Aurecon Hong Kong Limited (Aurecon) is commissioned by the Contractor to undertake the Environmental Team (ET) services as required in the Particular Specification for the Project; and to carry out the Environmental Monitoring and Audit (EM&A) programme in fulfilment of the Project's EM&A requirements under the Environmental Permit 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).

1.2. Project Description

The works to be executed under the Project include:

- Construction of rectangular channel along existing stream in Sung Shan New Village;
- Construction of rectangular channel in Tai Wo;
- Construction of rectangular channel along existing stream in Lin Fa Tei;
- Deepening of existing rectangular channel in Lin Fa Tei;
- Construction of storm drain along Kam Sheung Road;
- Construction of rectangular channel along existing stream in Ha Che;
- Construction of storm drain across Fan Kam Road;
- Re-provision of pedestrian and vehicular crossings.

Overview of the site locations is shown in **Figure 1.1**.

1.3. Purpose of The Plan

Pursuant to Condition 2.6 of the EP, this Water Quality Monitoring Plan (WQMP) with provision of details, supported with justifications, on the methodology, equipment, locations, frequency and duration for baseline, impact and post-construction monitoring, water quality action and limit levels, and an Event and Action Plan shall be submitted to the EPD for approval no later than 2 months before the commencement of construction of the Project.

2. Water Quality

The EIA Report (EIAO Register No. AEIAR-229/2021) has assessed the water quality impact associated with the project. According to the Report, the water quality impact could be minimised with the implementation of mitigation measures. The water quality monitoring programme as discussed below would ensure the implementation of the recommended mitigation measures and provide continuous improvement to the environmental conditions.

2.1. Environmental Mitigation Measure During Construction Phase

The EIA Report (EIAO Register No. AEIAR-229/2021) and EP Condition 3.1 recommended the contractor to carry out excavation works within an artificially enclosed dry section of the existing channels of Sung Shan New Village, Lin Fa Tei and Ha Che to minimize potential impacts on water quality during the channel works. The water quality monitoring programme as discussed below would ensure the implementation of the recommended mitigation measures and provide continuous improvements to the environmental conditions. The mitigation measures are summarised below.

2.2. Water Quality Parameters

The monitoring shall normally be established by measuring the dissolved oxygen (DO), temperature, pH, turbidity, salinity, water depth and suspended solids (SS) in water bodies at all designated locations as specified in **Section 2.5** of this WQMP. The measurements shall be taken at all designated monitoring stations 3 days per week. The interval between two sampling surveys shall not be less than 36 hours. One replicate in-situ measurement shall be conducted and one replicate sample shall be collected from each sampling location in the sampling event to ensure a robust statistically interpretable database. Dissolved oxygen (DO), pH value, salinity, temperature, water depth and turbidity should be measured in-situ whereas other parameters should be determined by an accredited laboratory. Other relevant data shall also be recorded, including monitoring locations/ positions, time, weather conditions and any special phenomena or work underway at the construction site.

2.3. Monitoring Equipment

Water quality monitoring equipment with the following specifications shall be supplied and maintained by the ET.

Dissolved Oxygen and Temperature Measuring Equipment

The instrument should be portable, weatherproof dissolved oxygen measuring instrument with cable, sensor, comprehensive operation manuals, and applicable to use a DC power source. It should be capable of measuring:

- DO level in the range of 0 – 20 mg/L and 0 – 200% saturation; and
- Temperature of 0 – 45 ℃.

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

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 Instrument

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

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).

Water samples for suspended solids measurement shall be collected in high density polythene bottles, packed in ice (chilled to 4 ℃ without being frozen), and delivered to the laboratory as soon as possible after collection.

Water Depth Detector

A portable, battery-operated echo sounder should be used for determining water depth at each designated monitoring station. This unit can either be hand-held or affixed to the bottom of the work boat, if the same vessel is to be used throughout the monitoring programme.

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

Monitoring Position Equipment

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 monitoring to ensure the water sampling locations are correct during water quality monitoring work.

Water Sampling Equipment

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.

For sampling location with shallow water depth, plastic bucket would be used instead.

Calibration of In-situ Instruments

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.

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

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 uninterruptedly even when some equipment is under maintenance, calibration, etc.

Table 2-1 presents details of the monitoring equipment that would be deployed during the baseline and impact water quality monitoring.

Table 2-1 Proposed Water Quality Monitoring Equipment

Equipment	Brand (Model no.)	Parameter	Range	Accuracy
Sonar Water Depth Detector	Lucky Knight FF718LiC-WT	Water depth	Maximum depth: 0.7 – 45 m	±0.1 m
Water Sampler	Wildco 2L Water Sampler with messenger or plastic bucket (used in shallow water depth)	N/A	N/A	N/A
Positioning Equipment	Garmin (GPSMAP 78s)	Positioning	N/A	GPS: ±1m
Multi-functional Water Quality Meter	YSI (Xylem ProDSS)	DO	0 to 500%	• 0 to 200%: ±1% of reading • 200 to 500%: ±8% of reading
			0 to 50 mg/L	• 0 to 20 mg/L: ±0.1 mg/L or 1% of reading, whichever is greater • 20 to 50 mg/L: ±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	• 0 to 999 NTU: 0.3 NTU or ±2% of reading, whichever is greater • 1000 to 4000 NTU: ±5% of reading
		Salinity	0 to 70 ppt	±1.0% of reading or ±0.1 ppt, whichever is greater

2.4. Measurement and Laboratory Analysis

Analysis of SS should be carried out by a HOKLAS or another international accredited laboratory. At least two replicate samples from each independent sampling event are required for the SS measurement. Sufficient water samples (about 1,000 mL) shall be collected at the monitoring stations for carrying out the laboratory SS determination. The laboratory determination work shall start within 24 hours after collection of the water samples. The analysis for suspended solids is presented in **Table 2-2**.

Table 2-2 Laboratory analysis

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.

If a site laboratory is set up or a non-HOKLAS and non-international accredited laboratory is hired for carrying out the laboratory analysis, the laboratory equipment, analytical procedures, and quality control shall be approved by the EPD. The ET Leader shall provide the ER with one copy of the relevant chapters of the "Standard Methods for the Examination of Water and Wastewater" updated edition and any other relevant document for his reference.

For the testing methods of other parameters as recommended in the EIA Report or required by the EPD, detailed testing methods, pre-treatment procedures, instrument use, Quality Assurance/ Quality Control (QA/QC) details (such as blank, spike recovery, number of duplicate samples per batch, etc.), detection limits and accuracy shall be submitted to the EPD for approval prior to the commencement of monitoring programme. The QA/QC shall

be in accordance with the requirement of HOKLAS or international accredited scheme. The QA/QC results shall be reported. The EPD may also request the laboratory to carry out analysis of known standards provided by the EPD for quality assurance. Additional duplicate samples may be required by the EPD for inter laboratory calibration. Remaining samples after analysis shall be kept by the laboratory for 3 months in case repeat analysis is required. If in-house or non-standard methods are proposed, details of the method verification may also be required to submit to the EPD. In any circumstance, the sample testing shall have comprehensive quality assurance and quality control programmes. The laboratory shall prepare to demonstrate the programmes to the EPD or his representatives when requested.

During the baseline and impact phase monitoring under Contract No. DC/2022/02, the ET would engage Acumen Laboratory and Testing Limited, a HOKLAS accredited laboratory, to perform all the required laboratory testing, measurement and analysis specified in the EM&A Manual and EP.

2.5. Monitoring Locations

A proposal of alternative monitoring locations for baseline and impact monitoring is prepared by the ET, and agreement with the IEC, ER and then approval from the EPD was pursued. This proposal is presented in **Appendix 8**. The proposed monitoring locations, which include alternative monitoring locations are shown in **Figure 6.5** to **Figure 6.8** and listed in **Table 2-3**. These stations were chosen based on the following criteria:

- At locations close to and at the boundary of the major site activities as indicated in the EIA report, which are likely to have water quality impacts;
- Close to the sensitive receivers which are directly or likely to be affected; and
- For monitoring locations located in the vicinity of the sensitive receptors, care should be taken to cause minimal disturbance during monitoring.

Table 2-3 Water Quality Monitoring Locations

Stream	Station ID	Easting	Northing	Remarks
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	825497	830664	Control Monitoring Point
	C5	825486	830716	Impact Monitoring Point
LFT	C6	827232	831713	Control Monitoring Point
	C7A [3]#	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

Note: SSNV – Sung Shan New Village; TW – Tai Wo; LFT – Lin Fa Tei; HC – Ha Che.
[1] Alternative monitoring location for C1
[2] Alternative monitoring location for C3
[3] Alternative monitoring location for C7
Details of the proposal of alternative monitoring location for baseline and impact monitoring are presented in **Appendix 8**.

Control stations are necessary to compare the water quality from potentially impacted sites with the ambient water quality. The monitoring stations are proposed to monitor the impacts from the construction site. Control monitoring stations would be located upstream of the construction section of the river, while impact monitoring stations would be located downstream of each river.

The monitoring locations could be adjusted by the ET Leader to suit the exact location of the construction work site but need to obtain agreement from the EPD in advance.

Due to a shallow water depth with low flow rates in rivers, all the monitoring would be located at mid-depth level.

2.6. Baseline Water Quality Monitoring

Baseline conditions of water quality shall be established and agreed with the EPD prior to the commencement of works. The purposes of the baseline monitoring are to establish ambient conditions prior to the commencement of the construction works and to demonstrate the suitability of the proposed impact and control monitoring stations. The baseline conditions should normally be established by measuring the water quality parameters specified in **Table 2-4**. The measurements shall be taken at all designated monitoring stations including control stations for 3 days per week for 4 consecutive weeks, applicable with a period of four weeks prior to commencement of the works.

There shall not be any construction activities in the vicinity of the stations during the baseline monitoring. In the exceptional case when insufficient baseline monitoring data or questionable results are obtained, the ET should seek approval from EPD for an appropriate set of data to be used as baseline reference. Baseline monitoring schedule shall be sent to EPD 1 week prior to the commencement of baseline monitoring. The interval between 2 sets of monitoring shall not be lesser than 36 hours.

Table 2-4 below summarises the proposed monitoring frequency and water quality parameters for baseline monitoring.

Table 2-4 Proposed water quality baseline monitoring programme

Item	Baseline Monitoring
Monitoring Period	At least 4 weeks prior to the commencement of construction
Monitoring Frequency	3 days in a Week
Monitoring Locations	C1A, C2, C3A, C4, C5, C6, C7A, C8, C9, C10
Monitoring Parameters	DO, temperature, turbidity, salinity, pH, stream water depth and SS
Intervals between Two Sets of Monitoring	Not less than 36 hours

2.7. Impact Water Quality Monitoring

During the construction process, impact monitoring shall be carried out 3 days per week. If no exceedances are recorded during the three-month period, the monitoring frequency can then be reduced to once per week, with sampling/ measurement at the designated monitoring stations. The interval between two sets of monitoring shall not be less than 36 hours except where there are exceedances. However, the ET Leader should report and seek agreement from the IEC, the ER and then approval from the EPD before changing the monitoring frequency.

All monitoring information including date and time, weather conditions, operator, identification and description of monitoring locations, works, progress and construction activities, method, analytical data and calculation etc., shall be recorded in the monitoring data sheet. The water quality monitoring schedule shall be sent to the EPD on or before the first day of the monitoring month, the EPD shall be notified immediately of any changes in schedule in written format.

Table 2-5 below summarises the proposed monitoring frequency and water quality parameters for impact monitoring.

Table 2-5 Proposed water quality impact monitoring programme

Item	Impact Monitoring
Monitoring Period	During construction of the proposed pipe support and any other construction works
Monitoring Frequency	3 days in a Week
Monitoring Locations	Control Monitoring Points: C2, C3A, C4, C6, C7A and C9 Impact Monitoring Points: C1A, C5, C8 and C10
Monitoring Parameters	Dissolved oxygen (DO), temperature, turbidity, salinity, pH, stream water depth and suspended solids (SS).
Intervals between Two Sets of Monitoring	Not less than 36 hours

2.8. Action and Limit Level

The Action and Limit Levels for water quality are defined in **Table 2-6** below.

Table 2-6 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 limits occurs when monitoring result is lower than the limits.
2. For SS and turbidity, non-compliance of the water quality limits 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 as necessary.

2.9. Event and Action Plan

Should non-compliance of the criteria occur, action in accordance with the Action Plan in **Table 2-7** below shall be carried out.

It is recommended that additional mitigation measures should be taken to rectify the non-compliance of water quality criteria if the monitoring results indicate that the construction works have caused adverse impacts on water quality to the identified sensitive receivers. Construction programme shall be carefully reviewed to ensure that water quality at locations of the identified sensitive receivers is in compliance with criteria. Working schedule and mitigation measures should be reviewed by the Contractor, IEC, the ET Leader and the ER. The schedule for construction works may need to be revised until the adverse impacts to water quality are reduced to an acceptable level.

The ET Leader will assess the effectiveness and efficiency of the proposed mitigation measures and/ or remedial actions for on-going construction activities. The performance of the environmental management system (that is, the overall EM&A programme) would be reviewed by the ET Leader on a weekly basis. The findings of this review would be included in the relevant monthly EM&A reports and quarterly summary reports, together with any recommendations to improve the performance of the EM&A programme.

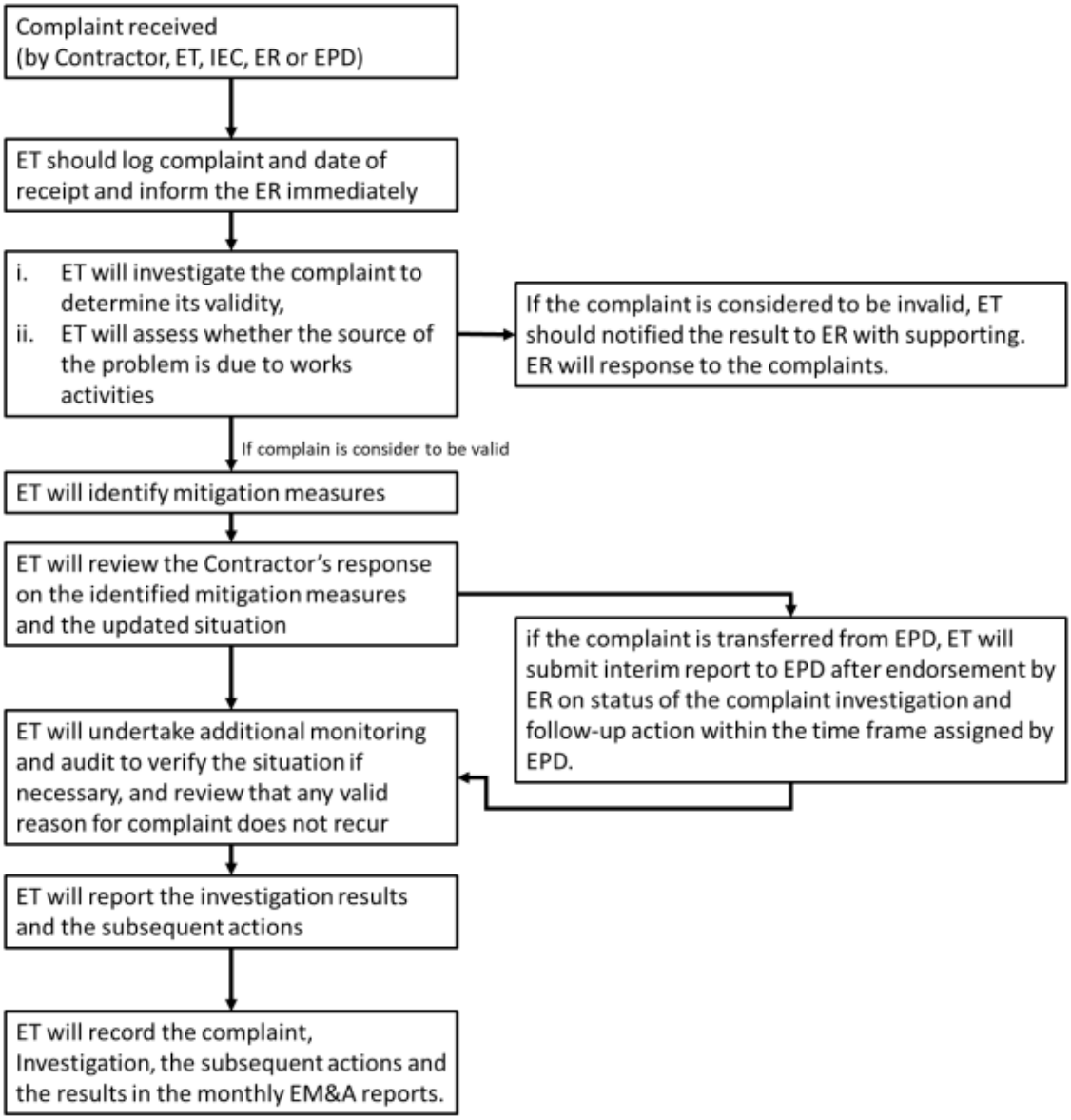
Table 2-7 Event and Action Plan for Water Quality

Event	Action			
	ET (1)	IEC (1)	ER (1)	Contractor
Action Level being exceeded by one sampling day	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.	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.	1. Discuss with the IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented.	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	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.	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.	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.	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.
Limit Level being exceeded by one sampling days	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.	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. Access the effectiveness of the implemented mitigation measures.	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. Access the effectiveness of the implemented mitigation measures.	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	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.	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. Access the effectiveness of the implemented mitigation measures.	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.	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

Appendix 5 Flow Chart of Complaint Response Procedures


Complaint received
(by Contractor, ET, IEC, ER or EPD)
ET should log complaint and date of receipt and inform the ER immediately
i. ET will investigate the complaint to determine its validity,
ii. ET will assess whether the source of the problem is due to works activities
If the complaint is considered to be invalid, ET should notified the result to ER with supporting. ER will response to the complaints.
If complain is consider to be valid
ET will identify mitigation measures
ET will review the Contractor's response on the identified mitigation measures and the updated situation
if the complaint is transferred from EPD, ET will submit interim report to EPD after endorsement by ER on status of the complaint investigation and follow-up action within the time frame assigned by EPD.
ET will undertake additional monitoring and audit to verify the situation if necessary, and review that any valid reason for complaint does not recur
ET will report the investigation results and the subsequent actions
ET will record the complaint, Investigation, the subsequent actions and the results in the monthly EM&A reports.

Appendix 6 Incident Report on Action Level or Limit Level Non-compliance

Project:	
Date:	
Time:	
Monitoring Location	
Parameter	
Action & Limited Level	
Measured Level	
Possible reason for Action or Limit Level Non-compliance	
Actions taken / to be taken	
Remarks	
Prepared by	
Designation	
Signature	
Date	

Appendix 7 Proposal of Alternative Noise Monitoring Locations

Contents

Annex

1 Introduction

1.1 Project Background

1.1.1 The works under Contract No. DC/2022/02 Drainage Improvement Works at Yuen Long – Stage 2 (hereafter the "Project") comprises the construction of drainage improvement works near four villages in Yuen Long (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. The Project is a designated project ("DP") (defined under item I.1 (b) (vii) in Schedule 2 of the Environmental Impact Assessment Ordinance). Its construction and operation will be governed by the Environmental Permit (No. EP-596/2021) and any subsequent variations of the Environmental Permit (EP) issued by the Director of Environmental Protection (DEP).

1.1.2 This proposal presents the background and scope of noise monitoring requirements for the construction of Project under Contract No. DC/2022/02. The aim of this proposal is to seek approval from the IEC and the Engineer's representative, and agreement from the EPD on the proposal of alternative monitoring locations.

1.2 Site Location

1.2.1 The site location of the Project is shown in **Figure 1.1** of this Updated EM&A Manual.

1.3 Environmental Permit

1.3.1 A summary of the relevant environmental permit of the Project is presented below:

EP No.	Title of Designated Project
EP-596/2021	Drainage Improvement Works near Four Villages in Yuen Long – Sung Shan New Village, Tai Wo, Lin Fa Tei and Ha Che

1.4 Construction Period

1.4.1 The major construction works of Contract No. DC/2022/02 would begin in mid-January 2024. The planned completion date of the works is 27 July 2026. According to Condition 1.12 of the EP, the Permit Holder (that is, the Drainage Services Department) shall notify the DEP in writing the commencement date of construction of the Project no later than two months prior to the commencement of construction of the Project.

2 Environmental Monitoring

2.1 Scope of Monitoring

2.1.1 Baseline and impact phase noise monitoring should be carried out prior to and during construction of the Project, respectively. The EM&A requirements of noise monitoring are specified in Section 4 of the approved EM&A Manual (EIAO Register No. AEIAR-229/2021). Noise monitoring will be conducted at the proposed noise monitoring stations within the buffer zone of the site boundary of the Project, which is defined as 300 m from the site boundary. **Table B2.1** lists the noise monitoring stations as proposed in the approved EM&A Manual. **Figure 4.6** to **Figure 4.9** of this Updated EM&A Manual indicate the corresponding locations of these monitoring stations.

Table B2.1 Noise Monitoring Stations Proposed in the EM&A Manual (AEIAR-229/2021)

ID No.	Location	Nature of Uses
SSNV_M2	Village house next to a nullah in Tong Tai Po Tsuen (near DD118 1720 S.A)	Residential
SSNV_M3	Village house near a soybean sauce factory in Sung Shan New Village (near DD118 1712)	Residential
SSNV_M6	#43, Sung Shan New Village	Residential
TW_M2	#200, Cheung Po	Residential
TW_M3	Kai Yip Garden, #3H, Tai Wo	Residential
LFT_M1	#2G, Lin Fa Tei	Residential
LFT_M3	#125, Lin Fa Tei	Residential
LFT_M5	#156B, Lin Fa Tei	Residential
LFT_M7	Village house near the nullah (DD112 699 S.E)	Residential
LFT_M13	#290, Lin Fa Tei	Residential
HC_M3	Block F, Fu Hing Garden, #88 Sheung Che	Residential
HC_M4	#1C, Chuk Hang	Residential
HC_M6	The Arbutus House 12, #52, Shui Kan Shek	Residential

Note: SSNV – Sung Shan New Village; TW – Tai Wo; LFT – Lin Fa Tei; HC – Ha Che.

2.1.2 Joint site visits of the monitoring stations were carried out by the Contractor and the Environmental Team on 31 October 2023, 6 November 2023 and 16 November 2023 to confirm safe access to these stations. For Station LFT_M3, the site was fenced off and the monitoring location was not accessible. An alternative, accessible monitoring location at Station LFT_M3A is proposed, which is located at the opposite side of the stream channel about 25 m west north-west from Station LFT_M3 (**Figure 4.8** of this Updated EM&A Manual). For Station LFT_M13, the location is not close to the nearest, revised works boundary (about 100 m away). An alternative monitoring location is proposed at Station LFT_M11, which is close to the noise sensitive receiver at Ngau Keng Tsuen (i.e. LFT11) identified in the EIA Report (**Figure 4.8** of this Updated EM&A Manual). For Station HC_M3, access to the monitoring location was not allowed by local residents. An alternative, accessible monitoring location at Station HC_M3A is proposed, which is located at the opposite side of the stream channel and is about 15 m south of Station HC_M3 (**Figure 4.9** of this Updated EM&A Manual). The alternative monitoring locations at Station LFT_M3A, Station LFT_M11 and Station HC_M3A meet the following criteria as stated in Section 4.4.2 of the EM&A Manual:

(i) The locations shall be close to the site activities which are likely to have significant noise impacts;

(ii) The locations shall be close to the noise sensitive receivers; and

(iii) Care shall be taken to cause minimal disturbance to the occupants of sensitive receivers.

2.1.3 **Table B2.2** summarizes the proposed baseline and construction noise monitoring stations for the EM&A programme to be carried out under Contract No. DC/2022/02. Site photos taken at the proposed noise monitoring stations during the site visits are presented in **Annex A.**

Table B2.2 Proposed Noise Monitoring Stations for the Project

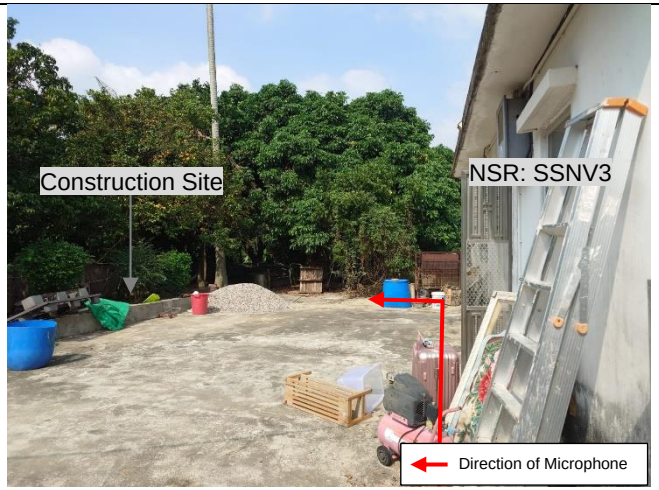
ID No. (1)	Location	Nature of Uses
SSNV_M2	Village house next to a nullah in Tong Tai Po Tsuen (near DD118 1720 S.A)	Residential
SSNV_M3	Village house near a soybean sauce factory in Sung Shan New Village (near DD118 1712)	Residential
SSNV_M6	#43, Sung Shan New Village	Residential
TW_M2	#200, Cheung Po	Residential
TW_M3	Kai Yip Garden, #3H, Tai Wo	Residential
LFT_M1	#2G, Lin Fa Tei	Residential
LFT_M3A (2)	Near #125B, Lin Fa Tei	Residential
LFT_M5	#156B, Lin Fa Tei	Residential
LFT_M7	Village house near the nullah (DD112 699 S.E)	Residential
LFT_M11(2)	#210, Ngau Keng Tsuen	Residential
HC_M3A (2)	Next to DD111 326 S.B RP near Fan Kam Road	-
HC_M4	#1C, Chuk Hang	Residential
HC_M6	The Arbutus House 12, #52, Shui Kan Shek	Residential

Notes:

(1) SSNV – 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.

Annex A Site Photos of the Proposed Noise Monitoring Stations

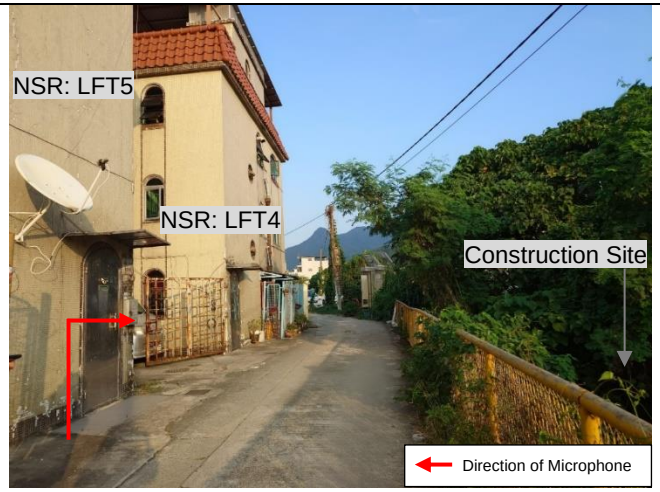
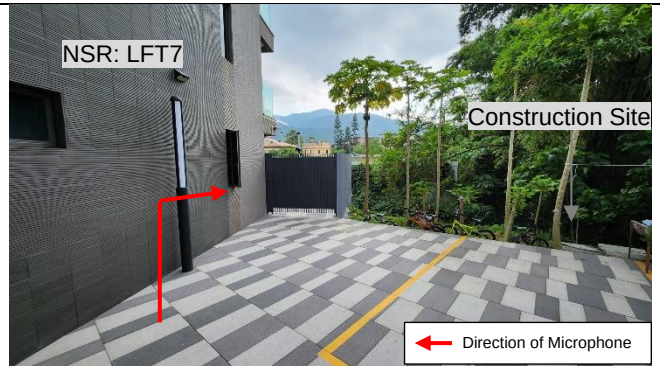
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
SSNV_M2		N	Façade
SSNV_M3		N	Façade

Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
SSNV_M6		N	Free-field

Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
TW_M2		N	Free-field
			

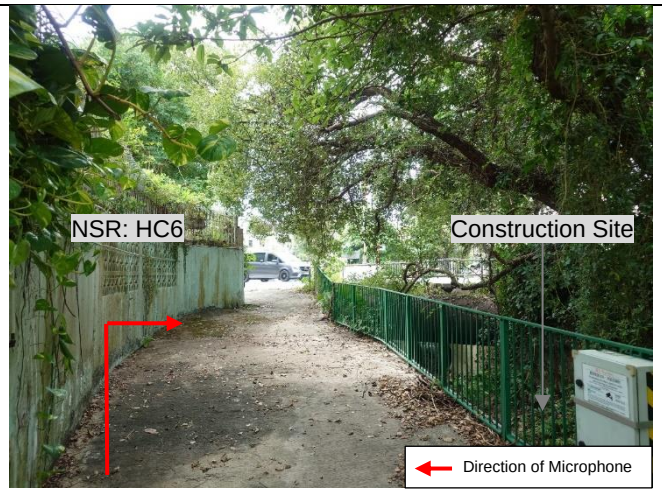
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
TW_M3		N	Free-field
			

Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
LFT_M1		N	Façade
LFT_M3	 	Y (The original monitoring location is fenced off and occupied as private premise and it is not accessible. Alternative monitoring location for LFT_M3 is selected at the opposite side of the original monitoring location.)	-

Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
LFT_M3A		-	Free-field
LFT_M5		N	Façade
LFT_M7		N	Façade

Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
LFT_M11		N	Façade

Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
HC_M3		Y (Access to the original monitoring location was not feasible due to the objection of resident)	-
HC_M3A (Alternative monitoring location for HC_M3)		-	Free-field

Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]	Type of Measurement
HC_M4		N	Façade
HC_M6		N	Façade

Appendix 8 Proposal of Alternative Water Quality Monitoring Locations

Contents

Annex

1 Introduction

1.1 Project Background

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1.2 Site Location

1.2.1 The site location of the Project is shown in **Figure 1.1** of this Updated EM&A Manual.

1.3 Environmental Permit

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1.4 Construction Period

1.4.1 The major construction works of Contract No. DC/2022/02 would begin after mid-January 2024. The planned completion date of the works is 27 July 2026. According to Condition 1.12 of the EP, the Permit Holder (that is, the Drainage Services Department) shall notify the DEP in writing the commencement date of construction of the Project no later than two months prior to the commencement of construction of the Project.

2 Environmental Monitoring

2.1 Scope of Monitoring

2.1.1 Baseline and impact phase water quality monitoring should be carried out prior to and during construction of the Project, respectively. The EM&A requirements of water quality monitoring are specified in Section 6 of the approved EM&A Manual (EIAO Register No. AEIAR-229/2021). Water quality monitoring will be conducted at the proposed water quality monitoring stations within the buffer zone of the site boundary of the Project, which is defined as 500 m from the site boundary. **Table D2.1** lists the proposed water quality monitoring stations. **Figure 6.5** to **Figure 6.8** of this Updated EM&A Manual indicate the corresponding locations of these monitoring stations.

Table D2.1 Water Quality Monitoring Stations Proposed in the EM&A Manual (AEIAR-229/2021)

Stream	Station ID	Easting	Northing	Remarks
SSNV	C1	821893	831782	Impact Monitoring Point
	C2	822459	831470	Control Monitoring Point
	C3	822422	831413	Control Monitoring Point
TW	C4	825497	830664	Control Monitoring Point
	C5	825486	830716	Impact Monitoring Point
LFT	C6	827232	831713	Control Monitoring Point
	C7	827044	832143	Control Monitoring Point
	C8	826513	832075	Impact Monitoring Point
HC	C9	828304	835029	Control Monitoring Point
	C10	827919	834271	Impact Monitoring Point

Note: SSNV – Sung Shan New Village; TW – Tai Wo; LFT – Lin Fa Tei; HC – Ha Che.

2.1.2 Joint site visits of the monitoring stations were carried out by the Contractor and the Environmental Team on 31 October 2023 and 6 November 2023 to confirm safe access to these stations. 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 (**Figure 6.5** of this Updated EM&A Manual). 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 RE, the Contractor, and the IEC, a new sampling location, Station C3A (822413E, 831284N), was identified at about 130 m upstream and was accessible for water sampling. The location of Station C3A is shown in **Figure 6.5** of this Updated EM&A Manual. Water sampling will be carried out at Station C3A instead of Station C3 during the rest of baseline monitoring and the coming impact monitoring. 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 (**Figure 6.7** of this Updated EM&A Manual). The alternative monitoring locations at Station C1A, Station C3A and Station C7A meet the following criteria as stated in Section 6.5.1 of the EM&A Manual:

- At locations close to and at the boundary of the major site activities as indicated in the EIA Report, which are likely to have water quality impacts;
- Close to the sensitive receivers which are directly or likely to be affected; and
- For monitoring locations located in the vicinity of the sensitive receptors, care should be taken to cause minimal disturbance during monitoring.

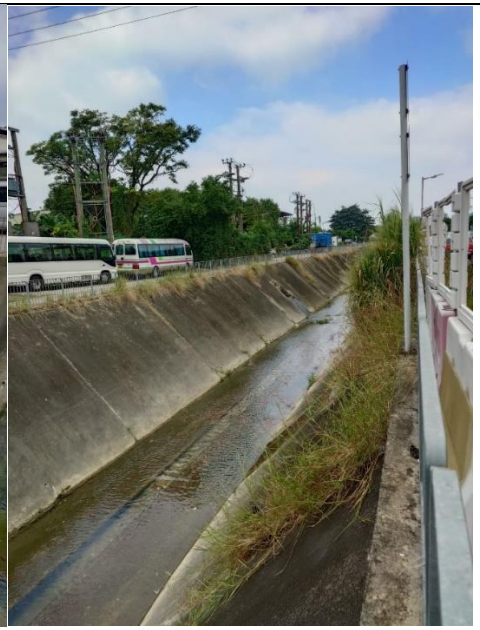
2.1.3 **Table D2.2** summarizes the proposed baseline and construction water quality monitoring stations for the EM&A programme to be carried out under Contract No. DC/2022/02. Site photos taken at the proposed water quality monitoring stations during the site visits are presented in **Annex D.**

Table D2.2 Proposed Water Quality Monitoring Stations for the Project

Stream	Station ID	Easting	Northing	Remarks
SSNV	C1A	821702	831945	Alternative Impact Monitoring Point
	C2	822459	831470	Control Monitoring Point
	C3A	822413	831284	Alternative Control Monitoring Point
TW	C4	825497	830664	Control Monitoring Point
	C5	825486	830716	Impact Monitoring Point
LFT	C6	827232	831713	Control Monitoring Point
	C7A	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

Note: SSNV – Sung Shan New Village; TW – Tai Wo; LFT – Lin Fa Tei; HC – Ha Che.

Annex D Site Photos of Proposed Water Quality Monitoring Stations

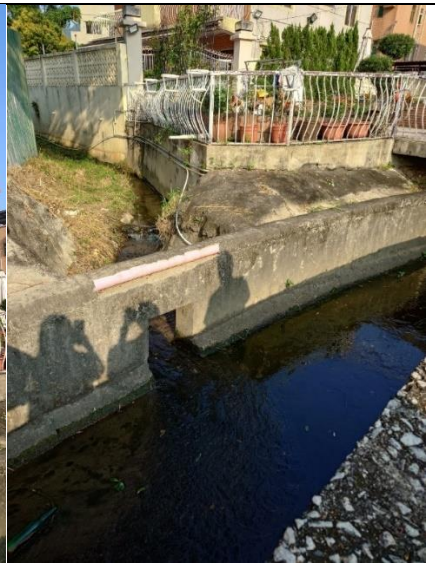
Water Quality Monitoring Location at Sung Shan New Village		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C1 (Impact)	 	Y (No access to original monitoring location and standing point for water quality monitoring)
C1A (Alternative monitoring location for C1) E: 821702; N: 831945	 	-

Water Quality Monitoring Location at Sung Shan New Village		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C2 (Control)	 	N
C3 (Control)	 	Y (Water too shallow for sampling)

Water Quality Monitoring Location at Sung Shan New Village		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C3A (Alternative monitoring location for C1) E: 822413; N: 831284	 	-

Water Quality Monitoring Location at Tai Wo		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C4 (Control)	 	N
C5 (Impact)	 	N

Water Quality Monitoring Location at Lin Fa Tei		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C6 (Control)	 	N

Water Quality Monitoring Location at Lin Fa Tei		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C7 (Control)	 	Y
C7A (Alternative monitoring location for C7) E: 826865; N: 832115	 	-

Water Quality Monitoring Location at Lin Fa Tei		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C8 (Impact)	 	N

Water Quality Monitoring Location at Ha Che		
Monitoring Location ID	Photo Record during Site Visit	Relocation [Y/N]
C9 (Control)	 	N
C10 (Impact)	 	-

Document prepared by

Aurecon Hong Kong Limited

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

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

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