Civil Engineering and Development Department

Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 – Environmental Team

Environmental Permit No.: EP-477/2013/A - Development of Lok Ma Chau Loop

Monthly Environmental Monitoring and Audit Report for December 2021

(Version 1.0)

Certified By

Dr. Priscilla Choy
(Environmental Team Leader)

REMARKS:

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

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

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Our ref.: LES/J2021-04/CS/L040
Date : 14 January 2022

By Post & Email

Civil Engineering and Development Department
West Development Office
West Division (5)
26/F, Tsuen Wan Government Office,
38 Sai Lau Kok Road, Tsuen Wan,
New Territories

Attn: Ms. JIM Wing Yan, Eva

Dear Ms. JIM,

Agreement No. WD/01/2020
Development of Lok Ma Chau Loop: Main Works Package 1 – Independent Environmental Checker

Verification of Monthly EM&A Report (December 2021)

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report of certified by the Environmental Team Leader in January 2022. We hereby verify the captioned submission in accordance with Clause 3.4 of the Environmental Permit No. EP-477/2013/A for the project of Development of Lok Ma Chau Loop.

Should you have any query, please feel free to contact the undersigned.

Yours faithfully,
For and On Behalf Of
Lam Environmental Services Limited

Raymond Dai
Independent Environmental Checker

c.c.	Binnies Hong Kong Limited	Mr. David Wong	By Email
	AECOM	Mr. Eric Wong	By Email
		Mr. Terrant Cheung	
	Wellab Limited	Dr. Priscilla Choy	By Email

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EXECUTIVE SUMMARY

Introduction

1. This is the 36th Monthly Environmental Monitoring and Audit (EM&A) Report prepared for Environmental Permit No.: EP-477/2013/A - Development of Lok Ma Chau Loop (hereinafter called "the Project"). This report documents the findings of Environmental Monitoring and Audit (EM&A) works conducted in the period from 1st to 31st December 2021 (hereinafter called "the reporting month").

2. During the reporting month, the following Works Contracts were undertaken for the Project:

- Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works (hereinafter called the "Contract")
- Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1 (hereinafter called the "Contract 1")
- Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1 (hereinafter called the "Contract 2")

Environmental Monitoring and Audit Activities

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

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

Environmental Aspect	Monitoring Parameter	Date
Air Quality	1-hr Total Suspended Particulates (TSP) Monitoring	1st, 7th, 13th, 17th, 23rd and 29th December 2021
	24-hr TSP Monitoring	6th, 10th, 16th, 22nd, 28th December 2021
Construction Noise	$L_{eq30mins}$	1st, 7th, 17th, 23rd and 29th December 2021
Water Quality	• Temperature • pH • Turbidity • Water depth • Salinity • Dissolved Oxygen (DO) • Suspended Solids (SS)	1st, 3rd, 6th, 8th, 10th, 13th, 15th, 17th, 20th, 22nd, 24th, 27th, 29th, 31st December 2021
Ecological	Avifauna flight line survey	24th December 2021
	Mammal monitoring (by infra-red flash cameras)	Throughout the reporting month
Site Environmental Audit	Environmental protection and pollution control measures	8th, 15th, 22nd, 29th December 2021

Breaches of Action and Limit Levels

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

Table II Summary Table for Environmental Exceedances in the Reporting Month

Environmental Monitoring	Parameter	Action Level	Limit Level	Event & Action		
				Investigation Result	No. of Exceedance related to the Construction Works of the Project	Corrective Action
Air Quality	1-hr TSP	0	0	--	0	--
	24-hr TSP	0	0	--	0	--
Construction Noise	Daytime Leq(30min)	0	0	--	0	--
Water Quality	DO	0	0	--	0	--
	Turbidity	0	0	--	0	--
	SS	0	0	--	0	--

1-hour TSP Monitoring

5. All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

6. All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

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

Water Quality

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

Ecological Monitoring

Avifauna

9. Avifauna monitoring was conducted as scheduled in the reporting month. Flight lines recorded were in general concentrated mainly on LMC Meander and adjacent areas including Ecological Area Zone (EA Zone) and along Shenzhen River. No significant impacts on the flight line were observed in the reporting month.

Mammals

10. Mammals monitoring was conducted in the reporting month. Eurasian Wild Pig (*Sus scrofa*) and Domestic Dog (*Canis lupus familiaris)* were captured by infra-red flash cameras.

11. No Eurasian Otter was found in the reporting month.

Land Contamination

12. Decontamination for five arsenic-contaminated zones (LD01 - LD05) identified in LMC Loop was completed and the final Remediation Report was submitted and approved by EPD in accordance with Condition 2.16 of the EP-477/2013/A under Contract No. YL/2017/03.

13. No work related to land contamination was conducted in the reporting month.

Site Environmental Audit

14. In the reporting month, weekly joint site inspections to evaluate the site environmental performance had been carried out by the representatives of the Consultants, Independent Environmental Checker (IEC), Environmental Team (ET) and the Contractors. The date(s) of the weekly site environmental audit conducted under the Project are summarized in **Table III**.

Table III Summary Table for Site Environmental Audit in the Reporting Month

Contract(s)	Date(s) of Site Environmental Audit
Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works	8th, 15th, 22nd, 29th December 2021
Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1	8th, 15th, 22nd, 29th December 2021
Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1	8th, 15th, 22nd, 29th December 2021

15. No non-compliance was recorded during the site inspections.

Complaint Log

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

Notification of Summons and Successful Prosecutions

17. No notification of summons or successful prosecution was received in the reporting month.

Reporting Change

18. This report has been prepared in compliance with the reporting requirements for the subsequent monthly EM&A Report as required by the EM&A Manual for Development of Lok Ma Chau Loop (EM&A Manual). No reporting change was made in the reporting month.

Future Key Issues

19. Major site activities for the coming reporting months will include:

Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works

(a) Maintenance works for freshwater marsh and reed bed.

20. Referring to the construction programme in **Appendix A,** all construction works of Contract No. YL/2017/03 have been completed and the works were successfully handed over to AFCD and DSD on 30 December 2021. In view of no significant environmental impact due to the works under YL/2017/03 during establishment period (i.e. until 31 December 2022) would be anticipated, construction phase EM&A programme, including Reporting, Weekly Site Inspection for Contract No. YL/2017/03 would therefore be terminated starting from 1st January 2022. The impact environmental monitoring (i.e. air quality monitoring, noise monitoring, water quality monitoring and ecological monitoring) would be continued for others contracts under EP-477/2013/A.

Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

(a) Completion of Wetland Compensation Areas at Portion 2 and 3 Outstanding Works.

(b) Completion of Temporary Access Roads (TAR1, TAR2) Outstanding Works.

(c) Commencement of TAR3 Construction.

(d) Pre-drilling and Piling for Meander Bridge Foundation

(e) Meander Bridge – Formation of Access Road for Construction of Abutments and Piers.

(f) Instrumentation Installation at Portion 15.2, Portion 15.2A, Portion 15.2B, Portion 15.3, Portion 15.4 and Portion 15.5.

(g) Granular Fill Laying at Portion 15.5.

(h) PVD Installation at Portion 7, Portion 8, Portion 15.1, Portion 15.2, Portion 15.2b.

(i) General Fill to Surcharge Laying at Portion 7 and Portion 8.

(j) Commencement of DCM Cluster Construction at Portion 7.

(k) Pre-condition survey and UU detection at Portion 6 (WCR).

(l) Subletting of Works for Road D1 & L1, Box Culverts and Meander Bridge and Sewage Treatment Works (STW) Buildings.

(m) Subletting and Site Clearance of Western Connection Road (WCR).

(n) Road D1 Excavation and Granular Bedding.

(o) Site Clearance and Pre-drilling at Box Culvert A1 at Portion 18A and Portion 18C.

Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

(a) Tree Survey (Remaining frontier closed area) / Tree Felling.

(b) Initial Survey.

(c) Underground Utility Detection.

(d) Pre-construction Condition Survey.

(e) Erection of Contractor' s Site Office.

(f) TMLG Meeting No. 2.

(g) Pre-drilling and Trial Pits (DRL-P06, P11, P12 & P13), (ST01-P02 & P03) & (CTFB-FBA-02, FBP-06 & Staircase).

(h) Construction of Reedbed Cell No. 3A (Filling, Laying Geomembrane & Drainage).

(i) Site Clearance and Forming Access for Cut Slopes CS1, CS2 and Retaining wall BPW1.

(j) Erection of Temporary Noise Barrier (TNB 5, TNB 12 & TNB 17) along the Lok Ma Chau Road.

(k) Box Culvert Diversion at Lok Ma Chau Road (Stage 1) subjected to TMLG and MTRC.

(l) Demolition of Existing Structures along Lok Ma Chau Road.

1 INTRODUCTION

1.1 Wellab Limited (WELLAB) was appointed by the Civil Engineering and Development Department (CEDD) under Service Contract No. WD/04/2020 as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) programme for the Works Contracts under Main Works Package 1 and the remaining works under Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works to ensure that the environmental performance of the Works Contracts comply with the requirements specified in the Environmental Permit (EP), Environmental Monitoring & Audit (EM&A) Manual, Environmental Impact Assessment (EIA) Report of the Project and other relevant statutory requirements.

Purpose of the report

1.2 This is the 36th EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme in the period from 1st to 31st December 2021.

Structure of the report

1.3 The structure of the report is as follows:
Section 1: **Introduction -** purpose and structure of the report.

Section 2: **Project Information** - summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.

Section 3: **Air Quality Monitoring -** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.

Section 4: **Noise Monitoring -** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.

Section 5: **Water Quality Monitoring -** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.

Section 6: **Ecological Monitoring -** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations and monitoring results.

Section 7 **Land Contamination -** summarises the remediation works progress for contamination soil and relevant submission.

Section 8 **Waste Management –** summarises the implementation status of waste management.

Section 9: **Environmental Site Inspection -** summarises the audit findings of the weekly site inspections undertaken within the reporting month.

Section 10: **Implementation Status of Environmental Mitigation Measures -**

summarises the compliance status of environmental mitigation measures.

Section 11: **Environmental Non-conformance -** summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.

Section 12: **Future Key Issues -** summarises the impact forecast and monitoring schedule for the next three months.

Section 13: **Conclusions and Recommendations**

2 PROJECT INFORMATION

Background

2.1 The development at Lok Man Chau (LMC) Loop is one of the ten major infrastructure projects for economic growth of the Hong Kong Special Administrative Region (HKSAR). The HKSAR Government would work with the Shenzhen authorities to tap the land resources of the LMC Loop to meet future development needs and consolidate the strategic position of both cities in the Pan-Pearl River Delta region. The Project is to develop LMC Loop with higher education as the leading land use, complemented by high-tech research and development facilities and cultural and creative industries.

2.2 The planning and engineering study for the Loop development is a designated project (DP) classified under Item 1 Schedule 3 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). In October 2013, the EIA Report (AEIAR-176/2013) of the Project was approved by the Director of Environmental Protection pursuant to the EIA Ordinance in accordance with the EIA Study Brief (No. ESB-201/2008 and ESB-238/2011) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM). The Environmental Permit (EP) (EP no.: EP-477/2013) was also granted in November 2013.

2.3 Pursuant to Section 13 of the EIAO, the Director of Environmental Protection amends the Environmental Permit (No. EP-477/2013) based on the Application No. VEP- 595/2021 and the environmental Permit (Permit No. E EP-477/2013/A) was issued on 12 August 2021 for Development of Lok Ma Chau Loop.

2.4 The Loop development is implemented by three works packages in stages, namely: Advance Works, Main Works Package 1 (MWP1) and Main Works Package 2 (MWP2).

2.5 Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works (hereinafter called the "Contract") was awarded to Sang Hing – Kuly Joint Venture (hereinafter called the "Contractor 1") in June 2018 for the Advance Works.

2.6 For MWP1, there will be a total of 5 Works Contracts and the contract packaging is shown below.

1) Contract 1 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 – Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1
2) Contract 2 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1
3) Contract 3 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 3 – Direct Road Link Phase 2
4) Contract 4 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 4 –Fresh Water Service Reservoir and Associated Waterworks
5) Contract 5 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 5 – Landscaping Works within Lok Ma Chau Loop

2.7 Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 – Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1 (hereinafter called the "Contract 1") was awarded to CRCC-Kwan Lee-Paul Y. JV (hereinafter called the "Contractor 2") in July 2021.

2.8 Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1

– Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1 (hereinafter called the "Contract 2") was awarded to China Road and Bridge Corporation (hereinafter called the "Contractor 3") in September 2021.

2.9 During the reporting month, the following Works Contracts were undertaken for the Project:

- Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works (hereinafter called the "Contract")
- Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1 (hereinafter called the "Contract 1")
- Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1 (hereinafter called the "Contract 2")

2.10 The layout of the construction works under the Project and the scope of works under the Project are summarized in **Table 2.1**.

Table 2.1 Site Layout and Scope of Works under the Project

Contract(s)	Scope of Works	Site Layout Plan
Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works	a) Land decontamination treatment within the Loop; b) Establishment of an Ecological Area (EA) within the Loop; c) Construction of a temporary access to the Loop; d) Minor improvement works to Ha Wan Tsuen East Road and other ancillary works; e) Construction of temporary noise barriers and miscellaneous road works along Lok Ma Chau Road; f) Ground treatment works to the first batch of land parcels within the Loop for development of buildings and associated facilities for Phase 1 of the Hong Kong – Shenzhen Innovation and Technology Park and development of the western electricity substation; and g) Implementation of environmental mitigation measures for the works mentioned in the items (a) to (f) above.	Figure 1a
Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau	a) Site formation of 70ha for the Loop; b) Ground treatment by either surcharge and installation of vertical band drains or deep cement mixing method, and associated slopeworks, retaining wall, landscaping works; c) Construction of internal roads (Road D1 and Road L1), Public Transport Interchange (PTI) and associated drainage and sewerage works, waterworks, street lighting, utilities (including	Figure 1b

Contract(s)	Scope of Works	Site Layout Plan
Loop and Western Connection Road Phase 1	interim water main), street furniture and traffic aids, etc. within the Loop; d) Construction of bridge structure across old Shenzhen River meander; e) Temporary haul road linking Sai Kwo Road to the Loop; f) Ecological and environmental mitigation measures within the Loop including retention of reedbeds; g) Ecological and environmental mitigation measures outside the Loop including fishpond, off-site wetland and woodland compensation; and h) Construction of Western Connection Road (WCR) Phase 1 (section along existing Ha Wan Tsuen East Road) - Widening of Ha Wan Tsuen East Road; - Provision of cycle track and footpath; - Associated site formation and ground treatment works; - Utilities; and - Associated noise mitigation measures.	
Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1	a) Remainder of Western Connection Road (WCR) comprising the following (excluding the first section WCR which is included in Contract 1) - Improvement of Lok Ma Chau (LMC) Road; - Provision of cycle track and footpath; - Construction of elevated cycle track cum footpath connecting Lok Ma Chau Road and Castle Peak Road – Chau Tau; - Associated noise mitigation measures; - Associated slope works, retaining wall and natural terrain mitigation works; and - Associated box culverts, drainage works and water works, street furniture and traffic aids, utilities and landscape works. b) LMC Road and San Tin Highway Connection - Construction of bridge structure connecting LMC Road and San Tin Highway; and - Junction Improvement works at Castle Peak Road and LMC Road. c) Construction of Direct Road Link (DRL) Phase 1 comprising a vehicular bridge structure with provision of covered pedestrian walkway linking LMC Station PT1 and Ha Wan Tsuen East Road.	Figure 1b

Project Organisation

2.11 Different parties with different levels of involvement in the Project organization. The key personnel contact names and numbers are summarised in **Table 2.2**.

Table 2.2 Key Contacts of the Project

Organization	Project Role	Contact Person	Tel No.	Fax No.
CEDD	Project Proponent	Mr. K.W. Luk	2417 6397	2412 0358
WELLAB	ET	Dr. Priscilla Choy – ET Leader	2898 7388	2898 7076
Lam Environmental Services Limited (LAM)	IEC	Mr. Raymond Dai	2839 5666	2882 3331
Contract No. YL/2017/03				
Binnies Hong Kong Limited	Consultants	Mr. David Wong	2601 3988	2452 5170
SKJV	Contractor	Project Director - Mr. Alan Sung	9051 4060	2452 5170
		Senior Project Manager - Mr. Raymond Yau	9858 1820	
		Deputy Project Manager - Mr. Alex Po	9369 0403	2452 5170
		Site Agent - TBA	TBA	TBA
		Environmental Officer - Mr. Nam Kam Pui	6448 8963	2452 5170
		Environmental Supervisor - Mr. Hung Hin Yuen	9250 5290	2452 5170
Contract No. YL/2020/01				
AECOM	Consultants	Mr. Eric Wong	9861 8664	TBA
CRCC-Kwan Lee-Paul Y. JV	Contractor	Site Agent – Mr. James Au	9879 8109	2774 0197
		JV Representative - Mr. Alvin Chan	9105 6863	2774 0197
		Team Leader - Mr. Jack Chu	9775 3008	2774 0197
		Team Leader - Mr. Desmond Tang	5188 0815	2774 0197
		Section Agent - Mr. S M Ma	6628 6221	2774 0197
		Superintendent - Mr. Y K Poon	9177 8196	2774 0197
		Superintendent - Mr. Ray Wong	9171 0919	2774 0197

		Environmental Officer – M. Lila Lui	5261 0378	27740197
		Environmental Supervisor- Mr. Ray Wong	9171 0919	27740197
Contract No. YL/2020/02				
AECOM	Consultants	Mr. Eric Wong	9861 8664	TBA
China Road and Bridge Corporation	Contractor	Site Agent – Raymond Suen	9779 8871	3996 9202
		Team Leader – Jackson Chan	9254 1635	3996 9202
		Team Leader – Billy Leung	9777 0799	3996 9202
		Deputy Team Leader – Roger Poon	9503 2488	3996 9202
		Senior Foreman – Po Hang Lam	9345 6134	3996 9202
		Senior Foreman – Ka Kit Chan	6088 7741	3996 9202
		Foreman – Philip Tse	5128 1232	3996 9202
		Environmental Officer – Calvin So	9724 6254	3996 9202
		Environmental Supervisor- Alice Ngai	9148 5688	3996 9202

Construction Programme

2.12 A copy of Contractor's construction programmes are provided in **Appendix A**.

Summary of Construction Works Undertaken During Reporting Month

2.13 The major site activities undertaken in the reporting month included:

Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works

(a) Maintenance works for freshwater marsh and reed bed.

Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

(a) Deep Cement Mixing

- Pre-drilling at the Sewage Treatment Buildings commenced on 6-Dec-21.
- Pre-drilling at Box Culvert A3 commenced on 30-Dec-21.

(b) Wetland Compensation Areas

Area 2

- Completed on 11-Nov

Area 9

- Completed on 11-Nov
- Installation of Chain Link Fence in progress

Area 7

- Completed on 11-Nov
- Installation of Chain Link Fence in progress

(c) Temporary Access Road (TAR1)

- Completion of Subbase Filling, Road Kerb & Drainage Installation and Concreting at West Portion
- Completion of Geogrid Placing, Soil Filling, Road Kerb, Road Drainage, Road Lighting Installation and Concreting Fish Pond 1 Portion
- Completion of Subbase Filling, Road Kerb & Drainage Installation and Concreting at Middle Portion
- Completion of Soil & Subbase Filling, Road Kerb & Drainage Installation and Concreting at Fish Pond 2 Portion
- Completion of Soil & Subbase Filling, Road Kerb & Drainage Installation and Concreting at East Portion
- Completion of Wearing Course Laying
- Watermains Installation in progress

(d) Temporary Access Road (TAR2)

- Completion of Mesh Laying and Joint
- Completion of Concreting
- Completion of Road Kerb
- Fencing Erection, Drainage and Lamp Pole Installation in progress

(e) E&M Works

- Tender was opened on 30-Dec-21 for the E&M Works at the Sewage Treatment Work (STW) Buildings

Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

(a) Initial Survey

(b) Tree Survey

(c) Liaison meeting with MTRC

(d) Underground Utility Detection

(e) TMLG Meeting No. 1 held on 1 Dec 2021

(f) Apply Excavation Permit (XP)

(g) Temporary water supply/power supply

(h) Frontier Closed Area Permit Application

(i) Pre-construction condition survey

(j) Concrete Trial Mix 1st Plant trial mix conducted on 6 – 8 Dec 2021

(k) Pre-drilling works ST01-04-PD01 and FBA-01-PD02 completed, DRL-P06-PD02 & FBA-01-PD01 in progress

(l) Temporary Noise Barrier, TNB 9, 11 & 12

(m) Filling of Reedbed Cell No. 3A commenced on 6 Dec 2021

(n) Retaining Wall BPW1 / CS1 / CS2 Site Clearance commenced

(o) Site clearance and forming of haul road at CTFB commenced

(p) Demolition of Existing Structures, R43A, R43, R44, R44A, R46, R64

Status of Environmental Licences, Notifications and Permits

2.14 A summary of the relevant permits, licences, and/or notifications on environmental protection for the Project is presented in **Table 2.3**.

Table 2.3 Status of Environmental Licences, Notifications and Permits

Contract No.	Permit / License No.	Valid Period		Status
		From	To	
Environmental Permit (EP)				
Contract No. YL/2017/03 Contract No. YL/2020/01	EP-477/2013	22/11/2013	N/A	Valid
Contract No. YL/2020/02	EP-477/2013/A	12/08/2021	N/A	Valid
Construction Noise Permit (CNP)				
Contract No. YL/2017/03	--	--	--	--
Contract No. YL/2020/01	GW-RN0901-21	9/12/2021	8/2/2022	Valid
Contract No. YL/2020/02	--	--	--	--
Notification pursuant to Air Pollution Control (Construction Dust) Regulation				
Contract No. YL/2017/03	435754	15/08/2018	Till the Contract ends	Receipt acknowledged by EPD
Contract No. YL/2020/01	469726	21/07/2021	Till the Contract ends	Receipt acknowledged by EPD
Contract No. YL/2020/02	471916	20/09/2021	Till the Contract ends	Receipt acknowledged by EPD
Billing Account for Disposal of Construction Waste				
Contract No. YL/2017/03	7031266	16/08/2018	Till the Contract ends	Valid
Contract No. YL/2020/01	7041333	27/07/2021	Till the Contract ends	Valid
Contract No. YL/2020/02	7041861	15/10/2021	Till the Contract ends	Valid
Registration of Chemical Waste Producer				
Contract No. YL/2017/03	WPN 5213-542-S4120-01	08/08/2018	Till the Contract ends	Valid
Contract No. YL/2020/01	WPN 5213-620-C4632-01	20/08/2021	Till the Contract ends	Valid
Contract No. YL/2020/02	WPN 5213-542-C1232-24	29/11/2021	Till the Contract ends	Valid
Effluent Discharge License under Water Pollution Control Ordinance				
Contract No. YL/2017/03	WT00032414-2018	28/08/2019	31/08/2024	Valid
	WT00037496-2021	16/04/2021	30/04/2026	Valid
Contract No. YL/2020/01	WT00039466-2021	22/12/2021	31/12/2026	Valid
Contract No. YL/2020/02	--	--	--	--

3 AIR QUALITY MONITORING

Monitoring Requirements

3.1 In accordance with the EM&A Manual for Development of Lok Ma Chau Loop (EM&A Manual), impact 1-hour Total Suspended Particulates (TSP) and 24-hour TSP monitoring were conducted to monitor the air quality for the Project. **Appendix B** shows the established Action/Limit Levels for the air quality monitoring work.

3.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while impact 24-hour TSP monitoring was conducted for at least once every 6 days at 4 air quality monitoring stations.

Monitoring Location

3.3 Impact air quality monitoring was conducted at the 4 monitoring stations under the Project, as shown in **Figure 2**. **Table 3.1** describes the location of the air quality monitoring stations.

Table 3.1 Location of Air Quality Monitoring Stations

Monitoring Station	Location
DMS-1a (see Note 1)	Village House along Ha Wan Tsuen East Road
DMS-2A (see Note 2)	Village House along Lok Ma Chau Road
DMS-3	Village House along Old Border Road
DMS-4A (see Note 3)	Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill

Notes:

1. In view of the disturbance concerned by the villagers near the original air quality monitoring location DMS-1, an alternative location (DMS-1a) was proposed which was verified by IEC and agreed by EPD.
2. Monitoring at DMS-2 (originally proposed in the approved EM&A Manual) was denied during the baseline monitoring. An alternative location (DMS-2A) was proposed which was verified by IEC and agreed by EPD.
3. Proposed replacement monitoring location for Air Sensitive Receiver (ASR) MTL-20 – Village house in Ma Tso Lung (DMS-4A) as no work would be conducted near ASR MTL-20 due to exclusion of the original Eastern Connection Road (ECR) which was verified by IEC and agreed by EPD.

Monitoring Equipment

3.4 **Table 3.2** summarises the equipment used in the impact air monitoring programme. Copies of calibration certificates are attached in **Appendix C**.

Table 3.2 Air Quality Monitoring Equipment

Monitoring Station(s)	Equipment	Model and Make	Quantity
DMS-2A DMS-3 DMS-4A	HVS Sampler for 24-hour TSP monitoring	TISCH Model: TE-5170	3
	1-hour TSP Dust Meter	Met One Instruments: AEROCET-831	5
	Calibrator	TISCH Model: TE-5025A	1

Monitoring Station(s)	Equipment	Model and Make	Quantity
(1) DMS-1a	Dust Meter for 1-hour and 24-hour TSP monitoring	Met One Instruments: AEROCET-831	2
DMS-4A	Wind Anemometer	DAVIS Model: Vantage PRO2 6152CUK	2

Remark: (1) The power supply from the Village House at DMS-1a is not secured for operation of HVS. Therefore, dust meter for 24-hr TSP monitoring at DMS-1a is proposed to ensure the monitoring data collection.

Monitoring Parameters and Frequencies

3.5 **Table 3.3** summarises the monitoring parameters and frequencies of impact dust monitoring during the course of the Project activities. The air quality monitoring schedule for the reporting month is shown in **Appendix D**.

Table 3.3 Impact Air Quality Monitoring Parameters and Frequencies

Parameters	Frequency
1-hr TSP	Three times in every 6 days
24-hr TSP	Once per 6 days

Monitoring Methodology and Quality Assurance/Quality Control (QA/QC) Procedure

<u>24-hour TSP Air Quality Monitoring</u>

Instrumentation

3.6 HVSs completed with appropriate sampling inlets were employed for 24-hour TSP monitoring. Each sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

HVS Installation

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

- A horizontal platform with appropriate support was provided to secure the samplers against gusty wind;
- No two samplers were placed less than 2 metres apart;
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protruded above the sampler;
- A minimum of 2 metres of separation from walls, parapets and penthouses was required for rooftop samples;
- A minimum of 2 metres separation from any supporting structure, measured horizontally was required;
- No furnaces or incineration flues were nearby;
- Airflow around the sampler was unrestricted;
- The samplers were more than 20 metres from the drip line;

- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring;
- Permission and access to the monitoring stations had been obtained to set up the samplers; and
- A secured supply of electricity was provided to operate the samplers.

Filters Preparation

3.8 Wellab Limited was the HOKLAS accredited laboratory (HOKLAS Registration No.083) and responsible for the preparation of 24-hr conditioned and pre-weighed filter papers for the monitoring team.

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

3.10 Wellab Limited has comprehensive QA and QC programmes.

Operating/Analytical Procedures

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

- Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m^3/min. and 1.4 m^3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50;
- The power supply was checked to ensure the sampler worked properly;
- On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station;
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen;
- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges;
- The shelter lid was closed and secured with the aluminum strip;
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper could be found out by using the filter number);
- After sampling, the filter was removed and kept in a clean and tightly sealed plastic bag. The filter paper was then returned to the Wellab Limited for reconditioning in the humidity-controlled chamber followed by accurate weighting by an electronic balance with a readout down to 0.1mg. The elapsed time was also recorded; and
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the RH should be < 50% and not vary by more than ±5%. A convenient working RH is 40%. Weighing results were returned for further analysis of TSP concentrations collected by each filter.

Maintenance/Calibration

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

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

1-hour and 24-hour TSP Air Quality Monitoring

3.13 The measuring procedures of the dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

(AEROCET-831)

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

Maintenance/Calibration

3.14 The following maintenance/calibration is required for the direct dust meters:

- Check and calibrate the meter by HVS to check the validity and accuracy of the results measured by direct reading method prior to the commencement of the baseline monitoring. Dust meter will be checked and calibrated at bi-monthly intervals throughout the air quality monitoring period, if necessary.

Results and Observations

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

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

Monitoring Station	Concentration (µg/m³)		Action Level, µg/m³	Limit Level, µg/m³
	Average	Range		
DMS – 1a	189.7	29.3 – 332.2	353	500
DMS – 2A	158.2	68.3 – 214.2	370	
DMS – 3	154.4	70.3 – 282.3	351	
DMS – 4A	177.7	35.0 – 322.2	350	

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

Monitoring Station	Concentration (µg/m³)		Action Level, µg/m³	Limit Level, µg/m³
	Average	Range		
DMS – 1a	95.7	69.8 – 123.6	184	260
DMS – 2A	90.0	64.9 – 125.0	166	
DMS – 3	59.1	41.5 – 83.0	166	
DMS – 4A	104.5	65.5 – 136.3	152	

3.16 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

3.17 All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

3.18 According to our field observations, the major dust source identified at the designated air quality monitoring stations in the reporting month are as follows:

Table 3.6 Observation at Air Quality Monitoring Stations

Monitoring Station	Major Dust Source
DMS-1a	Road traffic, exposed site area, site vehicle / equipment movement
DMS-2A	Road traffic
DMS-3	Road traffic
DMS-4A	Road traffic

3.19 The wind speed and wind direction were recorded by the installed Wind Anemometer set at DMS-4A. The location is shown in **Figure 2**.

3.20 The general weather condition and the wind data for the reporting month are summarised in **Appendix I**.

Event and Action Plan

3.21 Should any project related non-compliance of the criteria occur, action in accordance with the Action Plan in **Appendix J** shall be carried out.

4 NOISE MONITORING

Monitoring Requirements

4.1 In accordance with EM&A Manual, four noise monitoring stations, namely NMS-1, NMS-2, NMS-3 and NMS-4A were selected for impact monitoring for the Project. Impact noise monitoring was conducted for at least once per week during the construction phase of the Project. **Appendix B** shows the established Action / Limit Levels for the noise monitoring works.

Monitoring Location

4.2 Impact noise monitoring was conducted at the 4 monitoring stations under the Project, as shown in **Figure 3**. **Table 4.1** describes the locations of the noise monitoring stations.

Table 4.1 Location of Noise Monitoring Stations

Monitoring Station	Location	Measurement
NMS-1	Village house in Ha Wan Tsuen	Façade Measurement
NMS-2	Village house along existing Ha Wan Tsuen	Free Field
NMS-3	Village house along Old Border Road	Free Field
NMS-4A(see Note 1)	Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill	Free Field measurement

Notes:

1. Proposed replacement monitoring location for Noise Sensitive Receiver (NSR) MTL-20 – Village house in Ma Tso Lung (DMS-4A) as no work would be conducted near NSR MTL-20 due to exclusion of the original ECR.

Monitoring Equipment

4.3 **Table 4.2** summarises the noise monitoring equipment. Copies of calibration certificates are provided in **Appendix C**.

Table 4.2 Noise Monitoring Equipment

Equipment	Model	Quantity
Integrating Sound Level Meter	BSWA 308	3
Calibrator	B&K 4231 & SVANTEK SV 30A	3

Monitoring Parameters, Frequency and Duration

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

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

Monitoring Stations	Parameter	Duration	Frequency
NMS-1 NMS-2 NMS-3 NMS-4A	L10(30 min.) dB(A) L90(30 min.) dB(A) Leq(30 min.) dB(A) (as six consecutive Leq, 5min readings)	0700-1900 hrs on normal weekdays	Once per week

Remarks:
A-weighted equivalent continuous sound pressure level (L_{eq}). It is the constant noise level which, under a given situation and time period, contains the same acoustic energy as the actual time-varying noise level.
L_{10} is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L_{10}.
L_{90} is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

Monitoring Methodology and QA/QC Procedures

- The microphone head of the sound level meter was positioned at 1m from the exterior of the noise sensitive facade and lowered sufficiently so that the building's external wall acted as a reflecting surface;
- The battery condition was checked to ensure the correct functioning of the meter;
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : L_{eq}(30 min.) dB(A) (as six consecutive $L_{eq, 5min}$ readings) during non-restricted hours (i.e. 0700-1900 hrs on normal weekdays)
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re- calibration or repair of the equipment;
- During the monitoring period, the L_{eq}, L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet;
- Noise measurement was paused temporarily during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible and observation record during measurement period should be provided; and
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. The wind speed should be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Maintenance and Calibration

4.5 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.

4.6 The sound level meter and calibrator were checked and calibrated at yearly intervals.

4.7 Immediately prior to and following each noise measurement, the accuracy of the sound level meter should be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements would be accepted as valid only if the calibration levels before and after the noise measurement agreed to within 1.0 dB.

Results and Observations

4.8 The noise monitoring results are summarised in **Table 4.4**. Detailed monitoring results and graphical presentations of noise monitoring are shown in **Appendix G**.

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

Monitoring Station	Noise Level, $L_{eq\ (30min)}$		Action Level	Limit Level
	Average	Range		
NMS-1	64.0	50.7 – 69.3	When one documented complaint is received.	75 dB(A)
NMS-2	69.5	64.2 – 71.1		
NMS-3	62.5	57.5 – 64.6		
NMS-4A	52.5	49.0 – 55.2		

Remark: +3dB(A) façade correction included
If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

4.9 All noise monitoring was conducted as scheduled in the reporting month. No Action and Limit Level exceedance was recorded.

4.10 According to our field observations, the major noise source identified at the designated noise monitoring stations in the reporting month are as follows:

Table 4.5 Observation at Noise Monitoring Stations

Monitoring Station	Major Noise Source
NMS-1	Excavation works, loading and unloading works, site vehicle / equipment movement
NMS-2	Road traffic
NMS-3	Road traffic
NMS-4A	Road traffic

Event and Action Plan

4.11 Should any project related non-compliance of the criteria occur, action in accordance with the Action Plan in **Appendix J** shall be carried out.

5 WATER QUALITY MONITORING

Monitoring Requirements

5.1 According to EM&A Manual, impact water quality monitoring shall be carried out three days per week during the construction period. The interval between two sets of monitoring shall not be less than 36 hours.

5.2 Replicate in-situ measurements and samples collected from each independent sampling event shall be collected to ensure a robust statistically interpretable database.

5.3 Impact water quality monitoring was conducted at three depths (i.e. 1m below surface, mid-depth and 1m above river bed, except where the water depth was less than 6m, mid-depth station might be omitted. Should the water depth be less than 3m, only the mid-depth station was monitored) dissolved oxygen (DO) concentration, DO saturation, suspended solids (SS), turbidity, pH, salinity and temperature were monitored in accordance with the requirements set out in the EM&A Manual.

5.4 **Appendix B** shows the established Action and Limit Levels for the water quality monitoring work.

Monitoring Locations

5.5 Impact water quality monitoring was conducted at 6 monitoring stations under the Project, which is summarised in **Table 5.1**. The location of monitoring stations are shown in **Figure 4**.

5.6 Based on the updated construction programme under Contract No. YL/2017/03, the water-based construction works for temporary vehicular bridge was completed on 7th April 2021 which was confirmed by Engineer Representative under Contract No. YL/2017/03 via email dated 15th June 2021. The additional monitoring station, BS1 was therefore proposed to be deleted from the water quality monitoring proramme starting from 28th June 2021. Other water quality monitoring stations remain unchanged. This Proposal for Update of Water Quality Monitoring Stations was verified by IEC and agreed by EPD via email dated 22nd June 2021.

Table 5.1 Location for Water Quality Monitoring Stations

Monitoring Station	Location	Nature of the Location
CS1	Control Station at Old Shenzhen River	Control Station at Meander
IS1	Impact Station at Old Shenzhen River	Impact Station at Meander
IS2	Impact Station at Old Shenzhen River	Impact Station at Meander
IS4	Impact Station at Ping Hang Stream	Reference Station
CS5	Control Station at south of Lung Hau	Control Station for IS6
IS6	Impact Station near Lung Hau Road	Impact Station
(1) BS1	Impact Station at Old Shenzhen River Meander	Additional impact station for temporary vehicular bridge

Note:

1. Terminated starting from 28th June 2021 according to Proposal for Update of Water Quality Monitoring Stations (approved by EPD on 22nd June 2021).

Monitoring Equipment

Instrumentation

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

DO and Temperature Measuring Equipment

5.8 The instrument for measuring DO and temperature was portable and weatherproof complete with cable, sensor, comprehensive operation manuals and use DC power source. It was capable of measuring:

- A DO level in the range of 0-20 mg/L and 0-200% saturation; and
- A temperature of 0-45 degree Celsius.

5.9 It had a membrane electrode with automatic temperature compensation complete with a cable.

5.10 Sufficient stocks of spare electrodes and cables were available for replacement where necessary.

5.11 Salinity compensation was built-in in the DO equipment.

Turbidity

5.12 Turbidity was measured in-situ by the nephelometric method. The instrument was portable and weatherproof using a DC power source complete with cable, sensor and comprehensive operation manuals. The equipment was capable of measuring turbidity between 0-1000 NTU. The probe cable was not less than 25m in length. The meter was calibrated in order to establish the relationship between NTU units and the levels of SS. The turbidity measurement was carried out on split water sample collected from the same depths of SS samples.

Sampler

5.13 A water sampler, consisting of a transparent Polyvinyl Chloride (PVC) of a capacity of not less than two litres which could be effectively sealed with cups at both ends was used. The water sampler had a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth. In addition, a self-made sampling bucket was also used for sampling at the monitoring station with shallow water.

Water Depth Detector

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

pH

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

Salinity

5.16 A portable salinometer capable of recording salinity within the range of 0-40 ppt was used for salinity measurements.

Sample Container and Storage

5.17 Following collection, water samples for laboratory analysis were stored in high density polythene bottles (250ml/1L) with no preservatives added, packed in ice (cooled to 4°C without being frozen) and kept in dark during both on-site temporary storage and shipment to the testing laboratory. The samples were delivered to the laboratory as soon as possible and the laboratory determination work was started within 24 hours after collection of the water samples. Sufficient volume of samples was collected to achieve the detection limit.

5.18 **Table 5.2** also summarises the type of sampling bottle and preservation method for laboratory testing.

Table 5.2 Types of Sampling Bottle and Preservation Method

Parameter	Preservation Method	Type of Sample Container
Total SS	Refrigerate	1 litre plastic bottle

Calibration of In-Situ Instruments

5.19 All in-situ monitoring instruments were checked, calibrated and certified by Wellab Limited before use, and subsequently re-calibrated at 3-month intervals throughout all stages of the water quality monitoring programme. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring event.

5.20 For the on-site calibration of field equipment (Multi-parameter Water Quality System), the BS 1427:2009, "Guide to on-site test methods for the analysis of waters" was observed.

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

5.22 The equipment used for impact water quality monitoring is shown in **Table 5.3** and copies of the calibration certificates are shown in **Appendix C**. All the monitoring equipment complied with the requirements set out in the EM&A Manual.

Table 5.3 Water Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Sonar Water Depth Detector	Garmin Fishfinder 140 / Garmin Striker plus 4	1
Water Sampler	A 2-litre transparent PVC cylinder with latex cups at both ends or self-made sampling bucket	1
Multi-parameter Water Quality System	YSI EXO 1	2

Monitoring Parameters and Frequency

5.23 **Table 5.4** summarises the monitoring parameters, monitoring depths and frequency of the water quality monitoring. The water quality monitoring schedule for the reporting month is

shown in **Appendix D**.

Table 5.4 Water Quality Monitoring Parameters, Depths and Frequency

Monitoring Station	Parameter (unit)	Depth	Frequency
CS1, IS1, IS2, IS4, CS5, IS6	• Temperature(°C) • pH (pH unit) • turbidity (NTU) • water depth (m) • salinity (ppt) • DO (mg/L and % of saturation) • SS (mg/L)	• 3 water depths: 1m below water surface, mid-depth and 1m above river bed. • If the water depth was less than 3m, mid-depth sampling only. • If water depth was less than 6m, mid-depth might be omitted.	• 3 days per week during the construction period of the Project

5.24 Monitoring location/position, time, water depth, sampling depth, pH, salinity, DO saturation, water temperature, tidal stages, weather conditions and any special phenomena or work underway nearby were recorded.

Monitoring Methodology

Instrumentation

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

Operating/Analytical Procedures

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

Laboratory Analytical Methods

5.27 The testing of all parameters was conducted by Wellab Limited for the water samples and comprehensive QA and QC procedures were in place in order to ensure the quality and consistency of results. The testing method, reporting limit and detection limit are provided in **Table 5.5**.

Table 5.5 Laboratory Analysis Method for Water Samples

Determinant	Instrumentation	Analytical Method	Limit of Reporting	Detection Limit
SS	Weighing	APHA 17ed 2540 D	2.5 mg/L	0.5 mg/L

Remark: The limit of reporting, 2.5mg/L has been adopted during baseline water quality monitoring stage

QA/QC Requirements

Decontamination Procedures

5.28 Water sampling equipment used during the course of the monitoring programme was decontaminated by manual washing and rinsed clean seawater/distilled water after each sampling event. All disposal equipment was discarded after sampling.

Sampling Management and Supervision

5.29 All sampling bottles were labelled with the sample identity laboratory number and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible after the sampling. All samples were stored in a cool box and kept at less than 4°C but without frozen. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

5.30 The laboratory determination work was started as soon as possible after collection of the water samples.

QC Measures for Sample Testing

5.31 The sample testing and following QC programme were performed by Wellab Limited for every batch of 20 samples:

- ✧ One method blank; and
- ✧ One set of QC samples.

Maintenance and Calibration

5.32 All in-situ monitoring instruments were checked, calibrated and certified by Wellab Limited before use, and subsequently re-calibrated at 3-month intervals throughout all stages of the water quality monitoring programme.

Results and Observations

5.33 The monitoring results and graphical presentation of water quality at the monitoring stations are shown in **Appendix H.**

5.34 The summary of exceedance recorded in the reporting month is shown in **Appendix K** and summarised in the **Table 5.6**.

Table 5.6 Summary of Water Quality Exceedances

Station	Exceedance Level	DO	Turbidity	SS	Total Number of Non-project Related Exceedances	Total Number of project Related Exceedances
IS1	Action Level	0	0	0	0	0
	Limit Level	0	0	0	0	0
IS2	Action Level	0	0	0	0	0
	Limit Level	0	0	0	0	0
IS4	Action Level	0	0	0	0	0
	Limit Level	0	0	0	0	0
Total	Action Level	0	0	0	0	0
	Limit Level	0	0	0	0	0

5.35 No water quality monitoring was conducted at IS6 in the reporting month due to the channel was dry.

IS6

5.36 Water quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Event and Action Plan

5.35 Should any project related non-compliance of the criteria occur, action in accordance with the Action Plan in **Appendix J** shall be carried out.

6 ECOLOGICAL MONITORING

Monitoring Requirements (Avifauna Monitoring)

Monitoring Requirements

6.1 As required under Section 11.4.1.1 of EM&A Manual, flight line corridor survey was required from the beginning of work until 12 months after the establishment of the Ecological Area or completion of work on the Western Connection Road, whichever was the later.

6.2 The purpose of the survey was to identify the number and species composition of birds using the flight line and monitor if there was any impact from construction works.

Monitoring Frequency

6.3 Flight line survey is required to be carried out on monthly basis.

Monitoring Location

6.4 The flight line corridor survey work should be carried out at the Lok Ma Chau Lookout, according to Section 11.4.1.1 of the EM&A Manual. The location at Lok Ma Chau Lookout is shown in **Figure 5.**

Monitoring Methodology

6.5 Flight lines of birds through the area were surveyed once monthly at Lok Ma Chau Lookout, adjacent to the Loop.

6.6 Observations were carried out at Lok Ma Chau Lookout for two hours from 30 minutes before sunrise in the early morning.

6.7 During the survey, the surveyor marked on a standard map for the estimated location of the flight path used by waterbird species, birds of prey or other larger species of conservation interest passing through the area. Flights involving short hops from point to point were not recorded. The focus was on the flight line corridor over the Loop or the southwest section of old Shenzhen River meander.

6.8 During the survey, species generally commensal with man (e.g. Black-collared Starling), common and widespread in HK (e.g. Crested Myna) or small in size and not prone to following flight lines en masse (e.g. Barn Swallow) were ignored in order to concentrate on species of conservation interest and/or those prone to using flight lines (e.g. large waterbirds).

6.9 For each observation of birds in flight, the number, the species and their height above the ground were recorded. Height above the ground was estimated in relation to the level of the Loop and adjacent fish pond area, and/or the location of the observer.

6.10 Given the difficulty of accurately measuring height above ground from a distance, three height classes were used: 10m, 20m and 30m or above. In practice, this means birds were assigned to ranges of 5-15m (10m height class), 15-25m (20m height class) and 25m or above (30m height class). Approximate heights of observation points were 40m at Lok

Ma Chau Lookout.

6.11 Flight line locations marked on the maps were then overlain with a 100m grid, each square having a unique number.

6.12 The number of birds of each species passing through each 100m grid (the number of "bird-flights") and their height above ground were then entered into an Excel spreadsheet. These data were then mapped, and on the figures produced a greater intensity of colour indicated a higher number of birds, as shown in **Figure 6.**

Monitoring Day

6.13 The flight line survey was carried out on 24th December 2021. Sunrise time at 7:00 am and the survey started at 6:30 am and lasted for 2 hours. The weather was fine throughout the survey.

Monitoring Result

6.14 Total number of birds observed was 748. Seven species were included in the record of the flight line survey, including Black-faced Spoonbill, Little Egret, Great Egret, Grey Heron, Great Cormorant, Black Kite and Collared Crow. **Table 6.1** shows the summary of the number of birds observed in this Survey.

Table 6.1 Number of Birds Observed

Species	Number of Birds	Height class 1	Height Class 2	Height Class 3
Black-faced Spoonbill 黑臉琵鷺	48	0	0	48
Little Egret 小白鷺	138	3	33	102
Great Egret 大白鷺	25	2	5	18
Grey Heron 蒼鷺	7	0	0	7
Great Cormorant 普通鸕鷀	528	8	205	315
Black Kite 黑鳶	1	1	0	0
Collared Crow 白頸鴉	1	0	0	1
Total	748	14	243	491

6.15 The total number of bird-flights (number of birds of each species passing through each 100m square) observed across all 100m grid squares was 7,976. **Table 6.2** shows the number of bird-flights for the seven species respectively.

Table 6.2 Number of Bird-flights

Species	Total number of Bird-Flights
Black-faced Spoonbill 黑臉琵鷺	516
Little Egret 小白鷺	1510
Great Egret 大白鷺	262
Grey Heron 蒼鷺	77
Great Cormorant 普通鸕鷀	5594
Black Kite 黑鳶	6
Collared Crow 白頸鴉	11
Total	7,976

6.16 The distribution of flight line usage in this survey is shown in **Figure 6**.

6.17 Flight lines were in general concentrated mainly on LMC Meander and adjacent areas including Ecological Area (EA) Zone and along Shenzhen River.

6.18 No significant impact on the flight line was observed in the reporting month.

Monitoring Requirements (Mammals)

Monitoring Requirements

6.19 As required under Section 11.4.1.2 of the EM&A Manual, monitoring of mammals was required for Eurasian Otter, other mammals and dogs during the site formation and establishment period of Ecological Area.

6.20 The purpose of the monitor was to observe the connectivity between the existing reed marsh and the Ecological Area, and if there was any sign of otter and mammals around the Ecological Area.

Monitoring Location

6.21 Three cameras were placed where accessible, facing towards the Ecological Area and the Loop. The location of cameras are subject to the project progress and result of the survey. The location of cameras are shown in **Figure 5**.

Monitoring Methodology

6.22 Monitoring of Eurasians Otter was notoriously difficult due to their secretive and nocturnal habits in Hong Kong. Therefore, remote-sensing (infra-red flash) cameras were used to detect any signs of Eurasian Otter and mammals.

Monitoring Result

6.23 No Eurasians Otter was recorded during the reporting month. Other mammal, Eurasian Wild Pig (*Sus scrofa*) and Domestic Dog (*Canis lupus familiaris)* were captured by infra-red flash cameras. Summary of the monitoring results are presented in **Table 6.3**. Photographic records of the species from the cameras are presented in **Appendix S**.

Table 6.3 Summary of Monitoring Results for Mammals

Common Name	Species Name	Chinese Name	Conservation Status	Abundance		
				Camera A	Camera B	Camera C
Domestic Dog	*Canis lupus familiaris*	野狗	-	1	0	0
Eurasian Wild Pig	*Sus scrofa*	野豬		1	8	0

7 LAND CONTAMINATION

General

7.1 According to the EM&A Manual Section 8.2 and the details of the remediation and associated testing referred to in Chapter 8 of the EIA Report (AEIAR-176/2013), five (5) arsenic-contaminated zones were identified within the Loop. The estimated depth and volume of contaminated soil for each remediation zone are listed in **Table 7.1** below.

Table 7.1 Detailed Contamination Information for Designated Remediation Areas

Contamination Zone ID in EIA	Contamination Hot Spot	Estimated Vertical Extent of Contamination	Estimated Thickness (m)	Estimated Area of Contamination Zone (m^2)	Estimated Volume of Contaminated Soil (m^3)
A-S24	LD-001	2.5m to 4.0m below existing ground level	1.5	4001	6002
A-SG10	LD-002	4.0m to 5.5m below existing ground level	1.5	3520	5280
A-S20	LD-003	2.5m to 4.0m below existing ground level	1.5	4989	7484
A-S03	LD-004-A	2.5m to 4.0m below existing ground level	1.5	4580	6870
A-S03a1	LD-004-B	4.0m to 5.5m below existing ground level	1.5	4452	6678
A-S03c1	LD-004-C	1.0m to 2.5m below existing ground level	1.5	5601	8402
A-S01	LD-005	2.5m to 5.5m below existing ground level	3.0	5576	16728

7.2 Based on the Contract requirements, "Solidification / Stabilisation" was the recommended treatment method to remediate all contaminated soils and Portland cement was proposed to be used for the contaminated soil treatment. The target of soil remediation is listed in **Table 7.2**.

Table 7.2 Contaminant Solidification & Stabilisation Target for Cement Solidification / Stabilisation (CS/S)

Contaminant	Toxicity Characteristic Leaching Procedure (TCLP) Limit of Arsenic	Unconfined Compressive Strength (UCS)
Metal – Arsenic	≤5 mg/L	≥1 Mpa

7.3 Trial of CS/S was undertaken between April and June 2019 and the second trial was conducted in August 2019. According to trial performance results, cement / soil ratios of 10% and 7.5% could achieve the remediation target and these ratios had been adopted for the subsequent remediation work. The proposed cement/soil ratios were accepted by

relevant parties before the remediation work started. The contaminated soil excavation and remediation commenced on site in mid-July 2019.

Remediation Work Progress in the Reporting Month

7.4 As advised by the Contractor, Decontamination for all Hotspots (LD01 - LD05) was completed and backfilling of treated soil was completed on 31 May 2021. After completion of remediation works at each hot spots, Interim Remediation Reports (IRR) would be prepared by the Land Contamination Specialist and submitted to EPD in accordance with Condition 2.16 of the EP-477/2013/A. The status of IRRs are summarised below.

(a) IRR for hot spot LD-001 endorsed by EPD on 6th January 2020
(b) IRR for hot spot LD-003 endorsed by EPD on 18th March 2020
(c) IRR for hot spot LD-002 commented by EPD on 3rd September 2020 and resubmitted by Contractor on 16th September 2020
(d) IRR for hot spot LD-005 endorsed by EPD on 23rd October 2020
(e) Final Remediation Report including the result of hotpsot LD-004 was submitted to EPD on 28th June 2021. The final Remediation Report was approved by EPD with minor comments in August 2021.

7.5 No work related to land contamination was conducted in the reporting month.

8 WASTE MANAGEMENT

General

8.1 Waste management was carried out in accordance with the Waste Management Plan (WMP) for the Project.

Solid and Liquid Waste Management Status

8.2 The amount of waste generated by the activities of the Project in the reporting month are shown **Table 8.1**.

Table 8.1 Quantities of Waste Generated in the Reporting Month

Contract(s)	Waste Type		Quantity this month	Disposal / Dumping Grounds
Contract No. YL/2017/03	Inert	Reused in this Contract (Inert) (in '000 m^3)	0	N/A
		Reused in other Contracts/ Projects (Inert) (in '000 m^3)	0	N/A
		Disposal as Public Fill (Inert) (in '000 m^3)	0	N/A
Contract No. YL/2020/01		Reused in this Contract (Inert) (in '000 m^3)	3.608	N/A
		Reused in other Contracts/ Projects (Inert) (in '000 m^3)	0	N/A
		Disposal as Public Fill (Inert) (in '000 m^3)	0	N/A
Contract No. YL/2020/02		Reused in this Contract (Inert) (in '000 m^3)	0	N/A
		Reused in other Contracts/ Projects (Inert) (in '000 m^3)	0	N/A
		Disposal as Public Fill (Inert) (in '000 m^3)	0	N/A
Contract No. YL/2017/03	Non-inert	Recycled Metal ('000kg)	0	N/A
		Recycled Paper / Cardboard Packing ('000kg)	0	N/A
		Recycled Plastic ('000kg)	0	N/A
		Chemical Wastes ('000kg)	0	N/A
		General Refuses ('000m^3)	0	N/A
Contract No. YL/2020/01		Recycled Metal ('000kg)	0	N/A
		Recycled Paper / Cardboard Packing ('000kg)	0	N/A
		Recycled Plastic ('000kg)	0	N/A
		Chemical Wastes ('000kg)	0	N/A
		General Refuses ('000m^3)	1.815	NENT Landfill
Contract No. YL/2020/02		Recycled Metal ('000kg)	0	N/A
		Recycled Paper / Cardboard Packing ('000kg)	0	N/A
		Recycled Plastic ('000kg)	0	N/A
		Chemical Wastes ('000kg)	0	N/A
		General Refuses ('000m^3)	0.569	NENT Landfill

The amount of wastes generated by the construction works of the Project in Waste Flow Table during the reporting month is shown in **Appendix P**.

9 ENVIRONMENTAL SITE INSPECTION

Site Audits

9.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Project site. The summaries of site audits are attached in **Appendix L**.

9.2 Site audits were conducted by ET with the representative of the Consultants and the Contractor on 8th, 15th, 22nd and 29th December 2021 in the reporting month. Joint site audits with the representative of the Consultants, the Contractor and IEC were carried out on 8th, 15th, 22nd and 29th December 2021. Summary of site audits under the Project are presented in **Table 9.1.** The details of observations during site audit are shown in **Table 9.2.**

Table 9.1 Summary of Site Audits

Contract(s)	Date(s) of Site Environmental Audit
Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works	8th, 15th, 22nd, 29th December 2021
Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1	8th, 15th, 22nd, 29th December 2021
Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1	8th, 15th, 22nd, 29th December 2021

9.3 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table 9.2**.

Table 9.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Contract No. YL/2017/03			
No environmental deficiency was identified during site inspection in the reporting month			
Contract No. YL/2020/01			
Air Quality	8/12/2021	The stockpiles of dusty materials at TAR1 should be covered.	Improvement/ Rectification was observed during follow-up audit session on 15 December 2021.
	8/12/2021	The exposed slope along east side of meander should be covered properly.	Follow up action is required for the next audit session.
	15/12/2021	The exposed slope along east side of meander should be covered properly.	Improvement/ Rectification was observed during follow-up audit session on 22 December 2021.
	15/12/2021	To enhance the dust mitigation measures at TAR1 and Loop.	Improvement/ Rectification was observed during follow-up audit session on 22 December 2021.
	22/12/2021	Properly cover the exposed slopes at near the water channel (GI site at TAR1).	Improvement/ Rectification was observed during follow-up audit session on 29 December 2021.
	29/12/2021	Properly cover the stockpile of dusty materials to avoid dust emission at Portion 15.	Improvement/ Rectification was observed during follow-up audit session on 5 January 2022.
	29/12/2021	NRMM label should be provided for he wheeled loader before operation on site. (Portion 15.1)	Improvement/ Rectification was observed during follow-up audit session on 5 January 2022.
Water Quality	8/12/2021	Provide mitigation measures to protect the stream at TAR1.	Follow up action is required for the next audit session.
	15/12/2021	The exposed slope along east side of meander should be covered properly.	Improvement/ Rectification was observed during follow-up audit session on 22 December 2021.
	15/12/2021	Provide mitigation measures to protect the stream at TAR1.	Improvement/ Rectification was observed during follow-up audit session on 22 December 2021.
	22/12/2021	Properly cover the exposed slopes at near the water channel (GI site at TAR1).	Improvement/ Rectification was observed during follow-up audit session on 29 December 2021.
Landscape and Visual	8/12/2021	The tree at near the stream at TAR1 shall be checked and tagged to retain or fell.	Improvement/ Rectification was observed during follow-up audit session on 15 December 2021.
	22/12/2021	To allow sufficient space and provide protection for the retain trees at hoarding area (TAR1).	Follow up action is required for the next audit session.
Ecology	8/12/2021	Provide mitigation measures to protect the stream at TAR1.	Improvement/ Rectification was observed during follow-up audit session on 15 December 2021.
	15/12/2021	Provide mitigation measures to protect the stream at TAR1.	Improvement/ Rectification was observed during follow-up audit session on 22 December 2021.
Permits/Licences	8/12/2021	To update the environmental permits which were displayed on site.	Improvement/ Rectification was observed during follow-up audit session on 15 December 2021.

Parameters	Date	Observations and Recommendations	Follow-up
Contract No. YL/2020/02			
Water Quality	15/12/2021	To designate the area for wheel washing and set up the associated drainage for water from a wheel wash at Reedbed 3A	Follow up action is required for the next audit session.
	22/12/2021	To designate the area for wheel washing and set up the associated drainage for water from a wheel wash at Fu Tai site area.	Follow up action is required for the next audit session.
	29/12/2021	Provide measures to avoid the discharging of muddy water from GI works at LCS outside the site boundary.	Improvement/ Rectification was observed during follow-up audit session on 5 January 2022.
	29/12/2021	Provide measures to avoid the construction debris from getting to the nearby water channel at TAR1.	Follow up action is required for the next audit session.
	29/12/2021	To designate the area for wheel washing and set up the associated drainage for water from a wheel wash at Reedbed 3A and Fu Tai Site Area.	Follow up action is required for the next audit session.
Waste / Chemical Management	22/12/2021	Clear the oil spillage and provide drip tray for the oil container with pump at Reedbed 3A.	Improvement/ Rectification was observed during follow-up audit session on 29 December 2021.
Landscape and Visual	8/12/2021	Protection fencing should be provided around the preserved trees at Reedbed 3A.	Improvement/ Rectification was observed during follow-up audit session on 5 January 2022.
	29/12/2021	Protective fencing should be provided around the preserved trees at Reedbed 3A.	Improvement/ Rectification was observed during follow-up audit session on 5 January 2022.
Ecology	8/12/2021	Ecological mitigation measures (such as permit-to-work system, limit the PME used for works during the period between 9:00 to 17:00, patrol check for the presence of waterbirds prior to commencement of works etc.) should be implemented at Reedbed 3A.	Improvement/ Rectification was observed during follow-up audit session on 15 December 2021.
	29/12/2021	Provide measures to avoid the construction debris from getting to the nearby water channel at TAR1.	Follow up action is required for the next audit session.
Permits/Licences	8/12/2021	To replace the environmental permit displayed at Reedbed 3A with updated version.	Improvement/ Rectification was observed during follow-up audit session on 15 December 2021.

10 IMPEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

10.1 According to the EIA Report, EP and the EM&A Manual, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule is provided in **Appendix M**.

10.2 The Compliance status of Ecological and Noise Mitigation Measures related to the Project according to EP Condition 2.7 and 2.9 respectively are summarized in **Table 10.1**.

Table 10.1 Compliance status of Ecological and Noise Mitigation Measures (EP Condition 2.7 and 2.9)

EP Requirements	Compliance Status	Remarks
Submission and Measures to Mitigate Ecological Impact		
EP Condition 2.7 To reduce the ecological impact during construction and operation stages of the Project, a series of ecological mitigation measures shall be implemented as conforming to the relevant information and recommendations, including those described in Section 12.7 (Ecological Mitigation Measures), contained in the EIA Report. The key ecological mitigation measures shall include:		
(a) conducting pre-construction search for any otter holts/dens and herpetofaunal species of conservation concern in construction sites, with remedial measures such as setting of no works area around otter holts/den and translocation of important species identified, if any;	Yes	**Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works** The pre-construction search has been carried out in November 2018 before the Advance Works commencement. No otter holts/dens and herpetofauna species of conservation concern were identified. **Development of Lok Ma Chau Loop Main Works Package 1 Contract 1 - Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1** The pre-construction search has been carried out at Area, 2, 7 & 9 as well as LMC Loop and WCR site areas in May / June 2021 and June / July 2021 respectively before the Works commencement. No otter holts/dens and herpetofauna species of conservation concern were identified.
(b) creating and establishing an Ecological Area, approximately 12.78 ha. in size, containing reed marsh and marsh habitat prior to total clearance of reed marsh in the Loop, including a lowrise building buffer zone of 50m width from the Ecological Area, with appropriate screenplanting;	Yes	Ecological Area has been established under the Contract. Low-rise building buffer zone and screenplanting which will be provided under Main Works Package 1.
(c) stabilising the bank of the old Shenzhen River meander of the Loop, approximately 3.5 km long,	Yes	The EA design has implemented these measures.

EP Requirements	Compliance Status	Remarks
including re-vegetation upon completion of the works and various ecological designs, such as practicability of installation of otter holts and provision of potential feeding area and spraint locations for otters in the stabilised bank;		
(d) creating a 23 m minimum width vegetated setback at the edges of the Loop along the southwestern and north-eastern sections of the meander;	N/A	Vegetated setback will be provided under Main Works Package 1
(e) installing 3m-high olive green fence around construction areas to allow or deter different animal passages where appropriate;	Yes	The 3m-high olive green fence has been provided progressively during the construction phase of the Advance Works which has been handover to Contract 1. The Contractor was reminded to maintain and re-arrange the green fence around construction areas and ensure no disturbance to the exiting trees and reed marsh habitat.
(f) providing (i) permanent compensatory off-site wetland areas; and (ii) construction stage temporary compensatory off-site wetland areas during various construction stages of the Project, in advance of any corresponding wetland loss;	Yes	Creation of off-site wetland areas were constructed in progress.
(g) providing at least 0.4 ha woodland compensation area by planting trees and shrubs near Horn Hill, to compensate for the loss of woodland affected by the Western Connection Road (WCR) and other works of the Project;	N/A	To be implemented under Main Works Package 1
(h) carrying out outside dry-season (from November to February next year), the construction works associated with the site formation in the Ecological Area, stabilization of the bank of the old Shenzhen River meander, Western Connection Road along Ha Wan Tsuen Road, to minimise disturbances to migratory birds/water birds;	Yes	-
(i) using powered mechanical equipment for construction works only during the period 9am to 5pm at and near the old Shenzhen River meander and other identified important ecologically sensitive areas, if any;	Yes	-
(j) prohibiting use of direct lighting on the old Shenzhen River meander and controlling nighttime lighting to reduce potential ecological impact;	Yes	-
(k) implementing measures to minimise magnitude of construction runoff and to avoid/minimise the potential impact of spillage events, if any; and	Yes	-
(l) using opaque noise barriers along the proposed roads and using appropriate glass and façade treatment for buildings in the Loop to minimise the mortality of fast-moving wildlife (e.g. birds).	Yes	The works for noise barriers along Lok Ma Chau Road were completed under the Contract in October 2021. Façade treatment for buildings in the Loop will be provided under the responsible works packages.

EP Requirements	Compliance Status	Remarks
Four hard copies and two electronic copies of an Ecological Mitigation / Habitat Creation and Management Plan shall be, at least one month before the commencement of corresponding parts of the works of the Project, deposited with the Director. The Plan(s) shall show the design details, locations, implementation programme, maintenance and management schedules, and drawings in the scale of 1:1,000 or other appropriate scale of the ecological mitigation measures of the Project. Before submission to the Director, the Plan(s) shall be certified by the ET Leader and verified by the IEC as conforming to the relevant information and recommendations contained in the EIA Report. All measures recommended in the finalised submission(s) under this Condition shall be fully and properly implemented.	Yes	**Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works** The HCMP has been submitted and approved under the EP condition 2.7. **Development of Lok Ma Chau Loop Main Works Package 1 – Design and Construction** The HCMP has been submitted under the EP condition 2.7 and approved in December 2021.
EP Condition 2.9 To mitigate construction stage noise impact, the following noise mitigation measures shall be implemented during the construction stage of the Project:		
(a) temporary noise barriers shall be installed along the construction access roads to screen the construction traffic noise and noisy construction activities and equipment during different construction stages of the Project as described in Table 1 and Figures 2a, 2b, 3a and 3b of this Permit;	Yes	The temporary noise barriers (TNBs) along LMC Road were completed under the Contract in October 2021. (**Appendix N**) The remaining three 3m TNBs will be provided under the responsible works contract before the commencement of road widening works of Western Connection at the existing Lok Ma Chau Road.
(b) use of movable noise barriers, noise enclosures and quiet powered mechanical equipment for the noisy construction activities and equipment as described in Table 1 and with reference to the typical designs as shown in Figure 4 of this Permit;	Yes	-
(c) concrete lorry mixer(s) shall be operated at least 25 m away from the noise sensitive receivers (NSRs) No. HWTR-6 and HWTR-11 at the Western Connection Road as shown in Figures 2b and 3b as described in Table 1 of this Permit to avoid exceedance due to cumulative construction noise; and	Yes	-
(d) no percussive piling nor blasting by explosive shall be implemented in the Project.	Yes	-

Ecological Mitigation Measures – Offsite Wetland Compensation Areas (OWCAs)

10.3 According to EIA Report, habitat loss and disturbance impacts are predicted for both construction and operation phase of the development of Lok Ma Chau Loop. All these impacts are expected to be compensated both temporarily (during construction phase) and permanently (during operation phase). Among other measures identified from EIA report to avoid, minimize and compensate for identified impacts, three areas of existing fishpond habitat (Areas 2, 7 and 9) were proposed in the EIA Report to provide OWCAs.

10.4 These Areas are located within a Priority Site for Enhanced Conservation, namely "Deep

Bay wetlands outside the Ramsar site". Many of these fishponds are currently participating in the Nature Conservation Management Agreement Scheme in the Northwest New Territories, which has the objective of restoring and enhancing the conservation value of commercial fishponds in the area. In general, the activities involved in the establishment of OWCAs are in nature the same as those associated with commercial fishpond management currently taking place in the area. Therefore, there are no direct implications for the ecological impacts OWCAs according to Section 12.7.9 of EIA report.

10.5 Under Environmental Permit (EP) number EP-477/2013/A, an Ecological Mitigation/ Habitat Creation and Management Plan (HCMP) is required for all habitat compensation measures required by the Project EIA. The OWCAs are established according to the HCMP which provides a framework and specifications for development and management of the OWCAs.

10.6 During construction period, the progress of establishment of OWCAs are under observation by different stakeholders including AFCD and green groups. The Contractor will consult with the stakeholders for recommendations and suggestions on mitigation measures to minimise the potential environmental impacts arising from establishment works.

10.7 According to Section 5.4 of the HCMP, appropriately qualified ecologists with at least 5 years of wetland design and management experience are responsible for supervising the wetland construction works and a specialist contractor with at least 7 years of experience in wetland construction and planting in the Northwest New Territories would be appointed to carry out works for the construction and establishment of the wetland areas to ensure proper implementation of the OWCAs.

10.8 The progress of works has been arranged after the consultation of Specialists under the Project as mentioned in Section 10.7 above to minimise impacts to avifauna and maintain the habitat for avifauna. The revised proposal of ecological mitigation measures during the establishment of OWCAs prepared by the Specialists are presented in **Appendix O**. ET and IEC kept review the effectiveness of the proposed mitigation measures to avoid impacts to avifauna and maintain the habitat for avifauna.

10.9 The OWCAs (Areas 2, 7 and 9) has been substantial completed as shown in the following photos.

Area 2

Area 7

Area 9

Ecological Mitigation Measures – Installation of 3m-high Olive Green Fence

10.10 The 3m-high olive green fence has been provided progressively during the construction phase of the Advance Works which has been handover to Contract 1.

10.11 In December 2021, the following works on the green fence were conducted:

1. Erection of green fence around the future Ribbon Park Reedbed;

2. Removal of existing green fence south of the future Ribbon Park Reedbed to connect with the EA; and

3. Commencement of removal of existing reed marsh outside the Ribbon Park Reedbed.

10.12 The Contractor was reminded to maintain and re-arrange the green fence around construction areas and ensure no disturbance to the exiting trees and reed marsh habitat.

11 ENVIRONMENTAL NON-CONFORMANCE (EXCEEDANCES)

Summary of Exceedances

11.1 Summary of exceedances is provided in **Appendix K**.

11.2 No Action/Limit Level exceedance was recorded for air quality, construction noise and water quality monitoring.

Summary of Environmental Complaint

11.3 No environmental related complaint was received in the reporting month. The statistical summary table of the environmental complaints is presented in **Table 11.1**. The Complaint Log is attached in **Appendix O**.

Table 11.1 Statistical Summary of Environmental Complaints

Reporting Period	**Environmental Complaint Statistics**		
	Frequency	**Cumulative**	**Project related complaint**
Jan 2019 – November 2021	7	7	1
December 2021	0		0

Summary of Notification of Summons and Successful Prosecutions

11.4 There was no prosecution or notification of summons received since the commencement of the Project. The statistical summary table of the summons and prosecution are presented in **Table 11.2** and **11.3** respectively. Summary of successful prosecution as attached in **Appendix R**.

Table 11.2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Project related complaint
Jan 2019 – November 2021	0	0	0
December 2021	0		0

Table 11.3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Project related complaint
Jan 2019 – November 2021	0	0	0
December 2021	0		0

12 FUTURE KEY ISSUES

Key Issues in the Coming Months

12.1 Major site activities for the coming reporting months will include:

Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works

(b) Maintenance works for freshwater marsh and reed bed.

12.2 Referring to the construction programme in **Appendix A**, all construction works of Contract No. YL/2017/03 have been completed and the works were successfully handed over to AFCD and DSD on 30 December 2021. In view of no significant environmental impact due to the works during establishment period (i.e. until 31 December 2022) would be anticipated, construction phase EM&A programme, including Reporting, Weekly Site Inspection for Contract No. YL/2017/03 would therefore be terminated starting from 1st January 2022. The impact environmental monitoring (i.e. air quality monitoring, noise monitoring, water quality monitoring and ecological monitoring) would be continued for others contracts under EP-477/2013/A.

Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

(a) Completion of Wetland Compensation Areas at Portion 2 and 3 Outstanding Works.

(b) Completion of Temporary Access Roads (TAR1, TAR2) Outstanding Works.

(c) Commencement of TAR3 Construction.

(d) Pre-drilling and Piling for Meander Bridge Foundation

(e) Meander Bridge – Formation of Access Road for Construction of Abutments and Piers.

(f) Instrumentation Installation at Portion 15.2, Portion 15.2A, Portion 15.2B, Portion 15.3, Portion 15.4 and Portion 15.5.

(g) Granular Fill Laying at Portion 15.5.

(h) PVD Installation at Portion 7, Portion 8, Portion 15.1, Portion 15.2, Portion 15.2b.

(i) General Fill to Surcharge Laying at Portion 7 and Portion 8.

(j) Commencement of DCM Cluster Construction at Portion 7.

(k) Pre-condition survey and UU detection at Portion 6 (WCR).

(l) Subletting of Works for Road D1 & L1, Box Culverts and Meander Bridge and Sewage Treatment Works (STW) Buildings.

(m) Subletting and Site Clearance of Western Connection Road (WCR).

(n) Road D1 Excavation and Granular Bedding.

(o) Site Clearance and Pre-drilling at Box Culvert A1 at Portion 18A and Portion 18C.

Contract No.: YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

(a) Tree Survey (Remaining frontier closed area) / Tree Felling.

(b) Initial Survey.

(c) Underground Utility Detection.

(d) Pre-construction Condition Survey.

(e) Erection of Contractor's Site Office.

(f) TMLG Meeting No. 2.

(g) Pre-drilling and Trial Pits (DRL-P06, P11, P12 & P13), (ST01-P02 & P03) & (CTFB-FBA-02, FBP-06 & Staircase).

(h) Construction of Reedbed Cell No. 3A (Filling, Laying Geomembrane & Drainage).

(i) Site Clearance and Forming Access for Cut Slopes CS1, CS2 and Retaining wall BPW1.

(j) Erection of Temporary Noise Barrier (TNB 5, TNB 12 & TNB 17) along the Lok Ma Chau Road.

(k) Box Culvert Diversion at Lok Ma Chau Road (Stage 1) subjected to TMLG and MTRC.

(l) Demolition of Existing Structures along Lok Ma Chau Road.

Monitoring Schedule for the Next Month

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

Construction Programme for the Next Month

12.4 A tentative construction programmes are provided in **Appendix A**.

13 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

13.1 The EM&A Report presents the EM&A works undertaken in December 2021 in accordance with EM&A Manual.

Air Quality

1-hour TSP Monitoring

13.2 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

13.3 All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

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

Water Quality

13.5 Water quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Ecological Monitoring

Avifauna

13.6 Avifauna monitoring was conducted as scheduled in the reporting month. Flight lines recorded were in general concentrated mainly on LMC Meander and adjacent areas including EA Zone and along Shenzhen River. No significant impacts on the flight line were observed in the reporting month.

Mammals

13.7 Mammals monitoring was conducted in the reporting month. Eurasian Wild Pig (*Sus scrofa*) and Domestic Dog (*Canis lupus familiaris)* were captured by infra-red flash cameras.

13.8 No Eurasian Otter was found in the reporting month.

Land Contamination

13.9 Decontamination for five arsenic-contaminated zones (LD01 - LD05) identified in LMC Loop was completed and the final Remediation Report was submitted and approved by EPD in accordance with Condition 2.16 of the EP-477/2013/A under Contract No. YL/2017/03.

13.10 No work related to land contamination was conducted in the reporting month.

Environmental Site Inspection

13.11 Environmental site inspections were conducted on 8th, 15th, 22nd and 29th December 2021 by ET in the reporting month.

Environmental Complaints, Summons and Prosecutions

13.12 No environmental complaint, no notification of summons or successful prosecution received in the reporting month.

13.13 The ET would keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Recommendations

13.14 According to the environmental audit performed in the reporting month, the following recommendations were made:

Air Quality Impact

- To enhance the dust suppression measures such as water spraying on all haul roads and exposed work site area;
- To maintain the impervious material to cover the stockpile of dusty materials; and
- To keep inspect all dump truck for transportation of dusty materials shall be equipped with mechanical cover.

Noise Impact

- To inspect the noise sources inside the site;
- To space out noisy equipment and position the equipment as far away as possible from sensitive receivers; and
- To provide temporary noise barriers for operations of noisy equipment near the noise sensitive receivers, if necessary.

Water Impact

- To prevent any surface runoff discharge into the old Shenzhen River meander or stream;
- To review and implement temporary drainage system;
- To identify any wastewater discharges from site;
- To remove the sand or dusty material away from the EA zone, old Shenzhen River meander or stream;
- To divert all the water generated from construction site to de-silting facilities with enough handling capacity before discharge;
- To review the capacity of de-silting facilities for discharge;
- To ensure the drainage facilities would not be clogged with sediment to avoid overflow during rainy season; and
- To designate the area for wheel washing and set up the associated drainage for water from a wheel wash.

Ecology Impact

- To maintain the 3m high olive green fence around the construction site;
- To ensure the powered mechanical equipment for construction works only during the period 9am to 5pm at and near the old Shenzhen River meander and other identified important ecologically sensitive areas, if any; and
- To avoid the impacts on avifauna and maintain the habitat for avifauna during the establishment of OWCAs and Reedbed 3A.

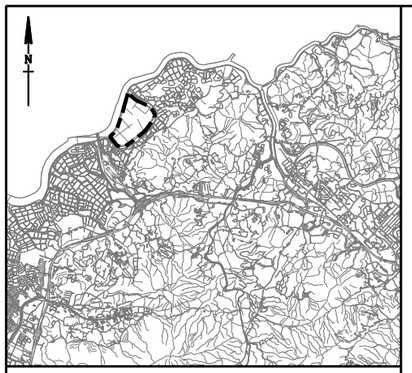
Waste/Chemical Management

- To check for any accumulation of waste materials or rubbish on site;
- To carry out inspection of dump trucks at site exit to ensure inert and non-inert C&D materials are properly segregated before delivering off site;
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the site; and
- To avoid improper handling, storage and dispose of oil drums or chemical containers on site.

Landscape and Visual

- To erect and maintain the protection fencing and tree protection zone around the preserved trees.

FIGURE(S)



圖例 LEGEND

- 擬議土地除污及相關工程 Proposed Land Decontamination and Associated Works
- 擬議土地處理工程 Proposed Ground Treatment Works
- 擬議生態區 Proposed Ecological Area
- 擬議臨時行車橋 Proposed Temporary Vehicular Bridge
- 擬議小型道路改善工程 Proposed Minor Road Improvement Works
- 擬議臨時隔音屏障及各種道路工程 Proposed Temporary Noise Barriers and Miscellaneous Road Works

工務計劃項目第748CL號—落馬洲河套地區發展：土地除污及前期工程

PWP ITEM No. 748CL-DEVELOPMENT OF LOK MA CHAU LOOP : LAND DECONTAMINATION AND ADVANCE ENGINEERING WORKS

FIGURE 1 a

LAYOUT PLAN

R:\Sketch-WDO\W1\W1-008\W1-008.dgn

1/2/2018

A3 420MM X 297MM

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

圖例:

- 施工區範圍 SITE BOUNDARY
- 擬議道路，單車徑，行人路和相關基建工程 ROAD, CYCLE TRACK, FOOTPATH WORKS
- 擬議公共運輸交匯處 TRANSPORT INTERCHANGE
- 擬議工地平整及基建配套設施 SITE FORMATION AND INFRASTRUCTURE WORKS
- 擬議深圳河的底泥處理 RIVER DEODORISATION WORKS
- 擬議美化市容地帶，休憩用地，場外生態補償和相關綠化工程 AMENITY, LEISURE AND ECOLOGICAL PROVISIONS
- 擬議污水處理廠 SEWAGE TREATMENT WORKS
- 食水配水庫和供水系統 FRESHWATER SERVICE RESERVOIR AND WATERMAINS
- 擬議斜坡 SLOPEWORKS

N

Legend

- Approximated Extent of Contract 1
- Approximated Extent of Contract 2
- Approximated Extent of Contract 3
- Approximated Extent of Contract 4
- Approximated Extent of Contract 5
- Approximated Extent of Contract 6

落馬洲河套地區
LOK MA CHAU LOOP

港鐵落馬洲站
MTR LOK MA CHAU STATION

深圳河
SHENZHEN RIVER

擬議落馬洲河套地區食水配水庫
(食水配水庫的工地平整及供水系統水管敷設由其他工程項目建造)
LMCL MWP1 FRESHWATER SERVICE RESERVOIR (SITE FORMATION AND WATERMAINS BY OTHERS)

現有食水管
EXISTING WATERMAINS

粉嶺公路
FANLING HIGHWAY

HORN HILL (NGAU KOK SHAN)
MA TSO LUNG
PING HANG
TAI LAU HAU
LOK MA CHAU
FUNG KONG SHAN
CREST HILL (TAI SHEK MO)
SAM PO SHUE
SAN TIN
HADDEN HILL (KI LUN SHAN)
KWU TUNG RESERVOIR
EAST RAIL LINE
CASTLE PEAK ROAD

AECOM

PROJECT
項目
DEVELOPMENT OF LOK MA CHAU LOOP MAIN WORKS PACKAGE 1 DESIGN AND CONSTRUCTION

CLIENT
業主
土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
工程顧問公司
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核

STATUS
狀況

SCALE 比例: A1 1 : 8000
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60588085
CONTRACT NO. 合約編號: CE 5/2018(CE)

SHEET TITLE
圖紙名稱
落馬洲河套地區發展 - 第一期主體工程 - 工程平面圖（圖一）
PROJECT LAYOUT (Figure 1b)

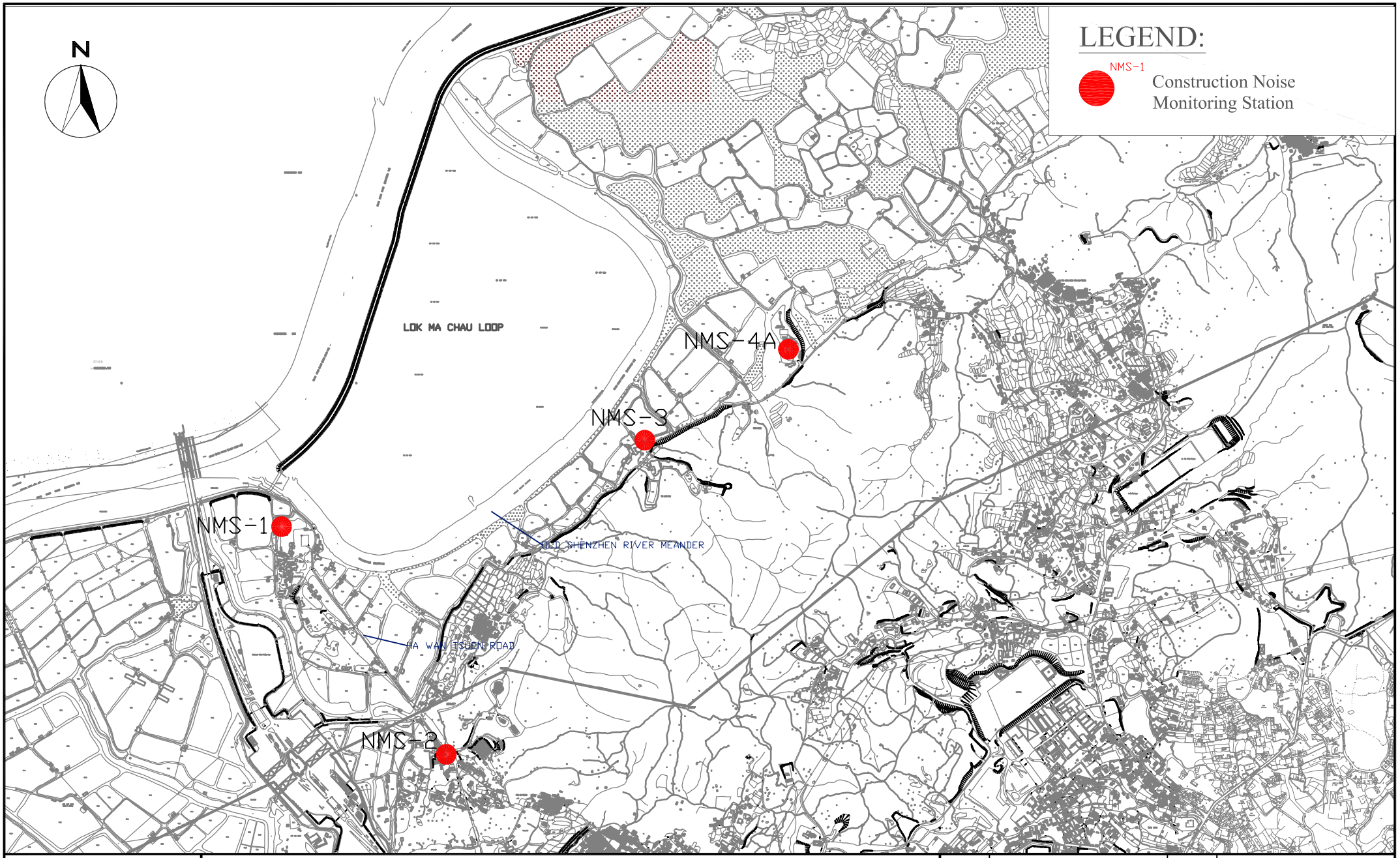
SHEET NUMBER
圖紙編號
60588085/ SK0099

Plot File by: Tsuiwy
PATH: P:\PROJECTS\60588085\DRAWING\GISKETCH\SK0099.dgn
5/5/2020

WELLAB 匯力
consulting . testing . research

Service Contract No. WD/04/2020
Development of Lok Man Chau Loop: Main Work Package 1 - Environmental Team
Location of Air Quality Monitoring Stations

SCALE	1:400 A4	DATE	May 2021
CHECK	PC	DRAWN	IT
JOB No.	WMA21009	FIGURE NO. Fig 2	REV –

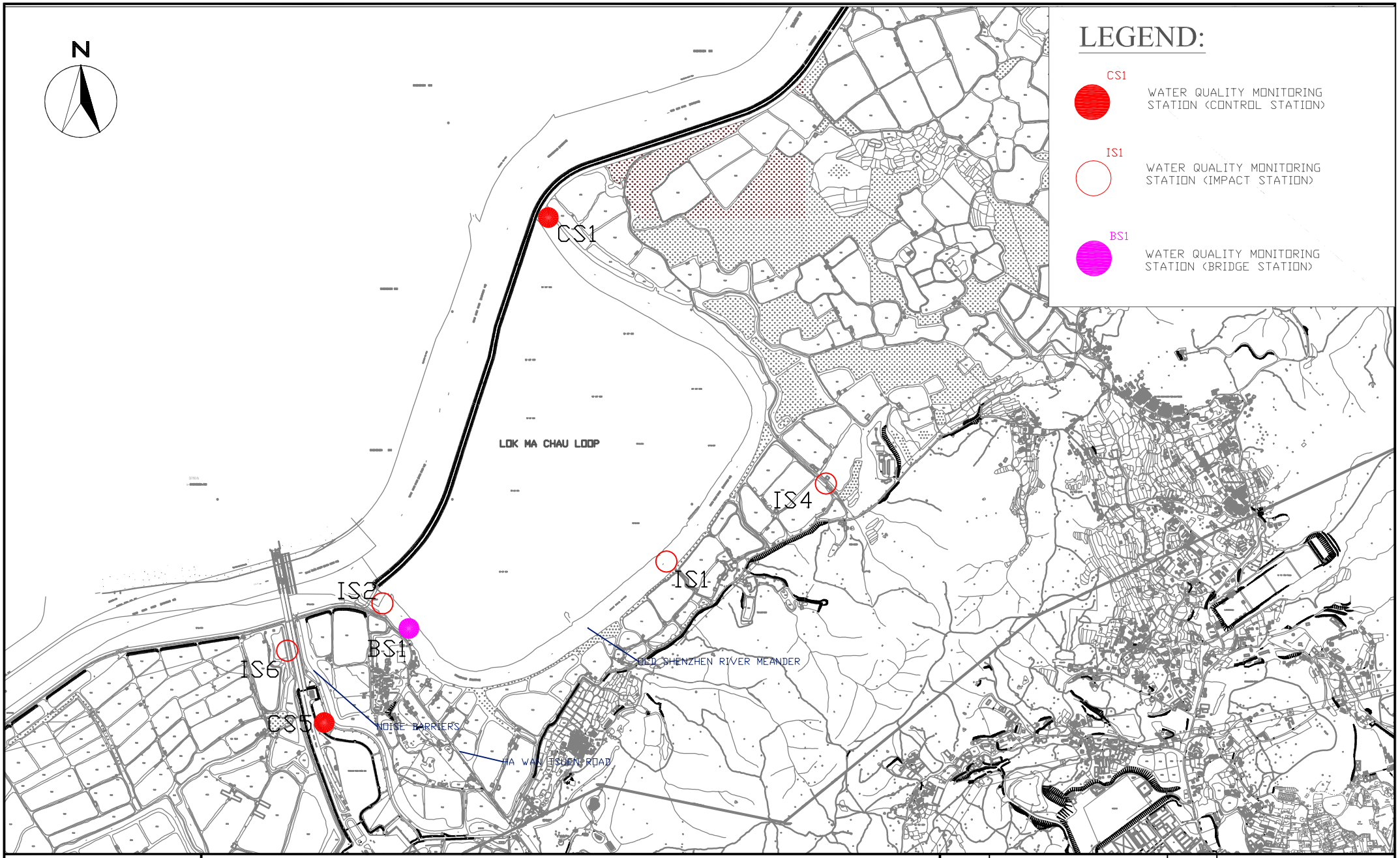


WELLAB 匯力
consulting . testing . research

Service Contract No. WD/04/2020
Development of Lok Man Chau Loop: Main Work Package 1 - Environmental Team

Location of Noise Monitoring Stations

SCALE	1:400 A4	DATE	May 2021
CHECK	PC	DRAWN	IT
JOB No.	WMA 21009	FIGURE NO.	Fig 3
		REV	-



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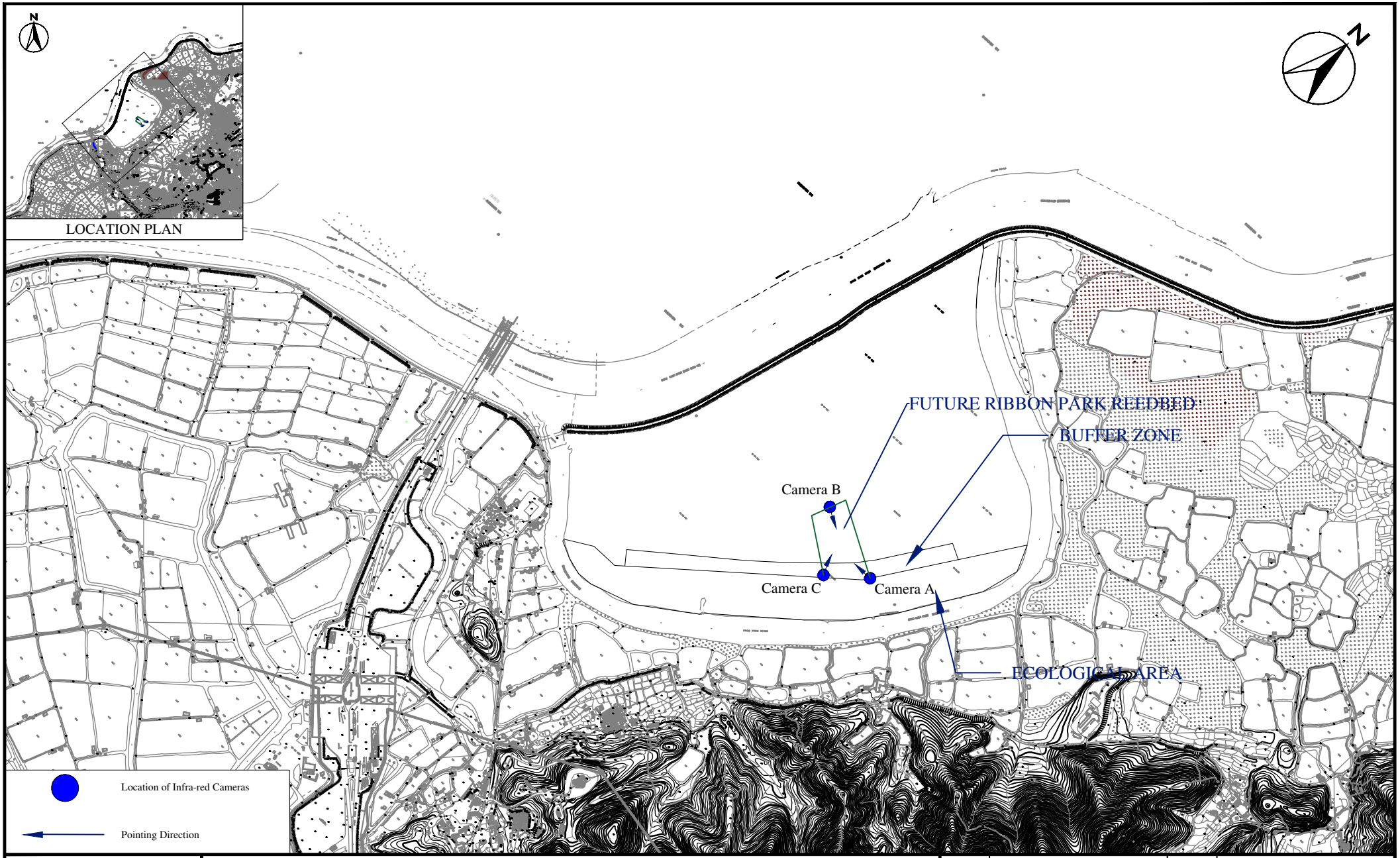
Service Contract No. WD/04/2020
Development of Lok Man Chau Loop: Main Work Package 1 - Environmental Team

Location of Water Quality Monitoring Stations

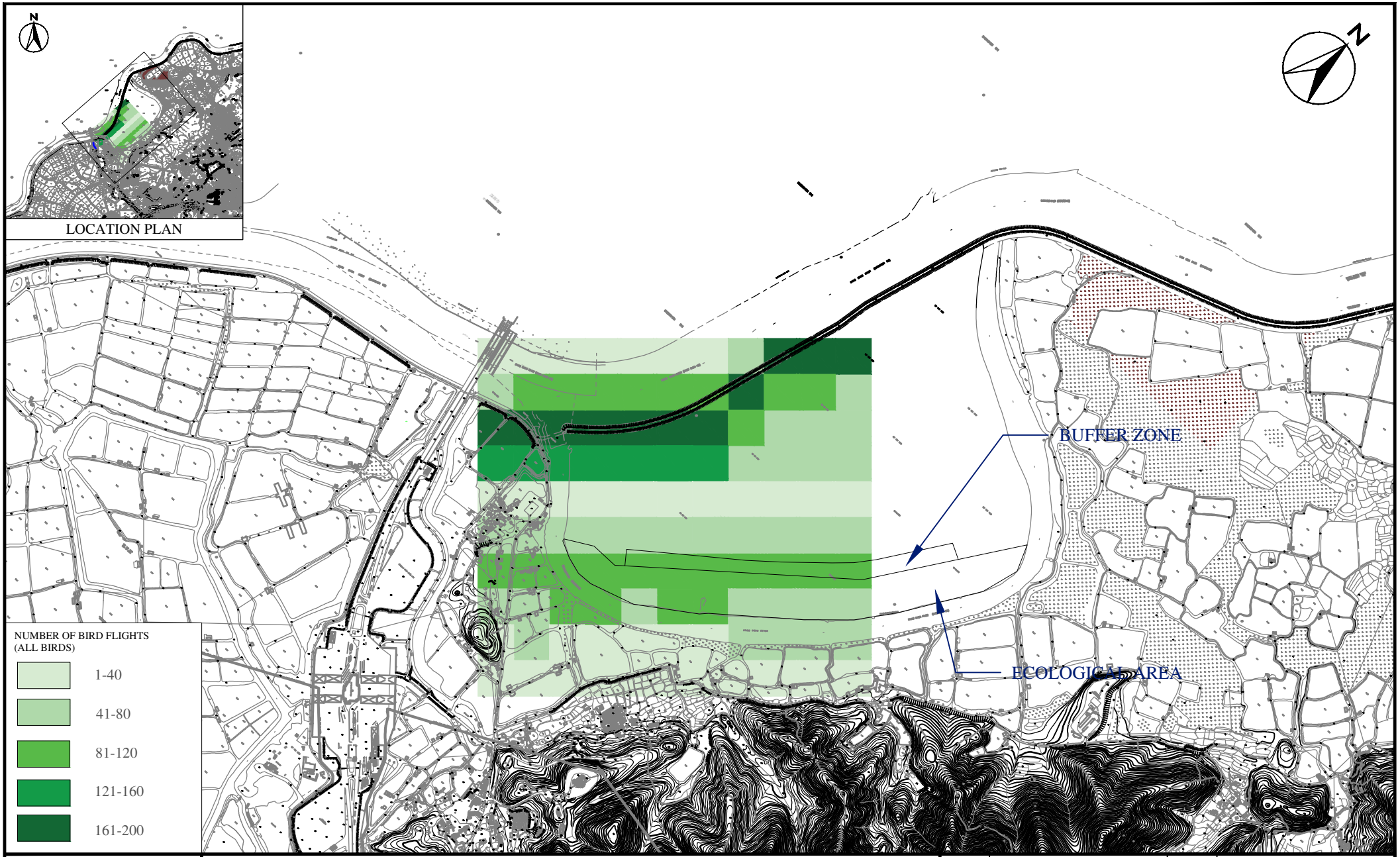
SCALE	1:400 A4	DATE	May 2021
CHECK	PC	DRAWN	IT
JOB No.	WMA 21009	FIGURE NO.	Fig 4
		REV	-



WELLAB 匯力
consulting . testing . research

Service Contract No. WD/04/2020
Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team
Location of Ecological Monitoring

SCALE	1:14000 @A4	DATE	DEC 2021
CHECK	IT	DRAWN	ML
JOB No.	WMA 21009	FIGURE NO.	Fig 5
		REV	-



WELLAB 匯力
consulting . testing . research

Service Contract No. WD/04/2020
Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team

Flight Lines of All Bird Species

SCALE	1:14000 @A4	DATE	DEC 2021
CHECK	IT	DRAWN	ML
JOB No.	WMA 21009	FIGURE NO.	Fig 6
		REV	-

APPENDIX A
CONSTRUCTION PROGRAMME

Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works

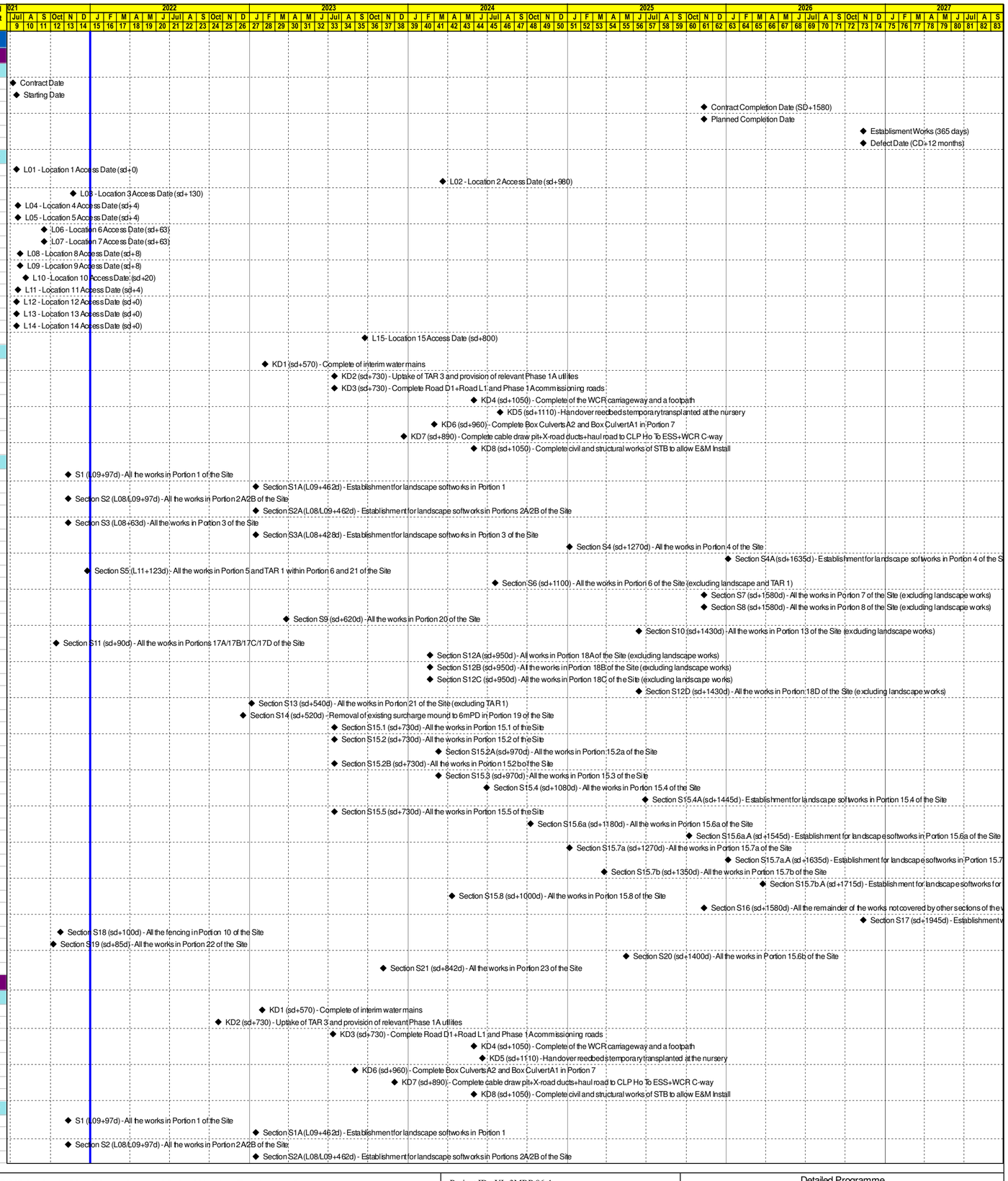
Sang Hing - Kuly Joint Venture
Contract No. YL/2017/03
Development of Lok Ma Chau Loop：Land Decontamination and Advance Engineering Works

3-Month Rolling Programme for the Works

ITEM	WORKS DESCRIPTION	YEAR 2021 & 2022					
		Dec		Jan		Feb	
1	MAINTENANCE OF REED AND FRESHWATER MARSH						

Contract No. YL/2020/01 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
Contract No. YL/2020/01 - Detailed Programme Rev. 2		740	07-Jul-21 A	11-Nov-26	14-Oct-21	12-Nov-26	0
Contract Data Part 1		954	07-Jul-21 A	11-Nov-26	29-Oct-21	12-Nov-26	0
General		954	07-Jul-21 A	11-Nov-26	29-Oct-21	11-Nov-26	0
G1-CD	Contract Date	0	07-Jul-21 A		29-Oct-21		
G2-SD	Starting Date	0	15-Jul-21 A		29-Oct-21		
G3-CCD	Contract Completion Date (SD+1580)	0		11-Nov-25		11-Nov-25	0
G4-PCD	Planned Completion Date	0		11-Nov-25		11-Nov-25	0
G5-EW	Establisment Works (365 days)	0		11-Nov-26		11-Nov-26	0
G6-DD	Defect Date (CD+12 months)	0		11-Nov-26		11-Nov-26	0
Access Dates to Part of the Site		980	15-Jul-21 A	21-Mar-24	29-Oct-21	12-Nov-26	966
L01	L01 - Location 1 Access Date (sd+0)	0	15-Jul-21 A		01-Jan-22		
L02	L02 - Location 2 Access Date (sd+980)	0	21-Mar-24*		21-Mar-24		0
L03	L03 - Location 3 Access Date (sd+130)	0	22-Nov-21 A		13-Jan-22		
L04	L04 - Location 4 Access Date (sd+4)	0	19-Jul-21 A		01-Jan-22		
L05	L05 - Location 5 Access Date (sd+4)	0	19-Jul-21 A		21-Jan-22		
L06	L06 - Location 6 Access Date (sd+63)	0	16-Sep-21 A		12-Nov-26		
L07	L07 - Location 7 Access Date (sd+63)	0	16-Sep-21 A		12-Nov-26		
L08	L08 - Location 8 Access Date (sd+8)	0	23-Jul-21 A		29-Oct-21		
L09	L09 - Location 9 Access Date (sd+8)	0	23-Jul-21 A		29-Oct-21		
L10	L10 - Location 10 Access Date (sd+20)	0	05-Aug-21 A		15-Mar-24		
L11	L11 - Location 11 Access Date (sd+4)	0	19-Jul-21 A		01-Jan-22		
L12	L12 - Location 12 Access Date (sd+0)	0	15-Jul-21 A		11-Nov-25		
L13	L13 - Location 13 Access Date (sd+0)	0	15-Jul-21 A		11-Jan-22		
L14	L14 - Location 14 Access Date (sd+0)	0	15-Jul-21 A		11-Nov-25		
L15	L15- Location 15 Access Date (sd+800)	0	23-Sep-23*		23-Sep-23		0
Contract Key Dates		540	05-Feb-23	29-Jul-24	05-Feb-23	29-Jul-24	0
KD01	KD1 (sd+570) - Complete of interim water mains	0		05-Feb-23*		05-Feb-23	0
KD02	KD2 (sd+730) - Uptake of TAR 3 and provision of relevant Phase 1A utilities	0		15-Jul-23*		15-Jul-23	0
KD03	KD3 (sd+730) - Complete Road D1+Road L1 and Phase 1A commissioning roads	0		15-Jul-23*		15-Jul-23	0
KD04	KD4 (sd+1050) - Complete of the WCR carriageway and a footpath	0		30-May-24*		30-May-24	0
KD05	KD5 (sd+1110) - Handover reedbed stemporary transplanted at the nursery	0		29-Jul-24*		29-Jul-24	0
KD06	KD6 (sd+960) - Complete Box Culverts A2 and Box Culvert A1 in Portion 7	0		01-Mar-24*		01-Mar-24	0
KD07	KD7 (sd+890) - Complete cable draw pit+X-road ducts+haul road to CLP Ho To ESS+WCR C-way	0		22-Dec-23*		22-Dec-23	0
KD08	KD8 (sd+1050) - Complete civil and structural works of STB to allow E&M Install	0		30-May-24*		30-May-24	0
Contract Section Completions		860	08-Oct-21 A	11-Nov-26	28-Oct-22	12-Nov-26	0
S01	S1 (L09+97d) - All the works in Portion 1 of the Site	0		11-Nov-21 A		12-Nov-26	
S01A	Section S1A (L09+462d) - Establishment for landscape softworks in Portion 1	0		15-Jan-23*		28-Oct-22	-79
S02	Section S2 (L08/L09+97d) - All the works in Portion 2 A2B of the Site	0		11-Nov-21 A		12-Nov-26	
S02A	Section S2A (L08/L09+462d) - Establishment for landscape softworks in Portions 2A/2B of the Site	0		15-Jan-23*		28-Oct-22	-79
S03	Section S3 (L08+63d) - All the works in Portion 3 of the Site	0		11-Nov-21 A		12-Nov-26	
S03A	Section S3A (L08+428d) - Establishment for landscape softworks in Portion 3 of the Site	0		15-Jan-23*		28-Oct-22	-79
S04	Section S4 (sd+1270d) - All the works in Portion 4 of the Site	0		05-Jan-25*		05-Jan-25	0
S04A	Section S4A (sd+1635d) - Establishment for landscape softworks in Portion 4 of the Site	0		05-Jan-26*		05-Jan-26	0
S05	Section S5 (L11+123d) - All the works in Portion 5 and TAR 1 within Portion 6 and 21 of the Site	0		24-Dec-21 A		12-Nov-26	
S06	Section S6 (sd+1100) - All the works in Portion 6 of the Site (excluding landscape and TAR 1)	0		19-Jul-24*		19-Jul-24	0
S07	Section S7 (sd+1580d) - All the works in Portion 7 of the Site (excluding landscape works)	0		11-Nov-25*		11-Nov-25	0
S08	Section S8 (sd+1580d) - All the works in Portion 8 of the Site (excluding landscape works)	0		11-Nov-25*		11-Nov-25	0
S09	Section S9 (sd+620d) - All the works in Portion 20 of the Site	0		27-Mar-23*		27-Mar-23	0
S10	Section S10 (sd+1430d) - All the works in Portion 13 of the Site (exduding landscape works)	0		14-Jun-25*		14-Jun-25	0
S11	Section S11 (sd+90d) - All the works in Portions 17A/17B/17C/17D of the Site	0		13-Oct-21 A		11-Nov-25	
S12A	Section S12A (sd+950d) - All works in Portion 18A of the Site (excluding landscape works)	0		20-Feb-24*		20-Feb-24	0
S12B	Section S12B (sd+950d) - All the works in Portion 18B of the Site (excluding landscape works)	0		20-Feb-24*		20-Feb-24	0
S12C	Section S12C (sd+950d) - All the works in Portion 18C of the Site (excluding landscape works)	0		20-Feb-24*		20-Feb-24	0
S12D	Section S12D (sd+1430d) - All the works in Portion 18D of the Site (excluding landscape works)	0		14-Jun-25*		14-Jun-25	0
S13	Section S13 (sd+540d) - All the works in Portion 21 of the Site (excluding TAR 1)	0		06-Jan-23*		06-Jan-23	0
S14	Section S14 (sd+520d) - Removal of existing surcharge mound to 6mPD in Portion 19 of the Site	0		17-Dec-22*		17-Dec-22	0
S15.1	Section S15.1 (sd+730d) - All the works in Portion 15.1 of the Site	0		15-Jul-23*		15-Jul-23	0
S15.2	Section S15.2 (sd+730d) - All the works in Portion 15.2 of the Site	0		15-Jul-23*		15-Jul-23	0
S15.2A	Section S15.2A (sd+970d) - All the works in Portion 15.2a of the Site	0		11-Mar-24*		11-Mar-24	0
S15.2B	Section S15.2B (sd+730d) - All the works in Portion 1 52b of the Site	0		15-Jul-23*		15-Jul-23	0
S15.3	Section S15.3 (sd+970d) - All the works in Portion 15.3 of the Site	0		11-Mar-24*		11-Mar-24	0
S15.4	Section S15.4 (sd+1080d) - All the works in Portion 15.4 of the Site	0		29-Jun-24*		29-Jun-24	0
S15.4A	Section S15.4A (sd+1445d) - Establishment for landscape softworks in Portion 15 4 of the Site	0		29-Jun-25*		29-Jun-25	0
S15.5	Section S15.5 (sd+730d) - All the works in Portion 15.5 of the Site	0		15-Jul-23*		15-Jul-23	0
S15.6a	Section S15.6a (sd+1180d) - All the works in Portion 15.6a of the Site	0		07-Oct-24*		07-Oct-24	0
S15.6a.A	Section S15.6a.A (sd+1545d) - Establishment for landscape softworks in Portion 15.6a of the Site	0		07-Oct-25*		07-Oct-25	0
S15.7a	Section S15.7a (sd+1270d) - All the works in Portion 15.7a of the Site	0		05-Jan-25*		05-Jan-25	0
S15.7a.A	Section S15.7a.A (sd+1635d) - Establishment for landscape softworks in Portion 15.7a of the Site	0		05-Jan-26*		05-Jan-26	0
S15.7b	Section S15.7b (sd+1350d) - All the works in Portion 15.7b of the Site	0		26-Mar-25*		26-Mar-25	0
S15.7b.A	Section S15.7b.A (sd+1715d) - Establishment for landscape softworks for Portion 15.7b of the Site	0		26-Mar-26*		26-Mar-26	0
S15.8	Section S15.8 (sd+1000d) - All the works in Portion 15.8 of the Site	0		10-Apr-24*		10-Apr-24	0
S16	Section S16 (sd+1580d) - All the remainder of the works not covered by other sections of the works	0		11-Nov-25*		11-Nov-25	0
S17	Section S17 (sd+1945d) - Establishment works not covered by other sections of the works.	0		11-Nov-26*		11-Nov-26	0
S18	Section S18 (sd+100d) - All the fencing in Portion 10 of the Site	0		23-Oct-21 A		11-Nov-25	
S19	Section S19 (sd+85d) - All the works in Portion 22 of the Site	0		08-Oct-21 A		12-Nov-26	
S20	Section S20 (sd+1400d) - All the works in Portion 15.6b of the Site	0		15-May-25*		15-May-25	0
S21	Section S21 (sd+842d) - All the works in Portion 23 of the Site	0		04-Nov-23*		04-Nov-23	0
Planned Completion Dates		691	15-Jul-21 A	18-Jul-26	28-Oct-22	11-Nov-26	45
Planned Key Dates		606	22-Oct-22	19-Jun-24	05-Feb-23	29-Jul-24	40
PKD01	KD1 (sd+570) - Complete of interim water mains	0		30-Jan-23		05-Feb-23	6
PKD02	KD2 (sd+730) - Uptake of TAR 3 and provision of relevant Phase 1A utilities	0		22-Oct-22		15-Jul-23	266
PKD03	KD3 (sd+730) - Complete Road D1+Road L1 and Phase 1A commissioning roads	0		12-Jul-23		15-Jul-23	3
PKD04	KD4 (sd+1050) - Complete of the WCR carriageway and a footpath	0		30-May-24		30-May-24	0
PKD05	KD5 (sd+1110) - Handover reedbed stemporary transplanted at the nursery	0		19-Jun-24		29-Jul-24	40
PKD06	KD6 (sd+960) - Complete Box Culverts A2 and Box Culvert A1 in Portion 7	0		01-Sep-23		01-Mar-24	182
PKD07	KD7 (sd+890) - Complete cable draw pit+X-road ducts+haul road to CLP Ho To ESS+WCR C-way	0		30-Nov-23		22-Dec-23	22
PKD08	KD8 (sd+1050) - Complete civil and structural works of STB to allow E&M Install	0		30-May-24		30-May-24	0
Planned Section Completions		744	08-Oct-21 A	18-Jul-26	28-Oct-22	11-Nov-26	116
PS01	S1 (L09+97d) - All the works in Portion 1 of the Site	0		11-Nov-21 A		11-Nov-25	
PS01A	Section S1A (L09+462d) - Establishment for landscape softworks in Portion 1	0		15-Jan-23		28-Oct-22	-79
PS02	Section S2 (L08/L09+97d) - All the works in Portion 2 A2B of the Site	0		11-Nov-21 A		11-Nov-25	
PS02A	Section S2A (L08/L09+462d) - Establishment for landscape softworks in Portions 2A/2B of the Site	0		15-Jan-23		28-Oct-22	-79



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

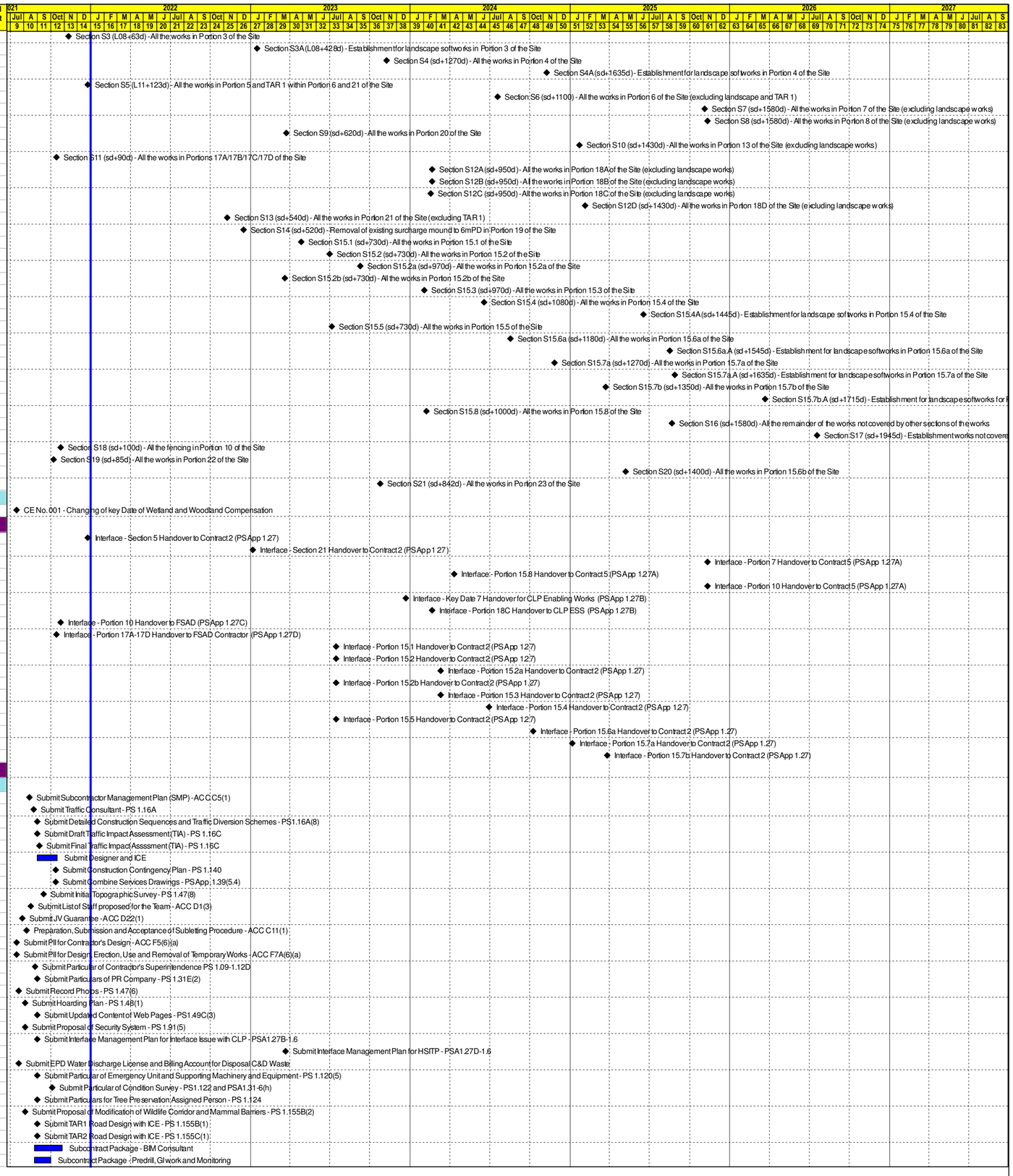
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 1 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
PS03	Section S3 (L08+63d) - All the works in Portion 3 of the Site	0		11-Nov-21 A		11-Nov-25	
PS03A	Section S3A (L08+428d) - Establishment for landscape softworks in Portion 3 of the Site	0		15-Jan-23		28-Oct-22	-79
PS04	Section S4 (sd+1270d) - All the works in Portion 4 of the Site	0		08-Nov-23		05-Jan-25	424
PS04A	Section S4A (sd+1635d) - Establishment for landscape softworks in Portion 4 of the Site	0		07-Nov-24		05-Jan-26	424
PS05	Section S5 (L11+123d) - All the works in Portion 5 and TAR 1 within Portion 6 and 21 of the Site	0		24-Dec-21 A		11-Nov-25	
PS06	Section S6 (sd+1100) - All the works in Portion 6 of the Site (excluding landscape and TAR 1)	0		18-Jul-24		19-Jul-24	1
PS07	Section S7 (sd+1580d) - All the works in Portion 7 of the Site (excluding landscape works)	0		04-Nov-25		11-Nov-25	7
PS08	Section S8 (sd+1580d) - All the works in Portion 8 of the Site (excluding landscape works)	0		11-Nov-25		11-Nov-25	0
PS09	Section S9 (sd+620d) - All the works in Portion 20 of the Site	0		24-Mar-23		27-Mar-23	3
PS10	Section S10 (sd+1430d) - All the works in Portion 13 of the Site (exduding landscape works)	0		21-Jan-25		14-Jun-25	144
PS11	Section S11 (sd+90d) - All the works in Portions 17A/17B/17C/17D of the Site	0		13-Oct-21 A		11-Nov-25	
PS12A	Section S12A(sd+950d) - All the works in Portion 18A of the Site (excluding landscape works)	0		19-Feb-24		20-Feb-24	1
PS12B	Section S12B (sd+950d) - All the works in Portion 18B of the Site (excluding landscape works)	0		19-Feb-24		20-Feb-24	1
PS12C	Section S12C (sd+950d) - All the works in Portion 18C of the Site (excluding landscape works)	0		17-Feb-24		20-Feb-24	3
PS12D	Section S12D (sd+1430d) - All the works in Portion 18D of the Site (excluding landscape works)	0		04-Feb-25		14-Jun-25	130
PS13	Section S13 (sd+540d) - All the works in Portion 21 of the Site (excluding TAR 1)	0		08-Nov-22		06-Jan-23	59
PS14	Section S14 (sd+520d) - Removal of existing surcharge mound to 6mPD in Portion 19 of the Site	0		15-Dec-22		17-Dec-22	2
PS15.1	Section S15.1 (sd+730d) - All the works in Portion 15.1 of the Site	0		26-Apr-23		15-Jul-23	80
PS15.2	Section S15.2 (sd+730d) - All the works in Portion 15.2 of the Site	0		30-Jun-23		15-Jul-23	15
PS15.2a	Section S15.2a (sd+970d) - All the works in Portion 15.2a of the Site	0		08-Sep-23		11-Mar-24	185
PS15.2b	Section S15.2b (sd+730d) - All the works in Portion 15.2b of the Site	0		20-Mar-23		15-Jul-23	117
PS15.3	Section S15.3 (sd+970d) - All the works in Portion 15.3 of the Site	0		02-Feb-24		11-Mar-24	38
PS15.4	Section S15.4 (sd+1080d) - All the works in Portion 15.4 of the Site	0		17-Jun-24		29-Jun-24	12
PS15.4A	Section S15.4A(sd+1445d) - Establishment for landscape softworks in Portion 15.4 of the Site	0		17-Jun-25		29-Jun-25	12
PS15.5	Section S15.5 (sd+730d) - All the works in Portion 15.5 of the Site	0		06-Jul-23		15-Jul-23	9
PS15.6a	Section S15.6a (sd+1180d) - All the works in Portion 15.6a of the Site	0		16-Aug-24		07-Oct-24	52
PS15.6a.A	Section S15.6a.A (sd+1545d) - Establishment for landscape softworks in Portion 15.6a of the Site	0		16-Aug-25		07-Oct-25	52
PS15.7a	Section S15.7a (sd+1270d) - All the works in Portion 15.7a of the Site	0		25-Nov-24		05-Jan-25	41
PS15.7a.A	Section S15.7a.A (sd+1635d) - Establishment for landscape softworks in Portion 15.7a of the Site	0		27-Aug-25		11-Nov-25	76
PS15.7b	Section S15.7b (sd+1350d) - All the works in Portion 15.7b of the Site	0		22-Mar-25		26-Mar-25	4
PS15.7b.A	Section S15.7b.A (sd+1715d) - Establishment for landscape softworks for Portion 15.7b of the Site	0		22-Mar-26		26-Mar-26	4
PS15.8	Section S15.8 (sd+1000d) - All the works in Portion 15.8 of the Site	0		07-Feb-24		10-Apr-24	63
PS16	Section S16 (sd+1580d) - All the remainder of the works not covered by other sections of the works	0		21-Aug-25		11-Nov-25	82
PS17	Section S17 (sd+1945d) - Establishment works not covered by other sections of the works.	0		18-Jul-26		11-Nov-26	116
PS18	Section S18 (sd+100d) - All the fencing in Portion 10 of the Site	0		23-Oct-21 A		11-Nov-25	
PS19	Section S19 (sd+85d) - All the works in Portion 22 of the Site	0		08-Oct-21 A		11-Nov-25	
PS20	Section S20 (sd+1400d) - All the works in Portion 15.6b of the Site	0		07-May-25		15-May-25	8
PS21	Section S21 (sd+842d) - All the works in Portion 23 of the Site	0		24-Oct-23		04-Nov-23	11
Implementation of Compensation Events		0	15-Jul-21 A	15-Jul-21 A	28-Oct-22	28-Oct-22	
ICE-001	CE No. 001 - Changing of key Date of Wetland and Woodland Compensation	0		15-Jul-21 A		28-Oct-22	
Interfacing Contract Dates		490	13-Oct-21 A	11-Nov-25	06-Jan-23	12-Nov-26	365
ICD-100	Interface - Section 5 Handover to Contract 2 (PSApp 1.27)	0		24-Dec-21 A		12-Nov-26	
ICD-105	Interface - Section 21 Handover to Contract 2 (PSApp 1.27)	0		06-Jan-23		06-Jan-23	0
ICD-110	Interface - Portion 7 Handover to Contract 5 (PSApp 1.27A)	0		11-Nov-25		11-Nov-25	0
ICD-115	Interface - Portion 15.8 Handover to Contract 5 (PSApp 1.27A)	0		10-Apr-24		10-Apr-24	0
ICD-120	Interface - Portion 10 Handover to Contract 5 (PSApp 1.27A)	0		11-Nov-25		11-Nov-25	0
ICD-125	Interface - Key Date 7 Handover for CLP Enabling Works (PSApp 1.27B)	0		22-Dec-23		22-Dec-23	0
ICD-130	Interface - Portion 18C Handover to CLP ESS (PSApp 1.27B)	0		20-Feb-24		20-Feb-24	0
ICD-135	Interface - Portion 10 Handover to FSAD (PSApp 1.27C)	0		23-Oct-21 A		11-Nov-25	
ICD-140	Interface - Portion 17A-17D Handover to FSAD Contractor (PSApp 1.27D)	0		13-Oct-21 A		11-Nov-25	
ICD-145	Interface - Portion 15.1 Handover to Contract 2 (PSApp 1.27)	0		15-Jul-23		15-Jul-23	0
ICD-150	Interface - Portion 15.2 Handover to Contract 2 (PSApp 1.27)	0		15-Jul-23		15-Jul-23	0
ICD-155	Interface - Portion 15.2a Handover to Contract 2 (PSApp 1.27)	0		11-Mar-24		11-Mar-24	0
ICD-160	Interface - Portion 15.2b Handover to Contract 2 (PSApp 1.27)	0		15-Jul-23		15-Jul-23	0
ICD-165	Interface - Portion 15.3 Handover to Contract 2 (PSApp 1.27)	0		11-Mar-24		11-Mar-24	0
ICD-170	Interface - Portion 15.4 Handover to Contract 2 (PSApp 1.27)	0		29-Jun-24		29-Jun-24	0
ICD-175	Interface - Portion 15.5 Handover to Contract 2 (PSApp 1.27)	0		15-Jul-23		15-Jul-23	0
ICD-180	Interface - Portion 15.6a Handover to Contract 2 (PSApp 1.27)	0		07-Oct-24		07-Oct-24	0
ICD-185	Interface - Portion 15.7a Handover to Contract 2 (PSApp 1.27)	0		05-Jan-25		05-Jan-25	0
ICD-190	Interface - Portion 15.7b Handover to Contract 2 (PSApp 1.27)	0		26-Mar-25		26-Mar-25	0
Preliminary and Preparations		737	15-Jul-21 A	26-Nov-24	01-Jan-22	12-Nov-26	279
Preliminary Submissions		737	15-Jul-21 A	22-Mar-23	01-Jan-22	12-Nov-26	518
PRE-10	Submit Subcontractor Management Plan (SMP) - ACC C5(1)	0		14-Aug-21 A		12-Nov-26	
PRE-100	Submit Traffic Consultant - PS 1.16A	0		23-Aug-21 A		12-Nov-26	
PRE-105	Submit Detailed Construction Sequences and Traffic Diversion Schemes - PS1.16A(8)	0		01-Sep-21 A		12-Nov-26	
PRE-110	Submit Draft Traffic Impact Assessment (TIA) - PS 1.16C	0		01-Sep-21 A		12-Nov-26	
PRE-115	Submit Final Traffic Impact Asssment (TIA) - PS 1.16C	0		04-Sep-21 A		12-Nov-26	
PRE-120	Submit Designer and ICE	46	31-Aug-21 A	15-Oct-21 A	03-Jan-22	03-Jan-22	
PRE-125	Submit Construction Contingency Plan - PS 1.140	0		12-Oct-21 A		12-Nov-26	
PRE-130	Submit Combine Services Drawings - PSApp.1.39(5.4)	0		12-Oct-21 A		12-Nov-26	
PRE-135	Submit Initial Topographic Survey - PS 1.47(8)	0		14-Sep-21 A		12-Nov-26	
PRE-140	Submit List of Staff proposed for the Team - ACC D1(3)	0		16-Aug-21 A		12-Nov-26	
PRE-145	Submit JV Guarantee - ACC D22(1)	0		28-Jul-21 A		12-Nov-26	
PRE-15	Preparation, Submission and Acceptance of Subletting Procedure - ACC C11(1)	0		07-Aug-21 A		12-Nov-26	
PRE-150	Submit PII for Contractor's Design - ACC F5(6)(a)	0		15-Jul-21 A		12-Nov-26	
PRE-155	Submit PII for Design, Erection, Use and Removal of Temporary Works - ACC F7A(6)(a)	0		15-Jul-21 A		12-Nov-26	
PRE-160	Submit Particular of Contractor's Superintendence PS 1.09-1.12D	0		26-Aug-21 A		12-Nov-26	
PRE-165	Submit Particulars of PR Company - PS 1.31E(2)	0		01-Sep-21 A		12-Nov-26	
PRE-170	Submit Record Photos - PS 1.47(6)	0		19-Jul-21 A		12-Nov-26	
PRE-175	Submit Hoarding Plan - PS 1.48(1)	0		03-Aug-21 A		12-Nov-26	
PRE-180	Submit Updated Content of Web Pages - PS1.49C(3)	0		01-Sep-21 A		12-Nov-26	
PRE-185	Submit Proposal of Security System - PS 1.91(5)	0		03-Aug-21 A		12-Nov-26	
PRE-190	Submit Interface Management Plan for Interface Issue with CLP - PSA1.27B-1.6	0		01-Sep-21 A		12-Nov-26	
PRE-195	Submit Interface Management Plan for HSITP - PSA1.27D-1.6	0		22-Mar-23*		30-Mar-23	8
PRE-20	Submit EPD Water Discharge License and Billing Account for Disposal C&D Waste	0		21-Jul-21 A		12-Nov-26	
PRE-200	Submit Particular of Emergency Unit and Supporting Machinery and Equipment - PS 1.120(5)	0		01-Sep-21 A		12-Nov-26	
PRE-205	Submit Particular of Condition Survey - PS1.122 and PSA1.31-6(h)	0		05-Oct-21 A		12-Nov-26	
PRE-210	Submit Particulars for Tree Preservation Assigned Person - PS 1.124	0		01-Sep-21 A		12-Nov-26	
PRE-215	Submit Proposal of Modification of Wildlife Corridor and Mammal Barriers - PS 1.155B(2)	0		04-Aug-21 A		12-Nov-26	
PRE-220	Submit TAR1 Road Design with ICE - PS 1.155B(1)	0		01-Sep-21 A		12-Nov-26	
PRE-225	Submit TAR2 Road Design with ICE - PS 1.155C(1)	0		01-Sep-21 A		12-Nov-26	
PRE-230	Subcontract Package - BIM Consultant	63	25-Aug-21 A	26-Oct-21 A	12-Nov-26	12-Nov-26	
PRE-235	Subcontract Package - Predrill, GI work and Monitoring	37	25-Aug-21 A	30-Sep-21 A	12-Nov-26	12-Nov-26	



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
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Remaining Work
Critical Remaining Work

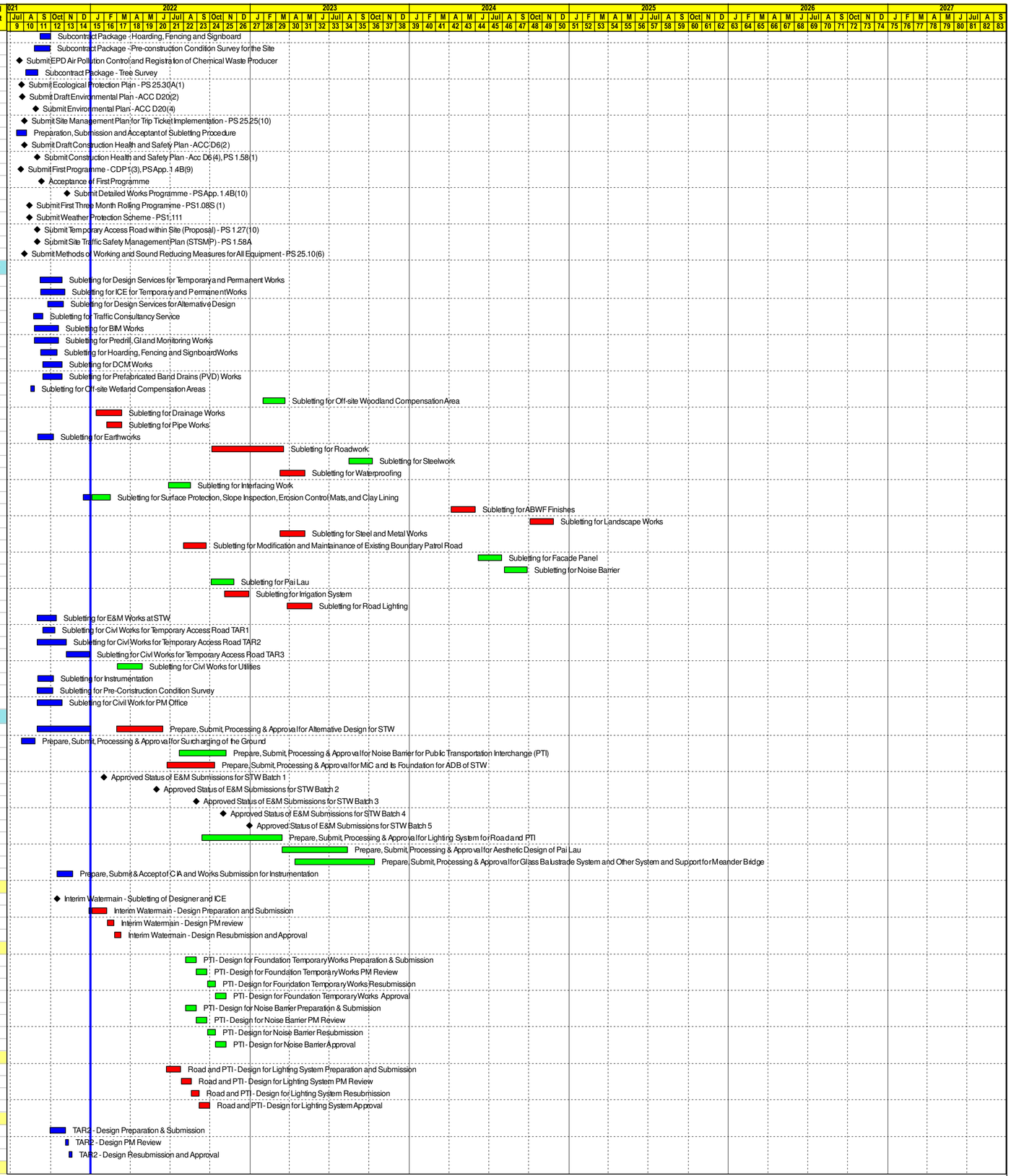
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 2 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
PRE-240	Subcontract Package - Hoarding, Fencing and Signboard	24	07-Sep-21 A	30-Sep-21 A	12-Nov-26	12-Nov-26	
PRE-245	Subcontract Package - Pre-construction Condition Survey for the Site	37	24-Aug-21 A	29-Sep-21 A	12-Nov-26	12-Nov-26	
PRE-25	Submit EPD Air Pollution Control and Registration of Chemical Waste Producer	0		21-Jul-21 A		12-Nov-26	
PRE-250	Subcontract Package - Tree Survey	28	06-Aug-21 A	02-Sep-21 A	12-Nov-26	12-Nov-26	
PRE-30	Submit Ecological Protection Plan - PS 25.30A(1)	0		26-Jul-21 A		12-Nov-26	
PRE-35	Submit Draft Environmental Plan - ACC D20(2)	0		27-Jul-21 A		12-Nov-26	
PRE-40	Submit Environmental Plan - ACC D20(4)	0		27-Aug-21 A		12-Nov-26	
PRE-45	Submit Site Management Plan for Trip Ticket Implementation - PS 25.25(10)	0		03-Aug-21 A		12-Nov-26	
PRE-5	Preparation, Submission and Acceptant of Subletting Procedure	21	15-Jul-21 A	07-Aug-21 A	01-Jan-22	01-Jan-22	
PRE-50	Submit Draft Construction Health and Safety Plan - ACC D6(2)	0		02-Aug-21 A		12-Nov-26	
PRE-55	Submit Construction Health and Safety Plan - Acc D6(4), PS 1.58(1)	0		01-Sep-21 A		12-Nov-26	
PRE-60	Submit First Programme - CDP1(3), PS App. 1.4B(9)	0		24-Jul-21 A		12-Nov-26	
PRE-65	Acceptance of First Programme	0		09-Sep-21 A		12-Nov-26	
PRE-70	Submit Detailed Works Programme - PS App. 1.4B(10)	0		08-Nov-21 A		12-Nov-26	
PRE-75	Submit First Three Month Rolling Programme - PS1.08S (1)	0		13-Aug-21 A		12-Nov-26	
PRE-80	Submit Weather Protection Scheme - PS1.111	0		13-Aug-21 A		12-Nov-26	
PRE-85	Submit Temporary Access Road within Site (Proposal) - PS 1.27(10)	0		01-Sep-21 A		12-Nov-26	
PRE-90	Submit Site Traffic Safety Management Plan (STSMP) - PS 1.58A	0		01-Sep-21 A		12-Nov-26	
PRE-95	Submit Methods of Working and Sound Reducing Measures for All Equipment - PS 25.10(6)	0		02-Aug-21 A		12-Nov-26	
Subletting		970	16-Aug-21 A	26-Nov-24	01-Jan-22	12-Nov-26	578
PRE-255	Subletting for Design Services for Temporary and Permanent Works	41	07-Sep-21 A	27-Oct-21 A	03-Jan-22	03-Jan-22	
PRE-260	Subletting for ICE for Temporary and Permanent Works	45	09-Sep-21 A	03-Nov-21 A	12-Nov-26	12-Nov-26	
PRE-265	Subletting for Design Services for Alternative Design	30	24-Sep-21 A	30-Oct-21 A	18-May-23	18-May-23	
PRE-270	Subletting for Traffic Consultancy Service	45	23-Aug-21 A	14-Sep-21 A	12-Nov-26	12-Nov-26	
PRE-275	Subletting for BIM Works	45	25-Aug-21 A	19-Oct-21 A	12-Nov-26	12-Nov-26	
PRE-280	Subletting for Predrill, GI and Monitoring Works	45	24-Aug-21 A	18-Oct-21 A	19-Mar-22	19-Mar-22	
PRE-285	Subletting for Hoarding, Fencing and SignboardWorks	30	09-Sep-21 A	16-Oct-21 A	12-Nov-26	12-Nov-26	
PRE-290	Subletting for DCM Works	35	14-Sep-21 A	27-Oct-21 A	01-Jan-22	01-Jan-22	
PRE-295	Subletting for Prefabricated Band Drains (PVD) Works	35	13-Sep-21 A	26-Oct-21 A	03-Jan-22	03-Jan-22	
PRE-300	Subletting for Off-site Wetland Compensation Areas	9	16-Aug-21 A	25-Aug-21 A	12-Nov-26	12-Nov-26	
PRE-305	Subletting for Off-site Woodland Compensation Area	45	30-Jan-23	22-Mar-23	25-Mar-24	22-May-24	342
PRE-310	Subletting for Drainage Works	45	14-Jan-22	12-Mar-22	17-Jan-22	15-Mar-22	2
PRE-315	Subletting for Pipe Works	30	07-Feb-22	12-Mar-22	09-Feb-22	15-Mar-22	2
PRE-320	Subletting for Earthworks	30	02-Sep-21 A	08-Oct-21 A	03-Jan-22	03-Jan-22	
PRE-325	Subletting for Roadwork	135	05-Oct-22	18-Mar-23	07-Oct-22	21-Mar-23	2
PRE-330A	Subletting for Steelwork	45	15-Aug-23	07-Oct-23	27-Nov-23	20-Jan-24	86
PRE-335A	Subletting for Waterproofing	45	10-Mar-23	06-May-23	10-Mar-23	06-May-23	0
PRE-340A	Subletting for Interfacing Work	42	29-Jun-22	17-Aug-22	09-Aug-22	27-Sep-22	34
PRE-345	Subletting for Surface Protection, Slope Inspection, Erosion Control Mats, and Clay Lining	45	15-Dec-21 A	14-Feb-22	23-Feb-22	31-Mar-22	39
PRE-350A	Subletting for ABWF Finishes	45	06-Apr-24	30-May-24	06-Apr-24	30-May-24	0
PRE-355	Subletting for Landscape Works	45	04-Oct-24	26-Nov-24	04-Oct-24	26-Nov-24	0
PRE-360	Subletting for Steel and Metal Works	45	10-Mar-23	06-May-23	10-Mar-23	06-May-23	0
PRE-365	Subletting for Modification and Maintainance of Existing Boundary Patrol Road	45	01-Aug-22	22-Sep-22	02-Aug-22	23-Sep-22	1
PRE-370	Subletting for Facade Panel	45	06-Jun-24	30-Jul-24	20-Jun-24	12-Aug-24	11
PRE-375	Subletting for Noise Barrier	45	06-Aug-24	27-Sep-24	19-Aug-24	12-Oct-24	11
PRE-380	Subletting for Pai Lau	45	03-Oct-22	24-Nov-22	15-Oct-22	06-Dec-22	10
PRE-385	Subletting for Irrigation System	45	04-Nov-22	28-Dec-22	11-Nov-22	05-Jan-23	6
PRE-390	Subletting for Road Lighting	45	27-Mar-23	23-May-23	28-Mar-23	24-May-23	1
PRE-395	Subletting for E&M Works at STW	35	01-Sep-21 A	13-Oct-21 A	22-Jan-22	22-Jan-22	
PRE-400A	Subletting for Civil Works for Temporary Access Road TAR1	23	13-Sep-21 A	11-Oct-21 A	11-Nov-25	11-Nov-25	
PRE-405	Subletting for Civil Works for Temporary Access Road TAR2	54	01-Sep-21 A	05-Nov-21 A	23-Feb-22	23-Feb-22	
PRE-410A	Subletting for Civil Works for Temporary Access Road TAR3	45	06-Nov-21 A	30-Dec-21 A	23-Feb-22	23-Feb-22	
PRE-415A	Subletting for Civil Works for Utilities	45	03-Mar-22	28-Apr-22	04-Apr-22	02-Jun-22	28
PRE-420	Subletting for Instrumentation	30	02-Sep-21 A	08-Oct-21 A	11-Mar-22	11-Mar-22	
PRE-425A	Subletting for Pre-Construction Condition Survey	28	01-Sep-21 A	05-Oct-21 A	12-Nov-26	12-Nov-26	
PRE-430A	Subletting for Civil Work for PM Office	45	01-Sep-21 A	26-Oct-21 A	30-Sep-26	30-Sep-26	
Design Submissions for the Works		302	26-Jul-21 A	31-Oct-23	03-Jan-22	11-Nov-26	431
PRE-435A	Prepare, Submit, Processing & Approval for Alternative Design for STW	186	31-Aug-21 A	15-Jun-22	01-Mar-22	15-Jun-22	0
PRE-450	Prepare, Submit, Processing & Approval for Surcharging of the Ground	28	26-Jul-21 A	26-Aug-21 A	19-Feb-22	19-Feb-22	
PRE-455	Prepare, Submit, Processing & Approval for Noise Barrier for Public Transportation Interchange (PTI)	90	22-Jul-22	07-Nov-22	04-Aug-22	19-Nov-22	11
PRE-460	Prepare, Submit, Processing & Approval for MiC and Is Foundation for ADB of STW	90	25-Jun-22	12-Oct-22	04-Jul-22	19-Oct-22	6
PRE-465	Approved Status of E&M Submissions for STW Batch 1	0		31-Jan-22*		31-Jan-22	0
PRE-470	Approved Status of E&M Submissions for STW Batch 2	0		31-May-22*		31-May-22	0
PRE-475	Approved Status of E&M Submissions for STW Batch 3	0		31-Aug-22*		31-Aug-22	0
PRE-480	Approved Status of E&M Submissions for STW Batch 4	0		31-Oct-22*		31-Oct-22	0
PRE-485	Approved Status of E&M Submissions for STW Batch 5	0		31-Dec-22*		31-Dec-22	0
PRE-490	Prepare, Submit, Processing & Approval for Lighting System for Road and PTI	150	12-Sep-22	15-Mar-23	31-Oct-22	06-May-23	40
PRE-495	Prepare, Submit, Processing & Approval for Aesthetic Design of Pai Lau	120	16-Mar-23	11-Aug-23	08-May-23	27-Sep-23	40
PRE-500	Prepare, Submit, Processing & Approval for Glass Balustrade System and Other System and Support for Meander Bridge	150	14-Apr-23	12-Oct-23	23-May-23	20-Nov-23	32
PRE-505	Prepare, Submit & Accept of CIA and Works Submission for Instrumentation	31	16-Oct-21 A	20-Nov-21 A	03-Jan-22	03-Jan-22	
Interim Watermains		118	15-Oct-21 A	11-Mar-22	08-Jan-22	17-Mar-22	5
KD1-090	Interim Watermain - Subletting of Designer and ICE	0		15-Oct-21 A		08-Jan-22	
KD1-100	Interim Watermain - Design Preparation and Submission	30	28-Dec-21 A	07-Feb-22	08-Jan-22	12-Feb-22	5
KD1-110	Interim Watermain - Design PM review	14	08-Feb-22	23-Feb-22	14-Feb-22	01-Mar-22	5
KD1-120	Interim Watermain - Design Resubmission and Approval	14	24-Feb-22	11-Mar-22	02-Mar-22	17-Mar-22	5
Public Transport Interchange (PTI)		77	06-Aug-22	07-Nov-22	19-Aug-22	19-Nov-22	11
S7-497	PTI - Design for Foundation Temporary Works Preparation & Submission	21	06-Aug-22	30-Aug-22	19-Aug-22	13-Sep-22	11
S7-498	PTI - Design for Foundation Temporary Works PM Review	21	31-Aug-22	24-Sep-22	14-Sep-22	10-Oct-22	11
S7-499	PTI - Design for Foundation Temporary Works Resubmission	14	26-Sep-22	13-Oct-22	11-Oct-22	26-Oct-22	11
S7-500	PTI - Design for Foundation Temporary Works Approval	21	14-Oct-22	07-Nov-22	27-Oct-22	19-Nov-22	11
S7-502	PTI - Design for Noise Barrier Preparation & Submission	21	06-Aug-22	30-Aug-22	19-Aug-22	13-Sep-22	11
S7-503	PTI - Design for Noise Barrier PM Review	21	31-Aug-22	24-Sep-22	14-Sep-22	10-Oct-22	11
S7-504	PTI - Design for Noise Barrier Resubmission	14	26-Sep-22	13-Oct-22	11-Oct-22	26-Oct-22	11
S7-505	PTI - Design for Noise Barrier Approval	21	14-Oct-22	07-Nov-22	27-Oct-22	19-Nov-22	11
Lighting System for Road and PTI		84	23-Jun-22	30-Sep-22	28-Jun-22	07-Oct-22	4
S7-710	Road and PTI - Design for Lighting System Preparation and Submission	28	23-Jun-22	26-Jul-22	28-Jun-22	30-Jul-22	4
S7-715	Road and PTI - Design for Lighting System PM Review	21	27-Jul-22	19-Aug-22	01-Aug-22	24-Aug-22	4
S7-720	Road and PTI - Design for Lighting System Resubmission	14	20-Aug-22	05-Sep-22	25-Aug-22	09-Sep-22	4
S7-725	Road and PTI - Design for Lighting System Approval	21	06-Sep-22	30-Sep-22	12-Sep-22	07-Oct-22	4
TAR2		42	29-Sep-21 A	18-Nov-21 A	10-Feb-22	10-Feb-22	
S5-113	TAR2 - Design Preparation & Submission	30	29-Sep-21 A	04-Nov-21 A	10-Feb-22	10-Feb-22	
S5-114	TAR2 - Design PM Review	6	05-Nov-21 A	11-Nov-21 A	10-Feb-22	10-Feb-22	
S5-115	TAR2 - Design Resubmission and Approval	6	12-Nov-21 A	18-Nov-21 A	10-Feb-22	10-Feb-22	
TAR3		28	16-Nov-21 A	28-Jan-22	10-Feb-22	04-Apr-22	22



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

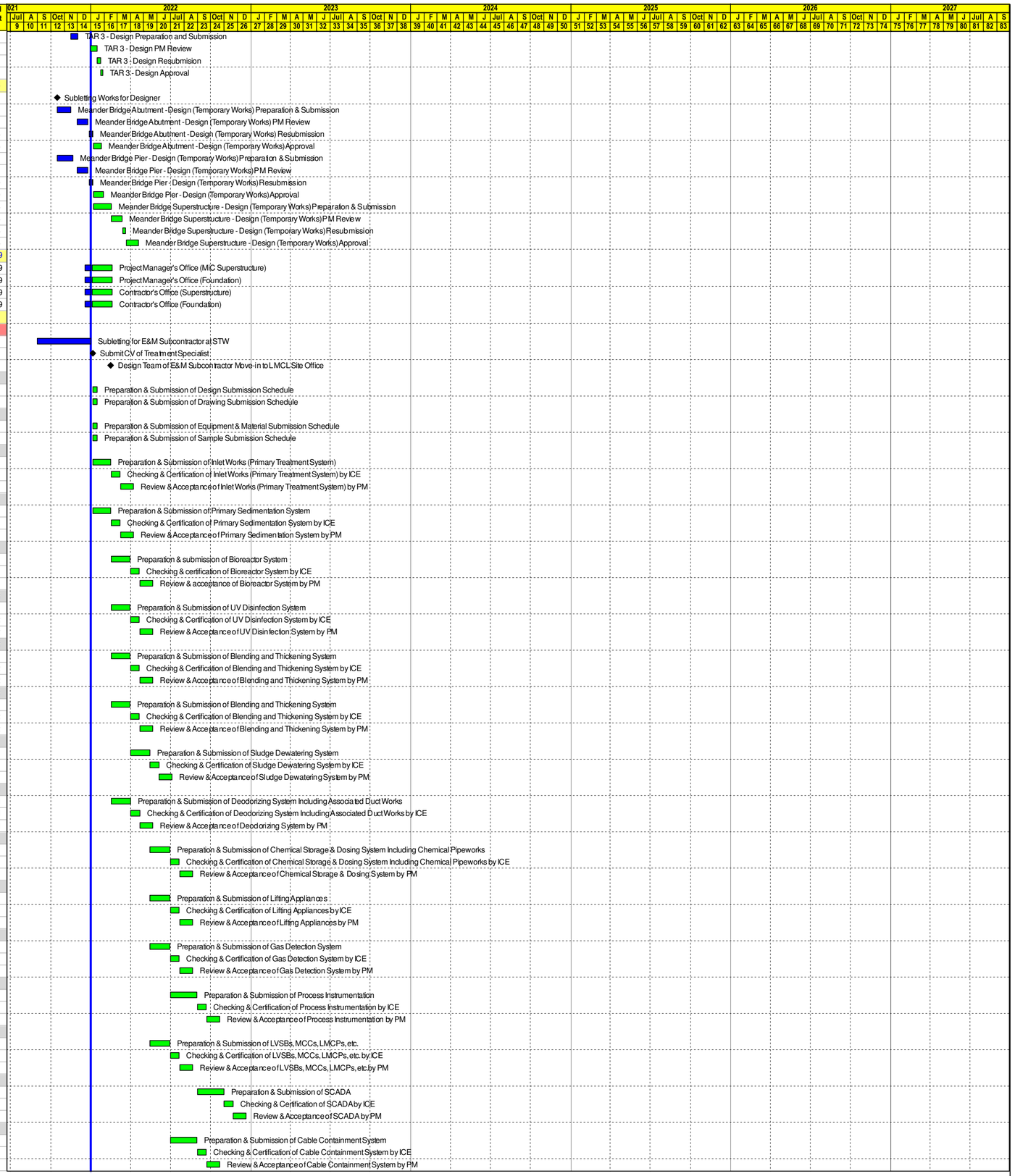
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 3 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
KD2-102	TAR 3 - Design Preparation and Submission	14	16-Nov-21 A	01-Dec-21 A	10-Feb-22	10-Feb-22	
KD2-103	TAR 3 - Design PM Review	14	01-Jan-22	14-Jan-22	08-Mar-22	21-Mar-22	66
KD2-104	TAR 3 - Design Resubmision	7	15-Jan-22	22-Jan-22	22-Mar-22	29-Mar-22	51
KD2-105A	TAR 3 - Design Approval	6	23-Jan-22	28-Jan-22	30-Mar-22	04-Apr-22	66
Meander Bridge		147	15-Oct-21 A	19-Apr-22	28-Feb-22	28-Feb-23	256
KD7-100	Subletting Works for Designer	0		15-Oct-21 A		28-Feb-22	
KD7-107	Meander Bridge Abutment - Design (Temporary Works) Preparation & Submission	27	16-Oct-21 A	16-Nov-21 A	07-Jul-22	07-Jul-22	
KD7-108	Meander Bridge Abutment - Design (Temporary Works) PM Review	21	01-Dec-21 A	24-Dec-21 A	07-Jul-22	07-Jul-22	
KD7-109	Meander Bridge Abutment - Design (Temporary Works) Resubmission	7	28-Dec-21 A	05-Jan-22	07-Jul-22	09-Jul-22	146
KD7-110	Meander Bridge Abutment - Design (Temporary Works) Approval	16	06-Jan-22	24-Jan-22	11-Jul-22	28-Jul-22	146
KD7-607	Meander Bridge Pier - Design (Temporary Works) Preparation & Submission	31	16-Oct-21 A	20-Nov-21 A	26-Aug-22	26-Aug-22	
KD7-608	Meander Bridge Pier - Design (Temporary Works) PM Review	21	01-Dec-21 A	24-Dec-21 A	26-Aug-22	26-Aug-22	
KD7-609	Meander Bridge Pier - Design (Temporary Works) Resubmission	7	28-Dec-21 A	05-Jan-22	26-Aug-22	29-Aug-22	189
KD7-610	Meander Bridge Pier - Design (Temporary Works) Approval	21	06-Jan-22	29-Jan-22	30-Aug-22	23-Sep-22	189
KD7-617	Meander Bridge Superstructure - Design (Temporary Works) Preparation & Submission	31	06-Jan-22	16-Feb-22	19-Nov-22	24-Dec-22	256
KD7-618	Meander Bridge Superstructure - Design (Temporary Works) PM Review	21	17-Feb-22	12-Mar-22	28-Dec-22	26-Jan-23	256
KD7-619	Meander Bridge Superstructure - Design (Temporary Works) Resubmission	7	14-Mar-22	21-Mar-22	27-Jan-23	03-Feb-23	256
KD7-620	Meander Bridge Superstructure - Design (Temporary Works) Approval	21	22-Mar-22	19-Apr-22	04-Feb-23	28-Feb-23	256
Site Office		45	18-Dec-21 A	17-Feb-22	30-Sep-26	11-Nov-26	1399
PRE-900	Project Manager's Office (MiC Superstructure)	45	18-Dec-21 A	17-Feb-22	30-Sep-26	11-Nov-26	1399
PRE-910	Project Manager's Office (Foundation)	45	18-Dec-21 A	17-Feb-22	30-Sep-26	11-Nov-26	1399
PRE-920	Contractor's Office (Superstructure)	45	18-Dec-21 A	17-Feb-22	30-Sep-26	11-Nov-26	1399
PRE-930	Contractor's Office (Foundation)	45	18-Dec-21 A	17-Feb-22	30-Sep-26	11-Nov-26	1399
Sewage Treatment Works		477	01-Sep-21 A	21-Dec-22	11-Jan-22	31-Dec-22	10
STW - E&M		477	01-Sep-21 A	21-Dec-22	11-Jan-22	31-Dec-22	10
PRE-EM005	Subletting for E&M Subcontractor at STW	122	01-Sep-21 A	31-Dec-21 A	11-Jan-22	11-Jan-22	
PRE-EM010	Submit CV of Treatment Specialist	0	05-Jan-22		15-Jan-22		10
PRE-EM015	Design Team of E&M Subcontractor Move-in to LMCL Site Office	0	14-Feb-22*		27-Feb-22		14
Design Submission Schedule		10	05-Jan-22	14-Jan-22	22-Jan-22	31-Jan-22	17
PRE-EM020	Preparation & Submission of Design Submission Schedule	10	05-Jan-22	14-Jan-22	22-Jan-22	31-Jan-22	17
PRE-EM030	Preparation & Submission of Drawing Submission Schedule	10	05-Jan-22	14-Jan-22	22-Jan-22	31-Jan-22	17
Equipment & Material Submission Schedule		10	05-Jan-22	14-Jan-22	22-Jan-22	31-Jan-22	17
PRE-EM040	Preparation & Submission of Equipment & Material Submission Schedule	10	05-Jan-22	14-Jan-22	22-Jan-22	31-Jan-22	17
PRE-EM050	Preparation & Submission of Sample Submission Schedule	10	05-Jan-22	14-Jan-22	22-Jan-22	31-Jan-22	17
Inlet Works (Primary Treatment System)		93	05-Jan-22	07-Apr-22	28-Feb-22	31-May-22	54
PRE-EM070	Preparation & Submission of Inlet Works (Primary Treatment System)	42	05-Jan-22	15-Feb-22	28-Feb-22	10-Apr-22	54
PRE-EM080	Checking & Certification of Inlet Works (Primary Treatment System) by ICE	21	16-Feb-22	08-Mar-22	11-Apr-22	01-May-22	54
PRE-EM090	Review & Acceptance of Inlet Works (Primary Treatment System) by PM	30	09-Mar-22	07-Apr-22	02-May-22	31-May-22	54
Primary Sedimentation System		93	05-Jan-22	07-Apr-22	15-Jan-22	31-May-22	54
PRE-EM100	Preparation & Submission of Primary Sedimentation System	42	05-Jan-22	15-Feb-22	15-Jan-22	25-Feb-22	10
PRE-EM110	Checking & Certification of Primary Sedimentation System by ICE	21	16-Feb-22	08-Mar-22	11-Apr-22	01-May-22	54
PRE-EM120	Review & Acceptance of Primary Sedimentation System by PM	30	09-Mar-22	07-Apr-22	02-May-22	31-May-22	54
Bioreactor System		95	16-Feb-22	21-May-22	26-Feb-22	31-May-22	10
PRE-EM130	Preparation & submission of Bioreactor System	44	16-Feb-22	31-Mar-22	26-Feb-22	10-Apr-22	10
PRE-EM140	Checking & certification of Bioreactor System by ICE	21	01-Apr-22	21-Apr-22	11-Apr-22	01-May-22	10
PRE-EM150	Review & acceptance of Bioreactor System by PM	30	22-Apr-22	21-May-22	02-May-22	31-May-22	10
Membrane Filtration System		95	16-Feb-22	21-May-22	26-Feb-22	31-Aug-22	102
PRE-EM160	Preparation & Submission of UV Disinfection System	44	16-Feb-22	31-Mar-22	26-Feb-22	10-Apr-22	10
PRE-EM170	Checking & Certification of UV Disinfection System by ICE	21	01-Apr-22	21-Apr-22	12-Jul-22	01-Aug-22	102
PRE-EM180	Review & Acceptance of UV Disinfection System by PM	30	22-Apr-22	21-May-22	02-Aug-22	31-Aug-22	102
UV Disinfection System		95	16-Feb-22	21-May-22	26-Feb-22	31-Aug-22	102
PRE-EM190	Preparation & Submission of Blending and Thickening System	44	16-Feb-22	31-Mar-22	26-Feb-22	10-Apr-22	10
PRE-EM200	Checking & Certification of Blending and Thickening System by ICE	21	01-Apr-22	21-Apr-22	12-Jul-22	01-Aug-22	102
PRE-EM210	Review & Acceptance of Blending and Thickening System by PM	30	22-Apr-22	21-May-22	02-Aug-22	31-Aug-22	102
Blending and Thickening System		95	16-Feb-22	21-May-22	26-Feb-22	31-Aug-22	102
PRE-EM220	Preparation & Submission of Blending and Thickening System	44	16-Feb-22	31-Mar-22	26-Feb-22	10-Apr-22	10
PRE-EM230	Checking & Certification of Blending and Thickening System by ICE	21	01-Apr-22	21-Apr-22	12-Jul-22	01-Aug-22	102
PRE-EM240	Review & Acceptance of Blending and Thickening System by PM	30	22-Apr-22	21-May-22	02-Aug-22	31-Aug-22	102
Sludge Dewatering System		96	01-Apr-22	05-Jul-22	11-Apr-22	31-Aug-22	57
PRE-EM250	Preparation & Submission of Sludge Dewatering System	45	01-Apr-22	15-May-22	11-Apr-22	25-May-22	10
PRE-EM260	Checking & Certification of Sludge Dewatering System by ICE	21	16-May-22	05-Jun-22	12-Jul-22	01-Aug-22	57
PRE-EM270	Review & Acceptance of Sludge Dewatering System by PM	30	06-Jun-22	05-Jul-22	02-Aug-22	31-Aug-22	57
Deodorizing System		96	16-Feb-22	22-May-22	28-May-22	31-Aug-22	101
PRE-EM280	Preparation & Submission of Deodorizing System Including Associated Duct Works	45	16-Feb-22	01-Apr-22	28-May-22	11-Jul-22	101
PRE-EM290	Checking & Certification of Deodorizing System Including Associated Duct Works by ICE	21	02-Apr-22	22-Apr-22	12-Jul-22	01-Aug-22	101
PRE-EM300	Review & Acceptance of Deodorizing System by PM	30	23-Apr-22	22-May-22	02-Aug-22	31-Aug-22	101
Chemical Storage & Dosing System		97	16-May-22	20-Aug-22	26-May-22	31-Aug-22	11
PRE-EM310	Preparation & Submission of Chemical Storage & Dosing System Including Chemical Pipeworks	46	16-May-22	30-Jun-22	26-May-22	10-Jul-22	10
PRE-EM320	Checking & Certification of Chemical Storage & Dosing System Including Chemical Pipeworks by ICE	21	01-Jul-22	21-Jul-22	12-Jul-22	01-Aug-22	11
PRE-EM330	Review & Acceptance of Chemical Storage & Dosing System by PM	30	22-Jul-22	20-Aug-22	02-Aug-22	31-Aug-22	11
Lifting Appliances		97	16-May-22	20-Aug-22	26-May-22	31-Oct-22	72
PRE-EM340	Preparation & Submission of Lifting Appliances	46	16-May-22	30-Jun-22	26-May-22	10-Jul-22	10
PRE-EM350	Checking & Certification of Lifting Appliances by ICE	21	01-Jul-22	21-Jul-22	11-Sep-22	01-Oct-22	72
PRE-EM360	Review & Acceptance of Lifting Appliances by PM	30	22-Jul-22	20-Aug-22	02-Oct-22	31-Oct-22	72
Gas Detection		97	16-May-22	20-Aug-22	26-May-22	31-Oct-22	72
PRE-EM370	Preparation & Submission of Gas Detection System	46	16-May-22	30-Jun-22	26-May-22	10-Jul-22	10
PRE-EM380	Checking & Certification of Gas Detection System by ICE	21	01-Jul-22	21-Jul-22	11-Sep-22	01-Oct-22	72
PRE-EM390	Review & Acceptance of Gas Detection System by PM	30	22-Jul-22	20-Aug-22	02-Oct-22	31-Oct-22	72
Process Instrumentation		113	01-Jul-22	21-Oct-22	11-Jul-22	31-Oct-22	10
PRE-EM400	Preparation & Submission of Process Instrumentation	62	01-Jul-22	31-Aug-22	11-Jul-22	10-Sep-22	10
PRE-EM410	Checking & Certification of Process Instrumentation by ICE	21	01-Sep-22	21-Sep-22	11-Sep-22	01-Oct-22	10
PRE-EM420	Review & Acceptance of Process Instrumentation by PM	30	22-Sep-22	21-Oct-22	02-Oct-22	31-Oct-22	10
LVSBs, MCCs, LMCPs		97	16-May-22	20-Aug-22	26-Jul-22	31-Oct-22	72
PRE-EM430	Preparation & Submission of LVSBs, MCCs, LMCPs, etc.	46	16-May-22	30-Jun-22	26-Jul-22	09-Sep-22	71
PRE-EM440	Checking & Certification of LVSBs, MCCs, LMCPs, etc. by ICE	21	01-Jul-22	21-Jul-22	11-Sep-22	01-Oct-22	72
PRE-EM450	Review & Acceptance of LVSBs, MCCs, LMCPs, etc.by PM	30	22-Jul-22	20-Aug-22	02-Oct-22	31-Oct-22	72
SCADA		112	01-Sep-22	21-Dec-22	11-Sep-22	31-Dec-22	10
PRE-EM460	Preparation & Submission of SCADA	61	01-Sep-22	31-Oct-22	11-Sep-22	10-Nov-22	10
PRE-EM470	Checking & Certification of SCADA by ICE	21	01-Nov-22	21-Nov-22	11-Nov-22	01-Dec-22	10
PRE-EM480	Review & Acceptance of SCADA by PM	30	22-Nov-22	21-Dec-22	02-Dec-22	31-Dec-22	10
Cable Containment System		113	01-Jul-22	21-Oct-22	10-Sep-22	31-Dec-22	71
PRE-EM490	Preparation & Submission of Cable Containment System	62	01-Jul-22	31-Aug-22	10-Sep-22	10-Nov-22	71
PRE-EM500	Checking & Certification of Cable Containment System by ICE	21	01-Sep-22	21-Sep-22	11-Nov-22	01-Dec-22	71
PRE-EM510	Review & Acceptance of Cable Containment System by PM	30	22-Sep-22	21-Oct-22	02-Dec-22	31-Dec-22	71



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

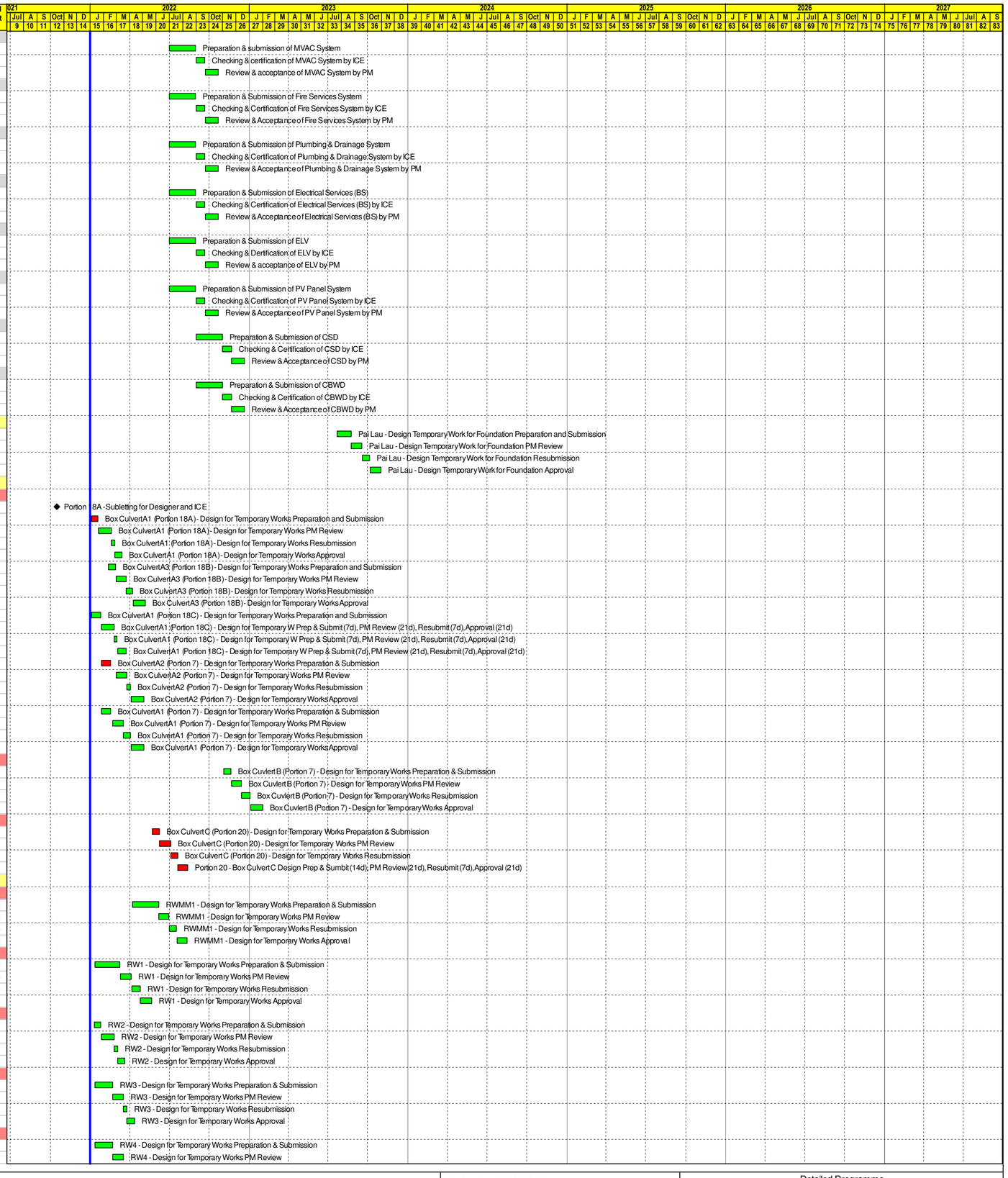
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 4 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
MVAC System		113	01-Jul-22	21-Oct-22	10-Sep-22	31-Dec-22	71
PRE-EM520	Preparation & submission of MVAC System	62	01-Jul-22	31-Aug-22	10-Sep-22	10-Nov-22	71
PRE-EM530	Checking & certification of MVAC System by ICE	21	01-Sep-22	21-Sep-22	11-Nov-22	01-Dec-22	71
PRE-EM540	Review & acceptance of MVAC System by PM	30	22-Sep-22	21-Oct-22	02-Dec-22	31-Dec-22	71
Fire Services System		113	01-Jul-22	21-Oct-22	10-Sep-22	31-Dec-22	71
PRE-EM550	Preparation & Submission of Fire Services System	62	01-Jul-22	31-Aug-22	10-Sep-22	10-Nov-22	71
PRE-EM560	Checking & Certification of Fire Services System by ICE	21	01-Sep-22	21-Sep-22	11-Nov-22	01-Dec-22	71
PRE-EM570	Review & Acceptance of Fire Services System by PM	30	22-Sep-22	21-Oct-22	02-Dec-22	31-Dec-22	71
Plumbing & Drainage Services		113	01-Jul-22	21-Oct-22	10-Sep-22	31-Dec-22	71
PRE-EM580	Preparation & Submission of Plumbing & Drainage System	62	01-Jul-22	31-Aug-22	10-Sep-22	10-Nov-22	71
PRE-EM590	Checking & Certification of Plumbing & Drainage System by ICE	21	01-Sep-22	21-Sep-22	11-Nov-22	01-Dec-22	71
PRE-EM600	Review & Acceptance of Plumbing & Drainage System by PM	30	22-Sep-22	21-Oct-22	02-Dec-22	31-Dec-22	71
Electrical Services (BS)		113	01-Jul-22	21-Oct-22	10-Sep-22	31-Dec-22	71
PRE-EM610	Preparation & Submission of Electrical Services (BS)	62	01-Jul-22	31-Aug-22	10-Sep-22	10-Nov-22	71
PRE-EM620	Checking & Certification of Electrical Services (BS) by ICE	21	01-Sep-22	21-Sep-22	11-Nov-22	01-Dec-22	71
PRE-EM630	Review & Acceptance of Electrical Services (BS) by PM	30	22-Sep-22	21-Oct-22	02-Dec-22	31-Dec-22	71
ELV		113	01-Jul-22	21-Oct-22	10-Sep-22	31-Dec-22	71
PRE-EM640	Preparation & Submission of ELV	62	01-Jul-22	31-Aug-22	10-Sep-22	10-Nov-22	71
PRE-EM650	Checking & Dertification of ELV by ICE	21	01-Sep-22	21-Sep-22	11-Nov-22	01-Dec-22	71
PRE-EM660	Review & acceptance of ELV by PM	30	22-Sep-22	21-Oct-22	02-Dec-22	31-Dec-22	71
PV Panel System		113	01-Jul-22	21-Oct-22	10-Sep-22	31-Dec-22	71
PRE-EM670	Preparation & Submission of PV Panel System	62	01-Jul-22	31-Aug-22	10-Sep-22	10-Nov-22	71
PRE-EM680	Checking & Certification of PV Panel System by ICE	21	01-Sep-22	21-Sep-22	11-Nov-22	01-Dec-22	71
PRE-EM690	Review & Acceptance of PV Panel System by PM	30	22-Sep-22	21-Oct-22	02-Dec-22	31-Dec-22	71
Combined Services Drawings (CSD)		112	01-Sep-22	21-Dec-22	11-Sep-22	31-Dec-22	10
PRE-EM700	Preparation & Submission of CSD	61	01-Sep-22	31-Oct-22	11-Sep-22	10-Nov-22	10
PRE-EM710	Checking & Certification of CSD by ICE	21	01-Nov-22	21-Nov-22	11-Nov-22	01-Dec-22	10
PRE-EM720	Review & Acceptance of CSD by PM	30	22-Nov-22	21-Dec-22	02-Dec-22	31-Dec-22	10
Combined Builder's Works Drawings (CBWD)		112	01-Sep-22	21-Dec-22	11-Sep-22	31-Dec-22	10
PRE-EM730	Preparation & Submission of CBWD	61	01-Sep-22	31-Oct-22	11-Sep-22	10-Nov-22	10
PRE-EM740	Checking & Certification of CBWD by ICE	21	01-Nov-22	21-Nov-22	11-Nov-22	01-Dec-22	10
PRE-EM750	Review & Acceptance of CBWD by PM	30	22-Nov-22	21-Dec-22	02-Dec-22	31-Dec-22	10
Pai Lau		84	22-Jul-23	31-Oct-23	07-Sep-23	16-Dec-23	40
PL-100	Pai Lau - Design Temporary Work for Foundation Preparation and Submission	28	22-Jul-23	23-Aug-23	07-Sep-23	11-Oct-23	40
PL-110	Pai Lau - Design Temporary Work for Foundation PM Review	21	24-Aug-23	16-Sep-23	12-Oct-23	06-Nov-23	40
PL-120	Pai Lau - Design Temporary Work for Foundation Resubmission	14	18-Sep-23	05-Oct-23	07-Nov-23	22-Nov-23	40
PL-130	Pai Lau - Design Temporary Work for Foundation Approval	21	06-Oct-23	31-Oct-23	23-Nov-23	16-Dec-23	40
Box Culverts		380	15-Oct-21 A	01-Feb-23	04-Jan-22	09-Mar-23	31
Box Culvert A1, A2, A3		162	15-Oct-21 A	07-May-22	04-Jan-22	11-Jun-22	28
12A-100	Portion 18A -Subletting for Designer and ICE	0		15-Oct-21 A		04-Jan-22	
12A-102	Box CulvertA1 (Portion 18A) - Design for Temporary Works Preparation and Submission	14	03-Jan-22	18-Jan-22	04-Jan-22	19-Jan-22	1
12A-103	Box CulvertA1 (Portion 18A) - Design for Temporary Works PM Review	21	19-Jan-22	17-Feb-22	29-Jan-22	28-Feb-22	9
12A-104	Box CulvertA1 (Portion 18A) - Design for Temporary Works Resubmission	7	18-Feb-22	25-Feb-22	01-Mar-22	08-Mar-22	9
12A-105	Box CulvertA1 (Portion 18A) - Design for Temporary Works Approval	14	26-Feb-22	14-Mar-22	09-Mar-22	24-Mar-22	9
12B-102	Box CulvertA3 (Portion 18B) - Design for Temporary Works Preparation and Submission	14	12-Feb-22	28-Feb-22	21-Feb-22	08-Mar-22	7
12B-103	Box CulvertA3 (Portion 18B) - Design for Temporary Works PM Review	21	01-Mar-22	24-Mar-22	09-Mar-22	01-Apr-22	7
12B-104	Box CulvertA3 (Portion 18B) - Design for Temporary Works Resubmission	12	25-Mar-22	08-Apr-22	02-Apr-22	20-Apr-22	7
12B-106	Box CulvertA3 (Portion 18B) - Design for Temporary Works Approval	21	09-Apr-22	07-May-22	21-Apr-22	17-May-22	7
12C-107	Box CulvertA1 (Portion 18C) - Design for Temporary Works Preparation and Submission	20	03-Jan-22	25-Jan-22	21-Mar-22	13-Apr-22	61
12C-108	Box CulvertA1 (Portion 18C) - Design for Temporary W Prep & Submit (7d), PM Review (21d), Resubmit (7d), Approval (21d)	21	26-Jan-22	24-Feb-22	14-Apr-22	13-May-22	61
12C-109	Box CulvertA1 (Portion 18C) - Design for Temporary W Prep & Submit (7d), PM Review (21d), Resubmit (7d), Approval (21d)	6	25-Feb-22	03-Mar-22	14-May-22	20-May-22	61
12C-110	Box CulvertA1 (Portion 18C) - Design for Temporary W Prep & Submit (7d), PM Review (21d), Resubmit (7d), Approval (21d)	18	04-Mar-22	24-Mar-22	21-May-22	11-Jun-22	61
KD6-085	Box CulvertA2 (Portion 7) - Design for Temporary Works Preparation & Submission	14	26-Jan-22	16-Feb-22	07-Feb-22	22-Feb-22	5
KD6-090	Box CulvertA2 (Portion 7) - Design for Temporary Works PM Review	21	02-Mar-22	25-Mar-22	18-Mar-22	12-Apr-22	14
KD6-095	Box CulvertA2 (Portion 7) - Design for Temporary Works Resubmission	7	26-Mar-22	02-Apr-22	13-Apr-22	23-Apr-22	14
KD6-100	Box CulvertA2 (Portion 7) - Design for Temporary Works Approval	21	04-Apr-22	03-May-22	25-Apr-22	20-May-22	14
KD6-197	Box CulvertA1 (Portion 7) - Design for Temporary Works Preparation & Submission	14	26-Jan-22	16-Feb-22	17-Feb-22	04-Mar-22	14
KD6-198	Box CulvertA1 (Portion 7) - Design for Temporary Works PM Review	21	22-Feb-22	17-Mar-22	10-Mar-22	02-Apr-22	14
KD6-199	Box CulvertA1 (Portion 7) - Design for Temporary Works Resubmission	14	18-Mar-22	02-Apr-22	04-Apr-22	23-Apr-22	14
KD6-200	Box CulvertA1 (Portion 7) - Design for Temporary Works Approval	21	04-Apr-22	03-May-22	25-Apr-22	20-May-22	14
Box Culvert B		70	04-Nov-22	01-Feb-23	10-Dec-22	09-Mar-23	31
S7-400	Box Cuvlert B (Portion 7) - Design for Temporary Works Preparation & Submission	14	04-Nov-22	19-Nov-22	10-Dec-22	28-Dec-22	31
S7-401	Box Cuvlert B (Portion 7) - Design for Temporary Works PM Review	21	21-Nov-22	14-Dec-22	29-Dec-22	27-Jan-23	31
S7-402	Box Cuvlert B (Portion 7) - Design for Temporary Works Resubmission	14	15-Dec-22	03-Jan-23	28-Jan-23	13-Feb-23	31
S7-403	Box Cuvlert B (Portion 7) - Design for Temporary Works Approval	21	04-Jan-23	01-Feb-23	14-Feb-23	09-Mar-23	31
Box Culvert C		70	23-May-22	13-Aug-22	25-May-22	16-Aug-22	2
S9-202	Box Culvert C (Portion 20) - Design for Temporary Works Preparation & Submission	14	23-May-22	08-Jun-22	25-May-22	10-Jun-22	2
S9-203	Box Culvert C (Portion 20) - Design for Temporary Works PM Review	21	09-Jun-22	04-Jul-22	11-Jun-22	06-Jul-22	2
S9-204	Box Culvert C (Portion 20) - Design for Temporary Works Resubmission	14	05-Jul-22	20-Jul-22	07-Jul-22	22-Jul-22	2
S9-205	Portion 20 - Box Culvert C Design Prep & Sumbit (14d), PM Review(21d), Resubmit (7d), Approval (21d)	21	21-Jul-22	13-Aug-22	23-Jul-22	16-Aug-22	2
Retaining Walls		191	10-Jan-22	03-Sep-22	16-Feb-22	17-Oct-23	330
RWMM1		101	08-Apr-22	11-Aug-22	23-Sep-22	28-Jan-23	136
KD3-900	RWMM1 - Design for Temporary Works Preparation & Submission	45	08-Apr-22	06-Jun-22	23-Sep-22	16-Nov-22	136
KD3-905	RWMM1 - Design for Temporary Works PM Review	21	07-Jun-22	30-Jun-22	17-Nov-22	10-Dec-22	136
KD3-910	RWMM1 - Design for Temporary Works Resubmission	14	02-Jul-22	18-Jul-22	12-Dec-22	29-Dec-22	136
KD3-915	RWMM1 - Design for Temporary Works Approval	21	19-Jul-22	11-Aug-22	30-Dec-22	28-Jan-23	136
RW1		101	12-Jan-22	21-May-22	17-Jun-23	17-Oct-23	418
RW-140	RW1 - Design for Temporary Works Preparation & Submission	45	12-Jan-22	10-Mar-22	17-Jun-23	10-Aug-23	418
RW-150	RW1 - Design for Temporary Works PM Review	21	11-Mar-22	04-Apr-22	11-Aug-23	04-Sep-23	418
RW-160	RW1 - Design for Temporary Works Resubmission	14	06-Apr-22	25-Apr-22	05-Sep-23	20-Sep-23	418
RW-170	RW1 - Design for Temporary Works Approval	21	26-Apr-22	21-May-22	21-Sep-23	17-Oct-23	418
RW2		56	10-Jan-22	21-Mar-22	16-Feb-22	26-Apr-22	27
RW-200	RW2 - Design for Temporary Works Preparation & Submission	14	10-Jan-22	25-Jan-22	16-Feb-22	03-Mar-22	27
RW-210	RW2 - Design for Temporary Works PM Review	21	26-Jan-22	24-Feb-22	04-Mar-22	28-Mar-22	27
RW-220	RW2 - Design for Temporary Works Resubmission	7	25-Feb-22	04-Mar-22	29-Mar-22	06-Apr-22	27
RW-230	RW2 - Design for Temporary Works Approval	14	05-Mar-22	21-Mar-22	07-Apr-22	26-Apr-22	27
RW3		72	12-Jan-22	12-Apr-22	12-Mar-22	30-Jul-22	87
RW-300	RW3 - Design for Temporary Works Preparation & Submission	30	12-Jan-22	21-Feb-22	12-Mar-22	20-Apr-22	46
RW-310	RW3 - Design for Temporary Works PM Review	21	22-Feb-22	17-Mar-22	11-Jun-22	06-Jul-22	87
RW-320	RW3 - Design for Temporary Works Resubmission	7	18-Mar-22	25-Mar-22	07-Jul-22	14-Jul-22	87
RW-330	RW3 - Design for Temporary Works Approval	14	26-Mar-22	12-Apr-22	15-Jul-22	30-Jul-22	87
RW4		72	12-Jan-22	12-Apr-22	12-Mar-22	11-Jun-22	46
RW-400	RW4 - Design for Temporary Works Preparation & Submission	30	12-Jan-22	21-Feb-22	12-Mar-22	20-Apr-22	46
RW-410	RW4 - Design for Temporary Works PM Review	21	22-Feb-22	17-Mar-22	21-Apr-22	17-May-22	46



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

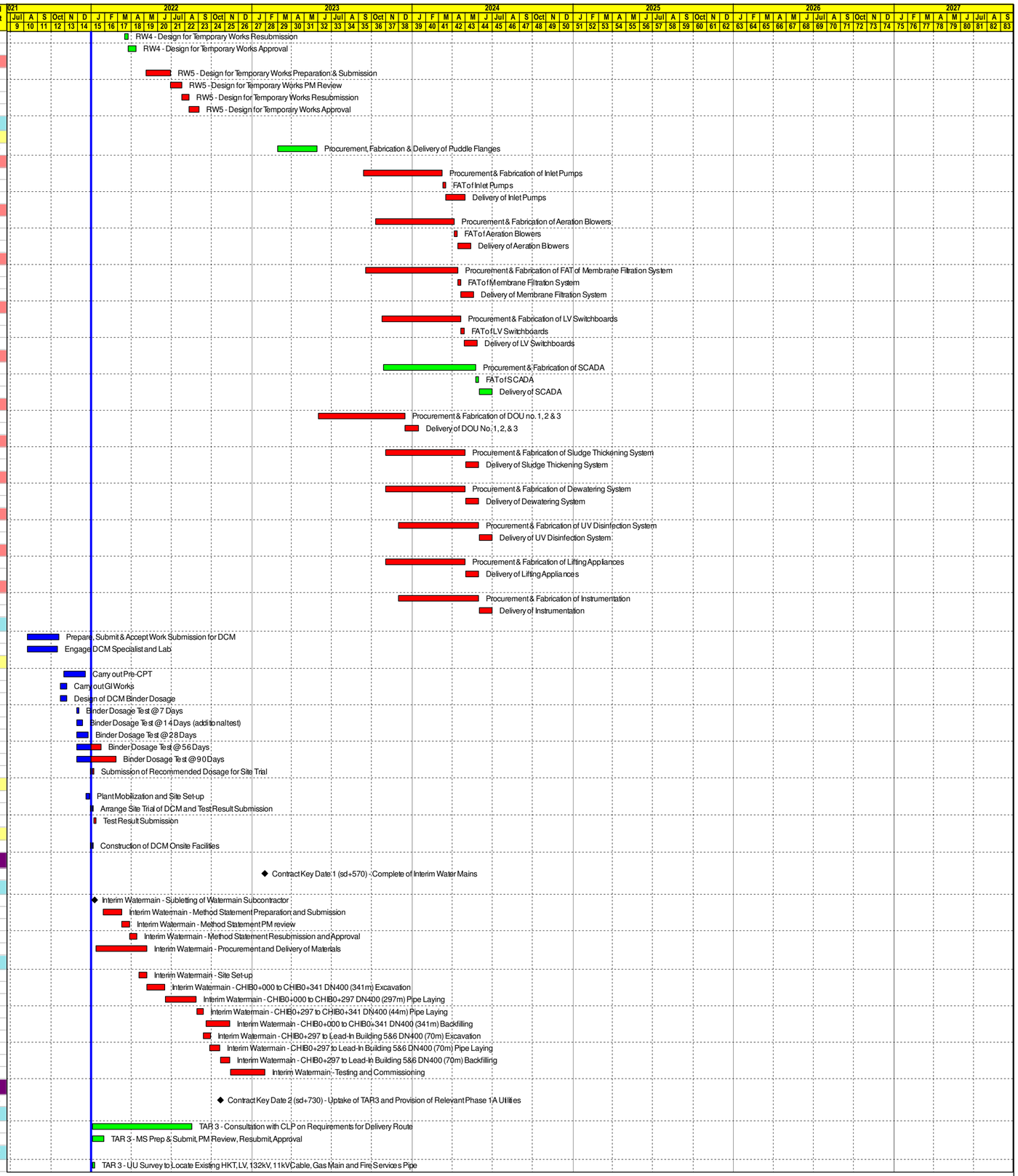
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 5 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
RW-420	RW4 - Design for Temporary Works Resubmission	7	18-Mar-22	25-Mar-22	18-May-22	25-May-22	46
RW-430	RW4 - Design for Temporary Works Approval	14	26-Mar-22	12-Apr-22	26-May-22	11-Jun-22	46
RW5		101	06-May-22	03-Sep-22	07-May-22	05-Sep-22	1
RW-500	RW5 - Design for Temporary Works Preparation & Submission	45	06-May-22	29-Jun-22	07-May-22	30-Jun-22	1
RW-510	RW5 - Design for Temporary Works PM Review	21	30-Jun-22	25-Jul-22	02-Jul-22	26-Jul-22	1
RW-520	RW5 - Design for Temporary Works Resubmission	14	26-Jul-22	10-Aug-22	27-Jul-22	11-Aug-22	1
RW-530	RW5 - Design for Temporary Works Approval	21	11-Aug-22	03-Sep-22	12-Aug-22	05-Sep-22	1
Fabrication and Delivery		488	01-Mar-23	30-Jun-24	01-Jun-23	25-Aug-24	56
Sewage Treatment Works - Major Equipment Fabrication & Delivery		488	01-Mar-23	30-Jun-24	01-Jun-23	25-Aug-24	56
S8.EM-0005	Procurement, Fabrication & Delivery of Puddle Flanges	90	01-Mar-23*	29-May-23	04-Jan-24	02-Apr-24	309
STW Inlet Pumps		232	12-Sep-23	30-Apr-24	12-Sep-23	30-Apr-24	0
S8.EM-0010	Procurement & Fabrication of Inlet Pumps	180	12-Sep-23*	09-Mar-24	12-Sep-23	09-Mar-24	0
S8.EM-0020	FAT of Inlet Pumps	7	10-Mar-24	16-Mar-24	10-Mar-24	16-Mar-24	0
S8.EM-0030	Delivery of Inlet Pumps	45	17-Mar-24	30-Apr-24	17-Mar-24	30-Apr-24	0
STW Aeration Blowers		217	09-Oct-23	12-May-24	09-Oct-23	12-May-24	0
S8.EM-0040	Procurement & Fabrication of Aeration Blowers	180	09-Oct-23*	05-Apr-24	09-Oct-23	05-Apr-24	0
S8.EM-0050	FAT of Aeration Blowers	7	06-Apr-24	12-Apr-24	06-Apr-24	12-Apr-24	0
S8.EM-0060	Delivery of Aeration Blowers	30	13-Apr-24	12-May-24	13-Apr-24	12-May-24	0
STW Membrane Filtration System		247	17-Sep-23	20-May-24	17-Sep-23	20-May-24	0
S8.EM-0070	Procurement & Fabrication of FAT of Membrane Filtration System	210	17-Sep-23	13-Apr-24	17-Sep-23	13-Apr-24	0
S8.EM-0080	FAT of Membrane Filtration System	7	14-Apr-24	20-Apr-24	14-Apr-24	20-Apr-24	0
S8.EM-0090	Delivery of Membrane Filtration System	30	21-Apr-24	20-May-24	21-Apr-24	20-May-24	0
STW LV Switchboard		218	24-Oct-23	28-May-24	24-Oct-23	28-May-24	0
S8.EM-0100	Procurement & Fabrication of LV Switchboards	180	24-Oct-23	20-Apr-24	24-Oct-23	20-Apr-24	0
S8.EM-0110	FAT of LV Switchboards	8	21-Apr-24	28-Apr-24	21-Apr-24	28-Apr-24	0
S8.EM-0120	Delivery of LV Switchboards	30	29-Apr-24	28-May-24	29-Apr-24	28-May-24	0
STW SCADA		247	28-Oct-23	30-Jun-24	23-Dec-23	25-Aug-24	56
S8.EM-0130	Procurement & Fabrication of SCADA	210	28-Oct-23	24-May-24	23-Dec-23	19-Jul-24	56
S8.EM-0140	FAT of SCADA	7	25-May-24	31-May-24	20-Jul-24	26-Jul-24	56
S8.EM-0150	Delivery of SCADA	30	01-Jun-24	30-Jun-24	27-Jul-24	25-Aug-24	56
STW Deodourization System		229	01-Jun-23	15-Jan-24	01-Jun-23	15-Jan-24	0
S8.EM-160	Procurement & Fabrication of DOU no. 1, 2 & 3	198	01-Jun-23*	15-Dec-23	01-Jun-23	15-Dec-23	0
S8.EM-170	Delivery of DOU No. 1, 2, & 3	31	16-Dec-23	15-Jan-24	16-Dec-23	15-Jan-24	0
STW Sludge Thickening System		212	01-Nov-23	30-May-24	01-Nov-23	30-May-24	0
S8.EM-180	Procurement & Fabrication of Sludge Thickening System	182	01-Nov-23	30-Apr-24	01-Nov-23	30-Apr-24	0
S8.EM-190	Delivery of Sludge Thickening System	30	01-May-24	30-May-24	01-May-24	30-May-24	0
STW Dewatering System		212	01-Nov-23	30-May-24	01-Nov-23	30-May-24	0
S8.EM-200	Procurement & Fabrication of Dewatering System	182	01-Nov-23	30-Apr-24	01-Nov-23	30-Apr-24	0
S8.EM-210	Delivery of Dewatering System	30	01-May-24	30-May-24	01-May-24	30-May-24	0
STW UV Disinfection System		213	01-Dec-23	30-Jun-24	01-Dec-23	30-Jun-24	0
S8.EM-220	Procurement & Fabrication of UV Disinfection System	183	01-Dec-23	31-May-24	01-Dec-23	31-May-24	0
S8.EM-230	Delivery of UV Disinfection System	30	01-Jun-24	30-Jun-24	01-Jun-24	30-Jun-24	0
STW Lifting Appliances		212	01-Nov-23	30-May-24	01-Nov-23	30-May-24	0
S8.EM-260	Procurement & Fabrication of Lifting Appliances	182	01-Nov-23	30-Apr-24	01-Nov-23	30-Apr-24	0
S8.EM-270	Delivery of Lifting Appliances	30	01-May-24	30-May-24	01-May-24	30-May-24	0
STW Instrumentation		213	01-Dec-23	30-Jun-24	01-Dec-23	30-Jun-24	0
S8.EM-240	Procurement & Fabrication of Instrumentation	183	01-Dec-23	31-May-24	01-Dec-23	31-May-24	0
S8.EM-250	Delivery of Instrumentation	30	01-Jun-24	30-Jun-24	01-Jun-24	30-Jun-24	0
Prerequisites for DCM Construction		72	09-Aug-21 A	25-Feb-22	01-Jan-22	25-Feb-22	0
PRE-400	Prepare, Submit & Accept Work Submission for DCM	58	09-Aug-21 A	18-Oct-21 A	06-Jan-22	06-Jan-22	
PRE-410	Engage DCM Specialist and Lab	57	09-Aug-21 A	16-Oct-21 A	01-Jan-22	01-Jan-22	
DCM Laboratory Mix		46	23-Oct-21 A	25-Feb-22	01-Jan-22	25-Feb-22	0
PRE-415	Carry out Pre-CPT	43	30-Oct-21 A	18-Dec-21 A	08-Jan-22	08-Jan-22	
PRE-416	Carry out GI Works	12	23-Oct-21 A	05-Nov-21 A	01-Jan-22	01-Jan-22	
PRE-420A	Design of DCM Binder Dosage	12	23-Oct-21 A	05-Nov-21 A	01-Jan-22	01-Jan-22	
PRE-420B	Binder Dosage Test @ 7 Days	7	28-Nov-21 A	04-Dec-21 A	01-Jan-22	01-Jan-22	
PRE-420C	Binder Dosage Test @ 14 Days (additional test)	14	28-Nov-21 A	11-Dec-21 A	01-Jan-22	01-Jan-22	
PRE-420D	Binder Dosage Test @ 28 Days	28	28-Nov-21 A	25-Dec-21 A	01-Jan-22	01-Jan-22	
PRE-420E	Binder Dosage Test @ 56 Days	56	28-Nov-21 A	22-Jan-22	01-Jan-22	22-Jan-22	0
PRE-420F	Binder Dosage Test @ 90 Days	90	28-Nov-21 A	25-Feb-22*	01-Jan-22	25-Feb-22	0
PRE-421	Submission of Recommended Dosage for Site Trial	7	29-Dec-21 A	06-Jan-22	06-Jan-22	10-Jan-22	3
Site Trial		18	20-Dec-21 A	12-Jan-22	06-Jan-22	15-Jan-22	3
PRE-425	Plant Mobilization and Site Set-up	6	20-Dec-21 A	28-Dec-21 A	06-Jan-22	06-Jan-22	
PRE-430	Arrange Site Trial of DCM and Test Result Submission	6	29-Dec-21 A	05-Jan-22	06-Jan-22	08-Jan-22	3
PRE-435	Test Result Submission	6	06-Jan-22	12-Jan-22	10-Jan-22	15-Jan-22	3
On-Site Facilities		6	29-Dec-21 A	05-Jan-22	13-Jan-22	15-Jan-22	9
PRE-440	Construction of DCM Onsite Facilities	6	29-Dec-21 A	05-Jan-22	13-Jan-22	15-Jan-22	9
Key Date KD1 - Interim Watermain		135	08-Jan-22	30-Jan-23	17-Jan-22	05-Feb-23	2
KD1-PC	Contract Key Date 1 (sd+570) - Complete of Interim Water Mains	0		30-Jan-23		05-Feb-23	6
KD1 - Submissions		91	08-Jan-22	06-May-22	17-Jan-22	13-May-22	5
KD1-1000	Interim Watermain - Subletting of Watermain Subcontractor	0		08-Jan-22		08-Feb-22	21
KD1-1005	Interim Watermain - Method Statement Preparation and Submission	32	28-Jan-22	11-Mar-22	09-Feb-22	17-Mar-22	5
KD1-1010	Interim Watermain - Method Statement PM review	14	12-Mar-22	28-Mar-22	18-Mar-22	02-Apr-22	5
KD1-1015	Interim Watermain - Method Statement Resubmission and Approval	14	29-Mar-22	14-Apr-22	04-Apr-22	23-Apr-22	5
KD1-1020	Interim Watermain - Procurement and Delivery of Materials	90	11-Jan-22	06-May-22	17-Jan-22	13-May-22	5
KD1 - Construction		232	19-Apr-22	30-Jan-23	25-Apr-22	04-Feb-23	5
KD1-1025	Interim Watermain - Site Set-up	15	19-Apr-22	06-May-22	25-Apr-22	13-May-22	5
KD1-1030	Interim Watermain - CHB0+000 to CHB0+341 DN400 (341m) Excavation	34	07-May-22	17-Jun-22	14-May-22	23-Jun-22	5
KD1-1035	Interim Watermain - CHB0+000 to CHB0+297 DN400 (297m) Pipe Laying	60	18-Jun-22	27-Aug-22	24-Jun-22	02-Sep-22	5
KD1-1040	Interim Watermain - CHB0+297 to CHB0+341 DN400 (44m) Pipe Laying	12	29-Aug-22	12-Sep-22	03-Sep-22	17-Sep-22	5
KD1-1045	Interim Watermain - CHB0+000 to CHB0+341 DN400 (341m) Backfilling	46	19-Sep-22	12-Nov-22	24-Sep-22	18-Nov-22	5
KD1-1050	Interim Watermain - CHB0+297 to Lead-In Building 5&6 DN400 (70m) Excavation	14	13-Sep-22	28-Sep-22	19-Sep-22	06-Oct-22	5
KD1-1055	Interim Watermain - CHB0+297 to Lead-In Building 5&6 DN400 (70m) Pipe Laying	18	28-Sep-22	20-Oct-22	06-Oct-22	26-Oct-22	5
KD1-1060	Interim Watermain - CHB0+297 to Lead-In Building 5&6 DN400 (70m) Backfilling	20	21-Oct-22	12-Nov-22	27-Oct-22	18-Nov-22	5
KD1-1065	Interim Watermain - Testing and Commissioning	60	14-Nov-22	30-Jan-23	19-Nov-22	04-Feb-23	5
Key Date KD2 - TAR 3		100	03-Jan-22	22-Oct-22	10-Feb-22	15-Jul-23	103
KD2-PC	Contract Key Date 2 (sd+730) - Uptake of TAR3 and Provision of Relevant Phase 1A Utilities	0		22-Oct-22		15-Jul-23	266
KD2 - Submission and Coordination		182	03-Jan-22	17-Aug-22	17-Feb-22	27-Sep-22	34
KD2-1000	TAR 3 - Consultation with CLP on Requirements for Delivery Route	182	03-Jan-22	17-Aug-22	17-Feb-22	27-Sep-22	34
KD2-1005	TAR 3 - MS Prep & Submit, PM Review, Resubmit, Approval	24	03-Jan-22	29-Jan-22	17-Feb-22	16-Mar-22	34
KD2 - Construction		236	03-Jan-22	22-Oct-22	10-Feb-22	15-Jul-23	213
KD2-1015	TAR 3 - UU Survey to Locate Existing HKT, LV, 132kV, 11kVCable, Gas Main and Fire Services Pipe	6	03-Jan-22	08-Jan-22	10-Feb-22	16-Feb-22	28



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
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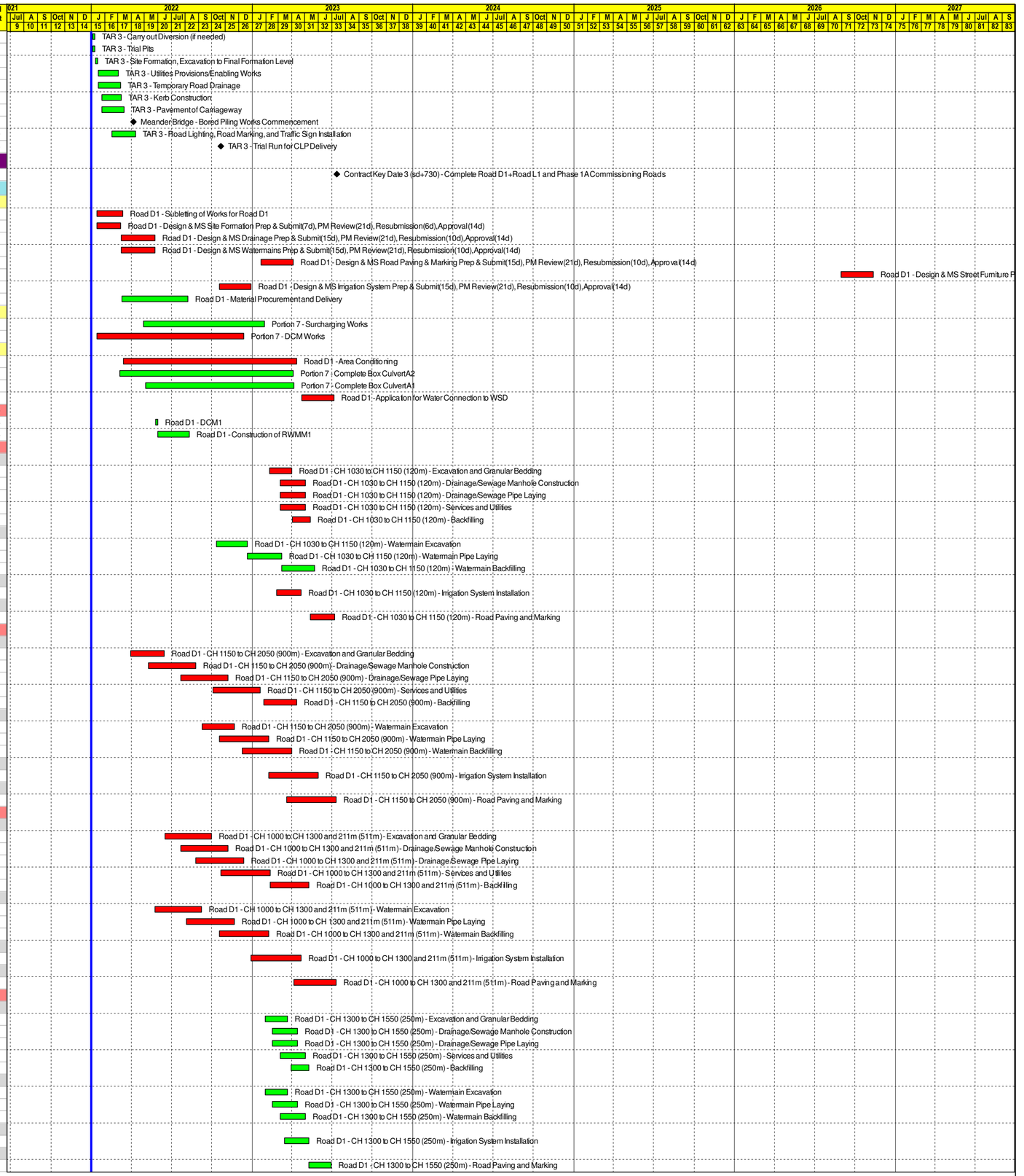
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 6 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
KD2-1020	TAR 3 - Carry out Diversion (if needed)	6	03-Jan-22	08-Jan-22	10-Feb-22	16-Feb-22	28
KD2-1025	TAR 3 - Trial Pits	6	03-Jan-22	08-Jan-22	10-Feb-22	16-Feb-22	28
KD2-1030	TAR 3 - Site Formation, Excavation to Final Formation Level	6	10-Jan-22	15-Jan-22	17-Feb-22	23-Feb-22	28
KD2-1035	TAR 3 - Utilities Provisions/Enabling Works	34	17-Jan-22	02-Mar-22	24-Feb-22	04-Apr-22	28
KD2-1040	TAR 3 - Temporary Road Drainage	38	17-Jan-22	07-Mar-22	24-Feb-22	09-Apr-22	28
KD2-1045	TAR 3 - Kerb Construction	34	25-Jan-22	10-Mar-22	04-Mar-22	13-Apr-22	28
KD2-1050	TAR 3 - Pavement of Carriageway	38	25-Jan-22	15-Mar-22	04-Mar-22	21-Apr-22	28
KD2-1052	Meander Bridge - Bored Piling Works Commencement	0	07-Apr-22		07-May-22		22
KD2-1055	TAR 3 - Road Lighting, Road Marking, and Traffic Sign Installation	45	17-Feb-22	11-Apr-22	22-May-23	15-Jul-23	370
KD2-1060	TAR 3 - Trial Run for CLP Delivery	0		22-Oct-22		15-Jul-23	213
Key Date KD3 - Road D1 and L1		672	13-Jan-22	11-Nov-26	15-Jan-22	11-Nov-26	0
KD3-PC	Contract Key Date 3 (sd+730) - Complete Road D1+Road L1 and Phase 1A Commissioning Roads	0		12-Jul-23		13-Jul-23	1
KD3 - ROAD D1		672	13-Jan-22	11-Nov-26	15-Jan-22	11-Nov-26	0
KD3 - D1 - Submissions		425	13-Jan-22	11-Nov-26	15-Jan-22	11-Nov-26	0
KD3-1000	Road D1 - Subletting of Works for Road D1	46	13-Jan-22	12-Mar-22	15-Jan-22	15-Mar-22	2
KD3-1005	Road D1 - Design & MS Site Formation Prep & Submit(7d), PM Review(21d), Resubmission(6d), Approval(14d)	42	13-Jan-22	08-Mar-22	20-Jan-22	15-Mar-22	6
KD3-1010	Road D1 - Design & MS Drainage Prep & Submit(15d), PM Review(21d), Resubmission(10d), Approval(14d)	60	09-Mar-22	24-May-22	16-Mar-22	31-May-22	6
KD3-1015	Road D1 - Design & MS Watermains Prep & Submit(15d), PM Review(21d), Resubmission(10d), Approval(14d)	60	09-Mar-22	24-May-22	16-Mar-22	31-May-22	6
KD3-1020	Road D1 - Design & MS Road Paving & Marking Prep & Submit(15d), PM Review(21d), Resubmission(10d), Approval(14d)	60	20-Jan-23	04-Apr-23	28-Jan-23	12-Apr-23	3
KD3-1025	Road D1 - Design & MS Street Furniture Prep & Submit(15d), PM Review(21d), Resubmission(10d), Approval(14d)	60	31-Aug-26	11-Nov-26	31-Aug-26	11-Nov-26	0
KD3-1030	Road D1 - Design & MS Irrigation System Prep & Submit(15d), PM Review(21d), Resubmission(10d), Approval(14d)	60	18-Oct-22	28-Dec-22	25-Oct-22	05-Jan-23	6
KD3-1035	Road D1 - Material Procurement and Delivery	120	12-Mar-22	08-Aug-22	02-Apr-22	29-Aug-22	18
KD3 - D1 - DCM Works at Portion 7		134	13-Jan-22	28-Jan-23	17-Jan-22	10-Feb-23	5
KD3-1425	Portion 7 - Surcharging Works	275	29-Apr-22	28-Jan-23	12-May-22	10-Feb-23	13
KD3-1435	Portion 7 - DCM Works	270	13-Jan-22	12-Dec-22	17-Jan-22	15-Dec-22	3
KD3 - D1 - Construction		396	07-Mar-22	11-Jul-23	16-Mar-22	13-Jul-23	2
KD3-1040	Road D1 - Area Conditioning	316	14-Mar-22	11-Apr-23	16-Mar-22	13-Apr-23	2
KD3-1445	Portion 7 - Complete Box CulvertA2	319	07-Mar-22	03-Apr-23	29-Mar-22	29-Apr-23	19
KD3-1455	Portion 7 - Complete Box CulvertA1	276	04-May-22	06-Apr-23	25-May-22	29-Apr-23	17
KD3-1855	Road D1 - Application for Water Connection to WSD	60	24-Apr-23	06-Jul-23	02-May-23	13-Jul-23	6
KD3 - D1 - Retaining Wall RWMM1		64	27-May-22	11-Aug-22	08-Nov-22	28-Jan-23	136
KD3-1310	Road D1 - DCM1	4	27-May-22	31-May-22	08-Nov-22	11-Nov-22	136
KD3-1315	Road D1 - Construction of RWMM1	60	01-Jun-22	11-Aug-22	12-Nov-22	28-Jan-23	136
KD3 - D1 CH 1030 to CH 1150		216	12-Oct-22	07-Jul-23	25-Oct-22	13-Jul-23	5
KD3 - D1 Drainage & Utilities		75	09-Feb-23	12-May-23	15-Feb-23	18-May-23	5
KD3-1675	Road D1 - CH 1030 to CH 1150 (120m) - Excavation and Granular Bedding	45	09-Feb-23	01-Apr-23	15-Feb-23	12-Apr-23	5
KD3-1685	Road D1 - CH 1030 to CH 1150 (120m) - Drainage/Sewage Manhole Construction	45	06-Mar-23	02-May-23	11-Mar-23	08-May-23	5
KD3-1695	Road D1 - CH 1030 to CH 1150 (120m) - Drainage/Sewage Pipe Laying	45	06-Mar-23	02-May-23	11-Mar-23	08-May-23	5
KD3-1705	Road D1 - CH 1030 to CH 1150 (120m) - Services and Utilities	45	06-Mar-23	02-May-23	11-Mar-23	08-May-23	5
KD3-1715	Road D1 - CH 1030 to CH 1150 (120m) - Backfilling	30	03-Apr-23	12-May-23	13-Apr-23	18-May-23	5
KD3 - D1 Fresh/Flushing Watermains		180	12-Oct-22	23-May-23	25-Oct-22	06-Jun-23	11
KD3-1725	Road D1 - CH 1030 to CH 1150 (120m) - Watermain Excavation	60	12-Oct-22	20-Dec-22	25-Oct-22	05-Jan-23	11
KD3-1735	Road D1 - CH 1030 to CH 1150 (120m) - Watermain Pipe Laying	60	21-Dec-22	08-Mar-23	06-Jan-23	21-Mar-23	11
KD3-1745	Road D1 - CH 1030 to CH 1150 (120m) - Watermain Backfilling	60	09-Mar-23	23-May-23	22-Mar-23	06-Jun-23	11
KD3 - D1 Irrigation System		45	25-Feb-23	22-Apr-23	04-Mar-23	29-Apr-23	6
KD3-1160	Road D1 - CH 1030 to CH 1150 (120m) - Irrigation System Installation	45	25-Feb-23	22-Apr-23	04-Mar-23	29-Apr-23	6
KD3 - Road Construction		45	13-May-23	07-Jul-23	19-May-23	13-Jul-23	5
KD3-1145	Road D1 - CH 1030 to CH 1150 (120m) - Road Paving and Marking	45	13-May-23	07-Jul-23	19-May-23	13-Jul-23	5
KD3 - D1 CH 1150 to CH 2050		376	30-Mar-22	11-Jul-23	02-Apr-22	13-Jul-23	2
KD3 - D1 Drainage & Utilities		302	30-Mar-22	11-Apr-23	02-Apr-22	13-Apr-23	2
KD3-1100	Road D1 - CH 1150 to CH 2050 (900m) - Excavation and Granular Bedding	60	30-Mar-22	15-Jun-22	02-Apr-22	18-Jun-22	3
KD3-1105	Road D1 - CH 1150 to CH 2050 (900m) - Drainage/Sewage Manhole Construction	90	11-May-22	25-Aug-22	16-May-22	30-Aug-22	4
KD3-1110	Road D1 - CH 1150 to CH 2050 (900m) - Drainage/Sewage Pipe Laying	90	22-Jul-22	07-Nov-22	27-Jul-22	11-Nov-22	4
KD3-1115	Road D1 - CH 1150 to CH 2050 (900m) - Services and Utilities	90	03-Oct-22	19-Jan-23	08-Oct-22	28-Jan-23	4
KD3-1120	Road D1 - CH 1150 to CH 2050 (900m) - Backfilling	60	27-Jan-23	11-Apr-23	30-Jan-23	13-Apr-23	2
KD3 - D1 Fresh/Flushing Watermains		165	09-Sep-22	31-Mar-23	17-Sep-22	12-Apr-23	6
KD3-1065	Road D1 - CH 1150 to CH 2050 (900m) - Watermain Excavation	60	09-Sep-22	21-Nov-22	17-Sep-22	28-Nov-22	6
KD3-1070	Road D1 - CH 1150 to CH 2050 (900m) - Watermain Pipe Laying	90	18-Oct-22	07-Feb-23	25-Oct-22	14-Feb-23	6
KD3-1075	Road D1 - CH 1150 to CH 2050 (900m) - Watermain Backfilling	90	09-Dec-22	31-Mar-23	16-Dec-22	12-Apr-23	6
KD3 - D1 Irrigation System		90	08-Feb-23	30-May-23	15-Feb-23	06-Jun-23	6
KD3-1755	Road D1 - CH 1150 to CH 2050 (900m) - Irrigation System Installation	90	08-Feb-23	30-May-23	15-Feb-23	06-Jun-23	6
KD3 - Road Construction		90	20-Mar-23	11-Jul-23	22-Mar-23	13-Jul-23	2
KD3-1765	Road D1 - CH 1150 to CH 2050 (900m) - Road Paving and Marking	90	20-Mar-23	11-Jul-23	22-Mar-23	13-Jul-23	2
KD3 - D1 CH 1000 to CH 1300 and 211m		333	25-May-22	10-Jul-23	01-Jun-22	13-Jul-23	3
KD3 - D1 Drainage & Utilities		265	16-Jun-22	09-May-23	20-Jun-22	12-May-23	3
KD3-1045	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Excavation and Granular Bedding	90	16-Jun-22	30-Sep-22	20-Jun-22	06-Oct-22	3
KD3-1080	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Drainage/Sewage Manhole Construction	90	22-Jul-22	07-Nov-22	26-Jul-22	10-Nov-22	3
KD3-1085	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Drainage/Sewage Pipe Laying	90	26-Aug-22	12-Dec-22	30-Aug-22	15-Dec-22	3
KD3-1090	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Services and Utilities	90	21-Oct-22	10-Feb-23	25-Oct-22	14-Feb-23	3
KD3-1095	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Backfilling	70	11-Feb-23	09-May-23	15-Feb-23	12-May-23	3
KD3 - D1 Fresh/Flushing Watermains		210	25-May-22	07-Feb-23	01-Jun-22	14-Feb-23	6
KD3-1050	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Watermain Excavation	90	25-May-22	08-Sep-22	01-Jun-22	16-Sep-22	6
KD3-1055	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Watermain Pipe Laying	90	05-Aug-22	21-Nov-22	12-Aug-22	28-Nov-22	6
KD3-1060	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Watermain Backfilling	90	18-Oct-22	07-Feb-23	25-Oct-22	14-Feb-23	6
KD3 - D1 Irrigation System		90	29-Dec-22	22-Apr-23	06-Jan-23	29-Apr-23	6
KD3-1155	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Irrigation System Installation	90	29-Dec-22	22-Apr-23	06-Jan-23	29-Apr-23	6
KD3 - Road Construction		75	06-Apr-23	10-Jul-23	13-Apr-23	13-Jul-23	3
KD3-1130	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Road Paving and Marking	75	06-Apr-23	10-Jul-23	13-Apr-23	13-Jul-23	3
KD3 - D1 CH 1300 to CH 1550		123	30-Jan-23	29-Jun-23	11-Feb-23	13-Jul-23	11
KD3 - D1 Drainage & Utilities		81	30-Jan-23	09-May-23	11-Feb-23	22-May-23	11
KD3-1865	Road D1 - CH 1300 to CH 1550 (250m) - Excavation and Granular Bedding	45	30-Jan-23	22-Mar-23	11-Feb-23	04-Apr-23	11
KD3-1875	Road D1 - CH 1300 to CH 1550 (250m) - Drainage/Sewage Manhole Construction	45	16-Feb-23	13-Apr-23	01-Mar-23	26-Apr-23	11
KD3-1885	Road D1 - CH 1300 to CH 1550 (250m) - Drainage/Sewage Pipe Laying	45	16-Feb-23	13-Apr-23	01-Mar-23	26-Apr-23	11
KD3-1895	Road D1 - CH 1300 to CH 1550 (250m) - Services and Utilities	45	06-Mar-23	02-May-23	18-Mar-23	15-May-23	11
KD3-1905	Road D1 - CH 1300 to CH 1550 (250m) - Backfilling	30	30-Mar-23	09-May-23	17-Apr-23	22-May-23	11
KD3 - D1 Fresh/Flushing Watermains		75	30-Jan-23	02-May-23	11-Feb-23	15-May-23	11
KD3-1935	Road D1 - CH 1300 to CH 1550 (250m) - Watermain Excavation	45	30-Jan-23	22-Mar-23	11-Feb-23	04-Apr-23	11
KD3-1945	Road D1 - CH 1300 to CH 1550 (250m) - Watermain Pipe Laying	45	16-Feb-23	13-Apr-23	01-Mar-23	26-Apr-23	11
KD3-1955	Road D1 - CH 1300 to CH 1550 (250m) - Watermain Backfilling	45	06-Mar-23	02-May-23	18-Mar-23	15-May-23	11
KD3 - D1 Irrigation System		42	16-Mar-23	09-May-23	29-Mar-23	22-May-23	11
KD3-1925	Road D1 - CH 1300 to CH 1550 (250m) - Irrigation System Installation	42	16-Mar-23	09-May-23	29-Mar-23	22-May-23	11
KD3 - Road Construction		42	10-May-23	29-Jun-23	23-May-23	13-Jul-23	11
KD3-1915	Road D1 - CH 1300 to CH 1550 (250m) - Road Paving and Marking	42	10-May-23	29-Jun-23	23-May-23	13-Jul-23	11



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

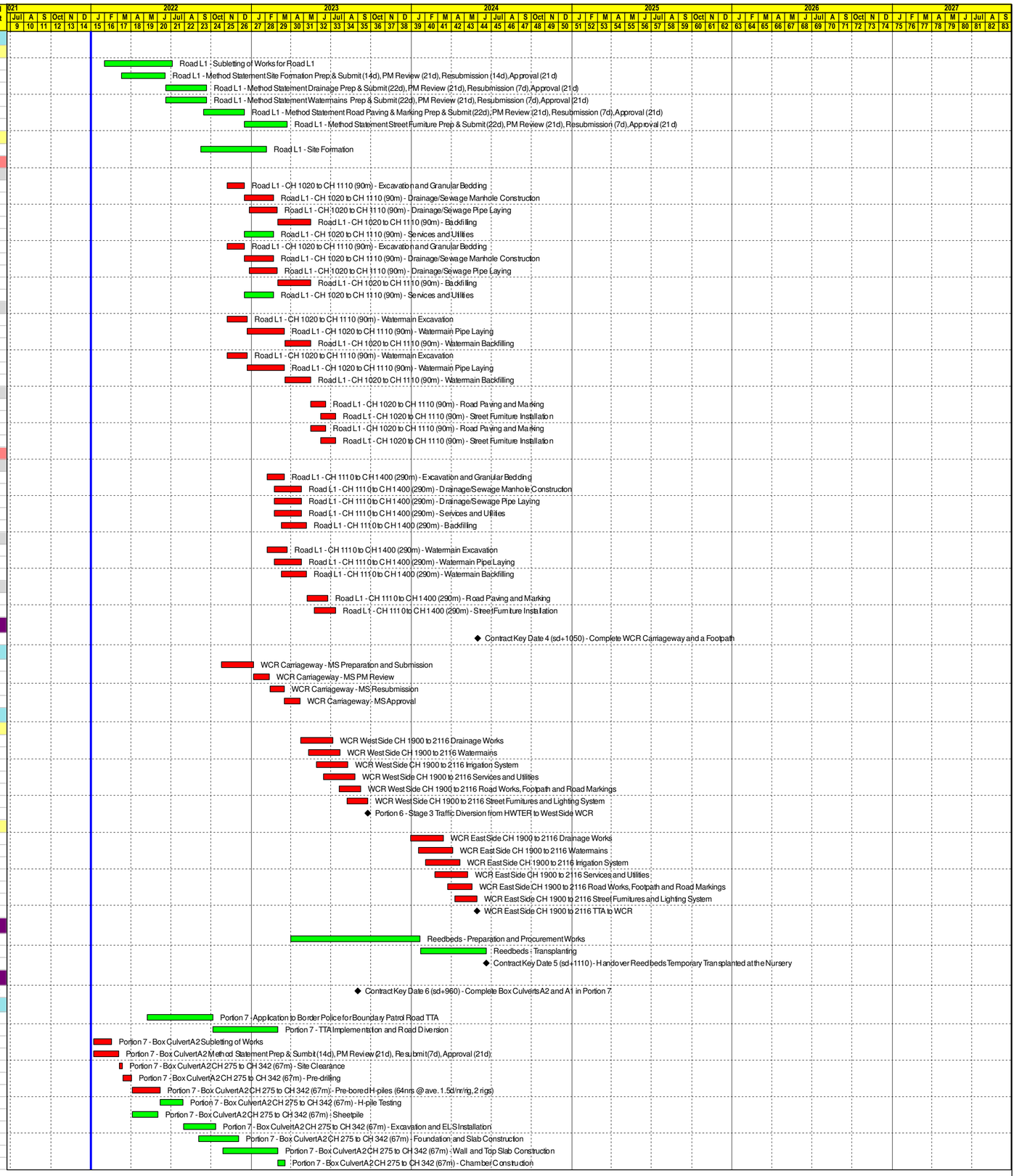
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 7 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
KD3 - ROAD L1		422	31-Jan-22	12-Jul-23	01-Apr-22	13-Jul-23	1
KD3 - L1 - Submissions		336	31-Jan-22	24-Mar-23	01-Apr-22	24-May-23	47
KD3-1170	Road L1 - Subletting of Works for Road L1	120	31-Jan-22	04-Jul-22	01-Apr-22	27-Aug-22	47
KD3-1175	Road L1 - Method Statement Site Formation Prep & Submit (14d), PM Review (21d), Resubmission (14d),Approval (21d	78	12-Mar-22	18-Jun-22	13-May-22	13-Aug-22	47
KD3-1180	Road L1 - Method Statement Drainage Prep & Submit (22d), PM Review (21d), Resubmission (7d),Approval (21d)	78	20-Jun-22	20-Sep-22	15-Aug-22	16-Nov-22	47
KD3-1185	Road L1 - Method Statement Watermains Prep & Submit (22d), PM Review (21d), Resubmission (7d),Approval (21d)	78	20-Jun-22	20-Sep-22	15-Aug-22	16-Nov-22	47
KD3-1190	Road L1 - Method Statement Road Paving & Marking Prep & Submit (22d), PM Review (21d), Resubmission (7d), Approval (21d)	78	14-Sep-22	15-Dec-22	10-Nov-22	16-Feb-23	47
KD3-1195	Road L1 - Method Statement Street Furniture Prep & Submit (22d), PM Review (21d), Resubmission (7d),Approval (21d)	78	16-Dec-22	24-Mar-23	17-Feb-23	24-May-23	47
KD3 - L1 - Construction		247	07-Sep-22	12-Jul-23	08-Nov-22	13-Jul-23	1
KD3-1305	Road L1 - Site Formation	120	07-Sep-22	04-Feb-23	15-Dec-22	17-May-23	82
KD3 - L1 at CH 1020 to CH 1110		198	07-Nov-22	12-Jul-23	08-Nov-22	13-Jul-23	1
KD3 - L1 Drainage/Sewage & Utilities		152	07-Nov-22	16-May-23	08-Nov-22	17-May-23	1
KD3-1505	Road L1 - CH 1020 to CH 1110 (90m) - Excavation and Granular Bedding	34	07-Nov-22	15-Dec-22	08-Nov-22	16-Dec-22	1
KD3-1515	Road L1 - CH 1020 to CH 1110 (90m) - Drainage/Sewage Manhole Construction	50	16-Dec-22	20-Feb-23	17-Dec-22	21-Feb-23	1
KD3-1525	Road L1 - CH 1020 to CH 1110 (90m) - Drainage/Sewage Pipe Laying	50	28-Dec-22	01-Mar-23	29-Dec-22	02-Mar-23	1
KD3-1535	Road L1 - CH 1020 to CH 1110 (90m) - Backfilling	60	02-Mar-23	16-May-23	03-Mar-23	17-May-23	1
KD3-1565	Road L1 - CH 1020 to CH 1110 (90m) - Services and Utilities	50	16-Dec-22	20-Feb-23	29-Dec-22	02-Mar-23	9
KD3-1575	Road L1 - CH 1020 to CH 1110 (90m) - Excavation and Granular Bedding	34	07-Nov-22	15-Dec-22	08-Nov-22	16-Dec-22	1
KD3-1585	Road L1 - CH 1020 to CH 1110 (90m) - Drainage/Sewage Manhole Construction	50	16-Dec-22	20-Feb-23	17-Dec-22	21-Feb-23	1
KD3-1595	Road L1 - CH 1020 to CH 1110 (90m) - Drainage/Sewage Pipe Laying	50	28-Dec-22	01-Mar-23	29-Dec-22	02-Mar-23	1
KD3-1605	Road L1 - CH 1020 to CH 1110 (90m) - Backfilling	60	02-Mar-23	16-May-23	03-Mar-23	17-May-23	1
KD3-1615	Road L1 - CH 1020 to CH 1110 (90m) - Services and Utilities	50	16-Dec-22	20-Feb-23	29-Dec-22	02-Mar-23	9
KD3 - L1 Fresh/Flushing Watermains		152	07-Nov-22	16-May-23	08-Nov-22	17-May-23	1
KD3-1475	Road L1 - CH 1020 to CH 1110 (90m) - Watermain Excavation	40	07-Nov-22	22-Dec-22	08-Nov-22	23-Dec-22	1
KD3-1485	Road L1 - CH 1020 to CH 1110 (90m) - Watermain Pipe Laying	66	23-Dec-22	17-Mar-23	24-Dec-22	18-Mar-23	1
KD3-1495	Road L1 - CH 1020 to CH 1110 (90m) - Watermain Backfilling	46	18-Mar-23	16-May-23	20-Mar-23	17-May-23	1
KD3-1625	Road L1 - CH 1020 to CH 1110 (90m) - Watermain Excavation	40	07-Nov-22	22-Dec-22	08-Nov-22	23-Dec-22	1
KD3-1635	Road L1 - CH 1020 to CH 1110 (90m) - Watermain Pipe Laying	66	23-Dec-22	17-Mar-23	24-Dec-22	18-Mar-23	1
KD3-1645	Road L1 - CH 1020 to CH 1110 (90m) - Watermain Backfilling	46	18-Mar-23	16-May-23	20-Mar-23	17-May-23	1
KD3 - L1 Street Furniture, Road Paving, Road Marking		46	17-May-23	12-Jul-23	18-May-23	13-Jul-23	1
KD3-1545	Road L1 - CH 1020 to CH 1110 (90m) - Road Paving and Marking	28	17-May-23	19-Jun-23	18-May-23	20-Jun-23	1
KD3-1555	Road L1 - CH 1020 to CH 1110 (90m) - Street Furniture Installation	28	08-Jun-23	12-Jul-23	09-Jun-23	13-Jul-23	1
KD3-1655	Road L1 - CH 1020 to CH 1110 (90m) - Road Paving and Marking	28	17-May-23	19-Jun-23	18-May-23	20-Jun-23	1
KD3-1665	Road L1 - CH 1020 to CH 1110 (90m) - Street Furniture Installation	28	08-Jun-23	12-Jul-23	09-Jun-23	13-Jul-23	1
KD3 - L1 at CH1110 to CH 1400		127	06-Feb-23	12-Jul-23	07-Feb-23	13-Jul-23	1
KD3 - L1 Drainage/Sewage & Utilities		73	06-Feb-23	06-May-23	07-Feb-23	08-May-23	1
KD3-1270	Road L1 - CH 1110 to CH 1400 (290m) - Excavation and Granular Bedding	34	06-Feb-23	16-Mar-23	07-Feb-23	17-Mar-23	1
KD3-1275	Road L1 - CH 1110 to CH 1400 (290m) - Drainage/Sewage Manhole Construction	50	22-Feb-23	25-Apr-23	23-Feb-23	26-Apr-23	1
KD3-1280	Road L1 - CH 1110 to CH 1400 (290m) - Drainage/Sewage Pipe Laying	50	22-Feb-23	25-Apr-23	23-Feb-23	26-Apr-23	1
KD3-1285	Road L1 - CH 1110 to CH 1400 (290m) - Services and Utilities	50	22-Feb-23	25-Apr-23	23-Feb-23	26-Apr-23	1
KD3-1290	Road L1 - CH 1110 to CH 1400 (290m) - Backfilling	45	10-Mar-23	06-May-23	11-Mar-23	08-May-23	1
KD3 - L1 Fresh/Flushing Watermains		73	06-Feb-23	06-May-23	07-Feb-23	08-May-23	1
KD3-1255	Road L1 - CH 1110 to CH 1400 (290m) - Watermain Excavation	40	06-Feb-23	23-Mar-23	07-Feb-23	24-Mar-23	1
KD3-1260	Road L1 - CH 1110 to CH 1400 (290m) - Watermain Pipe Laying	50	22-Feb-23	25-Apr-23	23-Feb-23	26-Apr-23	1
KD3-1265	Road L1 - CH 1110 to CH 1400 (290m) - Watermain Backfilling	45	10-Mar-23	06-May-23	11-Mar-23	08-May-23	1
KD3 - L1 Street Furniture, Road Paving, Road Marking		54	08-May-23	12-Jul-23	09-May-23	13-Jul-23	1
KD3-1295	Road L1 - CH 1110 to CH 1400 (290m) - Road Paving and Marking	40	08-May-23	24-Jun-23	09-May-23	26-Jun-23	1
S12C-1275	Road L1 - CH 1110 to CH 1400 (290m) - Street Furniture Installation	40	24-May-23	12-Jul-23	25-May-23	13-Jul-23	1
Key Date KD4 - WCR Carriageway + 1 Footpath		227	25-Oct-22	30-May-24	25-Oct-22	30-May-24	0
KD4-PC	Contract Key Date 4 (sd+1050) - Complete WCR Carriageway and a Footpath	0		30-May-24		30-May-24	0
KD4 - Submissions		144	25-Oct-22	22-Apr-23	25-Oct-22	22-Apr-23	0
KD4-1000	WCR Carriageway - MS Preparation and Submission	60	25-Oct-22	05-Jan-23	25-Oct-22	05-Jan-23	0
KD4-1005	WCR Carriageway - MS PM Review	28	06-Jan-23	11-Feb-23	06-Jan-23	11-Feb-23	0
KD4-1010	WCR Carriageway - MS Resubmission	28	13-Feb-23	16-Mar-23	13-Feb-23	16-Mar-23	0
KD4-1015	WCR Carriageway - MS Approval	28	17-Mar-23	22-Apr-23	17-Mar-23	22-Apr-23	0
KD4 - Construction		325	24-Apr-23	29-May-24	24-Apr-23	30-May-24	1
KD4 - WCR West Side		128	24-Apr-23	23-Sep-23	24-Apr-23	23-Sep-23	0
KD4-1020	WCR West Side CH 1900 to 2116 Drainage Works	60	24-Apr-23	06-Jul-23	24-Apr-23	06-Jul-23	0
KD4-1025	WCR West Side CH 1900 to 2116 Watermains	60	11-May-23	22-Jul-23	11-May-23	22-Jul-23	0
KD4-1030	WCR West Side CH 1900 to 2116 Irrigation System	60	29-May-23	08-Aug-23	29-May-23	08-Aug-23	0
KD4-1035	WCR West Side CH 1900 to 2116 Services and Utilities	60	14-Jun-23	24-Aug-23	14-Jun-23	24-Aug-23	0
KD4-1040	WCR West Side CH 1900 to 2116 Road Works, Footpath and Road Markings	42	21-Jul-23	07-Sep-23	21-Jul-23	07-Sep-23	0
KD4-1045	WCR West Side CH 1900 to 2116 Street Furnitures and Lighting System	42	07-Aug-23	23-Sep-23	07-Aug-23	23-Sep-23	0
KD4-1050	Portion 6 - Stage 3 Traffic Diversion from HWTER to West Side WCR	0		23-Sep-23		23-Sep-23	0
KD4 - WCR East Side		119	30-Dec-23	29-May-24	02-Jan-24	30-May-24	1
KD4-1055	WCR East Side CH 1900 to 2116 Drainage Works	60	30-Dec-23	14-Mar-24	02-Jan-24	15-Mar-24	1
KD4-1060	WCR East Side CH 1900 to 2116 Watermains	60	17-Jan-24	03-Apr-24	18-Jan-24	05-Apr-24	1
KD4-1065	WCR East Side CH 1900 to 2116 Irrigation System	60	02-Feb-24	20-Apr-24	03-Feb-24	22-Apr-24	1
KD4-1070	WCR East Side CH 1900 to 2116 Services and Utilities	60	23-Feb-24	08-May-24	24-Feb-24	09-May-24	1
KD4-1075	WCR East Side CH 1900 to 2116 Road Works, Footpath and Road Markings	42	23-Mar-24	17-May-24	25-Mar-24	18-May-24	1
KD4-1080	WCR East Side CH 1900 to 2116 Street Furnitures and Lighting System	42	09-Apr-24	29-May-24	10-Apr-24	30-May-24	1
KD4-1085	WCR East Side CH 1900 to 2116 TTA to WCR	0		29-May-24		30-May-24	1
Key Date KD5 - Reedbeds Transplanting		174	31-Mar-23	19-Jun-24	15-May-23	29-Jul-24	15
KD5-1000	Reedbeds - Preparation and Procurement Works	240	31-Mar-23	20-Jan-24	15-May-23	04-Mar-24	33
KD5-2000	Reedbeds - Transplanting	118	22-Jan-24	19-Jun-24	05-Mar-24	29-Jul-24	33
KD5-PC	Contract Key Date 5 (sd+1110) - Handover Reedbeds Temporary Transplanted at the Nursery	0		19-Jun-24		29-Jul-24	40
Key Date KD6 - Box Culverts A2 and A1 in Portion 7		220	07-Jan-22	01-Sep-23	13-Jan-22	01-Mar-24	71
KD6-pc	Contract Key Date 6 (sd+960) - Complete Box Culverts A2 and A1 in Portion 7	0		01-Sep-23		01-Mar-24	182
KD6 - Box Culvert A2		220	07-Jan-22	01-Sep-23	13-Jan-22	01-Mar-24	71
KD6-0500	Portion 7 - Application to Border Police for Boundary Patrol Road TTA	150	09-May-22	05-Oct-22	29-May-22	25-Oct-22	20
KD6-0550	Portion 7 - TTA Implementation and Road Diversion	120	06-Oct-22	02-Mar-23	26-Oct-22	22-Mar-23	17
KD6-1000	Portion 7 - Box Culvert A2 Subletting of Works	30	07-Jan-22	16-Feb-22	13-Jan-22	22-Feb-22	5
KD6-1005	Portion 7 - Box Culvert A2 Method Statement Prep & Sumbit (14d), PM Review (21d), Resubmit (7d), Approval (21d)	45	07-Jan-22	05-Mar-22	13-Jan-22	11-Mar-22	5
KD6-1010	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Site Clearance	6	07-Mar-22	12-Mar-22	12-Mar-22	18-Mar-22	5
KD6-1015	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Pre-drilling	18	14-Mar-22	02-Apr-22	19-Mar-22	09-Apr-22	5
KD6-1020	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Pre-bored H-piles (64nrs @ ave. 1.5d/nr/rig, 2 rigs)	48	04-Apr-22	06-Jun-22	11-Apr-22	11-Jun-22	5
KD6-1025	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - H-pile Testing	45	07-Jun-22	29-Jul-22	20-Jun-22	11-Aug-22	11
KD6-1030	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Sheetpile	45	04-Apr-22	01-Jun-22	20-Jun-22	11-Aug-22	59
KD6-1035	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Excavation and ELS Installation	60	30-Jul-22	11-Oct-22	12-Aug-22	24-Oct-22	11
KD6-1040	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Foundation and Slab Construction	75	03-Sep-22	02-Dec-22	24-Sep-22	22-Dec-22	17
KD6-1045	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Wall and Top Slab Construction	100	29-Oct-22	02-Mar-23	18-Nov-22	22-Mar-23	17
KD6-1050	Portion 7 - Box Culvert A2 CH 275 to CH 342 (67m) - Chamber Construction	14	03-Mar-23	18-Mar-23	23-Mar-23	12-Apr-23	17



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

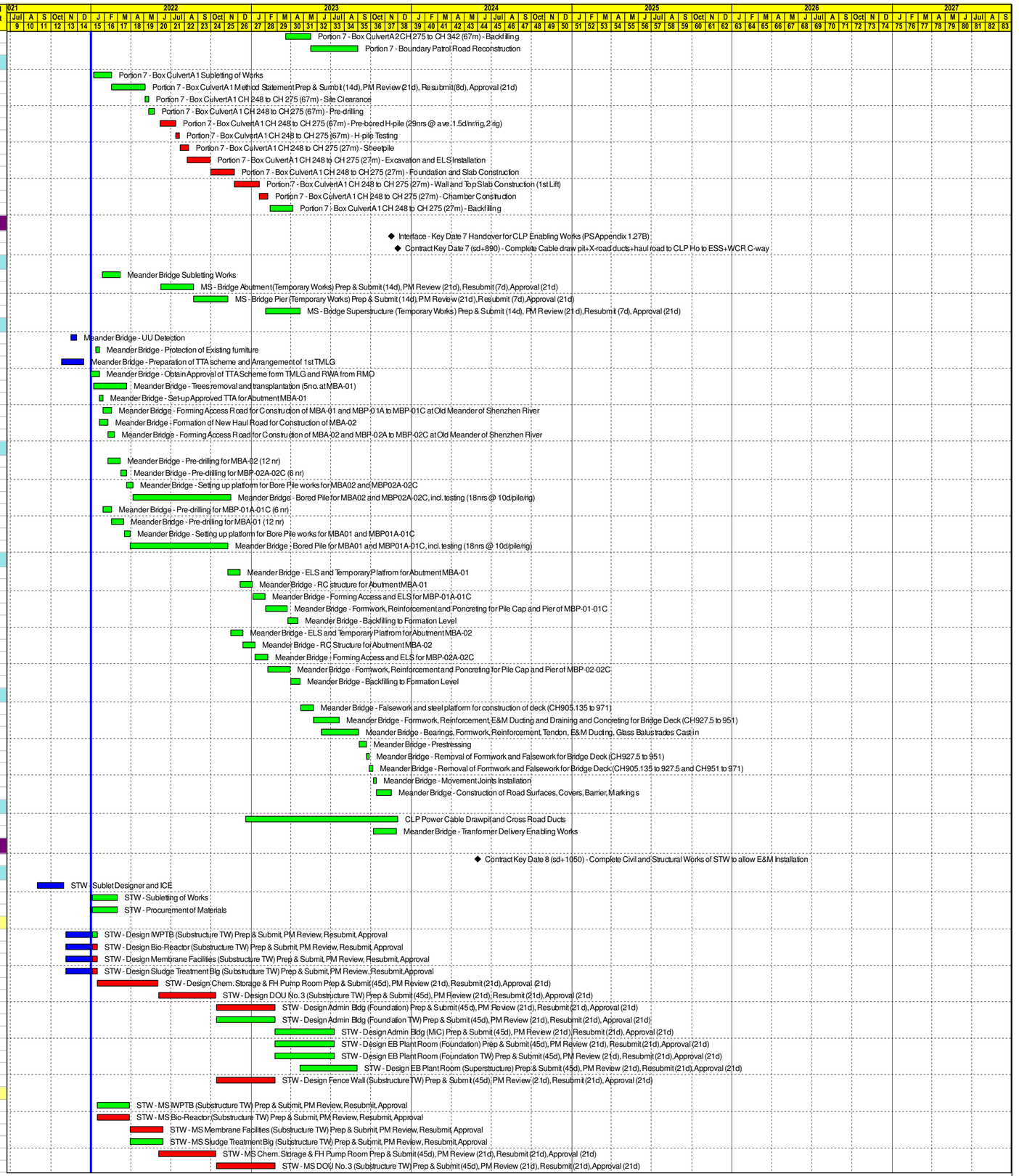
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 8 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
KD6-1060	Portion 7 - Box CulvertA2 CH 275 to CH 342 (67m) - Backfilling	45	20-Mar-23	16-May-23	19-May-23	13-Jul-23	47
KD6-1066	Portion 7 - Boundary Patrol Road Reconstruction	90	17-May-23	01-Sep-23	10-Nov-23	01-Mar-24	146
KD6 - Box Culvert A1		366	07-Jan-22	06-Apr-23	24-Jan-22	29-Apr-23	17
KD6-1065	Portion 7 - Box CulvertA1 Subletting of Works	30	07-Jan-22	16-Feb-22	24-Jan-22	04-Mar-22	14
KD6-1070	Portion 7 - Box CulvertA1 Method Statement Prep & Sumbit (14d), PM Review (21d), Resubmit(8d), Approval (21d)	60	17-Feb-22	03-May-22	05-Mar-22	20-May-22	14
KD6-1075	Portion 7 - Box CulvertA1 CH 248 to CH 275 (67m) - Site Clearance	6	04-May-22	11-May-22	21-May-22	27-May-22	14
KD6-1080	Portion 7 - Box CulvertA1 CH 248 to CH 275 (67m) - Pre-drilling	12	12-May-22	25-May-22	28-May-22	11-Jun-22	14
KD6-1085	Portion 7 - Box CulvertA1 CH 248 to CH 275 (67m) - Pre-bored H-pile (29nrs @ ave.1.5d/nr/rig, 2 rig)	30	07-Jun-22	12-Jul-22	13-Jun-22	18-Jul-22	5
KD6-1090	Portion 7 - Box CulvertA1 CH 248 to CH 275 (67m) - H-pile Testing	8	13-Jul-22	21-Jul-22	19-Jul-22	27-Jul-22	5
KD6-1095	Portion 7 - Box CulvertA1 CH 248 to CH 275 (27m) - Sheetpile	18	22-Jul-22	11-Aug-22	28-Jul-22	17-Aug-22	5
KD6-1100	Portion 7 - Box CulvertA1 CH 248 to CH 275 (27m) - Excavation and ELS Installation	45	08-Aug-22	29-Sep-22	13-Aug-22	07-Oct-22	5
KD6-1105	Portion 7 - Box CulvertA1 CH 248 to CH 275 (27m) - Foundation and Slab Construction	45	30-Sep-22	23-Nov-22	08-Oct-22	29-Nov-22	5
KD6-1110	Portion 7 - Box CulvertA1 CH 248 to CH 275 (27m) - Wall and Top Slab Construction (1st Lift)	45	24-Nov-22	18-Jan-23	30-Nov-22	28-Jan-23	5
KD6-1115	Portion 7 - Box CulvertA1 CH 248 to CH 275 (27m) - Chamber Construction	14	19-Jan-23	08-Feb-23	30-Jan-23	14-Feb-23	5
KD6-1125	Portion 7 - Box CulvertA1 CH 248 to CH 275 (27m) - Backfilling	45	13-Feb-23	06-Apr-23	04-Mar-23	29-Apr-23	17
Key Date KD7 - Meander Bridge and CLP Transformer Delivery		282	26-Oct-21 A	30-Nov-23	02-Feb-22	22-Dec-23	9
KD7-1000	Interface - Key Date 7 Handover for CLP Enabling Works (PS Appendix 1.27B)	0		15-Nov-23		22-Dec-23	37
KD7-PC	Contract Key Date 7 (sd+890) - Complete Cable draw pit+X-road ducts+haul road to CLP Ho to ESS+WCR C-way	0		30-Nov-23		22-Dec-23	22
KD7 - Submissions		360	27-Jan-22	22-Apr-23	28-Feb-22	19-May-23	22
KD7-1010	Meander Bridge Subletting Works	30	27-Jan-22	08-Mar-22	28-Feb-22	02-Apr-22	22
KD7-1175	MS - Bridge Abutment (Temporary Works) Prep & Submit (14d), PM Review (21d), Resubmit (7d), Approval (21d)	64	08-Jun-22	22-Aug-22	11-Jul-22	23-Sep-22	27
KD7-1180	MS - Bridge Pier (Temporary Works) Prep & Submit (14d), PM Review (21d), Resubmit (7d), Approval (21d)	64	23-Aug-22	08-Nov-22	24-Sep-22	09-Dec-22	27
KD7-1185	MS - Bridge Superstructure (Temporary Works) Prep & Submit (14d), PM Review (21d), Resubmit (7d), Approval (21d)	64	03-Feb-23	22-Apr-23	01-Mar-23	19-May-23	22
KD7 - Preparation Works		54	26-Oct-21 A	22-Mar-22	02-Feb-22	21-Apr-22	10
KD7-1205	Meander Bridge - UU Detection	13	15-Nov-21 A	29-Nov-21 A	07-Feb-22	07-Feb-22	
KD7-1215	Meander Bridge - Protection of Existing furniture	7	12-Jan-22	19-Jan-22	18-Feb-22	25-Feb-22	27
KD7-1220	Meander Bridge - Preparation of TTA scheme and Arrangement of 1st TMLG	50	26-Oct-21 A	14-Dec-21 A	02-Feb-22	02-Feb-22	
KD7-1230	Meander Bridge - Obtain Approval of TTA Scheme form TMLG and RWA from RMO	19	01-Jan-22	19-Jan-22	02-Feb-22	20-Feb-22	32
KD7-1240	Meander Bridge - Trees removal and transplantation (5no. at MBA-01)	60	06-Jan-22	22-Mar-22	07-Feb-22	21-Apr-22	22
KD7-1250	Meander Bridge - Set-up Approved TTA for Abutment MBA-01	7	20-Jan-22	27-Jan-22	26-Feb-22	05-Mar-22	27
KD7-1260	Meander Bridge - Forming Access Road for Construction of MBA-01 and MBP-01A to MBP-01C at Old Meander of Shenzhen River	12	28-Jan-22	16-Feb-22	07-Mar-22	19-Mar-22	27
KD7-1270	Meander Bridge - Formation of New Haul Road for Construction of MBA-02	12	20-Jan-22	08-Feb-22	21-Feb-22	05-Mar-22	22
KD7-1280	Meander Bridge - Forming Access Road for Construction of MBA-02 and MBP-02A to MBP-02C at Old Meander of Shenzhen River	12	09-Feb-22	22-Feb-22	21-Mar-22	02-Apr-22	34
KD7 - Foundation		233	28-Jan-22	14-Nov-22	07-Mar-22	09-Dec-22	22
KD7-1290	Meander Bridge - Pre-drilling for MBA-02 (12 nr)	24	09-Feb-22	08-Mar-22	07-Mar-22	02-Apr-22	22
KD7-1300	Meander Bridge - Pre-drilling for MBP-02A-02C (6 nr)	12	09-Mar-22	22-Mar-22	04-Apr-22	21-Apr-22	22
KD7-1310	Meander Bridge - Setting up platform for Bore Pile works for MBA02 and MBP02A-02C	12	23-Mar-22	06-Apr-22	22-Apr-22	06-May-22	22
KD7-1320	Meander Bridge - Bored Pile for MBA02 and MBP02A-02C, incl. testing (18nrs @ 10d/pile/rig)	180	07-Apr-22	14-Nov-22	07-May-22	09-Dec-22	22
KD7-1330	Meander Bridge - Pre-drilling for MBP-01A-01C (6 nr)	12	28-Jan-22	16-Feb-22	07-Mar-22	19-Mar-22	27
KD7-1340	Meander Bridge - Pre-drilling for MBA-01 (12 nr)	24	17-Feb-22	16-Mar-22	21-Mar-22	21-Apr-22	27
KD7-1350	Meander Bridge - Setting up platform for Bore Pile works for MBA01 and MBP01A-01C	12	17-Mar-22	30-Mar-22	22-Apr-22	06-May-22	27
KD7-1360	Meander Bridge - Bored Pile for MBA01 and MBP01A-01C, incl. testing (18nrs @ 10d/pile/rig)	180	31-Mar-22	08-Nov-22	07-May-22	09-Dec-22	27
KD7 - Piers and Abutment		131	09-Nov-22	22-Apr-23	10-Dec-22	19-May-23	22
KD7-1370	Meander Bridge - ELS and Temporary Platfrom for Abutment MBA-01	24	09-Nov-22	06-Dec-22	10-Dec-22	10-Jan-23	27
KD7-1380	Meander Bridge - RC structure for Abutment MBA-01	21	07-Dec-22	03-Jan-23	11-Jan-23	08-Feb-23	27
KD7-1390	Meander Bridge - Forming Access and ELS for MBP-01A-01C	21	04-Jan-23	01-Feb-23	09-Feb-23	04-Mar-23	27
KD7-1400	Meander Bridge - Formwork, Reinforcement and Poncreting for Pile Cap and Pier of MBP-01-01C	44	02-Feb-23	24-Mar-23	06-Mar-23	29-Apr-23	27
KD7-1410	Meander Bridge - Backfilling to Formation Level	16	25-Mar-23	17-Apr-23	02-May-23	19-May-23	27
KD7-1420	Meander Bridge - ELS and Temporary Platfrom for Abutment MBA-02	24	15-Nov-22	12-Dec-22	10-Dec-22	10-Jan-23	22
KD7-1430	Meander Bridge - RC Structure for Abutment MBA-02	21	13-Dec-22	09-Jan-23	11-Jan-23	08-Feb-23	22
KD7-1440	Meander Bridge - Forming Access and ELS for MBP-02A-02C	21	10-Jan-23	07-Feb-23	09-Feb-23	04-Mar-23	22
KD7-1450	Meander Bridge - Formwork, Reinforcement and Poncreting for Pile Cap and Pier of MBP-02-02C	44	08-Feb-23	30-Mar-23	06-Mar-23	29-Apr-23	22
KD7-1460	Meander Bridge - Backfilling to Formation Level	16	31-Mar-23	22-Apr-23	02-May-23	19-May-23	22
KD7 - Bridge Deck		170	24-Apr-23	15-Nov-23	20-May-23	22-Dec-23	32
KD7-1470	Meander Bridge - Falsework and steel platform for construction of deck (CH905.135 to 971)	24	24-Apr-23	22-May-23	20-May-23	17-Jun-23	22
KD7-1480	Meander Bridge - Formwork, Reinforcement, E&M Ducting and Draining and Concreting for Bridge Deck (CH927.5 to 951)	48	23-May-23	20-Jul-23	19-Jun-23	15-Aug-23	22
KD7-1490	Meander Bridge - Bearings, Formwork, Reinforcement, Tendon, E&M Ducting, Glass Balustrades Cast-in	72	09-Jun-23	02-Sep-23	07-Jul-23	28-Sep-23	22
KD7-1500	Meander Bridge - Prestressing	14	04-Sep-23	19-Sep-23	29-Sep-23	17-Oct-23	22
KD7-1510	Meander Bridge - Removal of Formwork and Falsework for Bridge Deck (CH927.5 to 951)	6	20-Sep-23	26-Sep-23	18-Oct-23	25-Oct-23	22
KD7-1520	Meander Bridge - Removal of Formwork and Falsework for Bridge Deck (CH905.135 to 927.5 and CH951 to 971)	6	27-Sep-23	05-Oct-23	26-Oct-23	01-Nov-23	22
KD7-1530	Meander Bridge - Movement Joints Installation	6	06-Oct-23	12-Oct-23	02-Nov-23	08-Nov-23	22
KD7-1540	Meander Bridge - Construction of Road Surfaces, Covers, Barrier, Markings	28	13-Oct-23	15-Nov-23	21-Nov-23	22-Dec-23	32
KD7 - CLP Transformer Delivery Enabling Works		280	19-Dec-22	30-Nov-23	13-Jan-23	22-Dec-23	19
KD7-1005	CLP Power Cable Drawpit and Cross Road Ducts	280	19-Dec-22	30-Nov-23	13-Jan-23	22-Dec-23	19
KD7-2015	Meander Bridge - Tranformer Delivery Enabling Works	44	06-Oct-23	27-Nov-23	02-Nov-23	22-Dec-23	22
Key Date KD8 - Sewage Treatment Works (STW) Buildings		372	31-Aug-21 A	30-May-24	03-Jan-22	30-May-24	0
KD8-PC	Contract Key Date 8 (sd+1050) - Complete Civil and Structural Works of STW to allow E&M Installation	0		30-May-24		30-May-24	0
KD8 - Submissions		698	31-Aug-21 A	11-Jan-24	03-Jan-22	03-Feb-24	20
KD8-1000	STW - Sublet Designer and ICE	50	31-Aug-21 A	30-Oct-21 A	03-Jan-22	03-Jan-22	
KD8-1005	STW - Subletting of Works	47	30-Dec-21 A	01-Mar-22	09-Feb-22	01-Apr-22	27
KD8-1010	STW - Procurement of Materials	47	30-Dec-21 A	01-Mar-22	09-Feb-22	01-Apr-22	27
KD8 - Design		535	05-Nov-21 A	30-Aug-23	10-Jan-22	23-Sep-23	21
KD8-1015	STW - Design IWPTB (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	05-Nov-21 A	14-Jan-22	16-Feb-22	28-Feb-22	33
KD8-1020	STW - Design Bio-Reactor (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	05-Nov-21 A	14-Jan-22	10-Jan-22	21-Jan-22	6
KD8-1025	STW - Design Membrane Facilities (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	05-Nov-21 A	14-Jan-22	10-Jan-22	21-Jan-22	6
KD8-1030	STW - Design Sludge Treatment Blg (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	05-Nov-21 A	14-Jan-22	10-Jan-22	21-Jan-22	6
KD8-1035	STW - Design Chem. Storage & FH Pump Room Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	15-Jan-22	02-Jun-22	22-Jan-22	10-Jun-22	6
KD8-1040	STW - Design DOU No. 3 (Substructure TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	04-Jun-22	12-Oct-22	11-Jun-22	19-Oct-22	6
KD8-1045	STW - Design Admin Bldg (Foundation) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	13-Oct-22	23-Feb-23	20-Oct-22	02-Mar-23	6
KD8-1050	STW - Design Admin Bldg (Foundation TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	13-Oct-22	23-Feb-23	31-Dec-22	17-May-23	66
KD8-1055	STW - Design Admin Bldg (MiC) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	24-Feb-23	08-Jul-23	18-May-23	23-Sep-23	66
KD8-1060	STW - Design EB Plant Room (Foundation) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	24-Feb-23	08-Jul-23	20-Mar-23	01-Aug-23	20
KD8-1065	STW - Design EB Plant Room (Foundation TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	24-Feb-23	08-Jul-23	20-Mar-23	01-Aug-23	20
KD8-1070	STW - Design EB Plant Room (Superstructure) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	22-Apr-23	30-Aug-23	17-May-23	22-Sep-23	20
KD8-1075	STW - Design Fence Wall (Substructure TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	13-Oct-22	23-Feb-23	20-Oct-22	02-Mar-23	6
KD8 - Method Statement		586	15-Jan-22	11-Jan-24	22-Jan-22	03-Feb-24	20
KD8-1330	STW - MS IWPTB (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	15-Jan-22	29-Mar-22	01-Mar-22	13-May-22	33
KD8-1335	STW - MS Bio-Reactor (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	15-Jan-22	29-Mar-22	22-Jan-22	06-Apr-22	6
KD8-1340	STW - MS Membrane Facilities (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	30-Mar-22	13-Jun-22	07-Apr-22	20-Jun-22	6
KD8-1345	STW - MS Sludge Treatment Blg (Substructure TW) Prep & Submit, PM Review, Resubmit, Approval	58	30-Mar-22	13-Jun-22	11-Jun-22	18-Aug-22	56
KD8-1350	STW - MS Chem. Storage & FH Pump Room Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	04-Jun-22	12-Oct-22	11-Jun-22	19-Oct-22	6
KD8-1355	STW - MS DOU No. 3 (Substructure TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	13-Oct-22	23-Feb-23	20-Oct-22	02-Mar-23	6



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
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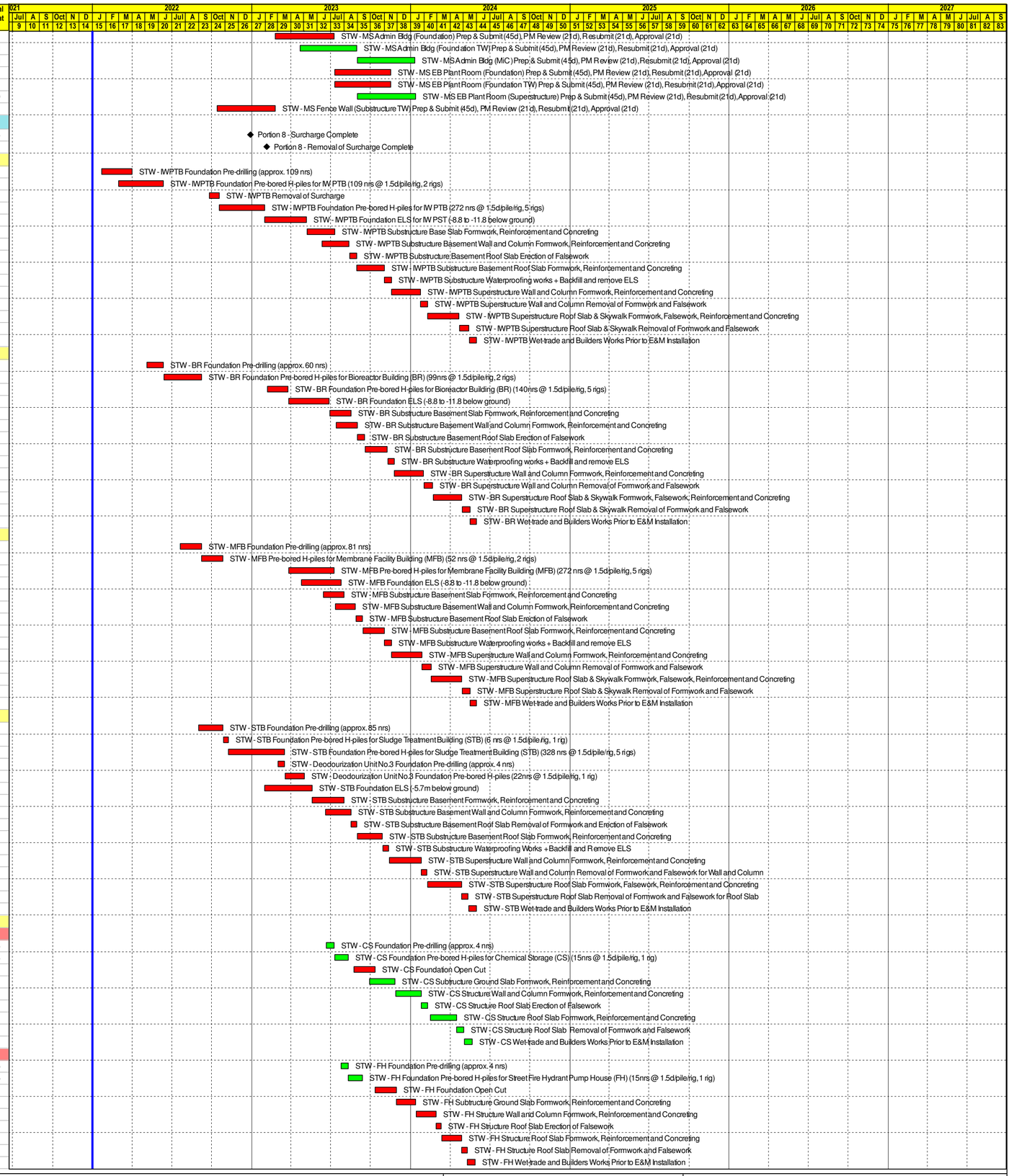
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 9 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
KD8-1360	STW - MS Admin Bldg (Foundation) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	24-Feb-23	08-Jul-23	03-Mar-23	15-Jul-23	6
KD8-1365	STW - MS Admin Bldg (Foundation TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	22-Apr-23	30-Aug-23	18-May-23	23-Sep-23	21
KD8-1370	STW - MS Admin Bldg (MiC) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	31-Aug-23	10-Jan-24	25-Sep-23	03-Feb-24	21
KD8-1375	STW - MS EB Plant Room (Foundation) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	10-Jul-23	15-Nov-23	17-Jul-23	22-Nov-23	6
KD8-1380	STW - MS EB Plant Room (Foundation TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	10-Jul-23	15-Nov-23	17-Jul-23	22-Nov-23	6
KD8-1385	STW - MS EB Plant Room (Superstructure) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	109	31-Aug-23	11-Jan-24	23-Sep-23	03-Feb-24	20
KD8-1390	STW - MS Fence Wall (Substructure TW) Prep & Submit (45d), PM Review (21d), Resubmit (21d), Approval (21d)	108	13-Oct-22	23-Feb-23	20-Oct-22	02-Mar-23	6
KD8 - Construction		690	22-Jan-22	30-May-24	22-Jan-22	30-May-24	0
S8-4240	Portion 8 - Surcharge Complete	0		28-Dec-22		30-Jan-23	23
S8-4250	Portion 8 - Removal of Surcharge Complete	0				04-Feb-23	0
KD8 - Inlet Works and Primary Treatment Building (IWPTB)		690	22-Jan-22	30-May-24	22-Jan-22	30-May-24	0
KD8-2014	STW - IWPTB Foundation Pre-drilling (approx. 109 nrs)	55	22-Jan-22	01-Apr-22	22-Jan-22	01-Apr-22	0
KD8-2015	STW - IWPTB Foundation Pre-bored H-piles for IW PTB (109 nrs @ 1.5d/pile/rig, 2 rigs)	82	01-Mar-22	11-Jun-22	01-Mar-22	11-Jun-22	0
KD8-2016	STW - IWPTB Removal of Surcharge	18	26-Sep-22	18-Oct-22	26-Sep-22	18-Oct-22	0
KD8-2020	STW - IWPTB Foundation Pre-bored H-piles for IW PTB (272 nrs @ 1.5d/pile/rig, 5 rigs)	82	19-Oct-22	30-Jan-23	19-Oct-22	30-Jan-23	0
KD8-2030	STW - IWPTB Foundation ELS for IW PST (-8.8 to -11.8 below ground)	78	31-Jan-23	06-May-23	31-Jan-23	06-May-23	0
KD8-2040	STW - IWPTB Substructure Base Slab Formwork, Reinforcement and Concreting	52	08-May-23	10-Jul-23	08-May-23	10-Jul-23	0
KD8-2050	STW - IWPTB Substructure Basement Wall and Column Formwork, Reinforcement and Concreting	52	12-Jun-23	12-Aug-23	12-Jun-23	12-Aug-23	0
KD8-2060	STW - IWPTB Substructure Basement Roof Slab Erection of Falsework	14	14-Aug-23	29-Aug-23	14-Aug-23	29-Aug-23	0
KD8-2070	STW - IWPTB Substructure Basement Roof Slab Formwork, Reinforcement and Concreting	52	30-Aug-23	01-Nov-23	30-Aug-23	01-Nov-23	0
KD8-2080	STW - IWPTB Substructure Waterproofing works + Backfill and remove ELS	14	02-Nov-23	17-Nov-23	02-Nov-23	17-Nov-23	0
KD8-2090	STW - IWPTB Superstructure Wall and Column Formwork, Reinforcement and Concreting	54	18-Nov-23	23-Jan-24	18-Nov-23	23-Jan-24	0
KD8-2100	STW - IWPTB Superstructure Wall and Column Removal of Formwork and Falsework	14	24-Jan-24	08-Feb-24	24-Jan-24	08-Feb-24	0
KD8-2110	STW - IWPTB Superstructure Roof Slab & Skywalk Formwork, Falsework, Reinforcement and Concreting	54	09-Feb-24	20-Apr-24	09-Feb-24	20-Apr-24	0
KD8-2120	STW - IWPTB Superstructure Roof Slab & Skywalk Removal of Formwork and Falsework	18	22-Apr-24	13-May-24	22-Apr-24	13-May-24	0
KD8-2130	STW - IWPTB Wet-trade and Builders Works Prior to E&M Installation	14	14-May-24	30-May-24	14-May-24	30-May-24	0
KD8 - Bio-Reactor (BRB)		611	06-May-22	30-May-24	06-May-22	30-May-24	0
KD8-1195	STW - BR Foundation Pre-drilling (approx. 60 nrs)	30	06-May-22	11-Jun-22	06-May-22	11-Jun-22	0
KD8-1196	STW - BR Foundation Pre-bored H-piles for Bioreactor Building (BR) (99nrs @ 1.5d/pile/rig, 2 rigs)	74	13-Jun-22	07-Sep-22	13-Jun-22	07-Sep-22	0
KD8-2000	STW - BR Foundation Pre-bored H-piles for Bioreactor Building (BR) (140nrs @ 1.5d/pile/rig, 5 rigs)	42	06-Feb-23	25-Mar-23	06-Feb-23	25-Mar-23	0
KD8-2140	STW - BR Foundation ELS (-8.8 to -11.8 below ground)	74	27-Mar-23	28-Jun-23	27-Mar-23	28-Jun-23	0
KD8-2150	STW - BR Substructure Basement Slab Formwork, Reinforcement and Concreting	42	29-Jun-23	17-Aug-23	29-Jun-23	17-Aug-23	0
KD8-2160	STW - BR Substructure Basement Wall and Column Formwork, Reinforcement and Concreting	42	14-Jul-23	31-Aug-23	14-Jul-23	31-Aug-23	0
KD8-2170	STW - BR Substructure Basement Roof Slab Erection of Falsework	14	01-Sep-23	16-Sep-23	01-Sep-23	16-Sep-23	0
KD8-2180	STW - BR Substructure Basement Roof Slab Formwork, Reinforcement and Concreting	42	18-Sep-23	08-Nov-23	18-Sep-23	08-Nov-23	0
KD8-2190	STW - BR Substructure Waterproofing works + Backfill and remove ELS	14	09-Nov-23	24-Nov-23	09-Nov-23	24-Nov-23	0
KD8-2200	STW - BR Superstructure Wall and Column Formwork, Reinforcement and Concreting	54	25-Nov-23	30-Jan-24	25-Nov-23	30-Jan-24	0
KD8-2210	STW - BR Superstructure Wall and Column Removal of Formwork and Falsework	14	31-Jan-24	20-Feb-24	31-Jan-24	20-Feb-24	0
KD8-2220	STW - BR Superstructure Roof Slab & Skywalk Formwork, Falsework, Reinforcement and Concreting	54	21-Feb-24	27-Apr-24	21-Feb-24	27-Apr-24	0
KD8-2230	STW - BR Superstructure Roof Slab & Skywalk Removal of Formwork and Falsework	14	29-Apr-24	16-May-24	29-Apr-24	16-May-24	0
KD8-2240	STW - BR Wet-trade and Builders Works Prior to E&M Installation	12	17-May-24	30-May-24	17-May-24	30-May-24	0
KD8 - Membrane Facility Building (MFB)		549	21-Jul-22	30-May-24	21-Jul-22	30-May-24	0
KD8-2004	STW - MFB Foundation Pre-drilling (approx. 81 nrs)	42	21-Jul-22	07-Sep-22	21-Jul-22	07-Sep-22	0
KD8-2005	STW - MFB Pre-bored H-piles for Membrane Facility Building (MFB) (52 nrs @ 1.5d/pile/rig, 2 rigs)	40	08-Sep-22	27-Oct-22	08-Sep-22	27-Oct-22	0
KD8-2010	STW - MFB Pre-bored H-piles for Membrane Facility Building (MFB) (272 nrs @ 1.5d/pile/rig, 5 rigs)	82	27-Mar-23	08-Jul-23	27-Mar-23	08-Jul-23	0
KD8-2250	STW - MFB Foundation ELS (-8.8 to -11.8 below ground)	75	25-Apr-23	25-Jul-23	25-Apr-23	25-Jul-23	0
KD8-2260	STW - MFB Substructure Basement Slab Formwork, Reinforcement and Concreting	40	14-Jun-23	01-Aug-23	14-Jun-23	01-Aug-23	0
KD8-2270	STW - MFB Substructure Basement Wall and Column Formwork, Reinforcement and Concreting	40	12-Jul-23	26-Aug-23	12-Jul-23	26-Aug-23	0
KD8-2280	STW - MFB Substructure Basement Roof Slab Erection of Falsework	14	28-Aug-23	12-Sep-23	28-Aug-23	12-Sep-23	0
KD8-2290	STW - MFB Substructure Basement Roof Slab Formwork, Reinforcement and Concreting	40	13-Sep-23	01-Nov-23	13-Sep-23	01-Nov-23	0
KD8-2300	STW - MFB Substructure Waterproofing works + Backfill and remove ELS	14	02-Nov-23	17-Nov-23	02-Nov-23	17-Nov-23	0
KD8-2310	STW - MFB Superstructure Wall and Column Formwork, Reinforcement and Concreting	57	18-Nov-23	26-Jan-24	18-Nov-23	26-Jan-24	0
KD8-2320	STW - MFB Superstructure Wall and Column Removal of Formwork and Falsework	14	27-Jan-24	16-Feb-24	27-Jan-24	16-Feb-24	0
KD8-2330	STW - MFB Superstructure Roof Slab & Skywalk Formwork, Falsework, Reinforcement and Concreting	57	17-Feb-24	27-Apr-24	17-Feb-24	27-Apr-24	0
KD8-2340	STW - MFB Superstructure Roof Slab & Skywalk Removal of Formwork and Falsework	14	29-Apr-24	16-May-24	29-Apr-24	16-May-24	0
KD8-2350	STW - MFB Wet-trade and Builders Works Prior to E&M Installation	12	17-May-24	30-May-24	17-May-24	30-May-24	0
KD8 - Sludge Treatment Building (STB)		512	02-Sep-22	30-May-24	02-Sep-22	30-May-24	0
KD8-2352	STW - STB Foundation Pre-drilling (approx. 85 nrs)	45	02-Sep-22	27-Oct-22	02-Sep-22	27-Oct-22	0
KD8-2354	STW - STB Foundation Pre-bored H-piles for Sludge Treatment Building (STB) (6 nrs @ 1.5d/pile/rig, 1 rig)	10	28-Oct-22	08-Nov-22	28-Oct-22	08-Nov-22	0
KD8-2355	STW - STB Foundation Pre-bored H-piles for Sludge Treatment Building (STB) (328 nrs @ 1.5d/pile/rig, 5 rigs)	104	09-Nov-22	17-Mar-23	09-Nov-22	17-Mar-23	0
KD8-2375	STW - Deodourization Unit No.3 Foundation Pre-drilling (approx. 4 nrs)	14	02-Mar-23	17-Mar-23	04-Mar-23	20-Mar-23	2
KD8-2380	STW - Deodourization Unit No.3 Foundation Pre-bored H-piles (22nrs @ 1.5d/pile/rig, 1 rig)	34	18-Mar-23	02-May-23	21-Mar-23	04-May-23	2
KD8-2400	STW - STB Foundation ELS (-5.7m below ground)	90	30-Jan-23	19-May-23	30-Jan-23	19-May-23	0
KD8-2420	STW - STB Substructure Basement Formwork, Reinforcement and Concreting	60	20-May-23	01-Aug-23	20-May-23	01-Aug-23	0
KD8-2430	STW - STB Substructure Basement Wall and Column Formwork, Reinforcement and Concreting	48	20-Jun-23	16-Aug-23	20-Jun-23	16-Aug-23	0
KD8-2440	STW - STB Substructure Basement Roof Slab Removal of Formwork and Erection of Falsework	12	17-Aug-23	30-Aug-23	17-Aug-23	30-Aug-23	0
KD8-2450	STW - STB Substructure Basement Roof Slab Formwork, Reinforcement and Concreting	48	31-Aug-23	28-Oct-23	31-Aug-23	28-Oct-23	0
KD8-2460	STW - STB Substructure Waterproofing Works + Backfill and Remove ELS	12	30-Oct-23	11-Nov-23	30-Oct-23	11-Nov-23	0
KD8-2480	STW - STB Superstructure Wall and Column Formwork, Reinforcement and Concreting	60	13-Nov-23	24-Jan-24	13-Nov-23	24-Jan-24	0
KD8-2490	STW - STB Superstructure Wall and Column Removal of Formwork and Falsework for Wall and Column	12	25-Jan-24	07-Feb-24	25-Jan-24	07-Feb-24	0
KD8-2500	STW - STB Superstructure Roof Slab Formwork, Falsework, Reinforcement and Concreting	60	08-Feb-24	26-Apr-24	08-Feb-24	26-Apr-24	0
KD8-2510	STW - STB Superstructure Roof Slab Removal of Formwork and Falsework for Roof Slab	12	27-Apr-24	11-May-24	27-Apr-24	11-May-24	0
KD8-2520	STW - STB Wet-trade and Builders Works Prior to E&M Installation	15	13-May-24	30-May-24	13-May-24	30-May-24	0
KD8 - Chemical Storage (CSR) and Fire Hose Pump Room (SFHPR)		276	21-Jun-23	28-May-24	08-Jul-23	30-May-24	2
KD8 - Chemical Storage (CS)		270	21-Jun-23	21-May-24	08-Jul-23	30-May-24	8
KD8-2358	STW - CS Foundation Pre-drilling (approx. 4 nrs)	14	21-Jun-23	08-Jul-23	08-Jul-23	24-Jul-23	13
KD8-2360	STW - CS Foundation Pre-bored H-piles for Chemical Storage (CS) (15nrs @ 1.5d/pile/rig, 1 rig)	28	10-Jul-23	10-Aug-23	25-Jul-23	25-Aug-23	13
KD8-2410	STW - CS Foundation Open Cut	40	24-Aug-23	11-Oct-23	26-Aug-23	13-Oct-23	2
KD8-2470	STW - CS Substructure Ground Slab Formwork, Reinforcement and Concreting	48	28-Sep-23	25-Nov-23	10-Oct-23	05-Dec-23	8
KD8-2530	STW - CS Structure Wall and Column Formwork, Reinforcement and Concreting	48	27-Nov-23	24-Jan-24	06-Dec-23	02-Feb-24	8
KD8-2540	STW - CS Structure Roof Slab Erection of Falsework	14	25-Jan-24	09-Feb-24	03-Feb-24	23-Feb-24	8
KD8-2550	STW - CS Structure Roof Slab Formwork, Reinforcement and Concreting	48	15-Feb-24	15-Apr-24	24-Feb-24	24-Apr-24	8
KD8-2560	STW - CS Structure Roof Slab Removal of Formwork and Falsework	14	16-Apr-24	02-May-24	25-Apr-24	11-May-24	8
KD8-2570	STW - CS Wet-trade and Builders Works Prior to E&M Installation	15	03-May-24	21-May-24	13-May-24	30-May-24	8
KD8 - Fire Hose Pump House (FH)		248	26-Jul-23	28-May-24	24-Aug-23	30-May-24	2
KD8-2365	STW - FH Foundation Pre-drilling (approx. 4 nrs)	14	26-Jul-23	10-Aug-23	24-Aug-23	08-Sep-23	25
KD8-2370	STW - FH Foundation Pre-bored H-piles for Street Fire Hydrant Pump House (FH) (15nrs @ 1.5d/pile/rig, 1 rig)	28	11-Aug-23	12-Sep-23	09-Sep-23	13-Oct-23	25
KD8-2590	STW - FH Foundation Open Cut	40	12-Oct-23	28-Nov-23	14-Oct-23	30-Nov-23	2
KD8-2600	STW - FH Substructure Ground Slab Formwork, Reinforcement and Concreting	36	29-Nov-23	12-Jan-24	01-Dec-23	15-Jan-24	2
KD8-2610	STW - FH Structure Wall and Column Formwork, Reinforcement and Concreting	36	13-Jan-24	28-Feb-24	16-Jan-24	01-Mar-24	2
KD8-2620	STW - FH Structure Roof Slab Erection of Falsework	10	29-Feb-24	11-Mar-24	02-Mar-24	13-Mar-24	2
KD8-2630	STW - FH Structure Roof Slab Formwork, Reinforcement and Concreting	36	12-Mar-24	26-Apr-24	14-Mar-24	29-Apr-24	2
KD8-2640	STW - FH Structure Roof Slab Removal of Formwork and Falsework	10	27-Apr-24	09-May-24	30-Apr-24	11-May-24	2
KD8-2650	STW - FH Wet-trade and Builders Works Prior to E&M Installation	15	10-May-24	28-May-24	13-May-24	30-May-24	2



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

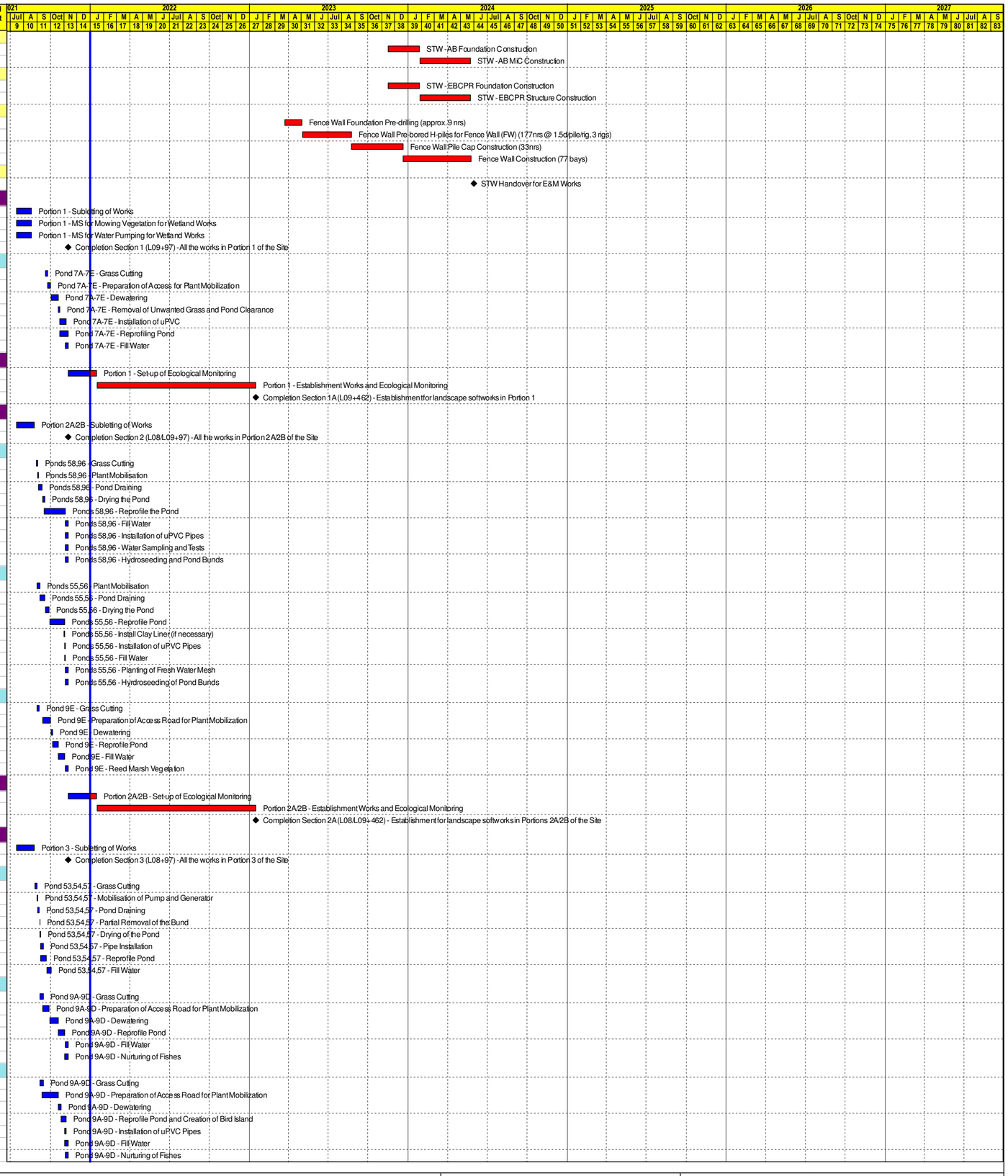
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 10 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
KD8 - Administration Building (AB)		150	16-Nov-23	23-May-24	23-Nov-23	30-May-24	6
KD8-2575	STW - AB Foundation Construction	60	16-Nov-23	27-Jan-24	23-Nov-23	03-Feb-24	6
KD8-2580	STW - AB M/C Construction	90	29-Jan-24	23-May-24	05-Feb-24	30-May-24	6
KD8 - Effluent-based Cooling Plant Room (EBCPR)		150	16-Nov-23	23-May-24	23-Nov-23	30-May-24	6
KD8-2700	STW - EBCPR Foundation Construction	60	16-Nov-23	27-Jan-24	23-Nov-23	03-Feb-24	6
KD8-2710	STW - EBCPR Structure Construction	90	29-Jan-24	23-May-24	05-Feb-24	30-May-24	6
KD8 - Fence Wall		344	23-Mar-23	24-May-24	25-Mar-23	30-May-24	5
KD8-2385	Fence Wall Foundation Pre-drilling (approx.9 nrs)	30	23-Mar-23	02-May-23	25-Mar-23	04-May-23	2
KD8-2390	Fence Wall Pre-bored H-piles for Fence Wall (FW) (177nrs @ 1.5d/pile/rig, 3 rigs)	94	03-May-23	23-Aug-23	05-May-23	25-Aug-23	2
KD8-2680	Fence Wall Pile Cap Construction (33nrs)	99	24-Aug-23	20-Dec-23	30-Aug-23	28-Dec-23	5
KD8-2690	Fence Wall Construction (77 bays)	121	21-Dec-23	24-May-24	29-Dec-23	30-May-24	5
KD8 - STW Handover		0	30-May-24	30-May-24	30-May-24	30-May-24	0
KD8-1235	STW Handover for E&M Works	0		30-May-24		30-May-24	0
Section 1 - Wetland Compensation Works at Portion 1		41	15-Jul-21 A	11-Nov-21 A	29-Oct-21	15-Mar-24	
S1-1000	Portion 1 - Subletting of Works	30	15-Jul-21 A	18-Aug-21 A	29-Oct-21	29-Oct-21	
S1-1005	Portion 1 - MS for Mowing Vegetation for Wetland Works	30	15-Jul-21 A	18-Aug-21 A	15-Mar-24	15-Mar-24	
S1-1010	Portion 1 - MS for Water Pumping for Wetland Works	30	15-Jul-21 A	18-Aug-21 A	15-Mar-24	15-Mar-24	
S1-PC	Completion Section 1 (L09+97) - All the works in Portion 1 of the Site	0		11-Nov-21 A		15-Mar-24	
Ponds 7A,7B,7C,7D,7E		43	20-Sep-21 A	11-Nov-21 A	29-Oct-21	29-Oct-21	
S1-1015	Pond 7A-7E - Grass Cutting	4	20-Sep-21 A	24-Sep-21 A	29-Oct-21	29-Oct-21	
S1-1020	Pond 7A-7E - Preparation of Access for Plant Mobilization	5	25-Sep-21 A	30-Sep-21 A	29-Oct-21	29-Oct-21	
S1-1025	Pond 7A-7E - Dewatering	13	02-Oct-21 A	18-Oct-21 A	29-Oct-21	29-Oct-21	
S1-1030	Pond 7A-7E - Removal of Unwanted Grass and Pond Clearance	4	19-Oct-21 A	22-Oct-21 A	29-Oct-21	29-Oct-21	
S1-1035	Pond 7A-7E - Installation of uPVC	13	23-Oct-21 A	06-Nov-21 A	29-Oct-21	29-Oct-21	
S1-1040	Pond 7A-7E - Reprofiling Pond	16	23-Oct-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
S1-1045	Pond 7A-7E - Fill Water	6	05-Nov-21 A	11-Nov-21 A	29-Oct-21	29-Oct-21	
Section 1A - Wetland Compensation Establishment Works at Portion 1		431	11-Nov-21 A	15-Jan-23	14-Oct-21	28-Oct-22	-79
S1A-1000	Portion 1 - Set-up of Ecological Monitoring	66	11-Nov-21 A	15-Jan-22	14-Oct-21	28-Oct-21	-79
S1A-2000	Portion 1 - Establishment Works and Ecological Monitoring	365	16-Jan-22	15-Jan-23	29-Oct-21	28-Oct-22	-79
S1A-PC	Completion Section 1A (L09+462) - Establishment for landscape softworks in Portion 1	0		15-Jan-23		28-Oct-22	-79
Section 2 - Wetland Compensation Works at Portion 2A/2B		41	15-Jul-21 A	11-Nov-21 A	29-Oct-21	15-Mar-24	
S2-1000	Portion 2A/2B - Subletting of Works	35	15-Jul-21 A	24-Aug-21 A	29-Oct-21	29-Oct-21	
S2-PC	Completion Section 2 (L08/L09+97) - All the works in Portion 2 A/2B of the Site	0		11-Nov-21 A		15-Mar-24	
Portion 2A - Ponds 58,96		60	30-Aug-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
S2-1010	Ponds 58,96 - Grass Cutting	3	30-Aug-21 A	01-Sep-21 A	29-Oct-21	29-Oct-21	
S2-1030	Ponds 58,96 - Plant Mobilisation	2	02-Sep-21 A	03-Sep-21 A	29-Oct-21	29-Oct-21	
S2-1040	Ponds 58,96 - Pond Draining	7	04-Sep-21 A	11-Sep-21 A	29-Oct-21	29-Oct-21	
S2-1050	Ponds 58,96 - Drying the Pond	5	13-Sep-21 A	17-Sep-21 A	29-Oct-21	29-Oct-21	
S2-1055	Ponds 58,96 - Reprofile the Pond	39	17-Sep-21 A	04-Nov-21 A	29-Oct-21	29-Oct-21	
S2-1060	Ponds 58,96 - Fill Water	5	05-Nov-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
S2-1065	Ponds 58,96 - Installation of uPVC Pipes	5	05-Nov-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
S2-1070	Ponds 58,96 - Water Sampling and Tests	5	05-Nov-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
S2-1075	Ponds 58,96 - Hydroseeding and Pond Bunds	6	04-Nov-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
Portion 2A - Ponds 55,56		58	01-Sep-21 A	10-Nov-21 A	15-Mar-24	15-Mar-24	
S2-1080	Ponds 55,56 - Plant Mobilisation	5	01-Sep-21 A	06-Sep-21 A	15-Mar-24	15-Mar-24	
S2-1085	Ponds 55,56 - Pond Draining	11	07-Sep-21 A	18-Sep-21 A	15-Mar-24	15-Mar-24	
S2-1090	Ponds 55,56 - Drying the Pond	7	20-Sep-21 A	28-Sep-21 A	15-Mar-24	15-Mar-24	
S2-1095	Ponds 55,56 - Reprofile Pond	28	29-Sep-21 A	02-Nov-21 A	15-Mar-24	15-Mar-24	
S2-1100	Ponds 55,56 - Install Clay Liner (if necessary)	3	01-Nov-21 A	03-Nov-21 A	15-Mar-24	15-Mar-24	
S2-1105	Ponds 55,56 - Installation of uPVC Pipes	2	03-Nov-21 A	04-Nov-21 A	15-Mar-24	15-Mar-24	
S2-1110	Ponds 55,56 - Fill Water	2	03-Nov-21 A	04-Nov-21 A	15-Mar-24	15-Mar-24	
S2-1115	Ponds 55,56 - Planting of Fresh Water Mesh	5	05-Nov-21 A	10-Nov-21 A	15-Mar-24	15-Mar-24	
S2-1120	Ponds 55,56 - Hydroseeding of Pond Bunds	5	05-Nov-21 A	10-Nov-21 A	15-Mar-24	15-Mar-24	
Portion 2B - Pond 9E		60	31-Aug-21 A	11-Nov-21 A	29-Oct-21	29-Oct-21	
S2-1005	Pond 9E - Grass Cutting	5	31-Aug-21 A	04-Sep-21 A	29-Oct-21	29-Oct-21	
S2-1015	Pond 9E - Preparation of Access Road for Plant Mobilization	15	13-Sep-21 A	30-Sep-21 A	29-Oct-21	29-Oct-21	
S2-1020	Pond 9E - Dewatering	3	02-Oct-21 A	05-Oct-21 A	29-Oct-21	29-Oct-21	
S2-1025	Pond 9E - Reprofile Pond	10	06-Oct-21 A	18-Oct-21 A	29-Oct-21	29-Oct-21	
S2-1035	Pond 9E - Fill Water	14	19-Oct-21 A	03-Nov-21 A	29-Oct-21	29-Oct-21	
S2-1045	Pond 9E - Reed Marsh Vegetation	7	04-Nov-21 A	11-Nov-21 A	29-Oct-21	29-Oct-21	
Section 2A - Wetland Compensation Establishment Works at Portion 2A/2B		431	11-Nov-21 A	15-Jan-23	14-Oct-21	28-Oct-22	-79
S2A-1000	Portion 2A/2B - Set-up of Ecological Monitoring	66	11-Nov-21 A	15-Jan-22	14-Oct-21	28-Oct-21	-79
S2A-2000	Portion 2A/2B - Establishment Works and Ecological Monitoring	365	16-Jan-22	15-Jan-23	29-Oct-21	28-Oct-22	-79
S2A-PC	Completion Section 2A (L08/L09+462) - Establishment for landscape softworks in Portions 2A/2B of the Site	0		15-Jan-23		28-Oct-22	-79
Section 3 - Wetland Compensation Works at Portion 3		41	15-Jul-21 A	11-Nov-21 A	29-Oct-21	15-Mar-24	
S3-1000	Portion 3 - Subletting of Works	35	15-Jul-21 A	24-Aug-21 A	29-Oct-21	29-Oct-21	
S3-PC	Completion Section 3 (L08+97) - All the works in Portion 3 of the Site	0		11-Nov-21 A		15-Mar-24	
Portio 3 - Ponds 53,54,57		31	26-Aug-21 A	02-Oct-21 A	29-Oct-21	29-Oct-21	
S3-1005	Pond 53,54,57 - Grass Cutting	5	26-Aug-21 A	31-Aug-21 A	29-Oct-21	29-Oct-21	
S3-1010	Pond 53,54,57 - Mobilisation of Pump and Generator	2	31-Aug-21 A	01-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1015	Pond 53,54,57 - Pond Draining	3	02-Sep-21 A	04-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1020	Pond 53,54,57 - Partial Removal of the Bund	1	06-Sep-21 A	06-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1025	Pond 53,54,57 - Drying of the Pond	3	06-Sep-21 A	08-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1030	Pond 53,54,57 - Pipe Installation	5	09-Sep-21 A	14-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1035	Pond 53,54,57 - Reprofile Pond	11	09-Sep-21 A	21-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1040	Pond 53,54,57 - Fill Water	8	23-Sep-21 A	02-Oct-21 A	29-Oct-21	29-Oct-21	
Portion 3 - Ponds 9A		53	07-Sep-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
S3-1045	Pond 9A-9D - Grass Cutting	7	07-Sep-21 A	14-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1050	Pond 9A-9D - Preparation of Access Road for Plant Mobilization	13	13-Sep-21 A	28-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1055	Pond 9A-9D - Dewatering	15	29-Sep-21 A	18-Oct-21 A	29-Oct-21	29-Oct-21	
S3-1060	Pond 9A-9D - Reprofile Pond	14	19-Oct-21 A	03-Nov-21 A	29-Oct-21	29-Oct-21	
S3-1070	Pond 9A-9D - Fill Water	6	04-Nov-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
S3-1075	Pond 9A-9D - Nurturing of Fishes	7	03-Nov-21 A	10-Nov-21 A	29-Oct-21	29-Oct-21	
Portion 3 - Ponds 9B,9C, and 9D		54	07-Sep-21 A	11-Nov-21 A	29-Oct-21	29-Oct-21	
S3-1085	Pond 9A-9D - Grass Cutting	7	07-Sep-21 A	14-Sep-21 A	29-Oct-21	29-Oct-21	
S3-1095	Pond 9A-9D - Preparation of Access Road for Plant Mobilization	29	11-Sep-21 A	18-Oct-21 A	29-Oct-21	29-Oct-21	
S3-1105	Pond 9A-9D - Dewatering	6	19-Oct-21 A	25-Oct-21 A	29-Oct-21	29-Oct-21	
S3-1115	Pond 9A-9D - Reprofile Pond and Creation of Bird Island	10	26-Oct-21 A	05-Nov-21 A	29-Oct-21	29-Oct-21	
S3-1125	Pond 9A-9D - Installation of uPVC Pipes	4	02-Nov-21 A	05-Nov-21 A	29-Oct-21	29-Oct-21	
S3-1135	Pond 9A-9D - Fill Water	8	03-Nov-21 A	11-Nov-21 A	29-Oct-21	29-Oct-21	
S3-1145	Pond 9A-9D - Nurturing of Fishes	6	05-Nov-21 A	11-Nov-21 A	29-Oct-21	29-Oct-21	



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
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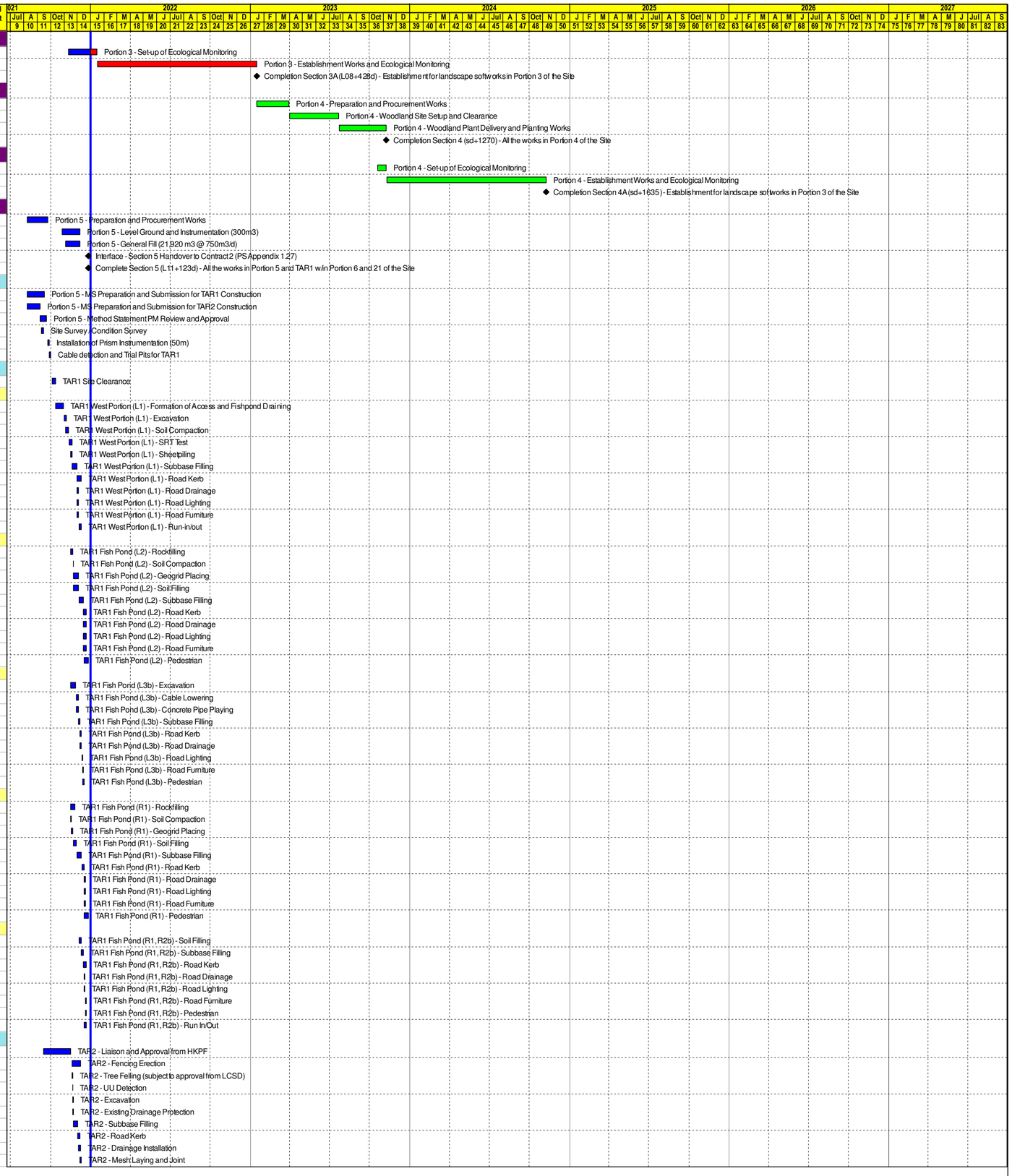
Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
Section 3A - Wetland Compensation Establishment Works at Portion 3		431	11-Nov-21 A	15-Jan-23	14-Oct-21	28-Oct-22	-79
S3A-1000	Portion 3 - Set-up of Ecological Monitoring	66	11-Nov-21 A	15-Jan-22	14-Oct-21	28-Oct-21	-79
S3A-2000	Portion 3 - Establishment Works and Ecological Monitoring	365	16-Jan-22	15-Jan-23	29-Oct-21	28-Oct-22	-79
S3A-PC	Completion Section 3A (L08+428d) - Establishment for landscape softworks in Portion 3 of the Site	0		15-Jan-23		28-Oct-22	-79
Section 4 - Woodland Compensation Works at Portion 4		116	16-Jan-23	08-Nov-23	15-Mar-24	05-Jan-25	165
S4-1000	Portion 4 - Preparation and Procurement Works	60	16-Jan-23	30-Mar-23	15-Mar-24	30-May-24	342
S4-1005	Portion 4 - Woodland Site Setup and Clearance	90	31-Mar-23	22-Jul-23	31-May-24	14-Sep-24	342
S4-1010	Portion 4 - Woodland Plant Delivery and Planting Works	90	24-Jul-23	08-Nov-23	16-Sep-24	04-Jan-25	342
S4-PC	Completion Section 4 (sd+1270) - All the works in Portion 4 of the Site	0		08-Nov-23		05-Jan-25	424
Section 4A - Woodland Compensation Establishment Works at Portion 4		386	19-Oct-23	07-Nov-24	16-Dec-24	05-Jan-26	424
S4A-1000	Portion 4 - Set-up of Ecological Monitoring	21	19-Oct-23	08-Nov-23	16-Dec-24	05-Jan-25	424
S4A-2000	Portion 4 - Establishment Works and Ecological Monitoring	365	09-Nov-23	07-Nov-24	06-Jan-25	05-Jan-26	424
S4A-PC	Completion Section 4A (sd+1635) - Establishment for landscape softworks in Portion 3 of the Site	0		07-Nov-24		05-Jan-26	424
Section 5 - Temporary Access Road (TAR1 & TAR2)		50	09-Aug-21 A	26-Dec-21 A	11-Nov-25	12-Nov-26	
S5-1010	Portion 5 - Preparation and Procurement Works	40	09-Aug-21 A	24-Sep-21 A	11-Nov-25	11-Nov-25	
S5-1040	Portion 5 - Level Ground and Instrumentation (300m3)	36	27-Oct-21 A	07-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1070	Portion 5 - General Fill (21,920 m3 @ 750m3/d)	28	05-Nov-21 A	07-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1090	Interface - Section 5 Handover to Contract 2 (PS Appendix 1.27)	0		26-Dec-21 A		12-Nov-26	
S5-PC	Complete Section 5 (L11+123d) - All the works in Portion 5 and TAR1 w/in Portion 6 and 21 of the Site	0		26-Dec-21 A		11-Nov-25	
S5 TAR1 & TAR2 Preparation Works (with TTA Scheme)		45	09-Aug-21 A	30-Sep-21 A	11-Nov-25	11-Nov-25	
S5-1000	Portion 5 - MS Preparation and Submission for TAR1 Construction	34	09-Aug-21 A	16-Sep-21 A	11-Nov-25	11-Nov-25	
S5-1020	Portion 5 - MS Preparation and Submission for TAR2 Construction	25	09-Aug-21 A	06-Sep-21 A	11-Nov-25	11-Nov-25	
S5-1030	Portion 5 - Method Statement PM Review and Approval	14	06-Sep-21 A	21-Sep-21 A	11-Nov-25	11-Nov-25	
S5-1080	Site Survey / Condition Survey	5	10-Sep-21 A	15-Sep-21 A	11-Nov-25	11-Nov-25	
S5-1370	Installation of Prism Instrumentation (50m)	2	25-Sep-21 A	27-Sep-21 A	11-Nov-25	11-Nov-25	
S5-1380	Cable detection and Trial Pits for TAR1	3	28-Sep-21 A	30-Sep-21 A	11-Nov-25	11-Nov-25	
S5 TAR1 Works		70	04-Oct-21 A	26-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1600	TAR1 Site Clearance	8	04-Oct-21 A	12-Oct-21 A	11-Nov-25	11-Nov-25	
Works at West Portion (Area L1, L3a)		50	13-Oct-21 A	10-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1775	TAR1 West Portion (L1) - Formation of Access and Fishpond Draining	15	13-Oct-21 A	30-Oct-21 A	11-Nov-25	11-Nov-25	
S5-1780	TAR1 West Portion (L1) - Excavation	6	01-Nov-21 A	06-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2060	TAR1 West Portion (L1) - Soil Compaction	6	05-Nov-21 A	11-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2070	TAR1 West Portion (L1) - SRT Test	6	12-Nov-21 A	18-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2080	TAR1 West Portion (L1) - Sheetpiling	4	15-Nov-21 A	18-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2090	TAR1 West Portion (L1) - Subbase Filling	10	19-Nov-21 A	30-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2100	TAR1 West Portion (L1) - Road Kerb	9	01-Dec-21 A	10-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2110	TAR1 West Portion (L1) - Road Drainage	4	01-Dec-21 A	04-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2120	TAR1 West Portion (L1) - Road Lighting	4	01-Dec-21 A	04-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2130	TAR1 West Portion (L1) - Road Furniture	4	01-Dec-21 A	04-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2140	TAR1 West Portion (L1) - Run-in/out	5	06-Dec-21 A	10-Dec-21 A	11-Nov-25	11-Nov-25	
Works at Fish Pond 1 (Area L2)		34	15-Nov-21 A	26-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2150	TAR1 Fish Pond (L2) - Rockfilling	6	15-Nov-21 A	20-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2160	TAR1 Fish Pond (L2) - Soil Compaction	1	22-Nov-21 A	22-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2170	TAR1 Fish Pond (L2) - Geogrid Placing	11	23-Nov-21 A	04-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2180	TAR1 Fish Pond (L2) - Soil Filling	11	23-Nov-21 A	04-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2190	TAR1 Fish Pond (L2) - Subbase Filling	8	06-Dec-21 A	14-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2200	TAR1 Fish Pond (L2) - Road Kerb	6	15-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2210	TAR1 Fish Pond (L2) - Road Drainage	6	15-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2220	TAR1 Fish Pond (L2) - Road Lighting	6	15-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2230	TAR1 Fish Pond (L2) - Road Furniture	6	15-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2240	TAR1 Fish Pond (L2) - Pedestrian	6	17-Dec-21 A	26-Dec-21 A	11-Nov-25	11-Nov-25	
Works at Middle Portion (Area L3b)		29	15-Nov-21 A	17-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2250	TAR1 Fish Pond (L3b) - Excavation	12	15-Nov-21 A	27-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2260	TAR1 Fish Pond (L3b) - Cable Lowering	5	29-Nov-21 A	03-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2270	TAR1 Fish Pond (L3b) - Concrete Pipe Playing	5	29-Nov-21 A	03-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2290	TAR1 Fish Pond (L3b) - Subbase Filling	2	04-Dec-21 A	06-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2300	TAR1 Fish Pond (L3b) - Road Kerb	4	07-Dec-21 A	10-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2310	TAR1 Fish Pond (L3b) - Road Drainage	4	07-Dec-21 A	10-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2320	TAR1 Fish Pond (L3b) - Road Lighting	2	11-Dec-21 A	13-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2330	TAR1 Fish Pond (L3b) - Road Furniture	2	13-Dec-21 A	14-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2340	TAR1 Fish Pond (L3b) - Pedestrian	4	14-Dec-21 A	17-Dec-21 A	11-Nov-25	11-Nov-25	
Works at Fish Pond 2 (Area R1)		35	15-Nov-21 A	26-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2350	TAR1 Fish Pond (R1) - Rockfilling	10	15-Nov-21 A	25-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2360	TAR1 Fish Pond (R1) - Soil Compaction	3	15-Nov-21 A	17-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2370	TAR1 Fish Pond (R1) - Geogrid Placing	3	18-Nov-21 A	20-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2380	TAR1 Fish Pond (R1) - Soil Filling	7	22-Nov-21 A	29-Nov-21 A	11-Nov-25	11-Nov-25	
S5-2390	TAR1 Fish Pond (R1) - Subbase Filling	10	30-Nov-21 A	10-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2400	TAR1 Fish Pond (R1) - Road Kerb	6	11-Dec-21 A	17-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2410	TAR1 Fish Pond (R1) - Road Drainage	4	16-Dec-21 A	20-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2420	TAR1 Fish Pond (R1) - Road Lighting	4	16-Dec-21 A	20-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2430	TAR1 Fish Pond (R1) - Road Furniture	4	16-Dec-21 A	20-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2440	TAR1 Fish Pond (R1) - Pedestrian	7	17-Dec-21 A	26-Dec-21 A	11-Nov-25	11-Nov-25	
Works at East Portion (Area R1, R2b)		14	06-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2450	TAR1 Fish Pond (R1, R2b) - Soil Filling	4	06-Dec-21 A	09-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2460	TAR1 Fish Pond (R1, R2b) - Subbase Filling	4	10-Dec-21 A	14-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2470	TAR1 Fish Pond (R1, R2b) - Road Kerb	6	15-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2480	TAR1 Fish Pond (R1, R2b) - Road Drainage	2	17-Dec-21 A	18-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2490	TAR1 Fish Pond (R1, R2b) - Road Lighting	2	17-Dec-21 A	18-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2500	TAR1 Fish Pond (R1, R2b) - Road Furniture	2	20-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2510	TAR1 Fish Pond (R1, R2b) - Pedestrian	2	20-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2520	TAR1 Fish Pond (R1, R2b) - Run In/Out	4	17-Dec-21 A	21-Dec-21 A	11-Nov-25	11-Nov-25	
S5 TAR2 Works		36	15-Sep-21 A	26-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1570	TAR2 - Liaison and Approval from HKPF	62	15-Sep-21 A	15-Nov-21 A	11-Nov-25	11-Nov-25	
S5-1640	TAR2 - Fencing Erection	17	19-Nov-21 A	08-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1650	TAR2 - Tree Felling (subject to approval from LCSD)	2	19-Nov-21 A	20-Nov-21 A	11-Nov-25	11-Nov-25	
S5-1660	TAR2 - UU Detection	1	20-Nov-21 A	20-Nov-21 A	11-Nov-25	11-Nov-25	
S5-1665	TAR2 - Excavation	2	21-Nov-21 A	22-Nov-21 A	11-Nov-25	11-Nov-25	
S5-1670	TAR2 - Existing Drainage Protection	2	20-Nov-21 A	22-Nov-21 A	11-Nov-25	11-Nov-25	
S5-1680	TAR2 - Subbase Filling	8	23-Nov-21 A	01-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1690	TAR2 - Road Kerb	4	02-Dec-21 A	06-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1700	TAR2 - Drainage Installation	4	04-Dec-21 A	08-Dec-21 A	11-Nov-25	11-Nov-25	
S5-1710	TAR2 - Mesh Laying and Joint	4	07-Dec-21 A	10-Dec-21 A	11-Nov-25	11-Nov-25	



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
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Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
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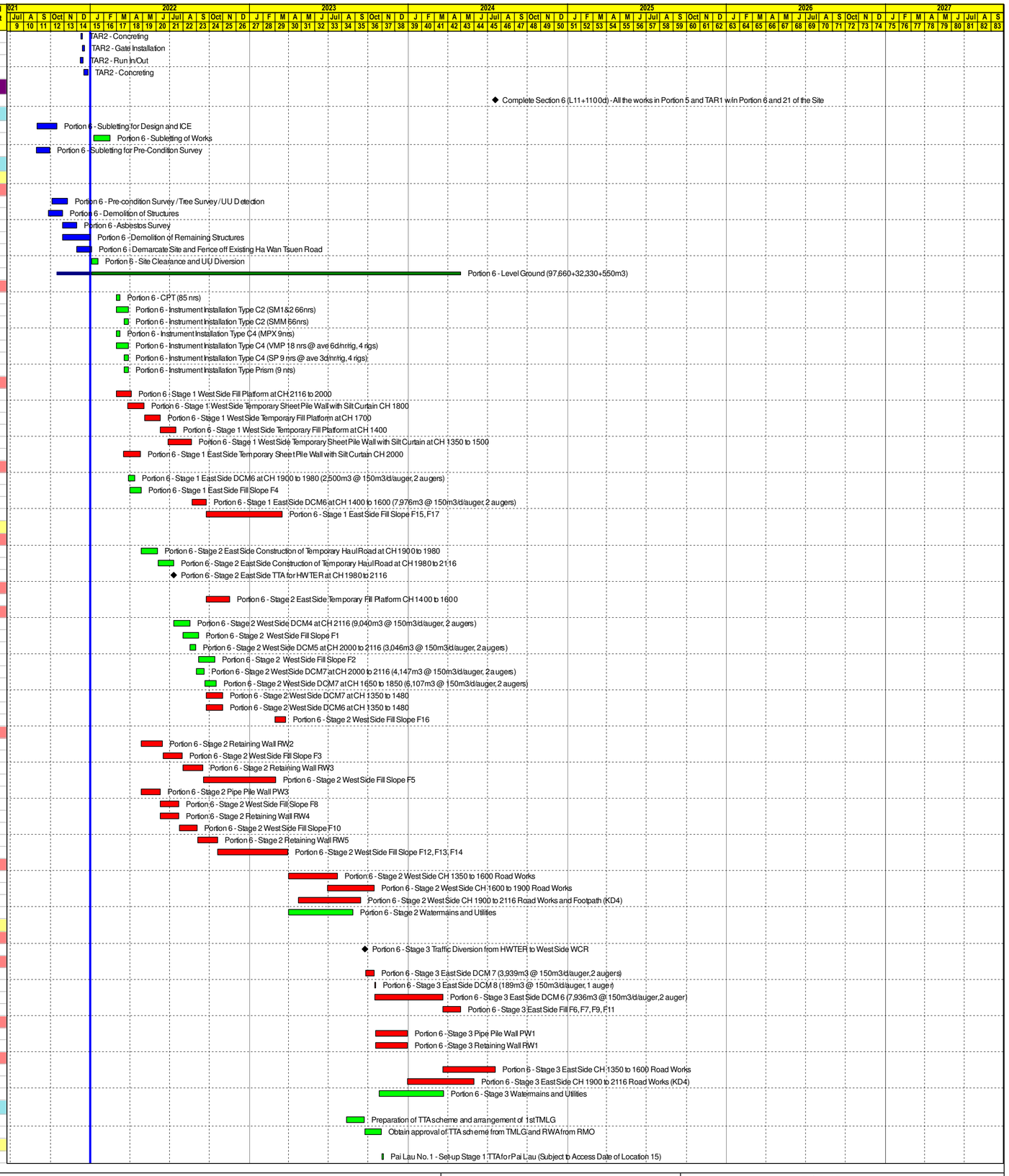
Detailed Programme

Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S5-1720	TAR2 - Concreting	3	10-Dec-21 A	13-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2530	TAR2 - Gate Installation	5	14-Dec-21 A	18-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2540	TAR2 - Run In/Out	6	09-Dec-21 A	15-Dec-21 A	11-Nov-25	11-Nov-25	
S5-2555	TAR2 - Concreting	8	16-Dec-21 A	26-Dec-21 A	11-Nov-25	11-Nov-25	
Section 6 - Western Connection Road (WCR)		392	30-Aug-21 A	18-Jul-24	16-Oct-21	19-Jul-24	0
S6-PC	Complete Section 6 (L11+1100d) - All the works in Portion 5 and TAR1 w/in Portion 6 and 21 of the Site	0		18-Jul-24		19-Jul-24	1
S6 WCR Submission		135	30-Aug-21 A	15-Feb-22	15-Jan-22	28-Feb-22	11
S6-1000	Portion 6 - Subletting for Design and ICE	37	31-Aug-21 A	15-Oct-21 A	15-Jan-22	15-Jan-22	
S6-1010A	Portion 6 - Subletting of Works	28	08-Jan-22	15-Feb-22	21-Jan-22	28-Feb-22	11
S6-1030A	Portion 6 - Subletting for Pre-Condition Survey	26	30-Aug-21 A	29-Sep-21 A	14-Feb-22	14-Feb-22	
S6 WCR Works		383	27-Sep-21 A	18-Jul-24	16-Oct-21	19-Jul-24	0
WCR Stage 1 Construction		343	27-Sep-21 A	29-Apr-24	16-Oct-21	30-Apr-24	0
S6 Stage 1 - Preliminary and Demolition Works		743	27-Sep-21 A	29-Apr-24	16-Oct-21	30-Apr-24	1
S6-1050	Portion 6 - Pre-condition Survey / Tree Survey / UU Detection	30	05-Oct-21 A	09-Nov-21 A	14-Feb-22	14-Feb-22	
S6-1070	Portion 6 - Demolition of Structures	26	27-Sep-21 A	28-Oct-21 A	14-Feb-22	14-Feb-22	
S6-1072	Portion 6 - Asbestos Survey	28	29-Oct-21 A	30-Nov-21 A	14-Feb-22	14-Feb-22	
S6-1074	Portion 6 - Demolition of Remaining Structures	54	28-Oct-21 A	31-Dec-21 A	14-Feb-22	14-Feb-22	
S6-1080	Portion 6 - Demarcate Site and Fence off Existing Ha Wan Tsuen Road	26	01-Dec-21 A	03-Jan-22	14-Feb-22	14-Feb-22	31
S6-1090	Portion 6 - Site Clearance and UU Diversion	12	04-Jan-22	17-Jan-22	15-Feb-22	28-Feb-22	31
S6-1100	Portion 6 - Level Ground (97,660+32,330+550m3)	728	15-Oct-21 A	29-Apr-24	16-Oct-21	30-Apr-24	1
S6 Stage 1 - Instrumentation		24	01-Mar-22	28-Mar-22	10-Mar-22	07-Apr-22	8
S6-1020	Portion 6 - CPT (85 nrs)	9	01-Mar-22	10-Mar-22	10-Mar-22	19-Mar-22	8
S6-1040	Portion 6 - Instrument Installation Type C2 (SM1&2 66nrs)	24	01-Mar-22	28-Mar-22	10-Mar-22	07-Apr-22	8
S6-1060	Portion 6 - Instrument Installation Type C2 (SMM 66nrs)	8	19-Mar-22	28-Mar-22	29-Mar-22	07-Apr-22	8
S6-1110	Portion 6 - Instrument Installation Type C4 (MPX 9nrs)	9	01-Mar-22	10-Mar-22	10-Mar-22	19-Mar-22	8
S6-1120	Portion 6 - Instrument Installation Type C4 (VMP 18 nrs @ ave 6d/nr/rig, 4 rigs)	24	01-Mar-22	28-Mar-22	10-Mar-22	07-Apr-22	8
S6-1130	Portion 6 - Instrument Installation Type C4 (SP 9 nrs @ ave 3d/nr/rig, 4 rigs)	8	19-Mar-22	28-Mar-22	29-Mar-22	07-Apr-22	8
S6-1610	Portion 6 - Instrument Installation Type Prism (9 nrs)	8	19-Mar-22	28-Mar-22	29-Mar-22	07-Apr-22	8
S6 Stage 1 - Temporary Works		59	01-Mar-22	20-Aug-22	01-Mar-22	25-Aug-22	2
S6-1170	Portion 6 - Stage 1 West Side Fill Platform at CH 2116 to 2000	30	01-Mar-22	04-Apr-22	01-Mar-22	04-Apr-22	0
S6-1180	Portion 6 - Stage 1 West Side Temporary Sheet Pile Wall with Silt Curtain CH 1800	28	28-Mar-22	04-May-22	01-Apr-22	10-May-22	4
S6-1190	Portion 6 - Stage 1 West Side Temporary Fill Platform at CH 1700	30	05-May-22	10-Jun-22	11-May-22	15-Jun-22	4
S6-1200	Portion 6 - Stage 1 West Side Temporary Fill Platform at CH 1400	30	11-Jun-22	16-Jul-22	16-Jun-22	21-Jul-22	4
S6-1210	Portion 6 - Stage 1 West Side Temporary Sheet Pile Wall with Silt Curtain at CH 1350 to 1500	45	29-Jun-22	20-Aug-22	05-Jul-22	25-Aug-22	4
S6-1220	Portion 6 - Stage 1 East Side Temporary Sheet Pile Wall with Silt Curtain CH 2000	30	18-Mar-22	26-Apr-22	18-Mar-22	26-Apr-22	0
S6 Stage 1 DCM		125	29-Mar-22	17-Mar-23	08-Apr-22	22-Mar-23	2
S6-1230	Portion 6 - Stage 1 East Side DCM6 at CH 1900 to 1980 (2,500m3 @ 150m3/d/auger, 2 augers)	12	29-Mar-22	12-Apr-22	08-Apr-22	25-Apr-22	8
S6-1240	Portion 6 - Stage 1 East Side Fill Slope F4	18	02-Apr-22	27-Apr-22	13-Apr-22	07-May-22	8
S6-1250	Portion 6 - Stage 1 East Side DCM6 at CH 1400 to 1600 (7,976m3 @ 150m3/d/auger, 2 augers)	28	22-Aug-22	23-Sep-22	26-Aug-22	28-Sep-22	4
S6-1260	Portion 6 - Stage 1 East Side Fill Slope F15, F17	45	24-Sep-22	17-Mar-23	29-Sep-22	22-Mar-23	4
WCR Stage 2 Construction		198	27-Apr-22	14-Oct-23	27-Apr-22	19-Dec-23	25
S6 Stage 2 - TTA		60	28-Apr-22	11-Jul-22	10-May-22	20-Jul-22	8
S6-1270	Portion 6 - Stage 2 East Side Construction of Temporary Haul Road at CH 1900 to 1980	30	28-Apr-22	04-Jun-22	10-May-22	14-Jun-22	8
S6-1280	Portion 6 - Stage 2 East Side Construction of Temporary Haul Road at CH 1980 to 2116	30	06-Jun-22	11-Jul-22	15-Jun-22	20-Jul-22	8
S6-1290	Portion 6 - Stage 2 East Side TTA for HWTER at CH 1980 to 2116	0		11-Jul-22		20-Jul-22	8
S6 Stage 2 - Temporary Works		45	24-Sep-22	17-Nov-22	29-Sep-22	22-Nov-22	4
S6-1370	Portion 6 - Stage 2 East Side Temporary Fill Platform CH 1400 to 1600	45	24-Sep-22	17-Nov-22	29-Sep-22	22-Nov-22	4
S6 Stage 2 - DCM		94	12-Jul-22	25-Mar-23	21-Jul-22	30-Mar-23	2
S6-1350	Portion 6 - Stage 2 West Side DCM4 at CH 2116 (9,040m3 @ 150m3/d/auger, 2 augers)	32	12-Jul-22	17-Aug-22	21-Jul-22	26-Aug-22	8
S6-1360	Portion 6 - Stage 2 West Side Fill Slope F1	30	02-Aug-22	05-Sep-22	09-Sep-22	17-Oct-22	33
S6-1380	Portion 6 - Stage 2 West Side DCM5 at CH 2000 to 2116 (3,046m3 @ 150m3/d/auger, 2 augers)	12	18-Aug-22	31-Aug-22	27-Aug-22	09-Sep-22	8
S6-1390	Portion 6 - Stage 2 West Side Fill Slope F2	30	06-Sep-22	13-Oct-22	18-Oct-22	21-Nov-22	33
S6-1400	Portion 6 - Stage 2 West Side DCM7 at CH 2000 to 2116 (4,147m3 @ 150m3/d/auger, 2 augers)	15	01-Sep-22	19-Sep-22	12-Sep-22	28-Sep-22	8
S6-1410	Portion 6 - Stage 2 West Side DCM7 at CH 1650 to 1850 (6,107m3 @ 150m3/d/auger, 2 augers)	22	20-Sep-22	17-Oct-22	29-Sep-22	26-Oct-22	8
S6-1440	Portion 6 - Stage 2 West Side DCM7 at CH 1350 to 1480	30	24-Sep-22	31-Oct-22	29-Sep-22	04-Mar-23	4
S6-1450	Portion 6 - Stage 2 West Side DCM6 at CH 1350 to 1480	30	24-Sep-22	31-Oct-22	29-Sep-22	04-Mar-23	4
S6-1460	Portion 6 - Stage 2 West Side Fill Slope F16	22	01-Mar-23	25-Mar-23	06-Mar-23	30-Mar-23	4
S6 Stage 2 - Retaining Walls		180	27-Apr-22	30-Mar-23	27-Apr-22	31-Mar-23	1
S6-1310	Portion 6 - Stage 2 Retaining Wall RW2	40	27-Apr-22	15-Jun-22	27-Apr-22	15-Jun-22	0
S6-1320	Portion 6 - Stage 2 West Side Fill Slope F3	38	16-Jun-22	30-Jul-22	16-Jun-22	30-Jul-22	0
S6-1330	Portion 6 - Stage 2 Retaining Wall RW3	40	01-Aug-22	16-Sep-22	01-Aug-22	16-Sep-22	0
S6-1340	Portion 6 - Stage 2 West Side Fill Slope F5	38	17-Sep-22	02-Mar-23	17-Sep-22	02-Mar-23	0
S6-1420	Portion 6 - Stage 2 Pipe Pile Wall PW3	36	27-Apr-22	10-Jun-22	28-Apr-22	11-Jun-22	1
S6-1430	Portion 6 - Stage 2 West Side Fill Slope F8	36	11-Jun-22	23-Jul-22	13-Jun-22	25-Jul-22	1
S6-1470	Portion 6 - Stage 2 Retaining Wall RW4	36	11-Jun-22	23-Jul-22	13-Jun-22	25-Jul-22	1
S6-1480	Portion 6 - Stage 2 West Side Fill Slope F10	36	25-Jul-22	03-Sep-22	26-Jul-22	05-Sep-22	1
S6-1490	Portion 6 - Stage 2 Retaining Wall RW5	36	05-Sep-22	19-Oct-22	06-Sep-22	20-Oct-22	1
S6-1500	Portion 6 - Stage 2 West Side Fill Slope F12, F13, F14	36	20-Oct-22	30-Mar-23	21-Oct-22	31-Mar-23	1
S6 Stage 2 - Remaining Road Works		77	31-Mar-23	14-Oct-23	01-Apr-23	19-Dec-23	25
S6-1510	Portion 6 - Stage 2 West Side CH 1350 to 1600 Road Works	90	31-Mar-23	22-Jul-23	01-Apr-23	24-Jul-23	1
S6-1520	Portion 6 - Stage 2 West Side CH 1600 to 1900 Road Works	90	29-Jun-23	14-Oct-23	30-Jun-23	16-Oct-23	1
S6-1530	Portion 6 - Stage 2 West Side CH 1900 to 2116 Road Works and Footpath (KD4)	120	24-Apr-23	14-Sep-23	24-Apr-23	14-Sep-23	0
S6-2120	Portion 6 - Stage 2 Watermains and Utilities	120	31-Mar-23	26-Aug-23	29-Jul-23	19-Dec-23	95
WCR Stage 3 Construction		116	23-Sep-23	18-Jul-24	23-Sep-23	19-Jul-24	0
S6 Stage 3 - TTA		0	23-Sep-23	23-Sep-23	23-Sep-23	23-Sep-23	0
S6-1300	Portion 6 - Stage 3 Traffic Diversion from HWTER to West Side WCR	0		23-Sep-23		23-Sep-23	0
S6 Stage 3 - DCM		76	25-Sep-23	29-Apr-24	25-Sep-23	30-Apr-24	1
S6-1550	Portion 6 - Stage 3 East Side DCM 7 (3,939m3 @ 150m3/d/auger,2 augers)	16	25-Sep-23	14-Oct-23	25-Sep-23	14-Oct-23	0
S6-1560	Portion 6 - Stage 3 East Side DCM 8 (189m3 @ 150m3/d/auger, 1 auger)	2	16-Oct-23	17-Oct-23	16-Oct-23	17-Oct-23	0
S6-1570	Portion 6 - Stage 3 East Side DCM 6 (7,936m3 @ 150m3/d/auger,2 auger)	30	16-Oct-23	20-Mar-24	17-Oct-23	21-Mar-24	1
S6-1580	Portion 6 - Stage 3 East Side Fill F6, F7, F9, F11	30	21-Mar-24	29-Apr-24	22-Mar-24	30-Apr-24	1
S6 Stage 3 - Retaining Walls		60	18-Oct-23	29-Dec-23	18-Oct-23	29-Dec-23	0
S6-1540	Portion 6 - Stage 3 Pipe Pile Wall PW1	60	18-Oct-23	29-Dec-23	18-Oct-23	29-Dec-23	0
S6-1620	Portion 6 - Stage 3 Retaining Wall RW1	60	18-Oct-23	29-Dec-23	18-Oct-23	29-Dec-23	0
S6 Stage 3 - Remaining Road Works		214	26-Oct-23	18-Jul-24	30-Dec-23	19-Jul-24	1
S6-1590	Portion 6 - Stage 3 East Side CH 1350 to 1600 Road Works	95	21-Mar-24	18-Jul-24	22-Mar-24	19-Jul-24	1
S6-1600	Portion 6 - Stage 3 East Side CH 1900 to 2116 Road Works (KD4)	120	30-Dec-23	30-May-24	30-Dec-23	30-May-24	0
S6-2130	Portion 6 - Stage 3 Watermains and Utilities	120	26-Oct-23	21-Mar-24	22-Feb-24	19-Jul-24	95
S6 WCR Pai Lau		236	12-Aug-23	31-May-24	28-Sep-23	19-Jul-24	40
S6-2000	Preparation of TTA scheme and arrangement of 1st TMLG	36	12-Aug-23	22-Sep-23	28-Sep-23	11-Nov-23	40
S6-2010	Obtain approval of TTA scheme from TMLG and RWA from RMO	30	23-Sep-23	31-Oct-23	13-Nov-23	16-Dec-23	40
Pai Lau No.1 Construction (Location 15, LMC Road)		170	01-Nov-23	31-May-24	18-Dec-23	19-Jul-24	40
S6-2020	Pai Lau No. 1 - Set-up Stage 1 TTA for Pai Lau (Subject to Access Date of Location 15)	4	01-Nov-23	04-Nov-23	18-Dec-23	21-Dec-23	40



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

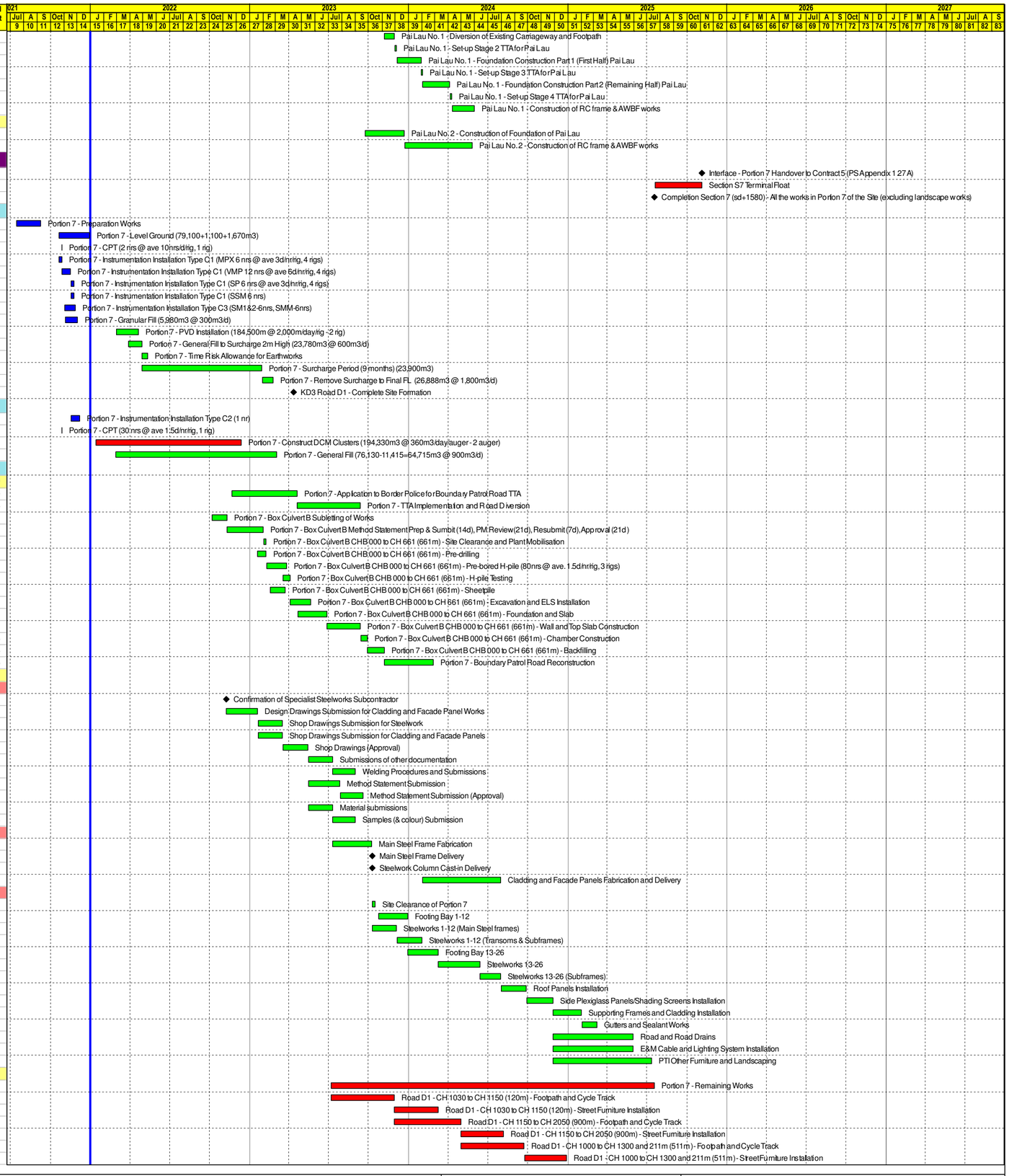
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 13 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S6-2030	Pai Lau No. 1 - Diversion of Existing Carriageway and Footpath	21	06-Nov-23	29-Nov-23	22-Dec-23	18-Jan-24	40
S6-2040	Pai Lau No. 1 - Set-up Stage 2 TTA for Pai Lau	4	30-Nov-23	04-Dec-23	19-Jan-24	23-Jan-24	40
S6-2050	Pai Lau No. 1 - Foundation Construction Part 1 (First Half) Pai Lau	45	05-Dec-23	29-Jan-24	24-Jan-24	20-Mar-24	40
S6-2060	Pai Lau No. 1 - Set-up Stage 3 TTA for Pai Lau	4	30-Jan-24	02-Feb-24	21-Mar-24	25-Mar-24	40
S6-2070	Pai Lau No. 1 - Foundation Construction Part 2 (Remaining Half) Pai Lau	45	03-Feb-24	03-Apr-24	26-Mar-24	23-May-24	40
S6-2080	Pai Lau No. 1 - Set-up Stage 4 TTA for Pai Lau	4	05-Apr-24	09-Apr-24	24-May-24	28-May-24	40
S6-2090	Pai Lau No. 1 - Construction of RC frame & AWBF works	43	10-Apr-24	31-May-24	29-May-24	19-Jul-24	40
Pai Lau No. 2 Construction (Location 11, HWT Road)		195	23-Sep-23	25-May-24	18-Nov-23	19-Jul-24	45
S6-2100	Pai Lau No. 2 - Construction of Foundation of Pai Lau	75	23-Sep-23	22-Dec-23	18-Nov-23	21-Feb-24	45
S6-2110	Pai Lau No. 2 - Construction of RC frame & AWBF works	120	23-Dec-23	25-May-24	22-Feb-24	19-Jul-24	45
Section 7 - Ground Treatment Works and Site Formation at Portion 7		592	15-Jul-21 A	04-Nov-25	17-Jan-22	11-Nov-25	3
S7-1530	Interface - Portion 7 Handover to Contract 5 (PS Appendix I 27 A)	0		04-Nov-25		11-Nov-25	6
S7-1535	Section S7 Terminal Float	90	19-Jul-25	04-Nov-25	26-Jul-25	11-Nov-25	6
S7-PC	Completion Section 7 (sd+1580) - All the works in Portion 7 of the Site (excluding landscape works)	0		18-Jul-25		25-Jul-25	6
S7 Ground Improvement - PVD/Surcharge		226	15-Jul-21 A	11-Apr-23	17-Jan-22	13-Apr-23	1
S7-1000	Portion 7 - Preparation Works	48	15-Jul-21 A	08-Sep-21 A	17-Jan-22	17-Jan-22	
S7-1010	Portion 7 - Level Ground (79,100+1,100+1,670m3)	60	20-Oct-21 A	30-Dec-21 A	17-Jan-22	17-Jan-22	
S7-1020	Portion 7 - CPT (2 nrs @ ave 10nrs/d/rig, 1 rig)	1	27-Oct-21 A	27-Oct-21 A	11-Mar-22	11-Mar-22	
S7-1030	Portion 7 - Instrumentation Installation Type C1 (MPX 6 nrs @ ave 3d/nr/rig, 4 rigs)	6	20-Oct-21 A	26-Oct-21 A	11-Mar-22	11-Mar-22	
S7-1040	Portion 7 - Instrumentation Installation Type C1 (VMP 12 nrs @ ave 6d/nr/rig, 4 rigs)	18	27-Oct-21 A	16-Nov-21 A	11-Mar-22	11-Mar-22	
S7-1050	Portion 7 - Instrumentation Installation Type C1 (SP 6 nrs @ ave 3d/nr/rig, 4 rigs)	6	17-Nov-21 A	23-Nov-21 A	11-Mar-22	11-Mar-22	
S7-1060	Portion 7 - Instrumentation Installation Type C1 (SSM 6 nrs)	6	17-Nov-21 A	23-Nov-21 A	11-Mar-22	11-Mar-22	
S7-1070	Portion 7 - Instrumentation Installation Type C3 (SM1&2-6nrs, SMM-6nrs)	23	02-Nov-21 A	27-Nov-21 A	11-Mar-22	11-Mar-22	
S7-1080	Portion 7 - Granular Fill (5,980m3 @ 300m3/d)	24	05-Nov-21 A	02-Dec-21 A	11-Mar-22	11-Mar-22	
S7-1090	Portion 7 - PVD Installation (184,500m @ 2,000m/day/rig - 2 rig)	41	01-Mar-22	21-Apr-22	11-Mar-22	03-May-22	9
S7-1100	Portion 7 - General Fill to Surcharge 2m High (23,780m3 @ 600m3/d)	23	29-Mar-22	28-Apr-22	09-Apr-22	11-May-22	9
S7-1110	Portion 7 - Time Risk Allowance for Earthworks	10	29-Apr-22	12-May-22	12-May-22	23-May-22	9
S7-1140	Portion 7 - Surcharge Period (9 months) (23,900m3)	275	29-Apr-22	28-Jan-23	12-May-22	10-Feb-23	13
S7-1150	Portion 7 - Remove Surcharge to Final FL (26,888m3 @ 1,800m3/d)	22	30-Jan-23	23-Feb-23	10-Mar-23	04-Apr-23	34
S7-1160	KD3 Road D1 - Complete Site Formation	0		11-Apr-23		13-Apr-23	2
S7 Ground Improvement - DCM		395	27-Oct-21 A	04-Mar-23	17-Jan-22	17-Mar-23	11
S7-1170	Portion 7 - Instrumentation Installation Type C2 (1 nr)	17	18-Nov-21 A	07-Dec-21 A	17-Jan-22	17-Jan-22	
S7-1180	Portion 7 - CPT (30 nrs @ ave 1.5d/nr/rig, 1 rig)	1	27-Oct-21 A	27-Oct-21 A	17-Jan-22	17-Jan-22	
S7-1190	Portion 7 - Construct DCM Clusters (194,330m3 @ 360m3/day/auger - 2 auger)	270	13-Jan-22	12-Dec-22	17-Jan-22	15-Dec-22	3
S7-1200	Portion 7 - General Fill (76,130-11,415=64,715m3 @ 900m3/d)	300	28-Feb-22	04-Mar-23	12-Mar-22	17-Mar-23	11
S7 Civil Structures		395	07-Oct-22	18-Jul-25	12-Nov-22	25-Jul-25	3
S7 - Box Culvert B		197	07-Oct-22	27-Feb-24	12-Nov-22	25-Jul-25	200
S7-1220	Portion 7 - Application to Border Police for Boundary Patrol Road TTA	150	22-Nov-22	20-Apr-23	15-Apr-24	11-Sep-24	510
S7-1225	Portion 7 - TTA Implementation and Road Diversion	120	21-Apr-23	12-Sep-23	12-Sep-24	10-Feb-25	415
S7-1230	Portion 7 - Box Culvert B Subletting of Works	30	07-Oct-22	10-Nov-22	12-Nov-22	16-Dec-22	31
S7-1240	Portion 7 - Box Culvert B Method Statement Prep & Sumbit (14d), PM Review(21d), Resubmit (7d), Approval (21d)	64	11-Nov-22	01-Feb-23	17-Dec-22	09-Mar-23	31
S7-1250	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Site Clearance and Plant Mobilisation	6	02-Feb-23	08-Feb-23	10-Mar-23	16-Mar-23	31
S7-1260	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Pre-drilling	14	19-Jan-23	08-Feb-23	01-Mar-23	16-Mar-23	31
S7-1270	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Pre-bored H-pile (80nrs @ ave. 1.5d/nr/rig, 3 rigs)	40	09-Feb-23	27-Mar-23	17-Mar-23	08-May-23	31
S7-1280	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - H-pile Testing	14	18-Mar-23	03-Apr-23	28-Apr-23	15-May-23	31
S7-1290	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Sheetpile	30	17-Feb-23	23-Mar-23	06-Apr-23	15-May-23	40
S7-1300	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Excavation and ELS Installation	36	04-Apr-23	20-May-23	16-May-23	28-Jun-23	31
S7-1310	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Foundation and Slab	54	22-Apr-23	27-Jun-23	31-May-23	03-Aug-23	31
S7-1320	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Wall and Top Slab Construction	65	28-Jun-23	12-Sep-23	04-Aug-23	20-Oct-23	31
S7-1330	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Chamber Construction	14	13-Sep-23	28-Sep-23	11-Feb-25	26-Feb-25	415
S7-1350	Portion 7 - Box Culvert B CHB 000 to CH 661 (661m) - Backfilling	30	29-Sep-23	06-Nov-23	27-Feb-25	02-Apr-25	415
S7-1780	Portion 7 - Boundary Patrol Road Reconstruction	90	07-Nov-23	27-Feb-24	03-Apr-25	25-Jul-25	415
S7 - Public Transport Interchange (PTI)		381	08-Nov-22	12-Jul-25	21-Nov-22	25-Jul-25	5
S7 - PTI Preliminary Submissions		122	08-Nov-22	18-Sep-23	21-Nov-22	09-Feb-24	56
PRE-700	Confirmation of Specialist Steelworks Subcontractor	0	08-Nov-22*		21-Nov-22		13
PRE-940	Design Drawings Submission for Cladding and Facade Panel Works	60	08-Nov-22	19-Jan-23	21-Nov-22	06-Feb-23	11
PRE-950	Shop Drawings Submission for Steelwork	45	20-Jan-23	17-Mar-23	07-Feb-23	30-Mar-23	11
PRE-960	Shop Drawings Submission for Cladding and Facade Panels	45	20-Jan-23	17-Mar-23	07-Feb-23	30-Mar-23	11
PRE-970	Shop Drawings (Approval)	45	18-Mar-23	15-May-23	31-Mar-23	29-May-23	11
PRE-980	Submissions of other documentation	45	16-May-23	10-Jul-23	06-Jul-23	26-Aug-23	41
PRE-990	Welding Procedures and Submissions	45	11-Jul-23	31-Aug-23	28-Aug-23	20-Oct-23	41
PRE-991	Method Statement Submission	60	16-May-23	27-Jul-23	16-Jun-23	26-Aug-23	26
PRE-992	Method Statement Submission (Approval)	45	28-Jul-23	18-Sep-23	28-Aug-23	20-Oct-23	26
PRE-995	Material submissions	45	16-May-23	10-Jul-23	30-May-23	22-Jul-23	11
PRE-996	Samples (& colour) Submission	45	11-Jul-23	31-Aug-23	16-Dec-23	09-Feb-24	133
S7 - PTI Fabrication and Delivery		386	11-Jul-23	30-Jul-24	23-Jul-23	12-Aug-24	13
FAB-1000	Main Steel Frame Fabrication	90	11-Jul-23	08-Oct-23	23-Jul-23	20-Oct-23	12
FAB-1005	Main Steel Frame Delivery	0	09-Oct-23		21-Oct-23		12
FAB-1010	Steelwork Column Cast-in Delivery	0		09-Oct-23		05-Nov-23	28
FAB-1015	Cladding and Facade Panels Fabrication and Delivery	180	02-Feb-24	30-Jul-24	15-Feb-24	12-Aug-24	13
S7 - PTI Construction		518	09-Oct-23	12-Jul-25	21-Oct-23	25-Jul-25	11
S7-1545	Site Clearance of Portion 7	7	09-Oct-23	16-Oct-23	21-Oct-23	30-Oct-23	11
S7-1555	Footing Bay 1-12	56	24-Oct-23	29-Dec-23	06-Nov-23	12-Jan-24	11
S7-1565	Steelworks 1-12 (Main Steel frames)	48	09-Oct-23	04-Dec-23	22-Jan-24	21-Mar-24	86
S7-1575	Steelworks 1-12 (Transoms & Subframes)	48	05-Dec-23	01-Feb-24	22-Mar-24	23-May-24	86
S7-1580	Footing Bay 13-26	55	30-Dec-23	08-Mar-24	13-Jan-24	21-Mar-24	11
S7-1585	Steelworks 13-26	75	09-Mar-24	12-Jun-24	22-Mar-24	25-Jun-24	11
S7-1595	Steelworks 13-26 (Subframes)	40	13-Jun-24	30-Jul-24	26-Jun-24	12-Aug-24	11
S7-1605	Roof Panels Installation	50	31-Jul-24	27-Sep-24	13-Aug-24	12-Oct-24	11
S7-1615	Side Plexiglass Panels/Shading Screens Installation	50	28-Sep-24	27-Nov-24	14-Oct-24	10-Dec-24	11
S7-1625	Supporting Frames and Cladding Installation	50	28-Nov-24	01-Feb-25	11-Dec-24	14-Feb-25	11
S7-1635	Gutters and Sealant Works	30	03-Feb-25	08-Mar-25	09-May-25	13-Jun-25	76
S7-1645	Road and Road Drains	145	28-Nov-24	30-May-25	11-Dec-24	13-Jun-25	11
S7-1655	E&M Cable and Lighting System Installation	145	28-Nov-24	30-May-25	11-Dec-24	13-Jun-25	11
S7-1665	PTI Other Furniture and Landscaping	180	28-Nov-24	12-Jul-25	11-Dec-24	25-Jul-25	11
S7 - Remaining Works		600	08-Jul-23	18-Jul-25	15-Jul-23	25-Jul-25	6
S7-1520	Portion 7 - Remaining Works	600	08-Jul-23	18-Jul-25	15-Jul-23	25-Jul-25	6
S7-1721	Road D1 - CH 1030 to CH 1150 (120m) - Footpath and Cycle Track	120	08-Jul-23	28-Nov-23	15-Jul-23	05-Dec-23	6
S7-1722	Road D1 - CH 1030 to CH 1150 (120m) - Street Furniture Installation	80	29-Nov-23	08-Mar-24	06-Dec-23	15-Mar-24	6
S7-1725	Road D1 - CH 1150 to CH 2050 (900m) - Footpath and Cycle Track	120	29-Nov-23	29-Apr-24	06-Dec-23	07-May-24	6
S7-1726	Road D1 - CH 1150 to CH 2050 (900m) - Street Furniture Installation	80	30-Apr-24	05-Aug-24	08-May-24	12-Aug-24	6
S7-1727	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Footpath and Cycle Track	120	30-Apr-24	21-Sep-24	08-May-24	28-Sep-24	6
S7-1730	Road D1 - CH 1000 to CH 1300 and 211m (511m) - Street Furniture Installation	80	23-Sep-24	28-Dec-24	30-Sep-24	06-Jan-25	6



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Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
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Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

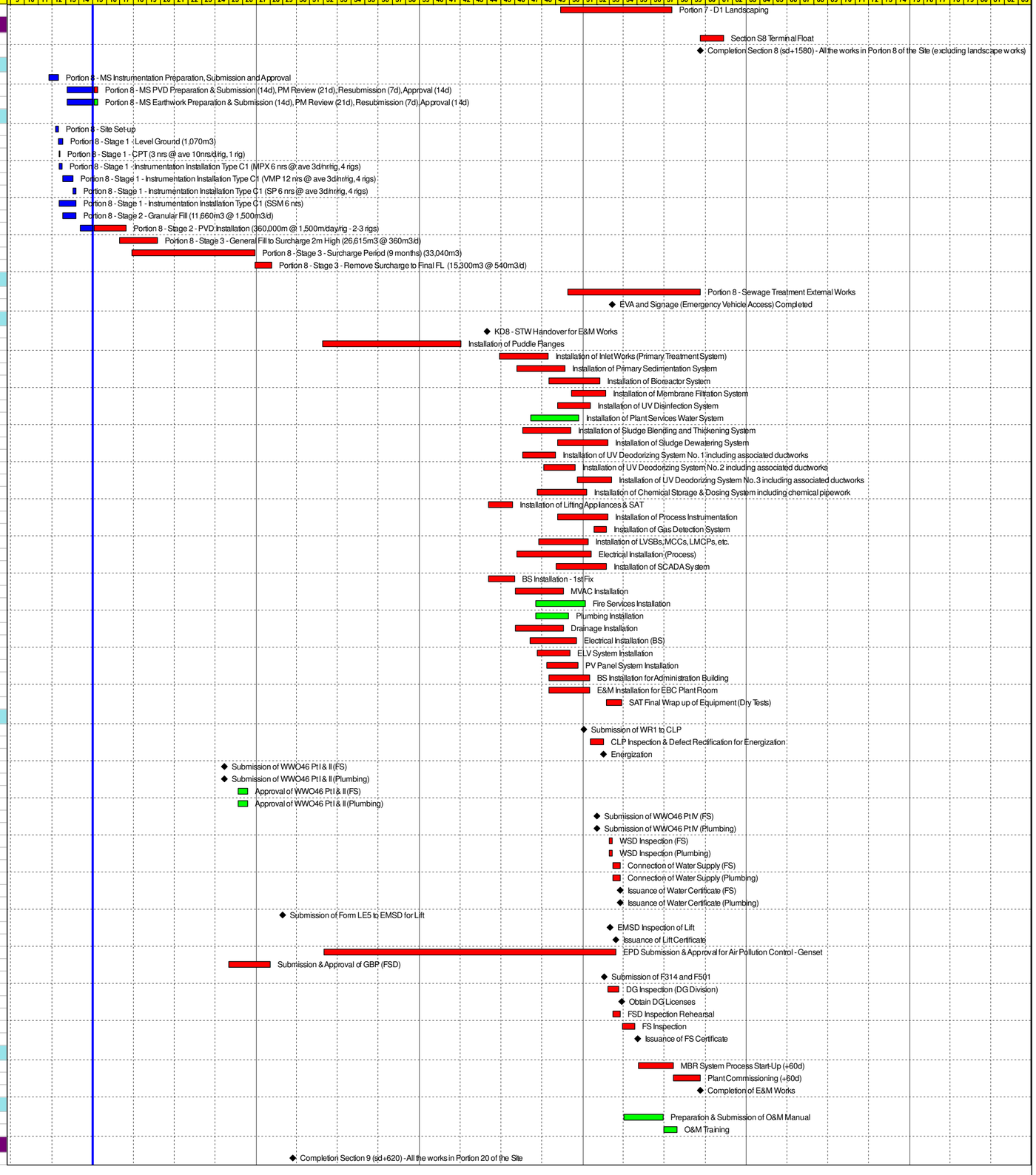
Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 14 of 21

Detailed Programme

Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S7-1775	Portion 7 - D1 Landscaping	200	11-Nov-24	18-Jul-25	18-Nov-24	25-Jul-25	6
Section 8 - Ground Treatment Works and Site Formation at Portion 8		570	25-Sep-21 A	11-Nov-25	03-Jan-22	11-Nov-25	0
S8-1175	Section S8 Terminal Float	42	20-Sep-25	11-Nov-25	20-Sep-25	11-Nov-25	0
S8-PC	Completion Section 8 (sd+1580) - All the works in Portion 8 of the Site (excluding landscape works)	0		19-Sep-25		19-Sep-25	0
S8 STW - Submissions		89	25-Sep-21 A	12-Jan-22	03-Jan-22	10-Mar-22	44
S8-1180	Portion 8 - MS Instrumentation Preparation, Submission and Approval	17	25-Sep-21 A	16-Oct-21 A	03-Jan-22	03-Jan-22	
S8-1190	Portion 8 - MS PVD Preparation & Submission (14d), PM Review (21d), Resubmission (7d), Approval (14d)	56	05-Nov-21 A	12-Jan-22	03-Jan-22	12-Jan-22	0
S8-1200	Portion 8 - MS Earthwork Preparation & Submission (14d), PM Review (21d), Resubmission (7d), Approval (14d)	56	05-Nov-21 A	12-Jan-22	01-Mar-22	10-Mar-22	44
S8 STW - Site Formation		172	09-Oct-21 A	04-Feb-23	03-Jan-22	04-Feb-23	0
S8-1020	Portion 8 - Site Set-up	6	09-Oct-21 A	16-Oct-21 A	03-Jan-22	03-Jan-22	
S8-1030	Portion 8 - Stage 1 - Level Ground (1,070m3)	8	16-Oct-21 A	25-Oct-21 A	03-Jan-22	03-Jan-22	
S8-1040	Portion 8 - Stage 1 - CPT (3 nrs @ ave 10nrs/d/rig, 1 rig)	1	18-Oct-21 A	18-Oct-21 A	03-Jan-22	03-Jan-22	
S8-1050	Portion 8 - Stage 1 - Instrumentation Installation Type C1 (MPX 6 nrs @ ave 3d/nr/rig, 4 rigs)	6	18-Oct-21 A	23-Oct-21 A	03-Jan-22	03-Jan-22	
S8-1060	Portion 8 - Stage 1 - Instrumentation Installation Type C1 (VMP 12 nrs @ ave 3d/nr/rig, 4 rigs)	21	25-Oct-21 A	17-Nov-21 A	03-Jan-22	03-Jan-22	
S8-1070	Portion 8 - Stage 1 - Instrumentation Installation Type C1 (SP 6 nrs @ ave 3d/nr/rig, 4 rigs)	5	18-Nov-21 A	23-Nov-21 A	03-Jan-22	03-Jan-22	
S8-1080	Portion 8 - Stage 1 - Instrumentation Installation Type C1 (SSM 6 nrs)	32	18-Oct-21 A	23-Nov-21 A	03-Jan-22	03-Jan-22	
S8-1090	Portion 8 - Stage 2 - Granular Fill (11,660m3 @ 1,500m3/d)	25	26-Oct-21 A	23-Nov-21 A	03-Jan-22	03-Jan-22	
S8-1100	Portion 8 - Stage 2 - PVD Installation (360,000m @ 1,500m/day/rig - 2-3 rigs)	80	03-Dec-21 A	15-Mar-22	03-Jan-22	15-Mar-22	0
S8-1110	Portion 8 - Stage 3 - General Fill to Surcharge 2m High (26,615m3 @ 360m3/d)	68	01-Mar-22	25-May-22	01-Mar-22	25-May-22	0
S8-1140	Portion 8 - Stage 3 - Surcharge Period (9 months) (33,040m3)	275	29-Mar-22	28-Dec-22	29-Mar-22	28-Dec-22	0
S8-1150	Portion 8 - Stage 3 - Remove Surcharge to Final FL (15,300m3 @ 540m3/d)	28	29-Dec-22	04-Feb-23	29-Dec-22	04-Feb-23	0
S8 STW - External Works		240	27-Nov-24	19-Sep-25	27-Nov-24	19-Sep-25	0
S8-1170	Portion 8 - Sewage Treatment External Works	240	27-Nov-24	19-Sep-25	27-Nov-24	19-Sep-25	0
S8-1740	EVA and Signage (Emergency Vehicle Access) Completed	0		07-Mar-25*		07-Mar-25	0
S8 STW - E&M Works		544	30-May-23	28-Mar-25	30-May-23	28-Mar-25	0
S8-1000	KD8 - STW Handover for E&M Works	0		30-May-24		01-Jun-24	2
S8-1210	Installation of Puddle Flanges	250	30-May-23	02-Apr-24*	30-May-23	02-Apr-24	0
S8-1220	Installation of Inlet Works (Primary Treatment System)	90	28-Jun-24	15-Oct-24	28-Jun-24	15-Oct-24	0
S8-1230	Installation of Primary Sedimentation System	90	05-Aug-24	20-Nov-24	05-Aug-24	20-Nov-24	0
S8-1240	Installation of Bioreactor System	90	17-Oct-24	06-Feb-25	17-Oct-24	06-Feb-25	0
S8-1250	Installation of Membrane Filtration System	60	05-Dec-24	20-Feb-25*	05-Dec-24	20-Feb-25	0
S8-1260	Installation of UV Disinfection System	60	05-Nov-24	16-Jan-25	05-Nov-24	16-Jan-25	0
S8-1270	Installation of Plant Services Water System	90	05-Sep-24	21-Dec-24	24-Sep-24	11-Jan-25	15
S8-1280	Installation of Sludge Blending and Thickening System	90	19-Aug-24	04-Dec-24	19-Aug-24	04-Dec-24	0
S8-1290	Installation of Sludge Dewatering System	90	05-Nov-24	25-Feb-25*	05-Nov-24	25-Feb-25	0
S8-1300	Installation of UV Deodorizing System No. 1 including associated ductworks	60	19-Aug-24	30-Oct-24	19-Aug-24	30-Oct-24	0
S8-1310	Installation of UV Deodorizing System No. 2 including associated ductworks	60	05-Oct-24	14-Dec-24	05-Oct-24	14-Dec-24	0
S8-1320	Installation of UV Deodorizing System No. 3 including associated ductworks	60	18-Dec-24	05-Mar-25	18-Dec-24	05-Mar-25	0
S8-1330	Installation of Chemical Storage & Dosing System including chemical pipework	90	20-Sep-24	08-Jan-25	20-Sep-24	08-Jan-25	0
S8-1340	Installation of Lifting Appliances & SAT	45	03-Jun-24	26-Jul-24	03-Jun-24	26-Jul-24	0
S8-1350	Installation of Process Instrumentation	90	05-Nov-24	25-Feb-25	05-Nov-24	25-Feb-25	0
S8-1360	Installation of Gas Detection System	20	25-Jan-25	21-Feb-25	25-Jan-25	21-Feb-25	0
S8-1370	Installation of LVSBs, MCCs, LMCPs, etc.	90	24-Sep-24	11-Jan-25	24-Sep-24	11-Jan-25	0
S8-1380	Electrical Installation (Process)	138	05-Aug-24	18-Jan-25	08-Aug-24	22-Jan-25	3
S8-1390	Installation of SCADA System	90	01-Nov-24	21-Feb-25	01-Nov-24	21-Feb-25	0
S8-1400	BS Installation - 1st Fix	50	03-Jun-24	01-Aug-24*	03-Jun-24	01-Aug-24	0
S8-1410	MVAC Installation	90	02-Aug-24	18-Nov-24	07-Aug-24	22-Nov-24	4
S8-1420	Fire Services Installation	90	17-Sep-24	06-Jan-25*	26-Oct-24	15-Feb-25	31
S8-1430	Plumbing Installation	60	17-Sep-24	28-Nov-24	04-Nov-24	15-Jan-25	38
S8-1440	Drainage Installation	90	02-Aug-24	18-Nov-24	07-Aug-24	22-Nov-24	4
S8-1450	Electrical Installation (BS)	87	04-Sep-24	17-Dec-24	09-Sep-24	21-Dec-24	4
S8-1460	ELV System Installation	60	21-Sep-24	02-Dec-24	26-Sep-24	06-Dec-24	4
S8-1470	PV Panel System Installation	60	12-Oct-24	20-Dec-24	17-Oct-24	27-Dec-24	4
S8-1480	BS Installation for Administration Building	76	16-Oct-24	15-Jan-25	21-Oct-24	20-Jan-25	4
S8-1485	E&M Installation for EBC Plant Room	76	16-Oct-24	15-Jan-25	21-Oct-24	20-Jan-25	4
S8-1490	SAT Final Wrap up of Equipment (Dry Tests)	30	22-Feb-25	28-Mar-25	22-Feb-25	28-Mar-25	0
S8 STW - Statutory Inspection		360	22-Oct-22	03-May-25	22-Oct-22	03-May-25	0
S8-1500	Submission of WR1 to CLP	0		02-Jan-25*		02-Jan-25	0
S8-1510	CLP Inspection & Defect Rectification for Energization	22	17-Jan-25	15-Feb-25	17-Jan-25	15-Feb-25	0
S8-1520	Energization	0		15-Feb-25		15-Feb-25	0
S8-1530	Submission of WWO46 Pt I & II (FS)	0	22-Oct-22*		22-Oct-22		0
S8-1540	Submission of WWO46 Pt I & II (Plumbing)	0	22-Oct-22*		22-Oct-22		0
S8-1550	Approval of WWO46 Pt I & II (FS)	22	21-Nov-22	12-Dec-22*	01-Dec-22	22-Dec-22	10
S8-1560	Approval of WWO46 Pt I & II (Plumbing)	22	21-Nov-22	12-Dec-22*	01-Dec-22	22-Dec-22	10
S8-1570	Submission of WWO46 Pt IV (FS)	0	01-Feb-25*		01-Feb-25		0
S8-1580	Submission of WWO46 Pt IV (Plumbing)	0	01-Feb-25*		01-Feb-25		0
S8-1590	WSD Inspection (FS)	7	01-Mar-25	07-Mar-25	06-Mar-25	12-Mar-25	5
S8-1600	WSD Inspection (Plumbing)	7	01-Mar-25	07-Mar-25	06-Mar-25	12-Mar-25	5
S8-1610	Connection of Water Supply (FS)	14	08-Mar-25	24-Mar-25	13-Mar-25	28-Mar-25	4
S8-1620	Connection of Water Supply (Plumbing)	14	08-Mar-25	24-Mar-25	13-Mar-25	28-Mar-25	4
S8-1630	Issuance of Water Certificate (FS)	0		24-Mar-25		28-Mar-25	4
S8-1640	Issuance of Water Certificate (Plumbing)	0		24-Mar-25		28-Mar-25	4
S8-1650	Submission of Form LE5 to EMSD for Lift	0		01-Mar-23*		01-Mar-23	0
S8-1655	EMSD Inspection of Lift	0		01-Mar-25*		01-Mar-25	0
S8-1658	Issuance of Lift Certificate	0		15-Mar-25*		15-Mar-25	0
S8-1660	EPD Submission & Approval for Air Pollution Control - Genset	531	01-Jun-23	15-Mar-25	01-Jun-23	15-Mar-25	0
S8-1670	Submission & Approval of GBP (FSD)	92	01-Nov-22	31-Jan-23*	01-Nov-22	31-Jan-23	0
S8-1675	Submission of F314 and F501	0	17-Feb-25		17-Feb-25		0
S8-1678	DG Inspection (DG Division)	22	25-Feb-25	21-Mar-25	25-Feb-25	21-Mar-25	0
S8-1680	Obtain DG Licenses	0		28-Mar-25		28-Mar-25	0
S8-1685	FSD Inspection Rehearsal	15	08-Mar-25	25-Mar-25	12-Mar-25	28-Mar-25	3
S8-1690	FS Inspection	28	29-Mar-25	25-Apr-25*	29-Mar-25	25-Apr-25	0
S8-1700	Issuance of FS Certificate	0		03-May-25*		03-May-25	0
S8 STW - Testing & Commissioning		139	04-May-25	19-Sep-25	04-May-25	19-Sep-25	0
S8-1710	MBR System Process Start-Up (+60d)	79	04-May-25	21-Jul-25	04-May-25	21-Jul-25	0
S8-1720	Plant Commissioning (+60d)	60	22-Jul-25	19-Sep-25	22-Jul-25	19-Sep-25	0
S8-1730	Completion of E&M Works	0		19-Sep-25		19-Sep-25	0
S8 STW - O&M Manual & Training		120	01-Apr-25	29-Jul-25	22-May-25	18-Sep-25	51
S8-1750	Preparation & Submission of O&M Manual	90	01-Apr-25	29-Jun-25	22-May-25	19-Aug-25	51
S8-1760	O&M Training	30	30-Jun-25	29-Jul-25*	20-Aug-25	18-Sep-25	51
Section 9 - Ground Treatment Works and Site Formation at Portion 20		203	01-Sep-21 A	24-Mar-23	14-Apr-22	27-Mar-23	1
S9-PC	Completion Section 9 (sd+620) - All the works in Portion 20 of the Site	0		24-Mar-23		27-Mar-23	3



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

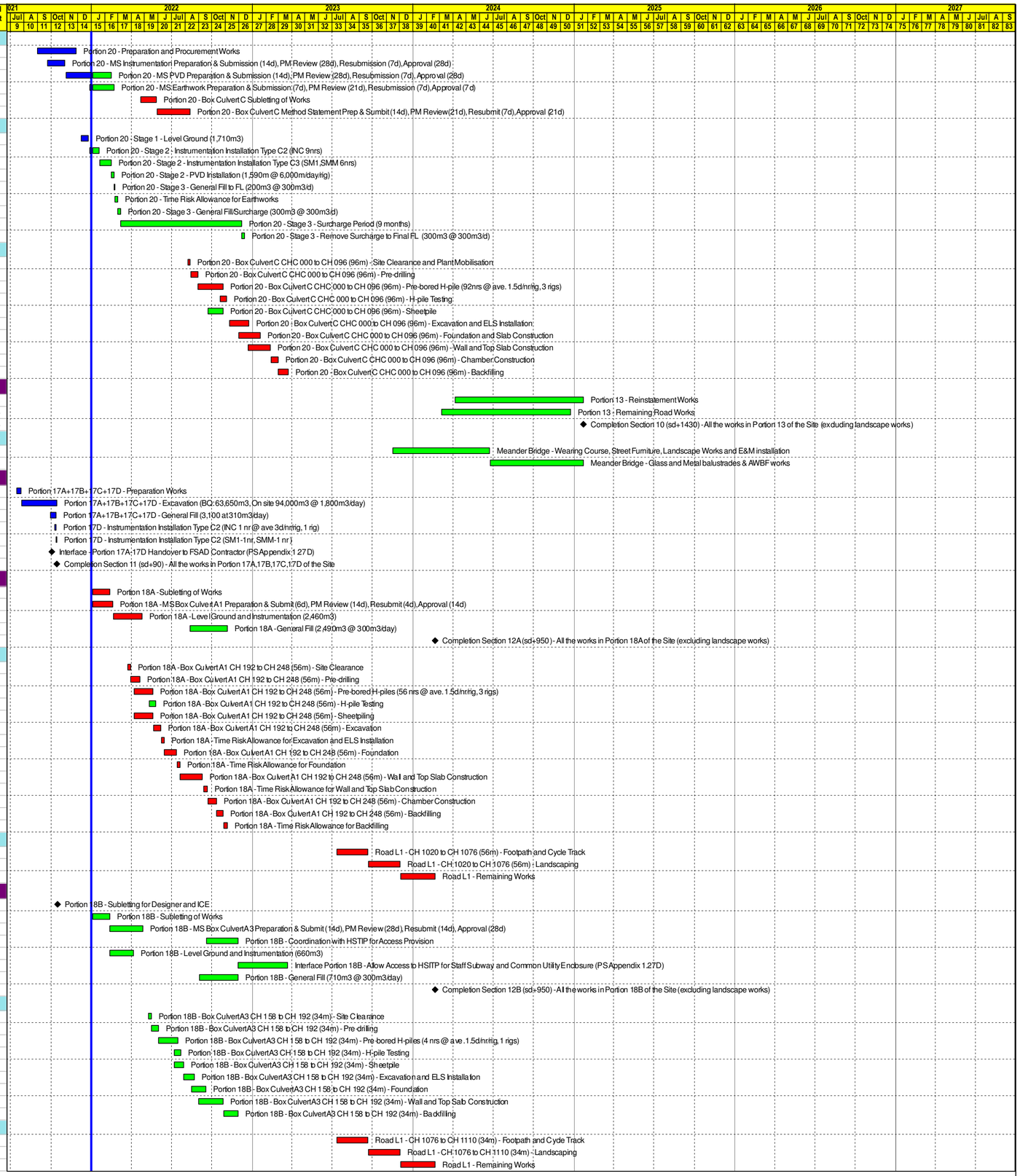
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 15 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S9 - Submission		279	01-Sep-21 A	13-Aug-22	14-Apr-22	16-Aug-22	2
S9-1000	Portion 20 - Preparation and Procurement Works	72	01-Sep-21 A	26-Nov-21 A	14-Apr-22	14-Apr-22	
S9-1010	Portion 20 - MS Instrumentation Preparation & Submission (14d), PM Review (28d), Resubmission (7d), Approval (28d)	78	23-Sep-21 A	01-Nov-21 A	14-Apr-22	14-Apr-22	
S9-1050	Portion 20 - MS PVD Preparation & Submission (14d), PM Review (28d), Resubmission (7d), Approval (28d)	79	05-Nov-21 A	14-Feb-22	14-Apr-22	27-May-22	81
S9-1060	Portion 20 - MS Earthwork Preparation & Submission (7d), PM Review (21d), Resubmission (7d), Approval (7d)	42	28-Dec-21 A	21-Feb-22	14-Apr-22	04-Jun-22	81
S9-1130	Portion 20 - Box Culvert C Subletting of Works	30	22-Apr-22	28-May-22	25-Apr-22	31-May-22	2
S9-1140	Portion 20 - Box Culvert C Method Statement Prep & Sumbit (14d), PM Review (21d), Resubmit (7d), Approval (21d)	64	30-May-22	13-Aug-22	01-Jun-22	16-Aug-22	2
S9 - Ground Treatment and Site Formation		129	09-Dec-21 A	14-Dec-22	14-Apr-22	27-Mar-23	40
S9-1020	Portion 20 - Stage 1 - Level Ground (1,710m3)	14	09-Dec-21 A	24-Dec-21 A	14-Apr-22	14-Apr-22	
S9-1030	Portion 20 - Stage 2 - Instrumentation Installation Type C2 (INC 9nrs)	18	28-Dec-21 A	18-Jan-22	14-Apr-22	05-May-22	81
S9-1040	Portion 20 - Stage 2 - Instrumentation Installation Type C3 (SM1,SMM 6nrs)	18	19-Jan-22	14-Feb-22	05-May-22	27-May-22	81
S9-1070	Portion 20 - Stage 2 - PVD Installation (1,590m @ 6,000m/day/rig)	6	15-Feb-22	21-Feb-22	27-May-22	04-Jun-22	81
S9-1080	Portion 20 - Stage 3 - General Fill to FL (200m3 @ 300m3/d)	1	22-Feb-22	22-Feb-22	04-Jun-22	04-Jun-22	81
S9-1090	Portion 20 - Time Risk Allowance for Earthworks	6	22-Feb-22	01-Mar-22	06-Jun-22	11-Jun-22	81
S9-1100	Portion 20 - Stage 3 - General Fill/Surcharge (300m3 @ 300m3/d)	6	01-Mar-22	08-Mar-22	13-Jun-22	18-Jun-22	81
S9-1110	Portion 20 - Stage 3 - Surcharge Period (9 months)	274	08-Mar-22	07-Dec-22	20-Jun-22	20-Mar-23	103
S9-1120	Portion 20 - Stage 3 - Remove Surcharge to Final FL (300m3 @ 300m3/d)	6	07-Dec-22	14-Dec-22	21-Mar-23	27-Mar-23	81
S9 - Box Culvert C		187	08-Aug-22	24-Mar-23	10-Aug-22	27-Mar-23	2
S9-1150	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Site Clearance and Plant Mobilisation	6	08-Aug-22	13-Aug-22	10-Aug-22	16-Aug-22	2
S9-1160	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Pre-drilling	14	15-Aug-22	30-Aug-22	17-Aug-22	01-Sep-22	2
S9-1170	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Pre-bored H-pile (92nrs @ ave. 1.5d/nr/rig, 3 rigs)	46	31-Aug-22	26-Oct-22	02-Sep-22	28-Oct-22	2
S9-1180	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - H-pile Testing	14	20-Oct-22	04-Nov-22	22-Oct-22	07-Nov-22	2
S9-1190	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Sheetpile	28	22-Sep-22	26-Oct-22	22-Oct-22	23-Nov-22	24
S9-1200	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Excavation and ELS Installation	38	10-Nov-22	23-Dec-22	12-Nov-22	28-Dec-22	2
S9-1210	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Foundation and Slab Construction	40	01-Dec-22	19-Jan-23	03-Dec-22	26-Jan-23	2
S9-1220	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Wall and Top Slab Construction	38	22-Dec-22	11-Feb-23	24-Dec-22	14-Feb-23	2
S9-1230	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Chamber Construction	15	13-Feb-23	01-Mar-23	15-Feb-23	03-Mar-23	2
S9-1250	Portion 20 - Box Culvert C CHC 000 to CH 096 (96m) - Backfilling	21	01-Mar-23	24-Mar-23	03-Mar-23	27-Mar-23	2
Section 10 - Remaining Roadworks at Portion 13		169	16-Nov-23	21-Jan-25	09-Apr-24	14-Jun-25	56
S10-1000	Portion 13 - Reinstatement Works	240	05-Apr-24	21-Jan-25	20-Aug-24	14-Jun-25	113
S10-2000	Portion 13 - Remaining Road Works	240	06-Mar-24	23-Dec-24	20-Aug-24	14-Jun-25	135
S10-PC	Completion Section 10 (sd+1430) - All the works in Portion 13 of the Site (exduding landscape works)	0		21-Jan-25		14-Jun-25	144
Section 10 - Meander Bridge Finishing Works		350	16-Nov-23	21-Jan-25	09-Apr-24	14-Jun-25	113
S10-2010	Meander Bridge - Wearing Course, Street Furniture, Landscape Works and E&M installation	175	16-Nov-23	22-Jun-24	09-Apr-24	06-Nov-24	113
S10-2015	Meander Bridge - Glass and Metal balustrades & AWBF works	175	24-Jun-24	21-Jan-25	07-Nov-24	14-Jun-25	113
Section 11 - Ground Treatment Works and Site Formation at Portion 17		31	15-Jul-21 A	13-Oct-21 A	11-Nov-25	11-Nov-25	
S11-1000	Portion 17A+17B+17C+17D - Preparation Works	9	15-Jul-21 A	24-Jul-21 A	11-Nov-25	11-Nov-25	
S11-1010	Portion 17A+17B+17C+17D - Excavation (BQ: 63,650m3, On site 94,000m3 @ 1,800m3/day)	67	26-Jul-21 A	13-Oct-21 A	11-Nov-25	11-Nov-25	
S11-1020	Portion 17A+17B+17C+17D - General Fill (3,100 at 310m3/day)	10	30-Sep-21 A	12-Oct-21 A	11-Nov-25	11-Nov-25	
S11-1030	Portion 17D - Instrumentation Installation Type C2 (INC 1 nr @ ave 3d/nr/rig, 1 rig)	3	09-Oct-21 A	12-Oct-21 A	11-Nov-25	11-Nov-25	
S11-1040	Portion 17D - Instrumentation Installation Type C2 (SM1-1nr, SMM-1 nr)	1	13-Oct-21 A	13-Oct-21 A	11-Nov-25	11-Nov-25	
S11-1050	Interface - Portion 17A-17D Handover to FSAD Contractor (PS Appendix 1 27D)	0		02-Oct-21 A		11-Nov-25	
S11-PC	Completion Section 11 (sd+90) - All the works in Portion 17A,17B,17C,17D of the Site	0		13-Oct-21 A		11-Nov-25	
Section 12A - Box Culvert A1 at Portion 18A		288	03-Jan-22	19-Feb-24	04-Jan-22	20-Feb-24	0
S12A-1000	Portion 18A - Subletting of Works	30	03-Jan-22	11-Feb-22	04-Jan-22	12-Feb-22	1
S12A-1010	Portion 18A - MS Box Culvert A1 Preparation & Submit (6d), PM Review (14d), Resubmit (4d), Approval (14d)	36	03-Jan-22	18-Feb-22	04-Jan-22	19-Feb-22	1
S12A-1020	Portion 18A - Level Ground and Instrumentation (2,460m3)	52	19-Feb-22	25-Apr-22	21-Feb-22	26-Apr-22	1
S12A-1030	Portion 18A - General Fill (2,490m3 @ 300m3/day)	70	13-Aug-22	05-Nov-22	20-Feb-23	17-May-23	153
S12A-PC	Completion Section 12A (sd+950) - All the works in Portion 18A of the Site (excluding landscape works)	0		19-Feb-24		20-Feb-24	1
Section 12A - Construction		184	24-Mar-22	05-Nov-22	25-Mar-22	07-Nov-22	1
S12A-1040	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Site Clearance	6	24-Mar-22	30-Mar-22	25-Mar-22	31-Mar-22	1
S12A-1050	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Pre-drilling	14	31-Mar-22	20-Apr-22	01-Apr-22	21-Apr-22	1
S12A-1060	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Pre-bored H-piles (56 nrs @ ave. 1.5d/nr/rig, 3 rigs)	32	08-Apr-22	20-May-22	09-Apr-22	21-May-22	1
S12A-1070	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - H-pile Testing	14	12-May-22	27-May-22	23-May-22	08-Jun-22	9
S12A-1080	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Sheetpiling	32	08-Apr-22	20-May-22	09-Apr-22	21-May-22	1
S12A-1090	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Excavation	14	21-May-22	07-Jun-22	23-May-22	08-Jun-22	1
S12A-1100	Portion 18A - Time Risk Allowance for Excavation and ELS Installation	6	08-Jun-22	14-Jun-22	09-Jun-22	15-Jun-22	1
S12A-1110	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Foundation	24	15-Jun-22	13-Jul-22	16-Jun-22	14-Jul-22	1
S12A-1120	Portion 18A - Time Risk Allowance for Foundation	6	14-Jul-22	20-Jul-22	15-Jul-22	21-Jul-22	1
S12A-1130	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Wall and Top Slab Construction	44	21-Jul-22	09-Sep-22	22-Jul-22	12-Sep-22	1
S12A-1140	Portion 18A - Time Risk Allowance for Wall and Top Slab Construction	8	12-Sep-22	20-Sep-22	13-Sep-22	21-Sep-22	1
S12A-1150	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Chamber Construction	14	23-Sep-22	11-Oct-22	24-Sep-22	12-Oct-22	1
S12A-1190	Portion 18A - Box Culvert A1 CH 192 to CH 248 (56m) - Backfilling	14	12-Oct-22	27-Oct-22	13-Oct-22	28-Oct-22	1
S12A-1200	Portion 18A - Time Risk Allowance for Backfilling	8	28-Oct-22	05-Nov-22	29-Oct-22	07-Nov-22	1
Section 12A - Remaining Works		180	13-Jul-23	19-Feb-24	14-Jul-23	20-Feb-24	1
S12A-1210	Road L1 - CH 1020 to CH 1076 (56m) - Footpath and Cycle Track	60	13-Jul-23	20-Sep-23	14-Jul-23	21-Sep-23	1
S12A-1220	Road L1 - CH 1020 to CH 1076 (56m) - Landscaping	60	21-Sep-23	02-Dec-23	22-Sep-23	04-Dec-23	1
S12A-1230	Road L1 - Remaining Works	60	04-Dec-23	19-Feb-24	05-Dec-23	20-Feb-24	1
Section 12B - Box Culvert A3 at Portion 18B		317	15-Oct-21 A	19-Feb-24	11-Jan-22	20-Feb-24	0
S12B-1040	Portion 18B - Subletting for Designer and ICE	0		15-Oct-21 A		11-Jan-22	
S12B-1050	Portion 18B - Subletting of Works	30	03-Jan-22	11-Feb-22	11-Jan-22	19-Feb-22	7
S12B-1060	Portion 18B - MS Box Culvert A3 Preparation & Submit (14d), PM Review (28d), Resubmit (14d), Approval (28d)	60	12-Feb-22	27-Apr-22	02-Mar-22	17-May-22	15
S12B-1070	Portion 18B - Coordination with HSTIP for Access Provision	60	19-Sep-22	29-Nov-22	27-Sep-22	07-Dec-22	7
S12B-1080	Portion 18B - Level Ground and Instrumentation (660m3)	45	12-Feb-22	06-Apr-22	21-Feb-22	14-Apr-22	7
S12B-1090	Interface Portion 18B - Allow Access to HSITP for Staff Subway and Common Utility Enclosure (PS Appendix 1 27D)	90	30-Nov-22	22-Mar-23	08-Dec-22	30-Mar-23	7
S12B-1100	Portion 18B - General Fill (710m3 @ 300m3/day)	72	03-Sep-22	29-Nov-22	22-Sep-22	16-Dec-22	15
S12B-PC	Completion Section 12B (sd+950) - All the works in Portion 18B of the Site (excluding landscape works)	0		19-Feb-24		20-Feb-24	1
Section 12B - Construction		170	10-May-22	29-Nov-22	18-May-22	07-Dec-22	7
S12B-1110	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Site Clearance	6	10-May-22	16-May-22	18-May-22	24-May-22	7
S12B-1120	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Pre-drilling	14	17-May-22	01-Jun-22	25-May-22	10-Jun-22	7
S12B-1130	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Pre-bored H-piles (4 nrs @ ave. 1.5d/nr/rig, 1 rigs)	36	02-Jun-22	15-Jul-22	11-Jun-22	23-Jul-22	7
S12B-1140	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - H-pile Testing	14	08-Jul-22	23-Jul-22	21-Jul-22	05-Aug-22	11
S12B-1150	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Sheetpile	18	08-Jul-22	28-Jul-22	16-Jul-22	05-Aug-22	7
S12B-1160	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Excavation and ELS Installation	21	29-Jul-22	22-Aug-22	06-Aug-22	30-Aug-22	7
S12B-1170	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Foundation	28	16-Aug-22	17-Sep-22	24-Aug-22	26-Sep-22	7
S12B-1180	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Wall and Top Salb Construction	45	02-Sep-22	27-Oct-22	12-Sep-22	04-Nov-22	7
S12B-1210	Portion 18B - Box Culvert A3 CH 158 to CH 192 (34m) - Backfilling	28	28-Oct-22	29-Nov-22	05-Nov-22	07-Dec-22	7
Section 12B - Remaining Works		180	13-Jul-23	19-Feb-24	14-Jul-23	20-Feb-24	1
S12B-1220	Road L1 - CH 1076 to CH 1110 (34m) - Footpath and Cyde Track	60	13-Jul-23	20-Sep-23	14-Jul-23	21-Sep-23	1
S12B-1230	Road L1 - CH 1076 to CH 1110 (34m) - Landscaping	60	21-Sep-23	02-Dec-23	22-Sep-23	04-Dec-23	1
S12B-1240	Road L1 - Remaining Works	60	04-Dec-23	19-Feb-24	05-Dec-23	20-Feb-24	1



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

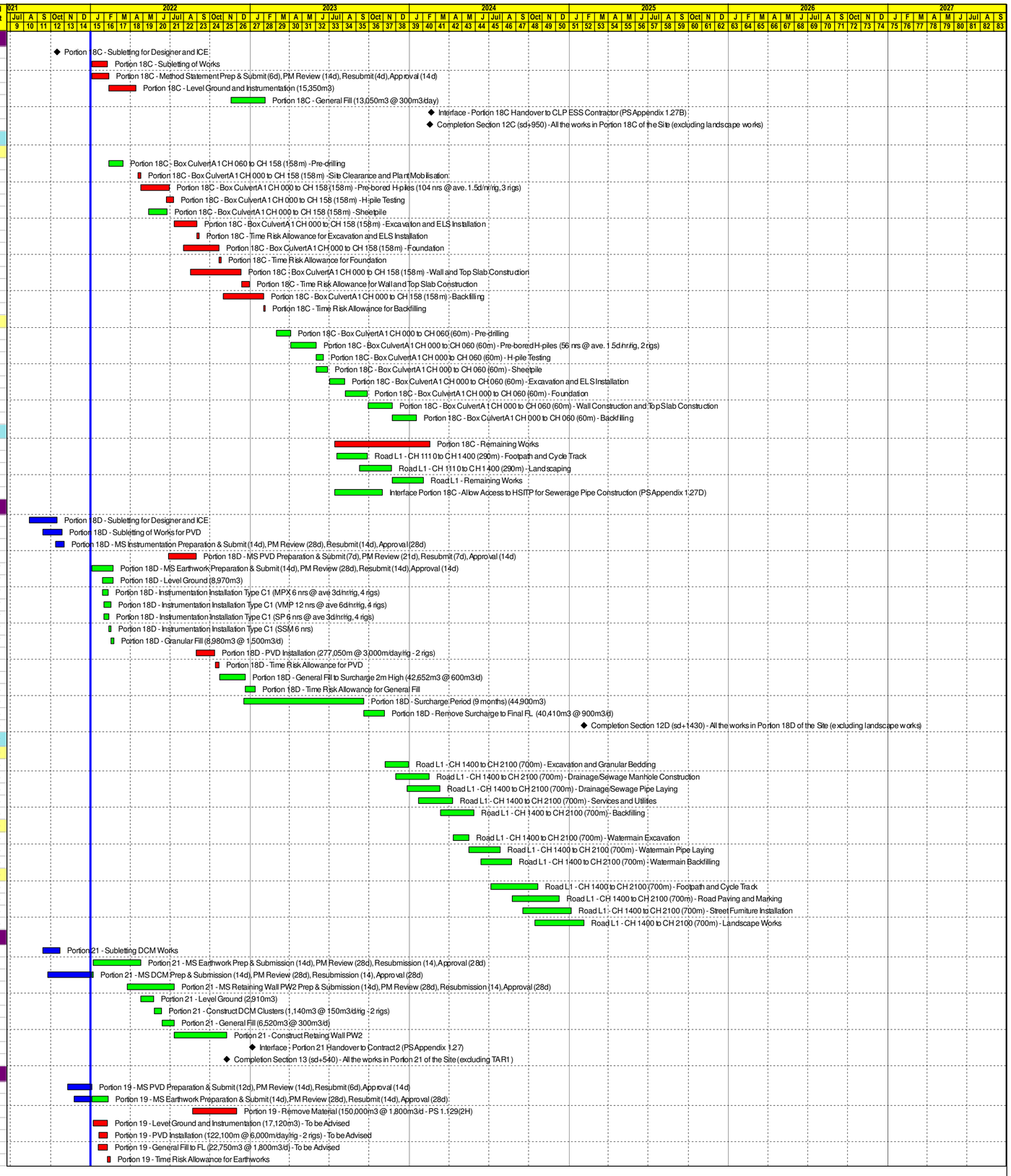
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 16 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
Section 12C - Box Culvert A1 at Portion 18C		318	15-Oct-21 A	20-Feb-24	04-Jan-22	20-Feb-24	0
S12C-1040	Portion 18C - Subletting for Designer and ICE	0		15-Oct-21 A		14-Feb-22	
S12C-1050	Portion 18C - Subletting of Works	27	03-Jan-22	08-Feb-22	04-Jan-22	09-Feb-22	1
S12C-1060	Portion 18C - Method Statement Prep & Submit (6d), PM Review (14d), Resubmit (4d), Approval (14d)	30	03-Jan-22	11-Feb-22	04-Jan-22	12-Feb-22	1
S12C-1070	Portion 18C - Level Ground and Instrumentation (15,350m3)	52	12-Feb-22	14-Apr-22	14-Feb-22	19-Apr-22	1
S12C-1080	Portion 18C - General Fill (13,050m3 @ 300m3/day)	60	19-Nov-22	04-Feb-23	03-Mar-23	17-May-23	82
S12C-1090	Interface - Portion 18C Handover to CLP ESS Contractor (PS Appendix 1.27B)	0		20-Feb-24		20-Feb-24	0
S12C-PC	Completion Section 12C (sd+1430) - All the works in Portion 18C of the Site (excluding landscape works)	0		17-Feb-24		20-Feb-24	3
Section 12C - Construction		572	12-Feb-22	17-Jan-24	14-Mar-22	20-Feb-24	25
Section 12C - Box Culvert A1 (CH 60 to CH 158)		289	12-Feb-22	04-Feb-23	14-Mar-22	06-Feb-23	1
S12C-1100	Portion 18C - Box Culvert A1 CH 060 to CH 158 (158m) - Pre-drilling	28	12-Feb-22	16-Mar-22	14-Mar-22	19-Apr-22	25
S12C-1110	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - Site Clearance and Plant Mobilisation	6	19-Apr-22	25-Apr-22	20-Apr-22	26-Apr-22	1
S12C-1120	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - Pre-bored H-piles (104 nrs @ ave. 1.5d/nr/rig, 3 rigs)	54	26-Apr-22	30-Jun-22	27-Apr-22	02-Jul-22	1
S12C-1130	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - H-pile Testing	14	23-Jun-22	09-Jul-22	24-Jun-22	11-Jul-22	1
S12C-1140	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - Sheetpile	36	14-May-22	25-Jun-22	13-Jun-22	25-Jul-22	24
S12C-1150	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - Excavation and ELS Installation	46	11-Jul-22	01-Sep-22	12-Jul-22	02-Sep-22	1
S12C-1160	Portion 18C - Time Risk Allowance for Excavation and ELS Installation	4	02-Sep-22	06-Sep-22	03-Sep-22	07-Sep-22	1
S12C-1170	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - Foundation	68	01-Aug-22	21-Oct-22	02-Aug-22	22-Oct-22	1
S12C-1180	Portion 18C - Time Risk Allowance for Foundation	5	22-Oct-22	27-Oct-22	24-Oct-22	28-Oct-22	1
S12C-1190	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - Wall and Top Slab Construction	97	17-Aug-22	10-Dec-22	18-Aug-22	12-Dec-22	1
S12C-1240	Portion 18C - Time Risk Allowance for Wall and Top Slab Construction	15	12-Dec-22	30-Dec-22	13-Dec-22	31-Dec-22	1
S12C-1250	Portion 18C - Box Culvert A1 CH 000 to CH 158 (158m) - Backfilling	72	01-Nov-22	31-Jan-23	02-Nov-22	01-Feb-23	1
S12C-1260	Portion 18C - Time Risk Allowance for Backfilling	4	01-Feb-23	04-Feb-23	02-Feb-23	06-Feb-23	1
Section 12C - Box Culvert A1 (CH 0 to CH 60)		262	02-Mar-23	17-Jan-24	31-Mar-23	20-Feb-24	25
S12C-1320	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - Pre-drilling	28	02-Mar-23	03-Apr-23	31-Mar-23	08-May-23	25
S12C-1330	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - Pre-bored H-piles (56 nrs @ ave. 1.5d/nr/rig, 2 rigs)	45	04-Apr-23	01-Jun-23	09-May-23	03-Jul-23	25
S12C-1340	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - H-pile Testing	14	02-Jun-23	17-Jun-23	15-Jul-23	31-Jul-23	35
S12C-1350	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - Sheetpile	21	02-Jun-23	27-Jun-23	04-Jul-23	27-Jul-23	25
S12C-1360	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - Excavation and ELS Installation	30	03-Jul-23	05-Aug-23	01-Aug-23	04-Sep-23	25
S12C-1370	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - Foundation	45	07-Aug-23	27-Sep-23	05-Sep-23	30-Oct-23	25
S12C-1380	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - Wall Construction and Top Slab Construction	45	28-Sep-23	22-Nov-23	31-Oct-23	21-Dec-23	25
S12C-1390	Portion 18C - Box Culvert A1 CH 000 to CH 060 (60m) - Backfilling	45	23-Nov-23	17-Jan-24	22-Dec-23	20-Feb-24	25
Section 12C - Remaining Works		178	14-Jul-23	17-Feb-24	17-Jul-23	20-Feb-24	2
S12C-1270	Portion 18C - Remaining Works	178	14-Jul-23	17-Feb-24	17-Jul-23	20-Feb-24	2
S12C-1280	Road L1 - CH 111 0 to CH 1400 (290m) - Footpath and Cycle Track	60	19-Jul-23	26-Sep-23	01-Aug-23	11-Oct-23	11
S12C-1290	Road L1 - CH 111 0 to CH 1400 (290m) - Landscaping	60	09-Sep-23	21-Nov-23	22-Sep-23	04-Dec-23	11
S12C-1300	Road L1 - Remaining Works	60	22-Nov-23	02-Feb-24	05-Dec-23	20-Feb-24	11
S12C-1310	Interface Portion 18C - Allow Access to HSITP for Sewerage Pipe Construction (PS Appendix 1.27D)	90	14-Jul-23	30-Oct-23	31-Oct-23	20-Feb-24	90
Section 12D - Ground Treatment Works and Site Formation at Portion 18D		475	14-Aug-21 A	04-Feb-25	20-May-22	14-Jun-25	51
S12D-1040	Portion 18D - Subletting for Designer and ICE	51	14-Aug-21 A	15-Oct-21 A	20-May-22	20-May-22	
S12D-1050	Portion 18D - Subletting of Works for PVD	35	13-Sep-21 A	26-Oct-21 A	20-May-22	20-May-22	
S12D-1060	Portion 18D - MS Instrumentation Preparation & Submit (14d), PM Review (28d), Resubmit (14d), Approval (28d)	17	12-Oct-21 A	01-Nov-21 A	15-Aug-22	15-Aug-22	
S12D-1070	Portion 18D - MS PVD Preparation & Submit (7d), PM Review (21d), Resubmit (7d), Approval (14d)	53	29-Jun-22	30-Aug-22	05-Jul-22	03-Sep-22	4
S12D-1080	Portion 18D - MS Earthwork Preparation & Submit (14d), PM Review (28d), Resubmit (14d), Approval (14d)	38	03-Jan-22	21-Feb-22	20-May-22	05-Jul-22	107
S12D-1090	Portion 18D - Level Ground (8,970m3)	16	28-Jan-22	21-Feb-22	16-Jun-22	05-Jul-22	107
S12D-1100	Portion 18D - Instrumentation Installation Type C1 (MPX 6 nrs @ ave 3d/nr/rig, 4 rigs)	6	28-Jan-22	09-Feb-22	15-Aug-22	20-Aug-22	157
S12D-1110	Portion 18D - Instrumentation Installation Type C1 (VMP 12 nrs @ ave 6d/nr/rig, 4 rigs)	10	31-Jan-22	16-Feb-22	17-Aug-22	27-Aug-22	157
S12D-1120	Portion 18D - Instrumentation Installation Type C1 (SP 6 nrs @ ave 3d/nr/rig, 4 rigs)	6	31-Jan-22	11-Feb-22	17-Aug-22	23-Aug-22	157
S12D-1130	Portion 18D - Instrumentation Installation Type C1 (SSM 6 nrs)	4	12-Feb-22	16-Feb-22	24-Aug-22	27-Aug-22	157
S12D-1140	Portion 18D - Granular Fill (8,980m3 @ 1,500m3/d)	6	17-Feb-22	23-Feb-22	29-Aug-22	03-Sep-22	157
S12D-1150	Portion 18D - PVD Installation (277,050m @ 3,000m/day/rig - 2 rigs)	34	31-Aug-22	12-Oct-22	05-Sep-22	17-Oct-22	4
S12D-1155	Portion 18D - Time Risk Allowance for PVD	9	13-Oct-22	22-Oct-22	18-Oct-22	27-Oct-22	4
S12D-1160	Portion 18D - General Fill to Surcharge 2m High (42,652m3 @ 600m3/d)	50	24-Oct-22	20-Dec-22	24-Feb-23	27-Apr-23	99
S12D-1165	Portion 18D - Time Risk Allowance for General Fill	18	21-Dec-22	13-Jan-23	05-Jan-24	25-Jan-24	305
S12D-1200	Portion 18D - Surcharge Period (9 months) (44,900m3)	275	18-Dec-22	18-Sep-23	26-Apr-23	25-Jan-24	129
S12D-1210	Portion 18D - Remove Surcharge to Final FL (40,410m3 @ 900m3/d)	38	19-Sep-23	04-Nov-23	26-Jan-24	14-Mar-24	105
S12D-PC	Completion Section 12D (sd+1430) - All the works in Portion 18D of the Site (excluding landscape works)	0		04-Feb-25		14-Jun-25	130
Section 12D - Road L1 at CH 1400 to CH 2100		367	06-Nov-23	04-Feb-25	15-Mar-24	14-Jun-25	105
S12D - L1 Drainage/Sewage & Utilities		162	06-Nov-23	27-May-24	15-Mar-24	28-Dec-24	178
S12D-1260	Road L1 - CH 1400 to CH 2100 (700m) - Excavation and Granular Bedding	45	06-Nov-23	29-Dec-23	15-Mar-24	11-May-24	105
S12D-1270	Road L1 - CH 1400 to CH 2100 (700m) - Drainage/Sewage Manhole Construction	60	30-Nov-23	15-Feb-24	13-Apr-24	25-Jun-24	105
S12D-1280	Road L1 - CH 1400 to CH 2100 (700m) - Drainage/Sewage Pipe Laying	60	27-Dec-23	11-Mar-24	09-May-24	20-Jul-24	105
S12D-1290	Road L1 - CH 1400 to CH 2100 (700m) - Services and Utilities	60	22-Jan-24	09-Apr-24	04-Jun-24	14-Aug-24	105
S12D-1300	Road L1 - CH 1400 to CH 2100 (700m) - Backfilling	60	12-Mar-24	27-May-24	18-Oct-24	28-Dec-24	178
S12D - L1 Fresh/Flushing Watermains		112	10-Apr-24	22-Aug-24	15-Aug-24	28-Dec-24	105
S12D-1230	Road L1 - CH 1400 to CH 2100 (700m) - Watermain Excavation	30	10-Apr-24	16-May-24	15-Aug-24	19-Sep-24	105
S12D-1240	Road L1 - CH 1400 to CH 2100 (700m) - Watermain Pipe Laying	60	17-May-24	27-Jul-24	20-Sep-24	30-Nov-24	105
S12D-1250	Road L1 - CH 1400 to CH 2100 (700m) - Watermain Backfilling	60	13-Jun-24	22-Aug-24	18-Oct-24	28-Dec-24	105
S12D - L1 Road Paving, Road Marking		174	05-Jul-24	04-Feb-25	08-Nov-24	14-Jun-25	105
S12D-1310	Road L1 - CH 1400 to CH 2100 (700m) - Footpath and Cycle Track	90	05-Jul-24	21-Oct-24	08-Nov-24	28-Feb-25	105
S12D-1320	Road L1 - CH 1400 to CH 2100 (700m) - Road Paving and Marking	90	23-Aug-24	09-Dec-24	30-Dec-24	23-Apr-25	105
S12D-1330	Road L1 - CH 1400 to CH 2100 (700m) - Street Furniture Installation	90	17-Sep-24	06-Jan-25	24-Jan-25	20-May-25	105
S12D-1340	Road L1 - CH 1400 to CH 2100 (700m) - Landscape Works	90	15-Oct-24	04-Feb-25	22-Feb-25	14-Jun-25	105
Section 13 - Ground Treatment Works and Site Formation at Portion 21		169	14-Sep-21 A	06-Jan-23	01-Jan-22	06-Jan-23	0
S13-1000	Portion 21 - Subletting DCM Works	31	14-Sep-21 A	22-Oct-21 A	01-Jan-22	01-Jan-22	
S13-1010	Portion 21 - MS Earthwork Prep & Submission (14d), PM Review (28d), Resubmission (14), Approval (28d)	84	07-Jan-22	25-Apr-22	10-Mar-22	23-Jun-22	48
S13-1020	Portion 21 - MS DCM Prep & Submission (14d), PM Review (28d), Resubmission (14), Approval (28d)	84	25-Sep-21 A	06-Jan-22	05-Mar-22	09-Mar-22	48
S13-1030	Portion 21 - MS Retaining Wall PW2 Prep & Submission (14d), PM Review (28d), Resubmission (14), Approval (28d)	84	26-Mar-22	11-Jul-22	28-May-22	05-Sep-22	48
S13-1050	Portion 21 - Level Ground (2,910m3)	24	26-Apr-22	25-May-22	24-Jun-22	22-Jul-22	48
S13-1060	Portion 21 - Construct DCM Clusters (1,140m3 @ 150m3/d/rig - 2 rigs)	14	26-May-22	11-Jun-22	23-Jul-22	08-Aug-22	48
S13-1070	Portion 21 - General Fill (6,520m3 @ 300m3/d)	24	13-Jun-22	11-Jul-22	09-Aug-22	05-Sep-22	48
S13-1080	Portion 21 - Construct Retaing Wall PW2	100	12-Jul-22	08-Nov-22	06-Sep-22	06-Jan-23	48
S13-1090	Interface - Portion 21 Handover to Contract 2 (PS Appendix 1.27)	0		06-Jan-23		06-Jan-23	0
S13-PC	Completion Section 13 (sd+540) - All the works in Portion 21 of the Site (excluding TAR1)	0		08-Nov-22		06-Jan-23	59
Section 14 - Ground Treatment Works and Site Formation at Portion 19		141	09-Nov-21 A	15-Dec-22	10-Jan-22	17-Dec-22	1
S14-1000	Portion 19 - MS PVD Preparation & Submit (12d), PM Review (14d), Resubmit (6d), Approval (14d)	45	09-Nov-21 A	03-Jan-22	22-Jan-22	22-Jan-22	17
S14-1010	Portion 19 - MS Earthwork Preparation & Submit (14d), PM Review (28d), Resubmit (14d), Approval (28d)	60	24-Nov-21 A	10-Feb-22	11-Jan-22	18-Feb-22	7
S14-1020	Portion 19 - Remove Material (150,000m3 @ 1,800m3/d - PS 1.129(2H)	84	23-Aug-22	01-Dec-22	25-Aug-22	03-Dec-22	2
S14-1030	Portion 19 - Level Ground and Instrumentation (17,120m3) - To be Advised	24	06-Jan-22	08-Feb-22	10-Jan-22	11-Feb-22	3
S14-1040	Portion 19 - PVD Installation (122,100m @ 6,000m/day/rig - 2 rigs) - To be Advised	12	20-Jan-22	08-Feb-22	24-Jan-22	11-Feb-22	3
S14-1050	Portion 19 - General Fill to FL (22,750m3 @ 1,800m3/d) - To be Advised	14	18-Jan-22	08-Feb-22	21-Jan-22	11-Feb-22	3
S14-1060	Portion 19 - Time Risk Allowance for Earthworks	6	09-Feb-22	15-Feb-22	12-Feb-22	18-Feb-22	3



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
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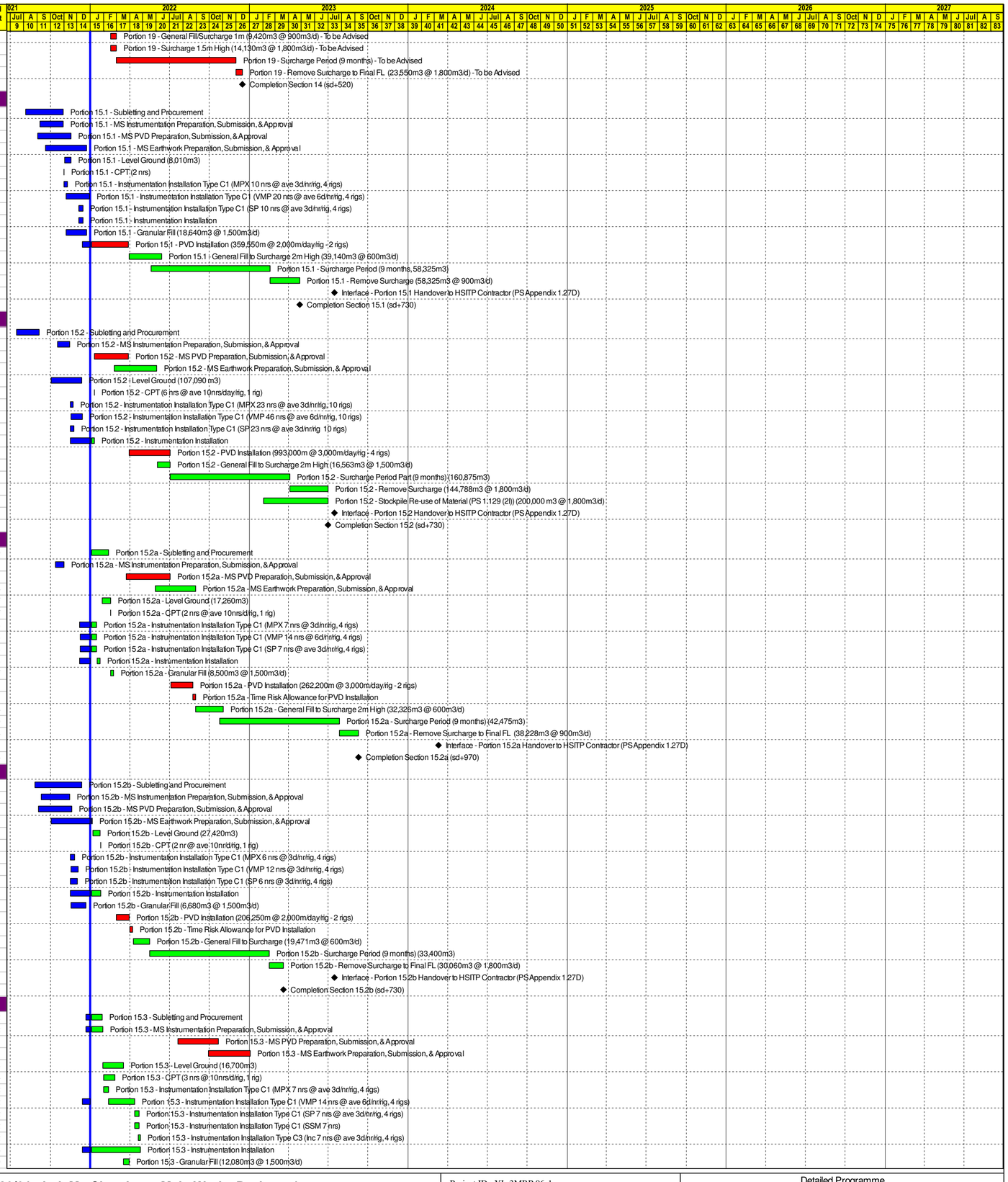
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 17 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S14-1070	Portion 19 - General Fill/Surcharge 1m (9,420m3 @ 900m3/d) - To be Advised	12	16-Feb-22	01-Mar-22	19-Feb-22	04-Mar-22	3
S14-1080	Portion 19 - Surcharge 1.5m High (14,130m3 @ 1,800m3/d) - To be Advised	12	16-Feb-22	01-Mar-22	19-Feb-22	04-Mar-22	3
S14-1090	Portion 19 - Surcharge Period (9 months) - To be Advised	275	02-Mar-22	01-Dec-22	05-Mar-22	04-Dec-22	3
S14-1100	Portion 19 - Remove Surcharge to Final FL (23,550m3 @ 1,800m3/d) - To be Advised	12	02-Dec-22	15-Dec-22	05-Dec-22	17-Dec-22	2
S14-PC	Completion Section 14 (sd+520)	0		15-Dec-22		17-Dec-22	2
Section 15.1 - Ground Treatment Works and Site Formation at Portion 15.1		256	05-Aug-21 A	15-Jul-23	07-Jan-22	12-Nov-26	473
S15.1-1000	Portion 15.1 - Subletting and Procurement	72	05-Aug-21 A	30-Oct-21 A	07-Jan-22	07-Jan-22	
S15.1-1010	Portion 15.1 - MS Instrumentation Preparation, Submission, & Approval	45	06-Sep-21 A	30-Oct-21 A	07-Jan-22	07-Jan-22	
S15.1-1020	Portion 15.1 - MS PVD Preparation, Submission, & Approval	63	02-Sep-21 A	17-Nov-21 A	07-Jan-22	07-Jan-22	
S15.1-1030	Portion 15.1 - MS Earthwork Preparation, Submission, & Approval	78	20-Sep-21 A	22-Dec-21 A	28-Jun-22	28-Jun-22	
S15.1-1040	Portion 15.1 - Level Ground (8,010m3)	14	02-Nov-21 A	17-Nov-21 A	07-Jan-22	07-Jan-22	
S15.1-1050	Portion 15.1 - CPT (2 nrs)	1	01-Nov-21 A	01-Nov-21 A	07-Jan-22	07-Jan-22	
S15.1-1060	Portion 15.1 - Instrumentation Installation Type C1 (MPX 10 nrs @ ave 3d/nr/rig, 4 rigs)	8	01-Nov-21 A	09-Nov-21 A	07-Jan-22	07-Jan-22	
S15.1-1070	Portion 15.1 - Instrumentation Installation Type C1 (VMP 20 nrs @ ave 6d/nr/rig, 4 rigs)	44	06-Nov-21 A	29-Dec-21 A	07-Jan-22	07-Jan-22	
S15.1-1080	Portion 15.1 - Instrumentation Installation Type C1 (SP 10 nrs @ ave 3d/nr/rig, 4 rigs)	8	06-Dec-21 A	14-Dec-21 A	07-Jan-22	07-Jan-22	
S15.1-1090	Portion 15.1 - Instrumentation Installation	8	06-Dec-21 A	14-Dec-21 A	12-Nov-26	12-Nov-26	
S15.1-1100	Portion 15.1 - Granular Fill (18,640m3 @ 1,500m3/d)	55	06-Nov-21 A	23-Dec-21 A	07-Jan-22	07-Jan-22	
S15.1-1110	Portion 15.1 - PVD Installation (359,550m @ 2,000m/day/rig - 2 rigs)	84	13-Dec-21 A	29-Mar-22	07-Jan-22	02-Apr-22	4
S15.1-1120	Portion 15.1 - General Fill to Surcharge 2m High (39,140m3 @ 600m3/d)	58	30-Mar-22	13-Jun-22	19-Apr-22	28-Jun-22	13
S15.1-1190	Portion 15.1 - Surcharge Period (9 months, 58,325m3)	274	20-May-22	17-Feb-23	06-Jun-22	06-Mar-23	17
S15.1-1210	Portion 15.1 - Remove Surcharge (58,325m3 @ 900m3/d)	54	18-Feb-23	26-Apr-23	11-May-23	15-Jul-23	65
S15.1-1220	Interface - Portion 15.1 Handover to HSITP Contractor (PS Appendix 1.27D)	0		15-Jul-23		15-Jul-23	0
S15.1-PC	Completion Section 15.1 (sd+730)	0		26-Apr-23		15-Jul-23	80
Section 15.2 - Ground Treatment Works and Site Formation at Portion 15.2		264	15-Jul-21 A	15-Jul-23	14-Jan-22	15-Jul-23	0
S15.2-1000	Portion 15.2 - Subletting and Procurement	45	15-Jul-21 A	04-Sep-21 A	02-Apr-22	02-Apr-22	
S15.2-1010	Portion 15.2 - MS Instrumentation Preparation, Submission, & Approval	45	18-Oct-21 A	15-Nov-21 A	02-Apr-22	02-Apr-22	
S15.2-1020	Portion 15.2 - MS PVD Preparation, Submission, & Approval	63	10-Jan-22	29-Mar-22	14-Jan-22	02-Apr-22	4
S15.2-1030	Portion 15.2 - MS Earthwork Preparation, Submission, & Approval	78	25-Feb-22	02-Jun-22	15-Mar-22	21-Jun-22	15
S15.2-1040	Portion 15.2 - Level Ground (107,090 m3)	60	02-Oct-21 A	11-Dec-21 A	02-Apr-22	02-Apr-22	
S15.2-1050	Portion 15.2 - CPT (6 nrs @ ave 10nrs/day/rig, 1 rig)	1	10-Jan-22	10-Jan-22	02-Apr-22	02-Apr-22	66
S15.2-1060	Portion 15.2 - Instrumentation Installation Type C1 (MPX 23 nrs @ ave 3d/nr/rig, 10 rigs)	7	15-Nov-21 A	22-Nov-21 A	02-Apr-22	02-Apr-22	
S15.2-1070	Portion 15.2 - Instrumentation Installation Type C1 (VMP 46 nrs @ ave 6d/nr/rig, 10 rigs)	22	18-Nov-21 A	13-Dec-21 A	02-Apr-22	02-Apr-22	
S15.2-1080	Portion 15.2 - Instrumentation Installation Type C1 (SP 23 nrs @ ave 3d/nr/rig 10 rigs)	7	16-Nov-21 A	23-Nov-21 A	26-Mar-22	26-Mar-22	
S15.2-1090	Portion 15.2 - Instrumentation Installation	46	15-Nov-21 A	10-Jan-22	26-Mar-22	02-Apr-22	66
S15.2-1140	Portion 15.2 - PVD Installation (993,000m @ 3,000m/day/rig - 4 rigs)	74	30-Mar-22	02-Jul-22	04-Apr-22	07-Jul-22	4
S15.2-1180	Portion 15.2 - General Fill to Surcharge 2m High (16,563m3 @ 1,500m3/d)	24	04-Jun-22	02-Jul-22	22-Jun-22	20-Jul-22	15
S15.2-1330	Portion 15.2 - Surcharge Period Part (9 months) (160,875m3)	275	03-Jul-22	03-Apr-23	21-Jul-22	21-Apr-23	18
S15.2-1370	Portion 15.2 - Remove Surcharge (144,788m3 @ 1,800m3/d)	69	04-Apr-23	30-Jun-23	22-Apr-23	15-Jul-23	12
S15.2-1380	Portion 15.2 - Stockpile Re-use of Material (PS 1.129 (2l)) (200,000 m3 @ 1,800m3/d)	120	03-Feb-23	30-Jun-23	17-Feb-23	15-Jul-23	12
S15.2-1390	Interface - Portion 15.2 Handover to HSITP Contractor (PS Appendix 1.27D)	0		15-Jul-23		15-Jul-23	0
S15.2-PC	Completion Section 15.2 (sd+730)	0		30-Jun-23		15-Jul-23	15
Section 15.2a - Ground Treatment Works and Site Formation at Portion 15.2a		327	12-Oct-21 A	11-Mar-24	30-Mar-22	11-Mar-24	0
S15.2a-1000	Portion 15.2a - Subletting and Procurement	30	03-Jan-22	11-Feb-22	19-Nov-22	23-Dec-22	259
S15.2a-1010	Portion 15.2a - MS Instrumentation Preparation, Submission, & Approval	30	12-Oct-21 A	01-Nov-21 A	30-Mar-22	30-Mar-22	
S15.2a-1020	Portion 15.2a - MS PVD Preparation, Submission, & Approval	78	25-Mar-22	02-Jul-22	30-Mar-22	07-Jul-22	4
S15.2a-1030	Portion 15.2a - MS Earthwork Preparation, Submission, & Approval	78	30-May-22	30-Aug-22	19-Nov-22	25-Feb-23	144
S15.2a-1040	Portion 15.2a - Level Ground (17,260m3)	12	28-Jan-22	16-Feb-22	16-Jun-22	29-Jun-22	107
S15.2a-1050	Portion 15.2a - CPT (2 nrs @ ave 10nrs/d/rig, 1 rig)	1	16-Feb-22	16-Feb-22	29-Jun-22	29-Jun-22	107
S15.2a-1060	Portion 15.2a - Instrumentation Installation Type C1 (MPX 7 nrs @ 3d/nr/rig, 4 rigs)	32	07-Dec-21 A	15-Jan-22	09-Jun-22	22-Jun-22	123
S15.2a-1070	Portion 15.2a - Instrumentation Installation Type C1 (VMP 14 nrs @ 6d/nr/rig, 4 rigs)	31	08-Dec-21 A	15-Jan-22	09-Jun-22	22-Jun-22	123
S15.2a-1080	Portion 15.2a - Instrumentation Installation Type C1 (SP 7 nrs @ ave 3d/nr/rig, 4 rigs)	30	09-Dec-21 A	15-Jan-22	09-Jun-22	22-Jun-22	123
S15.2a-1090	Portion 15.2a - Instrumentation Installation	38	07-Dec-21 A	22-Jan-22	23-Jun-22	29-Jun-22	123
S15.2a-1100	Portion 15.2a - Granular Fill (8,500m3 @ 1,500m3/d)	6	17-Feb-22	23-Feb-22	30-Jun-22	07-Jul-22	107
S15.2a-1110	Portion 15.2a - PVD Installation (262,200m @ 3,000m/day/rig - 2 rigs)	44	04-Jul-22	23-Aug-22	08-Jul-22	27-Aug-22	4
S15.2a-1120	Portion 15.2a - Time Risk Allowance for PVD Installation	6	24-Aug-22	30-Aug-22	29-Aug-22	03-Sep-22	4
S15.2a-1130	Portion 15.2a - General Fill to Surcharge 2m High (32,326m3 @ 600m3/d)	51	31-Aug-22	01-Nov-22	27-Feb-23	02-May-23	144
S15.2a-1160	Portion 15.2a - Surcharge Period (9 months) (42,475m3)	275	25-Oct-22	26-Jul-23	23-Apr-23	22-Jan-24	180
S15.2a-1170	Portion 15.2a - Remove Surcharge to Final FL (38,228m3 @ 900m3/d)	38	27-Jul-23	08-Sep-23	23-Jan-24	11-Mar-24	148
S15.2a-1180	Interface - Portion 15.2a Handover to HSITP Contractor (PS Appendix 1.27D)	0		11-Mar-24		11-Mar-24	0
S15.2a-PC	Completion Section 15.2a (sd+970)	0		08-Sep-23		11-Mar-24	185
Section 15.2b - Ground Treatment Works and Site Formation at Portion 15.2b		249	26-Aug-21 A	15-Jul-23	11-Feb-22	15-Jul-23	0
S15.2b-1000	Portion 15.2b - Subletting and Procurement	90	26-Aug-21 A	11-Dec-21 A	15-Feb-22	15-Feb-22	
S15.2b-1010	Portion 15.2b - MS Instrumentation Preparation, Submission, & Approval	53	10-Sep-21 A	13-Nov-21 A	11-Feb-22	11-Feb-22	
S15.2b-1020	Portion 15.2b - MS PVD Preparation, Submission, & Approval	64	03-Sep-21 A	19-Nov-21 A	07-Mar-22	07-Mar-22	
S15.2b-1030	Portion 15.2b - MS Earthwork Preparation, Submission, & Approval	78	02-Oct-21 A	05-Jan-22	11-Feb-22	14-Feb-22	29
S15.2b-1040	Portion 15.2b - Level Ground (27,420m3)	15	06-Jan-22	22-Jan-22	15-Feb-22	03-Mar-22	29
S15.2b-1050	Portion 15.2b - CPT (2 nr @ ave 10nr/d/rig, 1 rig)	2	24-Jan-22	25-Jan-22	04-Mar-22	05-Mar-22	29
S15.2b-1060	Portion 15.2b - Instrumentation Installation Type C1 (MPX 6 nrs @ 3d/nr/rig, 4 rigs)	5	15-Nov-21 A	26-Nov-21 A	11-Feb-22	11-Feb-22	
S15.2b-1070	Portion 15.2b - Instrumentation Installation Type C1 (VMP 12 nrs @ 3d/nr/rig, 4 rigs)	15	17-Nov-21 A	03-Dec-21 A	11-Feb-22	11-Feb-22	
S15.2b-1080	Portion 15.2b - Instrumentation Installation Type C1 (SP 6 nrs @ 3d/nr/rig, 4 rigs)	15	16-Nov-21 A	02-Dec-21 A	11-Feb-22	11-Feb-22	
S15.2b-1090	Portion 15.2b - Instrumentation Installation	59	15-Nov-21 A	25-Jan-22	11-Feb-22	05-Mar-22	29
S15.2b-1100	Portion 15.2b - Granular Fill (6,680m3 @ 1,500m3/d)	29	18-Nov-21 A	21-Dec-21 A	07-Mar-22	07-Mar-22	
S15.2b-1110	Portion 15.2b - PVD Installation (206,250m @ 2,000m/day/rig - 2 rigs)	27	01-Mar-22	31-Mar-22	07-Mar-22	07-Apr-22	5
S15.2b-1120	Portion 15.2b - Time Risk Allowance for PVD Installation	6	01-Apr-22	08-Apr-22	08-Apr-22	14-Apr-22	5
S15.2b-1130	Portion 15.2b - General Fill to Surcharge (19,471m3 @ 600m3/d)	27	09-Apr-22	16-May-22	10-Aug-22	09-Sep-22	98
S15.2b-1160	Portion 15.2b - Surcharge Period (9 months) (33,400m3)	275	17-May-22	15-Feb-23	10-Sep-22	11-Jun-23	116
S15.2b-1170	Portion 15.2b - Remove Surcharge to Final FL (30,060m3 @ 1,800m3/d)	28	16-Feb-23	20-Mar-23	12-Jun-23	15-Jul-23	93
S15.2b-1180	Interface - Portion 15.2b Handover to HSITP Contractor (PS Appendix 1.27D)	0		15-Jul-23		15-Jul-23	0
S15.2b-PC	Completion Section 15.2b (sd+730)	0		20-Mar-23		15-Jul-23	117
Section 15.3 - Ground Treatment Works and Site Formation at Portion 15.3		304	13-Dec-21 A	11-Mar-24	27-Jun-22	11-Mar-24	0
S15.3-1000	Portion 15.3 - Subletting and Procurement	30	22-Dec-21 A	28-Jan-22	14-Jul-22	09-Aug-22	152
S15.3-1010	Portion 15.3 - MS Instrumentation Preparation, Submission, & Approval	31	22-Dec-21 A	29-Jan-22	14-Jul-22	10-Aug-22	152
S15.3-1020	Portion 15.3 - MS PVD Preparation, Submission, & Approval	78	21-Jul-22	22-Oct-22	26-Jul-22	27-Oct-22	4
S15.3-1030	Portion 15.3 - MS Earthwork Preparation, Submission, & Approval	78	29-Sep-22	03-Jan-23	06-Oct-22	07-Jan-23	4
S15.3-1040	Portion 15.3 - Level Ground (16,700m3)	36	29-Jan-22	17-Mar-22	11-Aug-22	22-Sep-22	153
S15.3-1050	Portion 15.3 - CPT (3 nrs @ 10nrs/d/rig, 1 rig)	18	31-Jan-22	25-Feb-22	30-Sep-22	22-Oct-22	194
S15.3-1060	Portion 15.3 - Instrumentation Installation Type C1 (MPX 7 nrs @ ave 3d/nr/rig, 4 rigs)	6	31-Jan-22	11-Feb-22	11-Aug-22	17-Aug-22	152
S15.3-1070	Portion 15.3 - Instrumentation Installation Type C1 (VMP 14 nrs @ ave 6d/nr/rig, 4 rigs)	65	13-Dec-21 A	12-Apr-22	18-Aug-22	18-Oct-22	152
S15.3-1080	Portion 15.3 - Instrumentation Installation Type C1 (SP 7 nrs @ ave 3d/nr/rig, 4 rigs)	6	13-Apr-22	22-Apr-22	19-Oct-22	25-Oct-22	152
S15.3-1090	Portion 15.3 - Instrumentation Installation Type C1 (SSM 7 nrs)	6	13-Apr-22	22-Apr-22	19-Oct-22	25-Oct-22	152
S15.3-1100	Portion 15.3 - Instrumentation Installation Type C3 (Inc 7 nrs @ ave 3d/nr/rig, 4 rigs)	4	21-Apr-22	25-Apr-22	24-Oct-22	27-Oct-22	152
S15.3-1110	Portion 15.3 - Instrumentation Installation	103	13-Dec-21 A	25-Apr-22	27-Jun-22	11-Oct-22	138
S15.3-1120	Portion 15.3 - Granular Fill (12,080m3 @ 1,500m3/d)	12	18-Mar-22	31-Mar-22	14-Oct-22	27-Oct-22	169



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

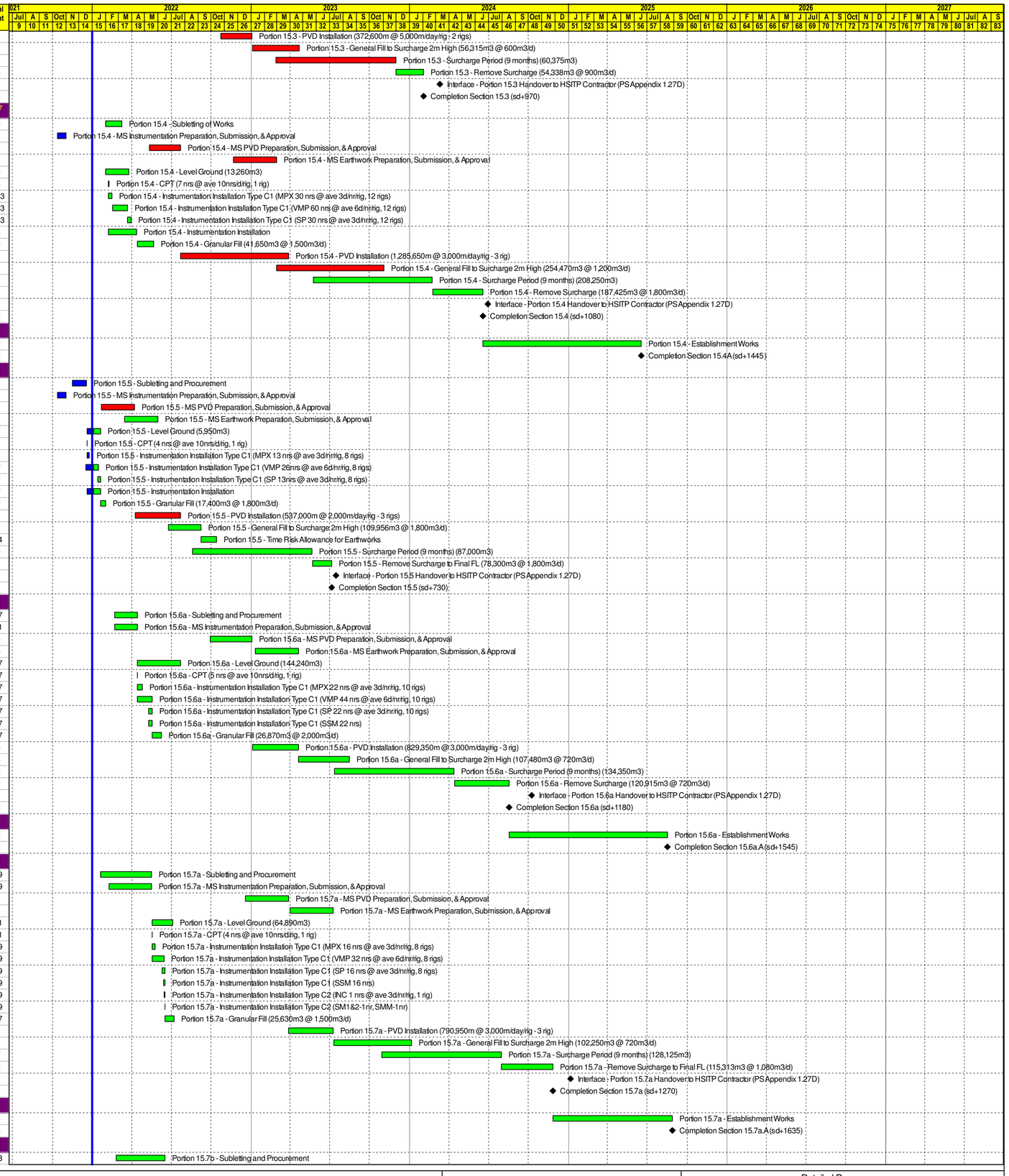
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 18 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S15.3-1130	Portion 15.3 - PVD Installation (372,600m @ 5,000m/day/rig - 2 rigs)	59	24-Oct-22	03-Jan-23	28-Oct-22	07-Jan-23	4
S15.3-1140	Portion 15.3 - General Fill to Surcharge 2m High (56,315m3 @ 600m3/d)	86	04-Jan-23	22-Apr-23	09-Jan-23	27-Apr-23	4
S15.3-1270	Portion 15.3 - Surcharge Period (9 months) (60,375m3)	276	28-Feb-23	30-Nov-23	04-Mar-23	04-Dec-23	4
S15.3-1280	Portion 15.3 - Remove Surcharge (54,338m3 @ 900m3/d)	52	01-Dec-23	02-Feb-24	06-Jan-24	11-Mar-24	28
S15.3-1290	Interface - Portion 15.3 Handover to HSITP Contractor (PS Appendix 1.27D)	0		11-Mar-24		11-Mar-24	0
S15.3-PC	Completion Section 15.3 (sd+970)	0		02-Feb-24		11-Mar-24	38
Section 15.4 - Ground Treatment Works and Site Formation at Portion 15.4		370	12-Oct-21 A	29-Jun-24	13-Apr-22	11-Nov-26	337
S15.4-1000	Portion 15.4 - Subletting of Works	29	31-Jan-22	10-Mar-22	13-Apr-22	21-May-22	56
S15.4-1010	Portion 15.4 - MS Instrumentation Preparation, Submission, & Approval	17	12-Oct-21 A	01-Nov-21 A	16-Sep-26	16-Sep-26	
S15.4-1020	Portion 15.4 - MS PVD Preparation, Submission, & Approval	60	12-May-22	22-Jul-22	18-May-22	28-Jul-22	5
S15.4-1030	Portion 15.4 - MS Earthwork Preparation, Submission, & Approval	78	22-Nov-22	28-Feb-23	28-Nov-22	06-Mar-23	5
S15.4-1040	Portion 15.4 - Level Ground (13,260m3)	42	31-Jan-22	25-Mar-22	13-Apr-22	07-Jun-22	56
S15.4-1050	Portion 15.4 - CPT (7 nrs @ ave 10nrs/d/rig, 1 rig)	2	07-Feb-22	08-Feb-22	14-Apr-22	19-Apr-22	56
S15.4-1060	Portion 15.4 - Instrumentation Installation Type C1 (MPX 30 nrs @ ave 3d/nr/rig, 12 rigs)	8	07-Feb-22	15-Feb-22	16-Sep-26	24-Sep-26	1363
S15.4-1070	Portion 15.4 - Instrumentation Installation Type C1 (VMP 60 nrs @ ave 6d/nr/rig, 12 rigs)	30	16-Feb-22	22-Mar-22	25-Sep-26	02-Nov-26	1363
S15.4-1080	Portion 15.4 - Instrumentation Installation Type C1 (SP 30 nrs @ ave 3d/nr/rig, 12 rigs)	8	23-Mar-22	31-Mar-22	03-Nov-26	11-Nov-26	1363
S15.4-1090	Portion 15.4 - Instrumentation Installation	56	07-Feb-22	13-Apr-22	14-Apr-22	24-Jun-22	56
S15.4-1100	Portion 15.4 - Granular Fill (41,650m3 @ 1,500m3/d)	28	14-Apr-22	21-May-22	25-Jun-22	28-Jul-22	56
S15.4-1110	Portion 15.4 - PVD Installation (1,285,650m @ 3,000m/day/rig - 3 rig)	203	23-Jul-22	28-Mar-23	29-Jul-22	03-Apr-23	5
S15.4-1120	Portion 15.4 - General Fill to Surcharge 2m High (254,470m3 @ 1,200m3/d)	201	01-Mar-23	02-Nov-23	07-Mar-23	08-Nov-23	5
S15.4-1400	Portion 15.4 - Surcharge Period (9 months) (208,250m3)	275	24-May-23	22-Feb-24	31-May-23	29-Feb-24	7
S15.4-1410	Portion 15.4 - Remove Surcharge (187,425m3 @ 1,800m3/d)	92	23-Feb-24	17-Jun-24	07-Mar-24	29-Jun-24	11
S15.4-1420	Interface - Portion 15.4 Handover to HSITP Contractor (PS Appendix 1.27D)	0		29-Jun-24		29-Jun-24	0
S15.4-PC	Completion Section 15.4 (sd+1080)	0		17-Jun-24		29-Jun-24	12
Section 15.4A - Establishment Works at Portion 15.4A		365	18-Jun-24	17-Jun-25	30-Jun-24	29-Jun-25	12
15.4-1000	Portion 15.4 - Establishment Works	365	18-Jun-24	17-Jun-25	30-Jun-24	29-Jun-25	12
S15.4A-PC	Completion Section 15.4A (sd+1445)	0		17-Jun-25		29-Jun-25	12
Section 15.5 - Ground Treatment Works and Site Formation at Portion 15.5		234	12-Oct-21 A	15-Jul-23	28-Jan-22	15-Jul-23	0
S15.5-1000	Portion 15.5 - Subletting and Procurement	30	15-Nov-21 A	18-Dec-21 A	28-Jan-22	28-Jan-22	
S15.5-1010	Portion 15.5 - MS Instrumentation Preparation, Submission, & Approval	17	12-Oct-21 A	01-Nov-21 A	16-Mar-22	16-Mar-22	
S15.5-1020	Portion 15.5 - MS PVD Preparation, Submission, & Approval	60	22-Jan-22	08-Apr-22	28-Jan-22	14-Apr-22	5
S15.5-1030	Portion 15.5 - MS Earthwork Preparation, Submission, & Approval	60	16-Mar-22	31-May-22	25-Mar-22	10-Jun-22	8
S15.5-1040	Portion 15.5 - Level Ground (5,950m3)	24	20-Dec-21 A	19-Jan-22	16-Mar-22	01-Apr-22	57
S15.5-1050	Portion 15.5 - CPT (4 nrs @ ave 10nrs/d/rig, 1 rig)	1	20-Dec-21 A	20-Dec-21 A	16-Mar-22	16-Mar-22	
S15.5-1060	Portion 15.5 - Instrumentation Installation Type C1 (MPX 13 nrs @ ave 3d/nr/rig, 8 rigs)	5	20-Dec-21 A	24-Dec-21 A	16-Mar-22	16-Mar-22	
S15.5-1070	Portion 15.5 - Instrumentation Installation Type C1 (VMP 26nrs @ ave 6d/nr/rig, 8 rigs)	24	16-Dec-21 A	15-Jan-22	16-Mar-22	29-Mar-22	57
S15.5-1080	Portion 15.5 - Instrumentation Installation Type C1 (SP 13nrs @ ave 3d/nr/rig, 8 rigs)	5	14-Jan-22	19-Jan-22	28-Mar-22	01-Apr-22	57
S15.5-1090	Portion 15.5 - Instrumentation Installation	5	20-Dec-21 A	19-Jan-22	16-Mar-22	01-Apr-22	57
S15.5-1100	Portion 15.5 - Granular Fill (17,400m3 @ 1,800m3/d)	10	20-Jan-22	31-Jan-22	02-Apr-22	14-Apr-22	57
S15.5-1110	Portion 15.5 - PVD Installation (537,000m @ 2,000m/day/rig - 3 rigs)	83	09-Apr-22	22-Jul-22	19-Apr-22	28-Jul-22	5
S15.5-1120	Portion 15.5 - General Fill to Surcharge 2m High (109,956m3 @ 1,800m3/d)	63	25-Jun-22	07-Sep-22	06-Jul-22	17-Sep-22	8
S15.5-1160	Portion 15.5 - Time Risk Allowance for Earthworks	28	08-Sep-22	13-Oct-22	27-Apr-23	31-May-23	184
S15.5-1310	Portion 15.5 - Surcharge Period (9 months) (87,000m3)	275	20-Aug-22	21-May-23	30-Aug-22	31-May-23	10
S15.5-1320	Portion 15.5 - Remove Surcharge to Final FL (78,300m3 @ 1,800m3/d)	37	22-May-23	06-Jul-23	01-Jun-23	15-Jul-23	8
S15.5-1330	Interface - Portion 15.5 Handover to HSITP Contractor (PS Appendix 1.27D)	0		15-Jul-23		15-Jul-23	0
S15.5-PC	Completion Section 15.5 (sd+730)	0		06-Jul-23		15-Jul-23	9
Section 15.6a - Ground Treatment Works and Site Formation at Portion 15.6a		361	21-Feb-22	07-Oct-24	14-Nov-22	07-Oct-24	0
S15.6a-1000	Portion 15.6a - Subletting and Procurement	45	21-Feb-22	14-Apr-22	14-Nov-22	07-Jan-23	217
S15.6a-1010	Portion 15.6a - MS Instrumentation Preparation, Submission, & Approval	45	21-Feb-22	14-Apr-22	07-Jan-23	04-Mar-23	261
S15.6a-1020	Portion 15.6a - MS PVD Preparation, Submission, & Approval	78	29-Sep-22	03-Jan-23	23-Nov-22	01-Mar-23	45
S15.6a-1030	Portion 15.6a - MS Earthwork Preparation, Submission, & Approval	78	11-Jan-23	20-Apr-23	09-Mar-23	14-Jun-23	45
S15.6a-1040	Portion 15.6a - Level Ground (144,240m3)	80	14-Apr-22	23-Jul-22	07-Jan-23	19-Apr-23	217
S15.6a-1050	Portion 15.6a - CPT (5 nrs @ ave 10nrs/d/rig, 1 rig)	1	14-Apr-22	14-Apr-22	07-Jan-23	07-Jan-23	217
S15.6a-1060	Portion 15.6a - Instrumentation Installation Type C1 (MPX 22 nrs @ ave 3d/nr/rig, 10 rigs)	7	14-Apr-22	25-Apr-22	07-Jan-23	14-Jan-23	217
S15.6a-1070	Portion 15.6a - Instrumentation Installation Type C1 (VMP 44 nrs @ ave 6d/nr/rig, 10 rigs)	25	14-Apr-22	18-May-22	07-Jan-23	09-Feb-23	217
S15.6a-1080	Portion 15.6a - Instrumentation Installation Type C1 (SP 22 nrs @ ave 3d/nr/rig, 10 rigs)	7	11-May-22	18-May-22	02-Feb-23	09-Feb-23	217
S15.6a-1090	Portion 15.6a - Instrumentation Installation Type C1 (SSM 22 nrs)	7	11-May-22	18-May-22	02-Feb-23	09-Feb-23	217
S15.6a-1100	Portion 15.6a - Granular Fill (26,870m3 @ 2,000m3/d)	17	19-May-22	08-Jun-22	10-Feb-23	01-Mar-23	217
S15.6a-1110	Portion 15.6a - PVD Installation (829,350m @ 3,000m/day/rig - 3 rig)	84	04-Jan-23	20-Apr-23	02-Mar-23	14-Jun-23	45
S15.6a-1120	Portion 15.6a - General Fill to Surcharge 2m High (107,480m3 @ 720m3/d)	96	21-Apr-23	15-Aug-23	15-Jun-23	09-Oct-23	45
S15.6a-1300	Portion 15.6a - Surcharge Period (9 months) (134,350m3)	275	13-Jul-23	12-Apr-24	03-Sep-23	03-Jun-24	52
S15.6a-1310	Portion 15.6a - Remove Surcharge (120,915m3 @ 720m3/d)	104	13-Apr-24	16-Aug-24	04-Jun-24	07-Oct-24	42
S15.6a-1320	Interface - Portion 15.6a Handover to HSITP Contractor (PS Appendix 1.27D)	0		07-Oct-24		07-Oct-24	0
S15.6a-PC	Completion Section 15.6a (sd+1180)	0		16-Aug-24		07-Oct-24	52
Section 15.6a.A - Establishment Works at Portion 15.6a		365	17-Aug-24	16-Aug-25	08-Oct-24	07-Oct-25	52
15.6a.A-1000	Portion 15.6a - Establishment Works	365	17-Aug-24	16-Aug-25	08-Oct-24	07-Oct-25	52
S15.6a.A-PC	Completion Section 15.6a.A (sd+1545)	0		16-Aug-25		07-Oct-25	52
Section 15.7a - Ground Treatment Works and Site Formation at Portion 15.7a		406	20-Jan-22	05-Jan-25	25-Nov-22	05-Jan-25	0
S15.7a-1000	Portion 15.7a - Subletting and Procurement	90	20-Jan-22	17-May-22	25-Nov-22	17-Mar-23	249
S15.7a-1010	Portion 15.7a - MS Instrumentation Preparation, Submission, & Approval	78	09-Feb-22	17-May-22	09-Dec-22	17-Mar-23	249
S15.7a-1020	Portion 15.7a - MS PVD Preparation, Submission, & Approval	78	20-Dec-22	28-Mar-23	02-Feb-23	09-May-23	31
S15.7a-1030	Portion 15.7a - MS Earthwork Preparation, Submission, & Approval	78	31-Mar-23	08-Jul-23	12-May-23	14-Aug-23	31
S15.7a-1040	Portion 15.7a - Level Ground (64,890m3)	40	18-May-22	05-Jul-22	18-Apr-23	05-Jun-23	271
S15.7a-1050	Portion 15.7a - CPT (4 nrs @ ave 10nrs/d/rig, 1 rig)	1	18-May-22	18-May-22	18-Apr-23	18-Apr-23	271
S15.7a-1060	Portion 15.7a - Instrumentation Installation Type C1 (MPX 16 nrs @ ave 3d/nr/rig, 8 rigs)	6	18-May-22	24-May-22	18-Mar-23	24-Mar-23	249
S15.7a-1070	Portion 15.7a - Instrumentation Installation Type C1 (VMP 32 nrs @ ave 6d/nr/rig, 8 rigs)	24	18-May-22	15-Jun-22	18-Mar-23	19-Apr-23	249
S15.7a-1080	Portion 15.7a - Instrumentation Installation Type C1 (SP 16 nrs @ ave 3d/nr/rig, 8 rigs)	6	11-Jun-22	17-Jun-22	15-Apr-23	21-Apr-23	249
S15.7a-1090	Portion 15.7a - Instrumentation Installation Type C1 (SSM 16 nrs)	4	14-Jun-22	17-Jun-22	18-Apr-23	21-Apr-23	249
S15.7a-1100	Portion 15.7a - Instrumentation Installation Type C2 (INC 1 nrs @ ave 3d/nr/rig, 1 rig)	3	15-Jun-22	17-Jun-22	19-Apr-23	21-Apr-23	249
S15.7a-1110	Portion 15.7a - Instrumentation Installation Type C2 (SM1&2-1nr, SMM-1nr)	1	17-Jun-22	17-Jun-22	21-Apr-23	21-Apr-23	249
S15.7a-1120	Portion 15.7a - Granular Fill (25,630m3 @ 1,500m3/d)	17	17-Jun-22	07-Jul-22	19-Apr-23	09-May-23	247
S15.7a-1130	Portion 15.7a - PVD Installation (790,950m @ 3,000m/day/rig - 3 rig)	80	29-Mar-23	08-Jul-23	10-May-23	14-Aug-23	31
S15.7a-1140	Portion 15.7a - General Fill to Surcharge 2m High (102,250m3 @ 720m3/d)	149	10-Jul-23	05-Jan-24	15-Aug-23	15-Feb-24	31
S15.7a-1270	Portion 15.7a - Surcharge Period (9 months) (128,125m3)	275	29-Oct-23	29-Jul-24	05-Dec-23	04-Sep-24	37
S15.7a-1280	Portion 15.7a - Remove Surcharge to Final FL (115,313m3 @ 1,080m3/d)	99	30-Jul-24	25-Nov-24	05-Sep-24	04-Jan-25	32
S15.7a-1290	Interface - Portion 15.7a Handover to HSITP Contractor (PS Appendix 1.27D)	0		05-Jan-25		05-Jan-25	0
S15.7a-PC	Completion Section 15.7a (sd+1270)	0		25-Nov-24		05-Jan-25	41
Section 15.7a.A - Establishment Works at Portion 15.7a		275	25-Nov-24	27-Aug-25	10-Feb-25	11-Nov-25	76
15.7a.A-1000	Portion 15.7a - Establishment Works	275	25-Nov-24	27-Aug-25	10-Feb-25	11-Nov-25	76
S15.7a.A-PC	Completion Section 15.7a.A (sd+1635)	0		27-Aug-25		11-Nov-25	76
Section 15.7b - Ground Treatment Works and Site Formation at Portion 15.7b		426	24-Feb-22	26-Mar-25	29-Mar-23	26-Mar-25	0
S15.7b-1000	Portion 15.7b - Subletting and Procurement	90	24-Feb-22	16-Jun-22	29-Mar-23	20-Jul-23	323



CRCC - Kwan Lee - Paul Y. JV

Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

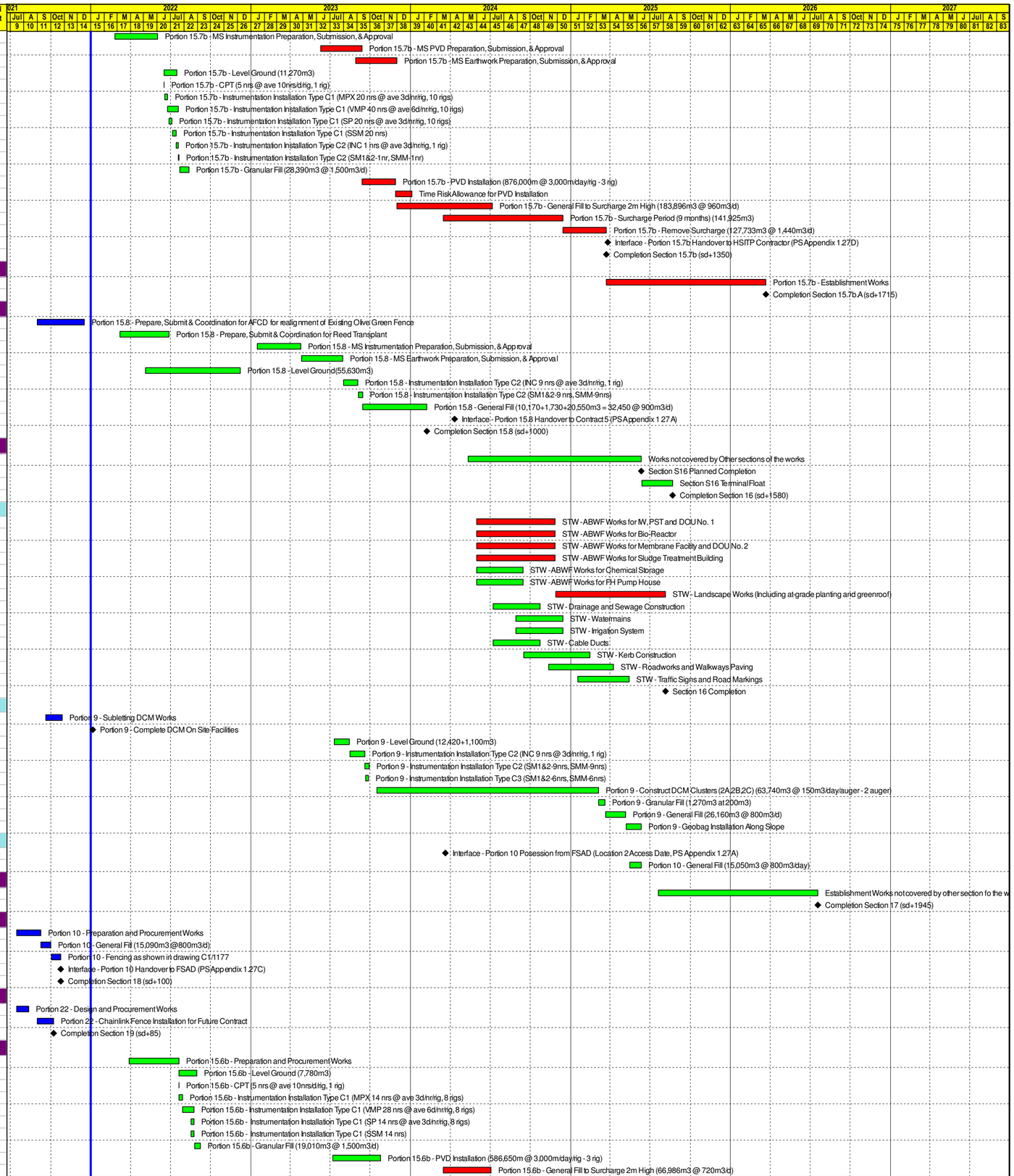
Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 19 of 21

Detailed Programme			
Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S15.7b-1010	Portion 15.7b - MS Instrumentation Preparation, Submission, & Approval	78	24-Feb-22	01-Jun-22	18-Apr-23	21-Jul-23	336
S15.7b-1020	Portion 15.7b - MS PVD Preparation, Submission, & Approval	78	10-Jun-23	11-Sep-23	14-Jun-23	14-Sep-23	3
S15.7b-1030	Portion 15.7b - MS Earthwork Preparation, Submission, & Approval	78	29-Aug-23	30-Nov-23	01-Sep-23	04-Dec-23	3
S15.7b-1040	Portion 15.7b - Level Ground (11,270m3)	24	17-Jun-22	15-Jul-22	21-Jul-23	17-Aug-23	323
S15.7b-1050	Portion 15.7b - CPT (5 nrs @ ave 10nrs/d/rig, 1 rig)	1	17-Jun-22	17-Jun-22	21-Jul-23	21-Jul-23	323
S15.7b-1060	Portion 15.7b - Instrumentation Installation Type C1 (MPX 20 nrs @ ave 3d/nr/rig, 10 rigs)	6	18-Jun-22	24-Jun-22	22-Jul-23	28-Jul-23	323
S15.7b-1070	Portion 15.7b - Instrumentation Installation Type C1 (VMP 40 nrs @ ave 6d/nr/rig, 10 rigs)	20	25-Jun-22	19-Jul-22	29-Jul-23	21-Aug-23	323
S15.7b-1080	Portion 15.7b - Instrumentation Installation Type C1 (SP 20 nrs @ ave 3d/nr/rig, 10 rigs)	6	28-Jun-22	05-Jul-22	01-Aug-23	07-Aug-23	323
S15.7b-1090	Portion 15.7b - Instrumentation Installation Type C1 (SSM 20 nrs)	8	06-Jul-22	14-Jul-22	08-Aug-23	16-Aug-23	323
S15.7b-1100	Portion 15.7b - Instrumentation Installation Type C2 (INC 1 nrs @ ave 3d/nr/rig, 1 rig)	4	15-Jul-22	19-Jul-22	17-Aug-23	21-Aug-23	323
S15.7b-1110	Portion 15.7b - Instrumentation Installation Type C2 (SM1&2-1nr, SMM-1nr)	2	20-Jul-22	21-Jul-22	22-Aug-23	23-Aug-23	323
S15.7b-1120	Portion 15.7b - Granular Fill (28,390m3 @ 1,500m3/d)	19	22-Jul-22	12-Aug-22	24-Aug-23	14-Sep-23	323
S15.7b-1130	Portion 15.7b - PVD Installation (876,000m @ 3,000m/day/rig - 3 rig)	63	12-Sep-23	27-Nov-23	15-Sep-23	30-Nov-23	3
S15.7b-1140	Time Risk Allowance for PVD Installation	30	28-Nov-23	04-Jan-24	01-Dec-23	08-Jan-24	3
S15.7b-1150	Portion 15.7b - General Fill to Surcharge 2m High (183,896m3 @ 960m3/d)	172	01-Dec-23	05-Jul-24	05-Dec-23	09-Jul-24	3
S15.7b-1330	Portion 15.7b - Surcharge Period (9 months) (141,925m3)	274	15-Mar-24	13-Dec-24	19-Mar-24	17-Dec-24	4
S15.7b-1340	Portion 15.7b - Remove Surcharge (127,733m3 @ 1,440m3/d)	78	14-Dec-24	22-Mar-25	18-Dec-24	26-Mar-25	3
S15.7b-1350	Interface - Portion 15.7b Handover to HSITP Contractor (PS Appendix 1.27D)	0		26-Mar-25		26-Mar-25	0
S15.7b-PC	Completion Section 15.7b (sd+1350)	0		22-Mar-25		26-Mar-25	4
Section 15.7b.A - Establishment Works at Portion 15.7b		365	23-Mar-25	22-Mar-26	27-Mar-25	26-Mar-26	4
15.7b.A-1000	Portion 15.7b - Establishment Works	365	23-Mar-25	22-Mar-26	27-Mar-25	26-Mar-26	4
S15.7b.A-PC	Completion Section 15.7b.A (sd+1715)	0		22-Mar-26		26-Mar-26	4
Section 15.8 - Reed Bed Area		352	01-Sep-21 A	10-Apr-24	03-Mar-22	10-Apr-24	0
PRE-330	Portion 15.8 - Prepare, Submit & Coordination for AFCD for realignment of Existing Olive Green Fence	90	01-Sep-21 A	17-Dec-21 A	03-Mar-22	03-Mar-22	
PRE-335	Portion 15.8 - Prepare, Submit & Coordination for Reed Transplant	90	08-Mar-22	28-Jun-22	06-May-22	22-Aug-22	46
S15.8-1010	Portion 15.8 - MS Instrumentation Preparation, Submission, & Approval	78	16-Jan-23	25-Apr-23	15-Mar-23	20-Jun-23	46
S15.8-1020	Portion 15.8 - MS Earthwork Preparation, Submission, & Approval	78	26-Apr-23	29-Jul-23	21-Jun-23	21-Sep-23	46
S15.8-1030	Portion 15.8 - Level Ground(55,630m3)	180	05-May-22	07-Dec-22	30-Jun-22	07-Feb-23	46
S15.8-1040	Portion 15.8 - Instrumentation Installation Type C2 (INC 9 nrs @ ave 3d/nr/rig, 1 rig)	30	31-Jul-23	02-Sep-23	22-Sep-23	30-Oct-23	46
S15.8-1050	Portion 15.8 - Instrumentation Installation Type C2 (SM1&2-9 nrs, SMM-9nrs)	9	04-Sep-23	13-Sep-23	31-Oct-23	09-Nov-23	46
S15.8-1060	Portion 15.8 - General Fill (10,170+1,730+20,550m3 = 32,450 @ 900m3/d)	120	14-Sep-23	07-Feb-24	10-Nov-23	10-Apr-24	46
S15.8-1070	Interface - Portion 15.8 Handover to Contract 5 (PS Appendix 1.27 A)	0		10-Apr-24		10-Apr-24	0
S15.8-PC	Completion Section 15.8 (sd+1000)	0		07-Feb-24		10-Apr-24	63
Section 16 - Works Not Covered by Other Sections of the Works		540	20-Sep-21 A	21-Aug-25	13-Jan-22	11-Nov-25	32
S16-0900	Works not covered by Other sections of the works	320	11-May-24	11-Jun-25	01-Aug-24	29-Aug-25	67
S16-1000	Section S16 Planned Completion	0		11-Jun-25		29-Aug-25	67
S16-1010	Section S16 Terminal Float	60	12-Jun-25	21-Aug-25	30-Aug-25	11-Nov-25	67
S16-PC	Completion Section 16 (sd+1580)	0		21-Aug-25		11-Nov-25	82
S16 - Portion 8 of the Site - STW ABWF & Landscape Works		349	31-May-24	04-Aug-25	31-May-24	11-Nov-25	82
KD8-1240	STW - ABWF Works for IW, PST and DOU No. 1	149	31-May-24	26-Nov-24	31-May-24	26-Nov-24	0
KD8-1245	STW - ABWF Works for Bio-Reactor	149	31-May-24	26-Nov-24	31-May-24	26-Nov-24	0
KD8-1250	STW - ABWF Works for Membrane Facility and DOU No.2	149	31-May-24	26-Nov-24	31-May-24	26-Nov-24	0
KD8-1255	STW - ABWF Works for Sludge Treatment Building	149	31-May-24	26-Nov-24	31-May-24	26-Nov-24	0
KD8-1260	STW - ABWF Works for Chemical Storage	90	31-May-24	14-Sep-24	10-Aug-24	26-Nov-24	59
KD8-1265	STW - ABWF Works for FH Pump House	90	31-May-24	14-Sep-24	10-Aug-24	26-Nov-24	59
KD8-1270	STW - Landscape Works (Including at-grade planting and greenroof)	200	27-Nov-24	04-Aug-25	27-Nov-24	04-Aug-25	0
KD8-1275	STW - Drainage and Sewage Construction	90	08-Jul-24	23-Oct-24	19-Sep-24	07-Jan-25	62
KD8-1280	STW - Watermains	90	29-Aug-24	14-Dec-24	13-Nov-24	05-Mar-25	62
KD8-1285	STW - Irrigation System	90	29-Aug-24	14-Dec-24	05-Mar-25	25-Jun-25	151
KD8-1290	STW - Cable Ducts	90	08-Jul-24	23-Oct-24	28-Sep-24	16-Jan-25	70
KD8-1295	STW - Kerb Construction	120	16-Sep-24	13-Feb-25	22-Mar-25	18-Aug-25	151
KD8-1300	STW - Roadworks and Walkways Paving	120	11-Nov-24	08-Apr-25	21-May-25	11-Oct-25	151
KD8-1305	STW - Traffic Signs and Road Markings	90	17-Jan-25	13-May-25	26-Jul-25	11-Nov-25	151
KD8-2720	Section 16 Completion	0		04-Aug-25		11-Nov-25	82
S16 Portion 9 of the Site - North Meander		512	20-Sep-21 A	11-Jun-25	13-Jan-22	29-Aug-25	31
S16-1020	Portion 9 - Subletting DCM Works	37	20-Sep-21 A	27-Oct-21 A	13-Jan-22	13-Jan-22	
S16-1030	Portion 9 - Complete DCM On Site Facilities	0		05-Jan-22		15-Jan-22	9
S16-1040	Portion 9 - Level Ground (12,420+1,100m3)	30	11-Jul-23	14-Aug-23	27-Sep-23	04-Mar-24	67
S16-1050	Portion 9 - Instrumentation Installation Type C2 (INC 9 nrs @ 3d/nr/rig, 1 rig)	30	15-Aug-23	18-Sep-23	05-Mar-24	12-Apr-24	67
S16-1060	Portion 9 - Instrumentation Installation Type C2 (SM1&2-9nrs, SMM-9nrs)	9	19-Sep-23	28-Sep-23	13-Apr-24	23-Apr-24	67
S16-1070	Portion 9 - Instrumentation Installation Type C3 (SM1&2-6nrs, SMM-6nrs)	6	20-Sep-23	26-Sep-23	15-Apr-24	20-Apr-24	67
S16-1080	Portion 9 - Construct DCM Clusters (2A,2B,2C) (63,740m3 @ 150m3/day/auger - 2 auger)	215	16-Oct-23	04-Mar-25	09-May-24	28-May-25	67
S16-1090	Portion 9 - Granular Fill (1,270m3 at200m3)	14	05-Mar-25	20-Mar-25	29-May-25	14-Jun-25	67
S16-1100	Portion 9 - General Fill (26,160m3 @ 800m3/d)	34	21-Mar-25	06-May-25	16-Jun-25	25-Jul-25	67
S16-1110	Portion 9 - Geobag Installation Along Slope	30	07-May-25	11-Jun-25	26-Jul-25	29-Aug-25	67
S16 Portion 10 of the Site		359	21-Mar-24	11-Jun-25	04-Aug-25	29-Aug-25	67
S16-1120	Interface - Portion 10 Posession from FSAD (Location 2 Access Date, PS Appendix 1.27A)	0		21-Mar-24		04-Aug-25	404
S16-1130	Portion 10 - General Fill (15,050m3 @ 800m3/day)	22	16-May-25	11-Jun-25	05-Aug-25	29-Aug-25	67
Section 17 - Establishment Works Not Covered by Other Sections of the Works		365	19-Jul-25	18-Jul-26	12-Nov-25	11-Nov-26	116
S17-1000	Establishment Works not covered by other section fo the works	365	19-Jul-25	18-Jul-26	12-Nov-25	11-Nov-26	116
S17-PC	Completion Section 17 (sd+1945)	0		18-Jul-26		11-Nov-26	116
Section 18 - Fencing at Portion 10		35	15-Jul-21 A	23-Oct-21 A	11-Nov-25	11-Nov-25	
S18-1000	Portion 10 - Preparation and Procurement Works	48	15-Jul-21 A	08-Sep-21 A	11-Nov-25	11-Nov-25	
S18-1010	Portion 10 - General Fill (15,090m3 @800m3/d)	18	09-Sep-21 A	30-Sep-21 A	11-Nov-25	11-Nov-25	
S18-1020	Portion 10 - Fencing as shown in drawing C1/1177	18	02-Oct-21 A	23-Oct-21 A	11-Nov-25	11-Nov-25	
S18-1030	Interface - Portion 10 Handover to FSAD (PS Appendix 1.27C)	0		23-Oct-21 A		11-Nov-25	
S18-PC	Completion Section 18 (sd+100)	0		23-Oct-21 A		11-Nov-25	
Section 19 - Chainlink Fence at Portion 22		29	15-Jul-21 A	08-Oct-21 A	11-Nov-25	11-Nov-25	
S19-1000	Portion 22 - Design and Procurement Works	24	15-Jul-21 A	11-Aug-21 A	11-Nov-25	11-Nov-25	
S19-2000	Portion 22 - Chainlink Fence Installation for Future Contract	31	01-Sep-21 A	08-Oct-21 A	11-Nov-25	11-Nov-25	
S19-PC	Completion Section 19 (sd+85)	0		08-Oct-21 A		11-Nov-25	
Section 20 - Ground Treatment Works and Site Formation at Portion 15.6b		430	29-Mar-22	07-May-25	04-Feb-23	15-May-25	3
S20-1000	Portion 15.6b - Preparation and Procurement Works	90	29-Mar-22	20-Jul-22	04-Feb-23	25-May-23	250
S20-1010	Portion 15.6b - Level Ground (7,780m3)	36	21-Jul-22	31-Aug-22	27-May-23	10-Jul-23	250
S20-1020	Portion 15.6b - CPT (5 nrs @ ave 10nrs/d/rig, 1 rig)	1	21-Jul-22	21-Jul-22	27-May-23	27-May-23	250
S20-1030	Portion 15.6b - Instrumentation Installation Type C1 (MPX 14 nrs @ ave 3d/nr/rig, 8 rigs)	7	21-Jul-22	28-Jul-22	27-May-23	03-Jun-23	250
S20-1040	Portion 15.6b - Instrumentation Installation Type C1 (VMP 28 nrs @ ave 6d/nr/rig, 8 rigs)	23	29-Jul-22	24-Aug-22	05-Jun-23	03-Jul-23	250
S20-1050	Portion 15.6b - Instrumentation Installation Type C1 (SP 14 nrs @ ave 3d/nr/rig, 8 rigs)	7	17-Aug-22	24-Aug-22	24-Jun-23	03-Jul-23	250
S20-1060	Portion 15.6b - Instrumentation Installation Type C1 (SSM 14 nrs)	7	17-Aug-22	24-Aug-22	24-Jun-23	03-Jul-23	250
S20-1070	Portion 15.6b - Granular Fill (19,010m3 @ 1,500m3/d)	13	25-Aug-22	08-Sep-22	04-Jul-23	18-Jul-23	250
S20-1080	Portion 15.6b - PVD Installation (586,650m @ 3,000m/day/rig - 3 rig)	91	07-Jul-23	24-Oct-23	19-Jul-23	04-Nov-23	10
S20-1090	Portion 15.6b - General Fill to Surcharge 2m High (66,986m3 @ 720m3/d)	85	16-Mar-24	02-Jul-24	23-Mar-24	09-Jul-24	6



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Remaining Level of Effort ◆ Milesto...
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

Contract YL/2020/01 - Lok Ma Chau Loop Main Works Package 1

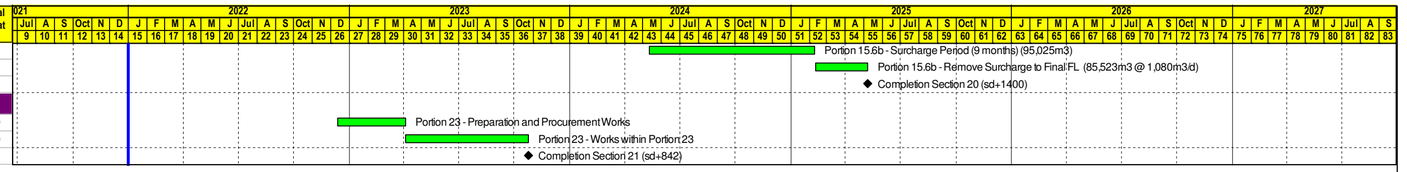
Detailed Programme

Project ID : YL-3MRP.06r1
Layout : YL202001 AppA Detailed Programme
Date : 30-Nov-21 / Page 20 of 21

Detailed Programme

Date	Revision	Checked	Approved
29-Dec-21	Rev. 2 (Draft)		

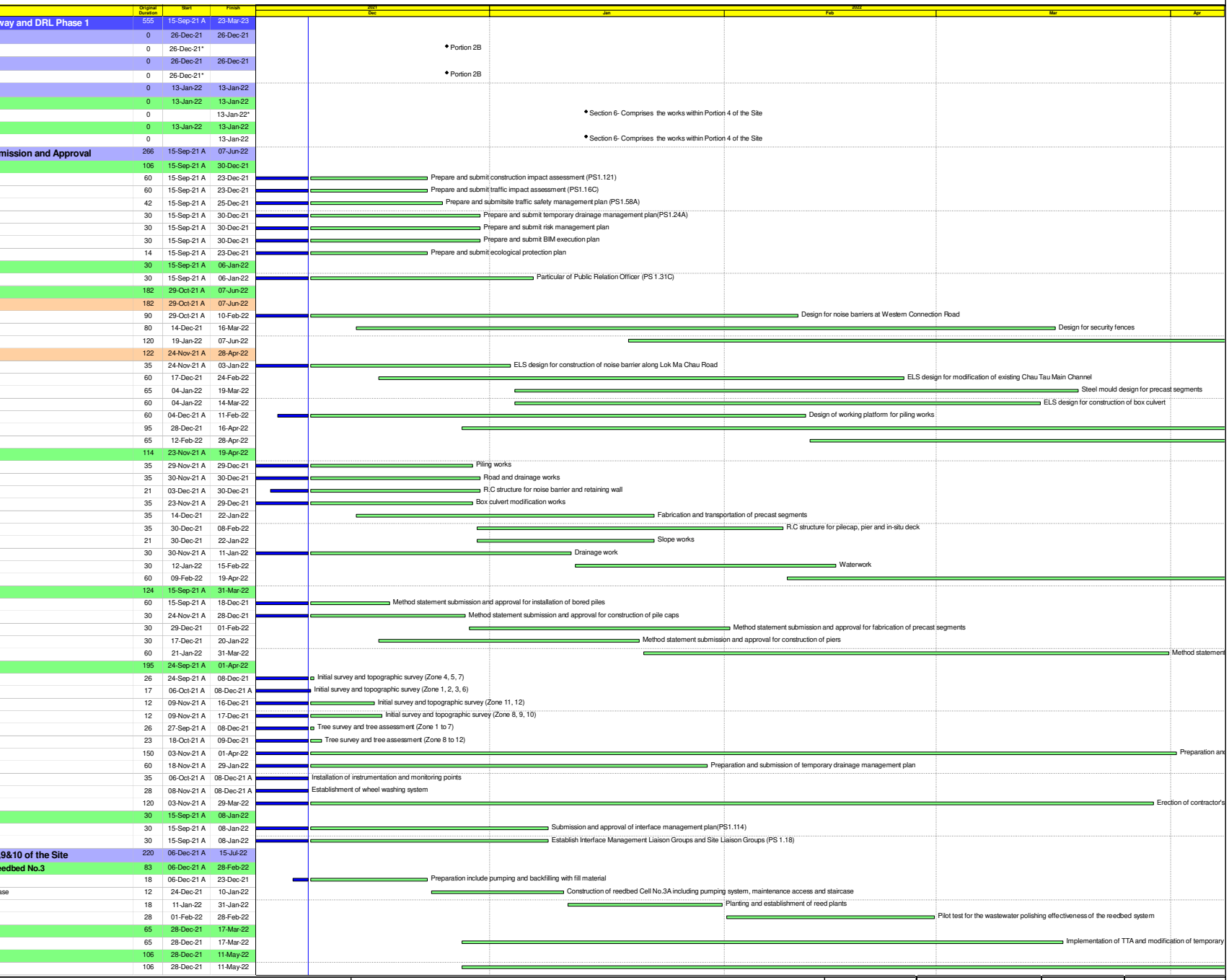
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float
S20-1120	Portion 15.6b - Surcharge Period (9 months) (95,025m3)	275	11-May-24	09-Feb-25	19-May-24	17-Feb-25	8
S20-1130	Portion 15.6b - Remove Surcharge to Final FL (85,523m3 @ 1,080m3/d)	69	10-Feb-25	07-May-25	18-Feb-25	15-May-25	7
S20-PC	Completion Section 20 (sd+1400)	0		07-May-25		15-May-25	8
Section 21 - Works within Portion 23		123	12-Dec-22	24-Oct-23	23-Dec-22	04-Nov-23	5
S21-1000	Portion 23 - Preparation and Procurement Works	90	12-Dec-22	03-Apr-23	23-Dec-22	19-Apr-23	10
S21-2000	Portion 23 - Works within Portion 23	164	04-Apr-23	24-Oct-23	20-Apr-23	04-Nov-23	10
S21-PC	Completion Section 21 (sd+842)	0		24-Oct-23		04-Nov-23	11



Contract No. YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

Contract No. YL/2020/02 Western Connection Road Phase 2, Connection Roads to Fanling/San Tin Highway and DRL Phase 1

Activity ID	Activity Name	Original Duration	Start	Finish
Western Connection Road Phase 2, Connection Roads to Fanling/San Tin Highway and DRL Phase 1		555	15-Sep-21 A	23-Mar-23
Contractual Required Access Date		0	26-Dec-21	26-Dec-21
ACD1100	Portion 2B	0	26-Dec-21*	
Planned Access Date		0	26-Dec-21	26-Dec-21
ACD1200	Portion 2B	0	26-Dec-21*	
Key Date and Section of the Works		0	13-Jan-22	13-Jan-22
Contractual Required Date for Section of the Works		0	13-Jan-22	13-Jan-22
SEW1050	Section 6- Comprises the works within Portion 4 of the Site	0		13-Jan-22*
Planned Achievement Date for Section of the Works		0	13-Jan-22	13-Jan-22
SEW1110	Section 6- Comprises the works within Portion 4 of the Site	0		13-Jan-22
General Submission,Preliminaries, Contractor's Design,Method Statement Submission and Approval		266	15-Sep-21 A	07-Jun-22
General Submission		106	15-Sep-21 A	30-Dec-21
GSS1010	Prepare and submit construction impact assessment (PS1.121)	60	15-Sep-21 A	23-Dec-21
GSS1020	Prepare and submit traffic impact assessment (PS1.16C)	60	15-Sep-21 A	23-Dec-21
GSS1030	Prepare and submitsite traffic safety management plan (PS1.58A)	42	15-Sep-21 A	25-Dec-21
GSS1090	Prepare and submit temporary drainage management plan(PS1.24A)	30	15-Sep-21 A	30-Dec-21
GSS1150	Prepare and submit risk management plan	30	15-Sep-21 A	30-Dec-21
GSS1170	Prepare and submit BIM execution plan	30	15-Sep-21 A	30-Dec-21
GSS1180	Prepare and submit ecological protection plan	14	15-Sep-21 A	23-Dec-21
Particular Submission of Key People and Specially Required Staff		30	15-Sep-21 A	06-Jan-22
KEY1120	Particular of Public Relation Officer (PS 1.31C)	30	15-Sep-21 A	06-Jan-22
Contractor's Design Submission and Approval		182	29-Oct-21 A	07-Jun-22
Major Permanent Works Design		182	29-Oct-21 A	07-Jun-22
MPW1010	Design for noise barriers at Western Connection Road	90	29-Oct-21 A	10-Feb-22
MPW1015	Design for security fences	80	14-Dec-21	16-Mar-22
MPW1020	Design for covered walkways at Cycle Track cum Footbridge with staircases	120	19-Jan-22	07-Jun-22
Major Temporary Works Design		122	24-Nov-21 A	28-Apr-22
MTW1030	ELS design for construction of noise barrier along Lok Ma Chau Road	35	24-Nov-21 A	03-Jan-22
MTW1050	ELS design for modification of existing Chau Tau Main Channel	60	17-Dec-21	24-Feb-22
MTW1055	Steel mould design for precast segments	65	04-Jan-22	19-Mar-22
MTW1060	ELS design for construction of box culvert	60	04-Jan-22	14-Mar-22
MTW1065	Design of working platform for piling works	60	04-Dec-21 A	11-Feb-22
MTW1080	ELS design for construction of pilecap for bridge DRL,ST-01 and CTFB	95	28-Dec-21	16-Apr-22
MTW1100	ELS design for modification of existing subways	65	12-Feb-22	28-Apr-22
Subcontracting		114	23-Nov-21 A	19-Apr-22
MTW3080	Piling works	35	29-Nov-21 A	29-Dec-21
MTW3100	Road and drainage works	35	30-Nov-21 A	30-Dec-21
MTW3140	R.C structure for noise barrier and retaining wall	21	03-Dec-21 A	30-Dec-21
MTW3180	Box culvert modification works	35	23-Nov-21 A	29-Dec-21
MTW3220	Fabrication and transportation of precast segments	35	14-Dec-21	22-Jan-22
MTW3240	R.C structure for pilecap, pier and in-situ deck	35	30-Dec-21	08-Feb-22
MTW3260	Slope works	21	30-Dec-21	22-Jan-22
MTW3270	Drainage work	30	30-Nov-21 A	11-Jan-22
MTW3280	Waterwork	30	12-Jan-22	15-Feb-22
MTW3300	Erection of precast segment	60	09-Feb-22	19-Apr-22
Method Statement Submission and Approval for Major Construction Works		124	15-Sep-21 A	31-Mar-22
MSS1040	Method statement submission and approval for installation of bored piles	60	15-Sep-21 A	18-Dec-21
MSS1060	Method statement submission and approval for construction of pile caps	30	24-Nov-21 A	28-Dec-21
MSS1065	Method statement submission and approval for fabrication of precast segments	30	29-Dec-21	01-Feb-22
MSS1070	Method statement submission and approval for construction of piers	30	17-Dec-21	20-Jan-22
MSS1080	Method statement submission and approval for modification of box culvert	60	21-Jan-22	31-Mar-22
Preliminaries		195	24-Sep-21 A	01-Apr-22
PRE1000	Initial survey and topographic survey (Zone 4, 5, 7)	26	24-Sep-21 A	08-Dec-21
PRE1002	Initial survey and topographic survey (Zone 1, 2, 3, 6)	17	06-Oct-21 A	08-Dec-21 A
PRE1004	Initial survey and topographic survey (Zone 11, 12)	12	09-Nov-21 A	16-Dec-21
PRE1006	Initial survey and topographic survey (Zone 8, 9, 10)	12	09-Nov-21 A	17-Dec-21
PRE1010	Tree survey and tree assessment (Zone 1 to 7)	26	27-Sep-21 A	08-Dec-21
PRE1012	Tree survey and tree assessment (Zone 8 to 12)	23	18-Oct-21 A	09-Dec-21
PRE1020	Preparation and approval of TTA scheme and traffic impact assessment	150	03-Nov-21 A	01-Apr-22
PRE1025	Preparation and submission of temporary drainage management plan	60	18-Nov-21 A	29-Jan-22
PRE1040	Installation of instrumentation and monitoring points	35	06-Oct-21 A	08-Dec-21 A
PRE1050	Establishment of wheel washing system	28	08-Nov-21 A	08-Dec-21 A
PRE1060	Erection of contractor's site accommodation	120	03-Nov-21 A	29-Mar-22
Interface Management Plan		30	15-Sep-21 A	08-Jan-22
PRE1070	Submission and approval of interface management plan(PS1.114)	30	15-Sep-21 A	08-Jan-22
PRE1080	Establish Interface Management Liaison Groups and Site Liaison Groups (PS 1.18)	30	15-Sep-21 A	08-Jan-22
Section 1 of the Works- Completion of the Works within Portion 1,2A,2B,3,5,7,8,9&10 of the Site		220	06-Dec-21 A	15-Jul-22
Construction of Reedbed No.3A including the Reedbed System and Reinstatement of Reedbed No.3		83	06-Dec-21 A	28-Feb-22
S010100	Preparation include pumping and backfilling with fill material	18	06-Dec-21 A	23-Dec-21
S010120	Construction of reedbed Cell No.3A including pumping system, maintenance access and staircase	12	24-Dec-21	10-Jan-22
S010140	Planting and establishment of reed plants	18	11-Jan-22	31-Jan-22
S010160	Pilot test for the wastewater polishing effectiveness of the reedbed system	28	01-Feb-22	28-Feb-22
Taxi Holding Area		65	28-Dec-21	17-Mar-22
S010300	Implementation of TTA and modification of temporary taxi holding area	65	28-Dec-21	17-Mar-22
Existing Cycle Track Subway Modification		106	28-Dec-21	11-May-22
S011035	Implementation of TTA and demolition of existing cycle track ramp (Bay ST12 to Bay ST14)	106	28-Dec-21	11-May-22



Actual Work
Remaining Work
Critical Remaining Work
Milestone

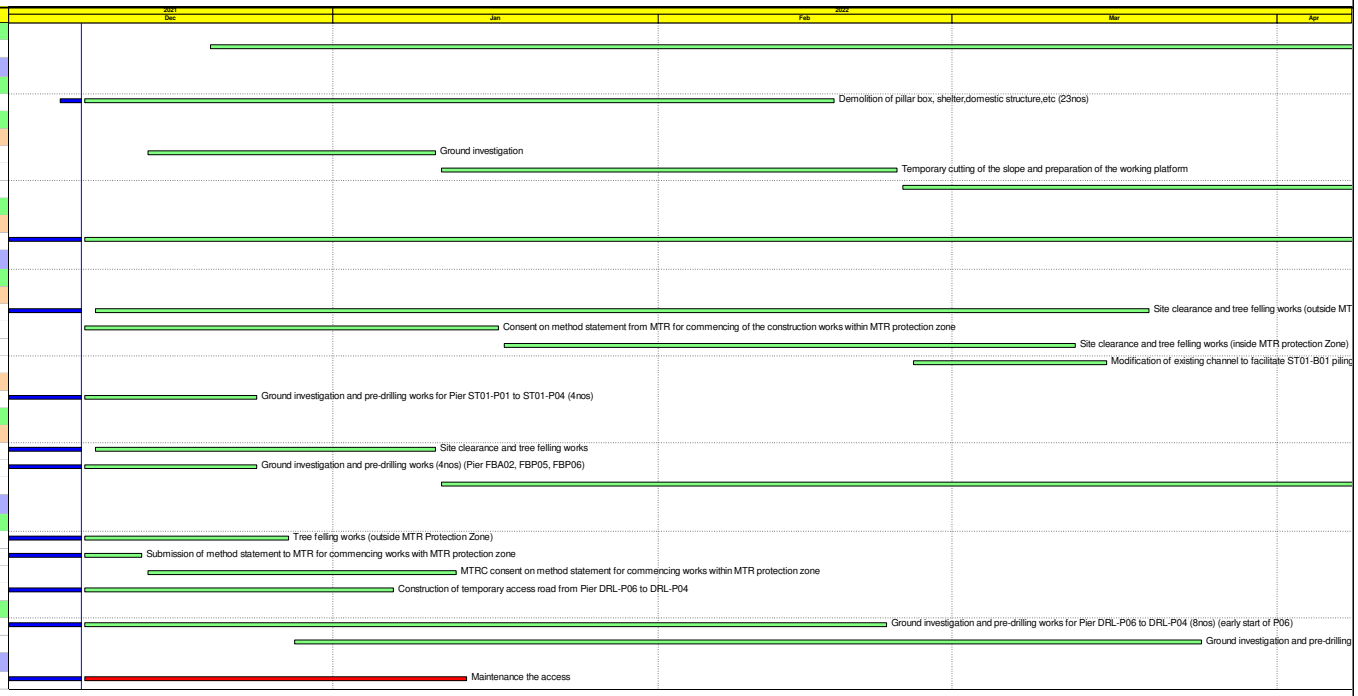
中國路橋工程有限責任公司
CHINA ROAD AND BRIDGE CORPORATION

Three Month Rolling Programme (Data Date : 08-Dec-21)

Date	Revision	Checked	Approved
15-Dec-21	0	KM	RS

Contract No. YL/2020/02 Western Connection Road Phase 2, Connection Roads to Fanling/San Tin Highway and DRL Phase 1

Activity ID	Activity Name	Original Duration	Start	Finish
Retaining Walls		165	20-Dec-21	15-Jul-22
S011060	Construction of Retaining Wall RW9(16 bays) and backfilling	165	20-Dec-21	15-Jul-22
Section 2A of the Works-Completion of the Works at Lok Ma Chau Road within Portion 1,5 and 8		376	01-Nov-21 A	23-Mar-23
Demolition of Existing Structure		75	06-Dec-21 A	17-Feb-22
S02A100	Demolition of pillar box, shelter,domestic structure,etc (23nos)	75	06-Dec-21 A	17-Feb-22
Retaining Walls		376	14-Dec-21	23-Mar-23
Retaining Wall BP1		376	14-Dec-21	23-Mar-23
S02A710	Ground investigation	21	14-Dec-21	10-Jan-22
S02A720	Temporary cutting of the slope and preparation of the working platform	35	11-Jan-22	23-Feb-22
S02A725	Installation of bored piles (46 nos)	320	24-Feb-22	23-Mar-23
Noise Barriers		166	01-Nov-21 A	04-May-22
Temporary Noise Barrier		166	01-Nov-21 A	04-May-22
S02A680	Installation of temporary noise barrier along the Lok Ma Chau Road (370m)	166	01-Nov-21 A	04-May-22
Section 2C of the Works- Completion of Substructure and Piling Works of ST01 and CTFB		276	22-Nov-21 A	12-Apr-22
Substructure and Piling Works for Bridge ST01		113	22-Nov-21 A	19-Mar-22
Preparation Works		113	22-Nov-21 A	19-Mar-22
S02C100	Site clearance and tree felling works (outside MTR protection Zone)	90	22-Nov-21 A	19-Mar-22
S02C103	Consent on method statement from MTR for commencing of the construction works within MTR protection zone	40	08-Dec-21	16-Jan-22
S02C105	Site clearance and tree felling works (inside MTR protection Zone)	45	17-Jan-22	12-Mar-22
S02C115	Modification of existing channel to facilitate ST01-B01 piling works	16	25-Feb-22	15-Mar-22
G.I and Pre-drilling		20	24-Nov-21 A	24-Dec-21
S02C120	Ground investigation and pre-drilling works for Pier ST01-P01 to ST01-P04 (4nos)	20	24-Nov-21 A	24-Dec-21
Substructure and Piling Works for CTFB		222	22-Nov-21 A	12-Apr-22
G.I and Pre-drilling		222	22-Nov-21 A	12-Apr-22
S02C640	Site clearance and tree felling works	28	22-Nov-21 A	10-Jan-22
S02C645	Ground investigation and pre-drilling works (4nos) (Pier FBA02, FBP05, FBP06)	20	24-Nov-21 A	24-Dec-21
S02C650	Ground investigation and pre-drilling works (7nos) (MTR)	75	11-Jan-22	12-Apr-22
Section 3 of the Works- Completion of the works of Direct Road Link within Portion 1,2A,2B, 5 and 9		137	15-Oct-21 A	24-Mar-22
Preparation Works		66	15-Oct-21 A	12-Jan-22
S033102	Tree felling works (outside MTR Protection Zone)	24	22-Nov-21 A	27-Dec-21
S033105	Submission of method statement to MTR for commencing works with MTR protection zone	60	15-Oct-21 A	13-Dec-21
S033115	MTRC consent on method statement for commencing works within MTR protection zone	30	14-Dec-21	12-Jan-22
S033120	Construction of temporary access road from Pier DRL-P06 to DRL-P04	25	24-Nov-21 A	06-Jan-22
G.I and Pre-drilling		86	24-Nov-21 A	24-Mar-22
S033130	Ground investigation and pre-drilling works for Pier DRL-P06 to DRL-P04 (8nos) (early start of P06)	33	24-Nov-21 A	22-Feb-22
S033140	Ground investigation and pre-drilling works for Pier-P07,Pier DRL-P11 to DRL-P13 in Portion 1&2B (early start of P11)	71	28-Dec-21	24-Mar-22
Section 6 of the Works- Completion of the works within Portion 4 of the Site		78	11-Oct-21 A	13-Jan-22
S060100	Maintenance the access	78	11-Oct-21 A	13-Jan-22



Actual Work
Remaining Work
Critical Remaining Work
Milestone

中國路橋工程有限責任公司
CHINA ROAD AND BRIDGE CORPORATION

Three Month Rolling Programme (Data Date : 08-Dec-21)

Date	Revision	Checked	Approved
15-Dec-21	0	KM	RS

APPENDIX B
ACTION AND LIMIT LEVELS

Appendix B - Action and Limit Levels

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

Location	Action Level, µg/m^3	Limit Level, µg/m^3
DMS – 1a	353	500
DMS – 2A	370	
DMS – 3	351	
DMS – 4A	350	

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

Location	Action Level, µg/m^3	Limit Level, µg/m^3
DMS – 1	184	260
DMS – 2A	166	
DMS – 3	166	
DMS – 4A	152	

Table B-3 Action and Limit Levels for Construction Noise

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

Noted: If works are to be carried during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.
(*) reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Table B-4 Action and Limit Levels for Water Quality

Parameter (unit)	Water Depth	Action Level	Limit Level
DO (mg/L)	Depth average	IS1: 7.0 / NA(4) IS2: 5.3 / NA(4) IS4: 4.1 / NA(4) IS6: 5.9 BS1:3.9 / NA(4)	IS1: 6.8 or 4(4) IS2: 5.2 or 4(4) IS4: 3.8 or 4(4) IS6: 5.8 BS1: 3.7 or 4(4)
Turbidity (NTU)	Depth average	IS1: 27.7 IS2: 35.5 IS4: 70.9 BS1:29.9	IS1: 29.9 IS2: 38.1 IS4: 74.6 BS1:32.6
		IS6: 120% of upstream control station (CS5)	IS6: 130% of upstream control station (CS5)
SS (mg/L)	Depth average	IS1: 28.0 IS2: 39.8 IS4: 155 BS1:36.5	IS1: 28.8 IS2: 41.2 IS4: 175 BS1:36.9
		IS6: 120% of upstream control station (CS5)	IS6: 130% of upstream control station (CS5)

Note:
(1) Depth-averaged was calculated by taking the arithmetic means of reading of all three depths
(2) For DO, non-compliance of the water quality limit would occur when monitoring result at impact stations was lower that the limit.
(3) For SS & turbidity, non-compliance of the water quality limits would occur when monitoring result at impact stations was higher than the limits.
(4) The proposal of adopting 4 mg/L as the Limit Level of DO for the period from April to September due to seasonal change of DO was accepted by EPD via email on 10 Dec 2019.

APPENDIX C
COPIES OF CALIBRATION CERTIFCATES

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High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

File No. WMA21009/04/0004

Station: DMS-2A - Village House along Lok Ma Chau Road
Operator: CH
Date: 25-Nov-21
Next Due Date: 24-Jan-22
Equipment No.: WA-12-04
Serial No. 1659

Ambient Condition			
Temperature, Ta (K)	291.5	Pressure, Pa (mmHg)	767.6

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0569	Intercept, bc	-0.01398
Last Calibration Date:	28-Jan-21	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	28-Jan-22	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	11.5	3.45	60.83	7.7	2.82
2	9.7	3.16	55.88	6.8	2.65
3	7.5	2.78	49.17	5.1	2.29
4	5.0	2.27	40.19	3.6	1.93
5	3.6	1.93	34.14	2.5	1.61

By Linear Regression of Y on X

Slope , mw = 0.0456 **Intercept, bw =** 0.0688

Correlation coefficient* = 0.9986

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.99**

Remarks:

Conducted by: Ka Ka Chu Signature: Date: 25/11/2021
Checked by: MW Mak Signature: Date: 25-11-2021

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High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

File No. WMA21009/24/0004

Station DMS-3 - Village House along Old Border Road
Operator: CH
Date: 25-Nov-21
Next Due Date: 24-Jan-22
Equipment No.: WA-12-24
Serial No. 10576

Ambient Condition			
Temperature, Ta (K)	293.3	Pressure, Pa (mmHg)	767.5

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0569	Intercept, bc	-0.01398
Last Calibration Date:	28-Jan-21	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	28-Jan-22	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.1	3.67	64.70	9.0	3.04
2	11.8	3.48	61.42	7.8	2.83
3	9.9	3.19	56.28	6.6	2.60
4	6.8	2.64	46.68	4.7	2.20
5	3.5	1.90	33.56	2.5	1.60

By Linear Regression of Y on X

Slope , mw = 0.0452 **Intercept, bw =** 0.0814

Correlation coefficient* = 0.9991

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.99**

Remarks:

Conducted by: Ho Ka Chun Signature: Date: 25/11/2021
Checked by: Lee Man Hin Signature: Date: 25-11-2021

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High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

File No. WMA21009/07/0004

Station: DMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill
Operator: CH

Date: 25-Nov-21
Next Due Date: 24-Jan-22

Equipment No.: WA-12-07
Serial No. 1801

Ambient Condition			
Temperature, Ta (K)	295	Pressure, Pa (mmHg)	766.8

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0569	Intercept, bc	-0.01398
Last Calibration Date:	28-Jan-21	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	28-Jan-22	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.2	3.67	64.73	8.4	2.93
2	10.6	3.29	58.03	6.9	2.65
3	7.2	2.71	47.87	5.0	2.26
4	4.8	2.21	39.13	3.6	1.92
5	3.6	1.92	33.92	2.6	1.63

By Linear Regression of Y on X

Slope , mw = 0.0412 **Intercept, bw =** 0.2680

Correlation coefficient* = 0.9986

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **4.08**

Remarks:

Conducted by: Ho Ka Chu Signature: Date: 25/11/2021

Checked by: Lee Man Hei Signature: Date: 25-11-2021

TISCH Environmental

RECALIBRATION DUE DATE:
January 28, 2022

Certificate of Calibration

Calibration Certification Information					
Cal. Date:	January 28, 2021	**Rootsmeter S/N:** 438320	**Ta:** 294	°K	
Operator:	Jim Tisch		**Pa:** 763.5	mm Hg	
Calibration Model #:	TE-5025A	**Calibrator S/N:** **0993**			

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4160	3.3	2.00
2	3	4	1	0.9980	6.4	4.00
3	5	6	1	0.8890	8.0	5.00
4	7	8	1	0.8500	8.8	5.50
5	9	10	1	0.7020	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
1.0139	0.7160	1.4271	0.9957	0.7032	0.8776
1.0098	1.0118	2.0182	0.9916	0.9936	1.2411
1.0076	1.1334	2.2564	0.9895	1.1131	1.3875
1.0066	1.1842	2.3666	0.9885	1.1629	1.4553
1.0011	1.4261	2.8542	0.9831	1.4004	1.7551
QSTD	**m=**	**2.00902**	**QA**	**m=**	**1.25802**
	b=	**-0.01398**		**b=**	**-0.00860**
	r=	**0.99997**		**r=**	**0.99997**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH: calibrator manometer reading (in H2O)	
ΔP: rootsmeter manometer reading (mm Hg)	
Ta: actual absolute temperature (°K)	
Pa: actual barometric pressure (mm Hg)	
b: intercept	
m: slope	

RECALIBRATION

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

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

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

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

TEST REPORT

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

Test Report No.:	35994A
Date of Issue:	2021-11-08
Date Received:	2021-11-05
Date Tested:	2021-11-05
Date Completed:	2021-11-08
Next Due Date:	2022-01-07
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

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

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.080

****

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

PATRICK TSE
General Manager

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WELLAB LIMITED
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New Territories, Hong Kong
Tel: 2898 7388 Fax: 2898 7076
Website : www.wellab.com.hk

TEST REPORT

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

Test Report No.:	35994B
Date of Issue:	2021-11-08
Date Received:	2021-11-05
Date Tested:	2021-11-05
Date Completed:	2021-11-08
Next Due Date:	2022-01-07
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23809
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-03

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.087

****

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

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TEST REPORT

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

Test Report No.:	35994C
Date of Issue:	2021-11-08
Date Received:	2021-11-05
Date Tested:	2021-11-05
Date Completed:	2021-11-08
Next Due Date:	2022-01-07
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23810
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-04

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.093

****

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TEST REPORT

APPLICANT: **Wellab Limited**
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Room 1808, Technology Park,
18 On Lai Street,
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Test Report No.:	35993
Date of Issue:	2021-11-01
Date Received:	2021-10-29
Date Tested:	2021-10-29
Date Completed:	2021-11-01
Next Due Date:	2021-12-31
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24476
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-05

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.070

****

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TEST REPORT

APPLICANT: **Wellab Limited**
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Room 1808, Technology Park,
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Shatin, NT, Hong Kong

Test Report No.:	35993A
Date of Issue:	2021-11-01
Date Received:	2021-10-29
Date Tested:	2021-10-29
Date Completed:	2021-11-01
Next Due Date:	2021-12-31
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

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

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.078

****

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TEST REPORT

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

Test Report No.:	35994D
Date of Issue:	2021-11-08
Date Received:	2021-11-05
Date Tested:	2021-11-05
Date Completed:	2021-11-08
Next Due Date:	2022-01-07
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24475
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-07

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.080

****

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TEST REPORT

APPLICANT: **Wellab Limited**
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Room 1808, Technology Park,
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Shatin, NT, Hong Kong

Test Report No.:	35993D
Date of Issue:	2021-11-01
Date Received:	2021-10-29
Date Tested:	2021-10-29
Date Completed:	2021-11-01
Next Due Date:	2021-12-31
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

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

Test Conditions:

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

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF)	1.097

****

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	34872C
Date of Issue:	2021-03-08
Date Received:	2021-03-05
Date Tested:	2021-03-05
Date Completed:	2021-03-08
Next Due Date:	2022-03-07
Page:	1 of 1

ATTN: **Mr. W. K. Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580006
Equipment No.	: WN-01-04

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1701, Technology Park,
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Shatin, NT, Hong Kong

Test Report No.:	34873A
Date of Issue:	2021-03-15
Date Received:	2021-03-12
Date Tested:	2021-03-12
Date Completed:	2021-03-15
Next Due Date:	2022-03-14
Page:	1 of 1

ATTN: **Mr. W. K. Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580013
Equipment No.	: WN-01-09

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	34873B
Date of Issue:	2021-03-15
Date Received:	2021-03-12
Date Tested:	2021-03-12
Date Completed:	2021-03-15
Next Due Date:	2022-03-14
Page:	1 of 1

ATTN: **Mr. W. K. Tang**

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580017
Equipment No.	: WN-01-10

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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PATRICK TSE
General Manager

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TEST REPORT

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

Test Report No.:	35658
Date of Issue:	2021-08-23
Date Received:	2021-08-20
Date Tested:	2021-08-20
Date Completed:	2021-08-23
Next Due Date:	2022-08-22
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2412367
Equipment No.	: N-02-03

Test Conditions:

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

Methodology:

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

Results:

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

Remark: This report supersedes the one dated 2019-08-20 with certificate number 31951.

****

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General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
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Test Report No.:	35909
Date of Issue:	2021-10-04
Date Received:	2021-10-02
Date Tested:	2021-10-02
Date Completed:	2021-10-04
Next Due Date:	2022-10-03
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

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

PATRICK TSE
General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
(EM&A Department)
Room 1701, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	35909A
Date of Issue:	2021-10-04
Date Received:	2021-10-02
Date Tested:	2021-10-02
Date Completed:	2021-10-04
Next Due Date:	2022-10-03
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

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

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General Manager

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TEST REPORT

APPLICANT: **Wellab Limited**
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Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Ms. Meiling Tang**

Test Report No.:	35811C
Date of Issue:	2021-09-20
Date Received:	2021-09-17
Date Tested:	2021-09-17
Date Completed:	2021-09-20
Next Due Date:	2022-03-19
Page:	1 of 2

Certificate of Calibration

Item for calibration:

Description	: Weather Stations, Vantage Pro2
Manufacturer	: Davis Instruments
Model No.	: 6152CUK
Serial No.	: AK130520006

Test conditions:

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

Test Specifications:

1. Performance check of anemometer
2. Performance check of wind direction sensor

Methodology:

In-house method with reference anemometer

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

Patrick Tse

PATRICK TSE
Laboratory Manager

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TEST REPORT

Test Report No.:	35811C
Date of Issue:	2021-09-20
Date Received:	2021-09-17
Date Tested:	2021-09-17
Date Completed:	2021-09-20
Next Due Date:	2022-03-19
Page:	2 of 2

Results:

1. Performance check of anemometer

Air Velocity, m/s		Difference D (m/s)
Instrument Reading (V1)	Reference Value (V1)	D = V1 – V2
2.00	2.00	0.00

2. Performance check of wind direction sensor

Wind Direction (°)		Difference D (°)
Instrument Reading (W1)	Reference Value (W2)	D = W1 - W2
0	0	0
45	45	0
90.1	90	0.1
135	135	0
180	180	0
225.3	225	0.3
270.2	270	0.2
315	315	0
360	360	0

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

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TEST REPORT

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

ATTN: **Miss Mei Ling Tang**

Test Report No.:	35918
Date of Issue:	2021-09-29
Date Received:	2021-09-27
Date Tested:	2021-09-27 to 2021-09-29
Date Completed:	2021-09-29
Page:	1 of 2

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-92
Manufacturer:	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	17B100187
- EXO Optical DO Sensor, Ti	599100-01	17A105016
- EXO conductivity/Temperature Sensor, Ti	599870	17A105110
- EXO Turbidity Sensor, Ti	599101-01	17A104099
- EXO pH Sensor Assembly, Guarded, Ti	599701	16J100567

Test conditions:

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

Test Specifications:

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

Methodology:

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

****

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General Manager

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TEST REPORT

Test Report No.:	35918
Date of Issue:	2021-09-29
Date Received:	2021-09-27
Date Tested:	2021-09-27 to 2021-09-29
Date Completed:	2021-09-29
Page:	2 of 2

Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings (μS/cm)	Accetance Criteria	Comment
KCl stock solution (12890 μS/cm)	12700	12246-13534	Pass

Temperature performance checking

Reference thermometer-E431 Readings (°C)	Instrument Readings (°C)	Correction (°C)	Comment
20.0	19.999	+0.001	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance Criteria	Comment
pH QC buffer 4.00	3.96	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.89	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.22	9.18 ± 0.10	Pass

D.O. performance checking

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

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Accetance Criteria	Comment
7.86	7.95	Difference between Titration value and instrument reading <0.2mg/L	Pass

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	9.88	9.0-11.0	Pass
50 NTU	49.87	45.0-55.0	Pass
100 NTU	102.1	90.0-110.0	Pass

Depth performance checking

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

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

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TEST REPORT

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

Test Report No.:	36157
Date of Issue:	2021-12-07
Date Received:	2021-12-06
Date Tested:	2021-12-06 to 2021-12-07
Date Completed:	2021-12-07

ATTN: **Miss Mei Ling Tang**

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.: SW-08-31	
Manufacturer:	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J100892
- EXO Optical DO Sensor, Ti	599100-01	16J100950
- EXO conductivity/Temperature Sensor, Ti	599870	16H100185
- EXO Turbidity Sensor, Ti	599101-01	18C102865
- EXO pH Sensor Assembly, Guarded, Ti	599701	16J100708

Test conditions:

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

Test Specifications:

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

Methodology:

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

****

PREPARED AND CHECKED BY:
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TEST REPORT

Test Report No.:	36157
Date of Issue:	2021-12-07
Date Received:	2021-12-06
Date Tested:	2021-12-06 to 2021-12-07
Date Completed:	2021-12-07
Page:	2 of 2

Certificate of Calibration

Results:

Conductivity performance checking

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

Temperature performance checking

Reference thermometer-E431 Readings (°C)	Instrument Readings (°C)	Correction (°C)	Comment
20.0	19.998	+0.002	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance Criteria	Comment
pH QC buffer 4.00	4.04	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.87	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.21	9.18 ± 0.10	Pass

D.O. performance checking

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

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Accetance Criteria	Comment
7.84	8.02	Difference between Titration value and instrument reading <0.2mg/L	Pass

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	10.13	9.0-11.0	Pass
50 NTU	48.66	45.0-55.0	Pass
100 NTU	101.4	90.0-110.0	Pass

Depth performance checking

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

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

APPENDIX D
ENVIRONMENTAL MONITORING SCHEDULES

Service Contract No. WD/04/2020
Development of Lok Ma Chau Loop: Main Works Package 1 – Environmental Team
Impact Monitoring Schedule (December 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Dec	2-Dec	3-Dec	4-Dec
			1hr TSP X 3 Noise Water Quality Monitoring		Water Quality Monitoring	
5-Dec	6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec
	24hr TSP Water Quality Monitoring	1hr TSP X 3 Noise	Water Quality Monitoring		24hr TSP Water Quality Monitoring	
12-Dec	13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec
	1hr TSP X 3 Water Quality Monitoring		Water Quality Monitoring	24hr TSP	1hr TSP X 3 Noise Water Quality Monitoring	
19-Dec	20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	**25-Dec**
	Water Quality Monitoring		24hr TSP Water Quality Monitoring	1hr TSP X 3 Noise	Avifauna flight line survey Water Quality Monitoring	
26-Dec	**27-Dec**	28-Dec	29-Dec	30-Dec	31-Dec	
	Water Quality Monitoring	24hr TSP	1hr TSP X 3 Noise Water Quality Monitoring		Water Quality Monitoring	

Air Quality Monitoring Station
DMS-1a - Village House along Ha Wan Tsuen East Road
DMS-2A - Village house along Lok Ma Chau Road
DMS-3 - Village house along Old Border Road
DMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill

Noise Monitoring Station
NMS-1 - Village House in Ha Wan Tsuen
NMS-2 - Village house along existing Ha Wan Tsuen East Road
NMS-3 - Village house along Old Border Road
NMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill

Water Quality Monitoring Station
CS1 - Control Station at Old Shenzhen River Meander
IS1 - Impact Station at Old Shenzhen River Meander
IS2 - Impact Station at Old Shenzhen River Meander
IS4 - Impact Station for at Ping Hang Stream
CS5 - Control Station at channel at south of Lung Hau Road
IS6 - Impact Station next to Lung Hau Road
BS1 - Impact Station at Old Shenzhen River Meander
(Terminated starting from 28 June 2021- approved by EPD via email dated 22 June 2021)

Service Contract No. WD/04/2020
Development of Lok Ma Chau Loop: Main Works Package 1 – Environmental Team

Tentative Impact Monitoring Schedule (January 2022)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Jan
2-Jan	3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan
	24hr TSP Water Quality Monitoring	1hr TSP X 3 Noise	Water Quality Monitoring		24hr TSP Water Quality Monitoring	
9-Jan	10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan
	1hr TSP X 3 Noise Water Quality Monitoring		Water Quality Monitoring	24hr TSP	1hr TSP X 3 Water Quality Monitoring	
16-Jan	17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan
	Water Quality Monitoring		24hr TSP Water Quality Monitoring	1hr TSP X 3 Noise	Avifauna flight line survey Water Quality Monitoring	
23-Jan	24-Jan	25-Jan	26-Jan	27-Jan	28-Jan	29-Jan
	Water Quality Monitoring	24hr TSP	1hr TSP X 3 Noise Water Quality Monitoring		Water Quality Monitoring	
30-Jan	31-Jan					
	1hr TSP X 3 Noise 24hr TSP Water Quality Monitoring					

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

Air Quality Monitoring Station
DMS-1a - Village House along Ha Wan Tsuen East Road
DMS-2A - Village house along Lok Ma Chau Road
DMS-3 - Village house along Old Border Road
DMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill

Noise Monitoring Station
NMS-1 - Village House in Ha Wan Tsuen
NMS-2 - Village house along existing Ha Wan Tsuen East Road
NMS-3 - Village house along Old Border Road
NMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill

Water Quality Monitoring Station
CS1 - Control Station at Old Shenzhen River Meander
IS1 - Impact Station at Old Shenzhen River Meander
IS2 - Impact Station at Old Shenzhen River Meander
IS4 - Impact Station for at Ping Hang Stream
CS5 - Control Station at channel at south of Lung Hau Road
IS6 - Impact Station next to Lung Hau Road
BS1 - Impact Station at Old Shenzhen River Meander
(Terminated starting from 28 June 2021- approved by EPD via email dated 22 June 2021)

APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix E - 1-hour TSP Monitoring Results

Location DMS-1a - Village House along Ha Wan Tsuen East Road			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
1-Dec-21	8:30	Sunny	332.2
1-Dec-21	9:30	Sunny	273.3
1-Dec-21	10:30	Sunny	186.9
7-Dec-21	8:30	Sunny	258.2
7-Dec-21	9:30	Sunny	246.5
7-Dec-21	10:30	Sunny	174.6
13-Dec-21	8:30	Sunny	236.5
13-Dec-21	9:30	Sunny	243.8
13-Dec-21	10:30	Sunny	216.7
17-Dec-21	8:30	Cloudy	235.1
17-Dec-21	9:30	Cloudy	258.6
17-Dec-21	10:30	Cloudy	285.0
23-Dec-21	13:00	Cloudy	35.7
23-Dec-21	14:00	Cloudy	29.3
23-Dec-21	15:00	Cloudy	30.7
29-Dec-21	8:30	Fine	109.9
29-Dec-21	9:30	Fine	112.0
29-Dec-21	10:30	Fine	149.5
		Minimum	29.3
		Maximum	332.2
		Average	189.7

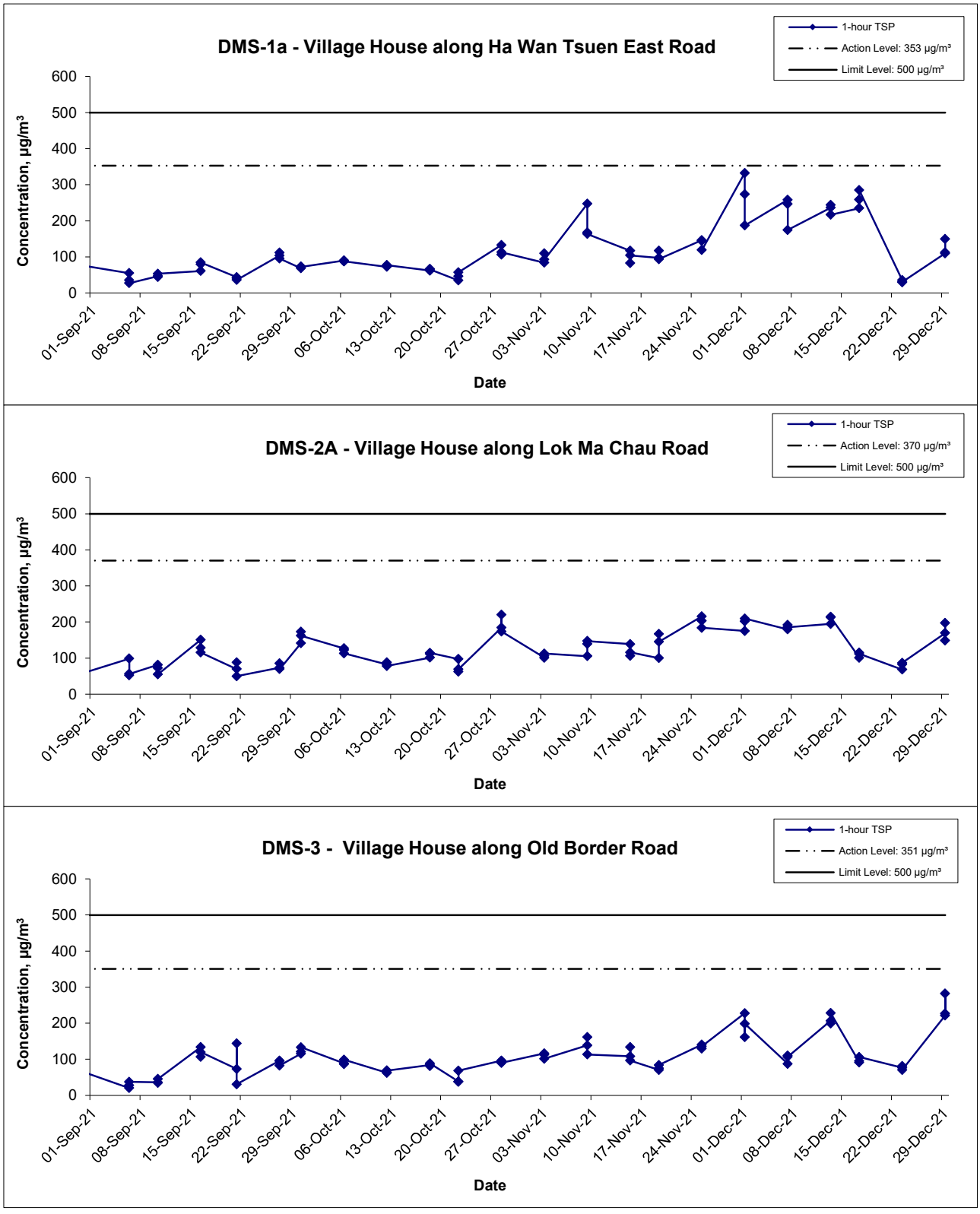
Location DMS-2A - Village House along Lok Ma Chau Road			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
1-Dec-21	13:00	Sunny	175.2
1-Dec-21	14:00	Sunny	201.8
1-Dec-21	15:00	Sunny	209.7
7-Dec-21	9:00	Sunny	179.5
7-Dec-21	10:00	Sunny	192.1
7-Dec-21	11:00	Sunny	185.7
13-Dec-21	13:00	Sunny	194.6
13-Dec-21	14:00	Sunny	214.2
13-Dec-21	15:00	Sunny	213.8
17-Dec-21	13:10	Cloudy	101.0
17-Dec-21	14:10	Cloudy	115.1
17-Dec-21	15:10	Cloudy	111.7
23-Dec-21	9:00	Cloudy	68.3
23-Dec-21	10:00	Cloudy	82.5
23-Dec-21	11:00	Cloudy	86.8
29-Dec-21	13:00	Fine	169.5
29-Dec-21	14:00	Fine	148.8
29-Dec-21	15:00	Fine	197.2
		Minimum	68.3
		Maximum	214.2
		Average	158.2

Appendix E - 1-hour TSP Monitoring Results

Location DMS-3 - Village House along Old Border Road			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
1-Dec-21	13:00	Sunny	227.8
1-Dec-21	14:00	Sunny	161.5
1-Dec-21	15:00	Sunny	198.9
7-Dec-21	13:00	Sunny	87.1
7-Dec-21	14:00	Sunny	110.1
7-Dec-21	15:00	Sunny	107.0
13-Dec-21	8:50	Fine	206.6
13-Dec-21	9:50	Fine	199.4
13-Dec-21	10:50	Fine	228.6
17-Dec-21	13:00	Cloudy	91.7
17-Dec-21	14:00	Cloudy	95.7
17-Dec-21	15:00	Cloudy	106.3
23-Dec-21	9:00	Cloudy	76.3
23-Dec-21	10:00	Cloudy	81.5
23-Dec-21	11:00	Cloudy	70.3
29-Dec-21	8:50	Fine	221.6
29-Dec-21	9:50	Fine	282.3
29-Dec-21	10:50	Fine	226.7
		Minimum	70.3
		Maximum	282.3
		Average	154.4

Location DMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
1-Dec-21	9:00	Sunny	177.3
1-Dec-21	10:00	Sunny	174.3
1-Dec-21	11:00	Sunny	197.5
7-Dec-21	13:00	Fine	173.7
7-Dec-21	14:00	Fine	234.8
7-Dec-21	15:00	Fine	221.9
13-Dec-21	8:20	Fine	245.0
13-Dec-21	9:20	Fine	205.7
13-Dec-21	10:20	Fine	256.1
17-Dec-21	8:50	Cloudy	75.8
17-Dec-21	9:50	Cloudy	89.7
17-Dec-21	10:50	Cloudy	97.2
23-Dec-21	13:26	Cloudy	43.3
23-Dec-21	14:26	Cloudy	35.0
23-Dec-21	15:26	Cloudy	44.5
29-Dec-21	8:10	Fine	302.0
29-Dec-21	9:10	Fine	302.8
29-Dec-21	10:10	Fine	322.2
		Minimum	35.0
		Maximum	322.2
		Average	177.7

1-hour TSP Concentration Levels



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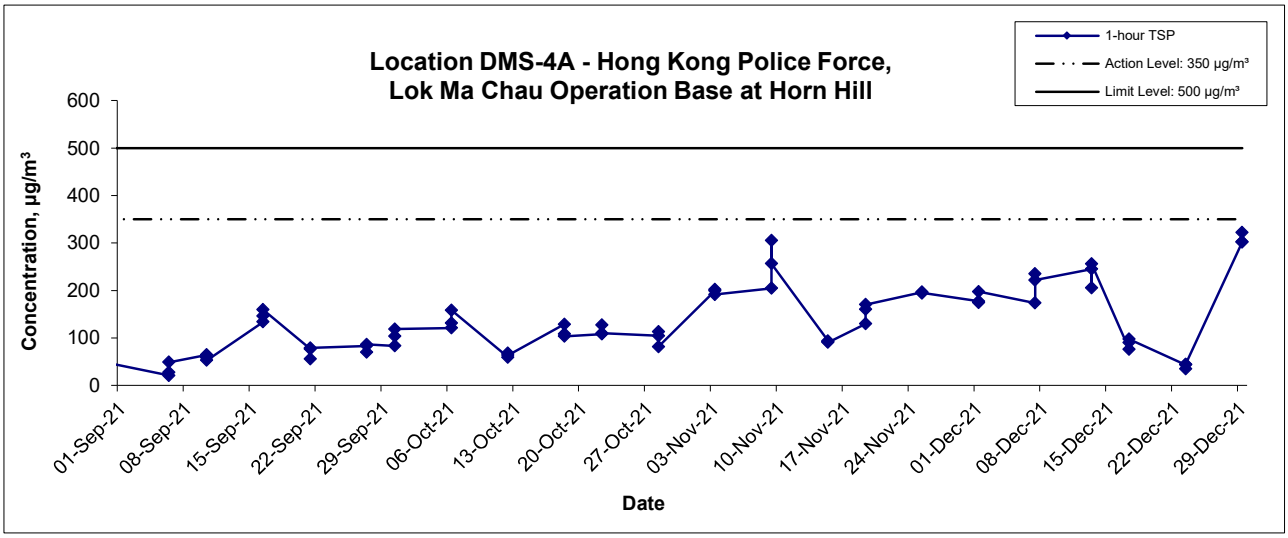
		Date Dec 21	Appendix E	

1-hour TSP Concentration Levels



Title: Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S	Project No.: WMA21009	WELLAB 匯力 consulting . testing . research
	Date: Dec 21	Appendix: E	

APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - 24-hour TSP Monitoring Results

Location DMS-1a - Village House along Ha Wan Tsuen East Road			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
6-Dec-21	9:00	Sunny	123.6
10-Dec-21	9:00	Sunny	84.4
16-Dec-21	9:00	Sunny	69.8
22-Dec-21	8:00	Fine	78.7
28-Dec-21	9:00	Cloudy	122.2
		Minimum	69.8
		Maximum	123.6
		Average	95.7

Appendix F - 24-hour TSP Monitoring Results

Location DMS-2A - Village House along Lok Ma Chau Road

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m^3/min.)		Av. flow (m^3/min)	Total vol. (m^3)	Conc. ($\mu g/m^3$)
				Initial	Final		Initial	Final		Initial	Final			
6-Dec-21	Sunny	285.1	768.3	3.5505	3.7388	0.1883	744.1	768.1	24.0	1.233	1.233	1.233	1775.8	106.0
10-Dec-21	Sunny	291.1	768.5	2.6855	2.8289	0.1434	768.1	792.1	24.0	1.225	1.215	1.220	1757.2	81.6
16-Dec-21	Cloudy	294.0	764.9	2.6783	2.7914	0.1131	792.1	816.1	24.0	1.211	1.211	1.211	1743.8	64.9
22-Dec-21	Cloudy	289.9	765.2	3.3508	3.4784	0.1276	816.1	840.1	24.0	1.224	1.216	1.220	1756.9	72.6
28-Dec-21	Cloudy	285.8	772.0	3.3875	3.6097	0.2222	840.1	864.1	24.0	1.241	1.229	1.235	1778.2	125.0
													Min	64.9
													Max	125.0
													Average	90.0

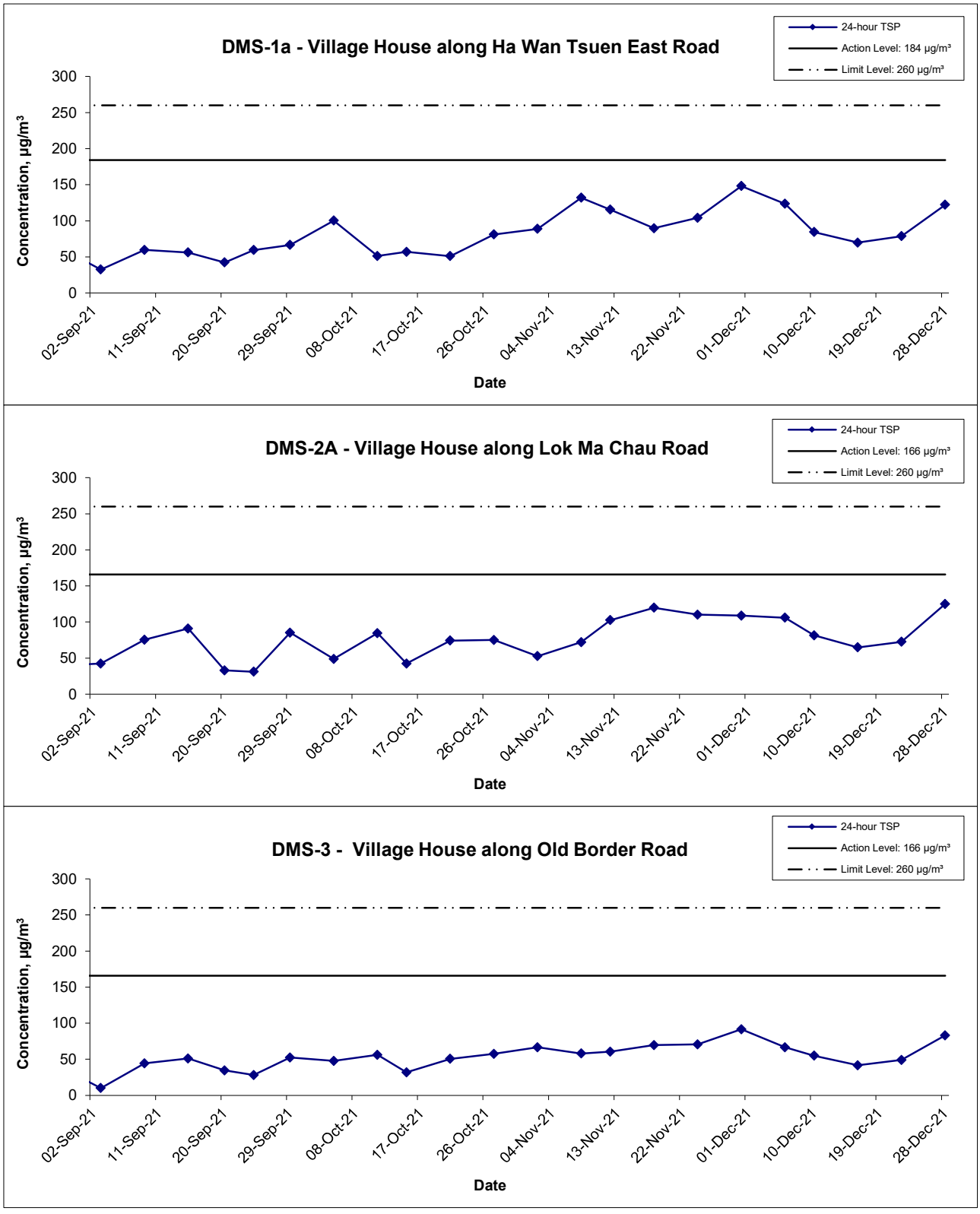
Location DMS-3 - Village House along Old Border Road

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m^3/min.)		Av. flow (m^3/min)	Total vol. (m^3)	Conc. ($\mu g/m^3$)
				Initial	Final		Initial	Final		Initial	Final			
6-Dec-21	Sunny	285.1	768.3	2.6978	2.8163	0.1185	1689.1	1713.1	24.0	1.236	1.236	1.236	1780.1	66.6
10-Dec-21	Sunny	291.1	768.5	2.6916	2.7885	0.0969	1713.1	1737.1	24.0	1.228	1.218	1.223	1761.4	55.0
16-Dec-21	Cloudy	294.0	764.9	2.6665	2.7391	0.0726	1737.1	1761.1	24.0	1.214	1.214	1.214	1747.9	41.5
22-Dec-21	Cloudy	289.9	765.2	3.5093	3.5959	0.0866	1761.1	1785.1	24.0	1.227	1.219	1.223	1761.1	49.2
28-Dec-21	Cloudy	285.8	772.0	3.3253	3.4733	0.1480	1785.1	1809.1	24.0	1.244	1.232	1.238	1782.6	83.0
													Min	41.5
													Max	83.0
													Average	59.1

Location DMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill

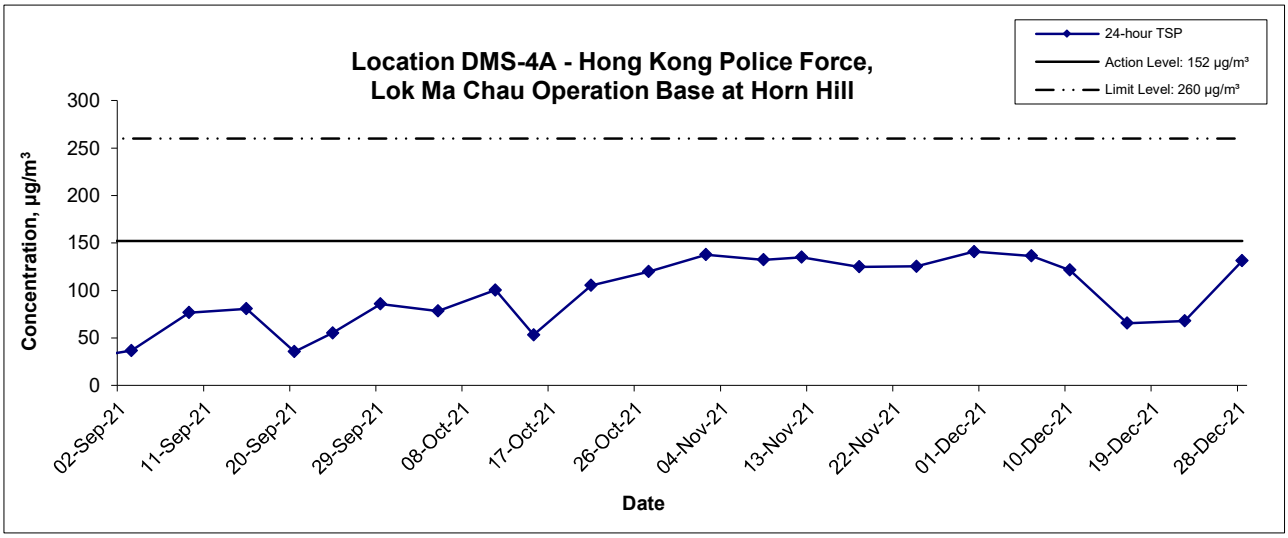
Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m^3/min.)		Av. flow (m^3/min)	Total vol. (m^3)	Conc. ($\mu g/m^3$)
				Initial	Final		Initial	Final		Initial	Final			
6-Dec-21	Sunny	285.1	768.3	3.5108	3.7552	0.2444	31249.3	31273.3	24.0	1.246	1.246	1.246	1793.6	136.3
10-Dec-21	Sunny	291.1	768.5	2.6872	2.9027	0.2155	31273.3	31297.3	24.0	1.237	1.226	1.231	1772.9	121.6
16-Dec-21	Cloudy	294.0	764.9	2.6890	2.8042	0.1152	31297.3	31321.3	24.0	1.221	1.221	1.221	1757.8	65.5
22-Dec-21	Cloudy	289.9	765.2	3.4953	3.6156	0.1203	31321.3	31345.3	24.0	1.236	1.226	1.231	1772.5	67.9
28-Dec-21	Cloudy	285.8	772.0	3.3601	3.5959	0.2358	31345.3	31369.3	24.0	1.254	1.240	1.247	1796.4	131.3
													Min	65.5
													Max	136.3
													Average	104.5

24-hour TSP Concentration Levels



Title: Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S	Project No.: WMA21009	WELLAB 匯力 consulting . testing . research
	Date: Dec 21	Appendix: F	

24-hour TSP Concentration Levels



Title	Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Date: Dec 21	Project No.: WMA21009 Appendix: F	WELLAB 匯力 consulting . testing . research

APPENDIX G
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix G - Noise Monitoring Results

Location NMS-1 -Village house in Ha Wan Tsuen							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
1-Dec-21	Sunny	11:00	60.2	61.3	58.7	61.3	47.3
		11:05	61.3	63.7	58.7		
		11:10	60.9	62.6	57.9		
		11:15	62.1	62.7	59.5		
		11:20	61.4	63.2	59.8		
		11:25	61.8	63.6	59.8		
7-Dec-21	Sunny	09:00	56.2	59.2	52.0	62.3	
		09:05	66.3	69.8	58.6		
		09:10	60.4	62.2	57.6		
		09:15	61.3	63.1	56.3		
		09:20	61.7	64.2	58.0		
		09:25	61.7	64.3	59.5		
17-Dec-21	Cloudy	14:00	56.1	57.3	54.7	58.7	
		14:05	58.4	61.4	55.2		
		14:10	56.3	57.4	54.9		
		14:15	56.7	58.5	54.9		
		14:20	61.3	63.7	56.4		
		14:25	60.4	62.3	55.8		
23-Dec-21	Cloudy	14:30	70.2	73.3	65.4	69.3	
		14:35	70.9	74.4	65.3		
		14:40	70.9	73.7	64.8		
		14:45	67.2	69.4	64.4		
		14:50	67.4	69.8	63.0		
		14:55	67.2	69.4	62.5		
29-Dec-21	Cloudy	13:00	49.5	50.4	46.4	50.7	
		13:05	49.3	50.1	48.2		
		13:10	48.4	49.6	47.3		
		13:15	48.8	49.9	47.6		
		13:20	49.8	51.2	48.4		
		13:25	54.7	53.8	49.5		

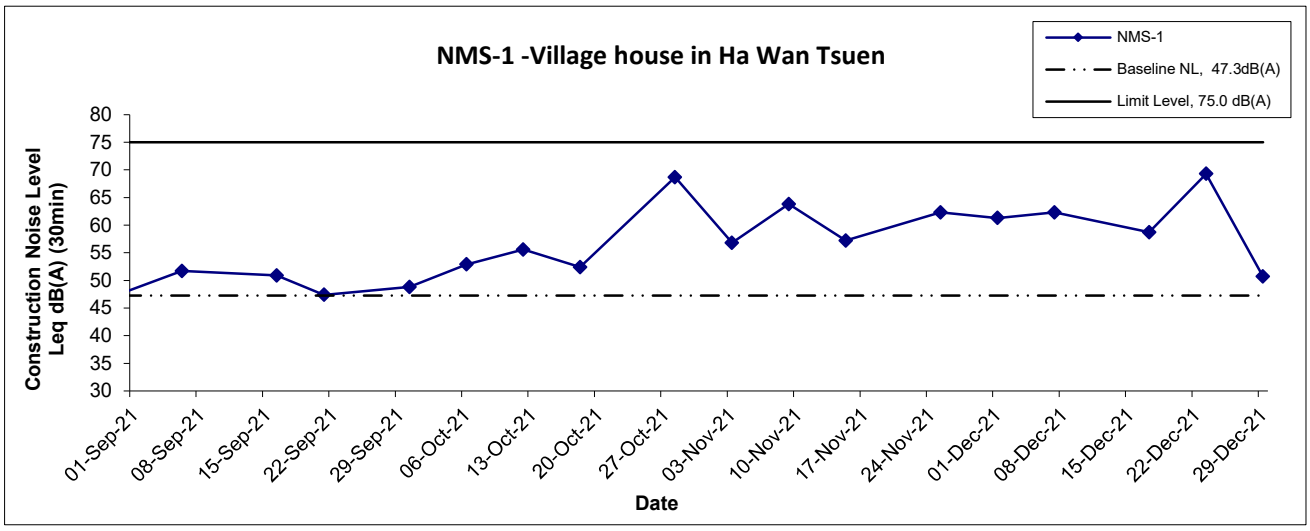
Location NMS-2 - Village house along existing Ha Wan Tsuen East Road							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
1-Dec-21	Sunny	14:30	63.6	67.4	44.4	64.2	68.4
		14:35	64.8	65.9	43.5		
		14:40	63.7	68.2	44.8		
		14:45	65.9	68.9	44.9		
		14:50	63.4	67.1	43.7		
		14:55	63.3	67.6	45.8		
7-Dec-21	Sunny	09:00	67.7	71.6	49.4	69.9	
		09:05	70.1	73.0	60.7		
		09:10	70.9	72.3	46.8		
		09:15	70.1	70.2	47.0		
		09:20	71.2	74.8	46.4		
		09:25	68.7	71.9	46.1		
17-Dec-21	Cloudy	13:50	69.1	70.1	53.4	70.7	
		13:55	68.8	72.5	55.9		
		14:00	71.8	74.6	57.9		
		14:05	70.4	73.0	66.5		
		14:10	72.6	74.7	68.4		
		14:15	70.1	72.9	65.3		
23-Dec-21	Cloudy	09:23	72.9	75.9	56.6	71.1	
		09:28	71.2	74.4	57.9		
		09:33	70.9	75.1	58.0		
		09:38	70.2	72.8	53.2		
		09:43	69.0	72.2	50.1		
		09:48	71.3	73.6	50.4		
29-Dec-21	Cloudy	14:05	67.6	70.9	47.2	68.6	
		14:10	69.1	71.5	46.5		
		14:15	66.9	70.0	46.0		
		14:20	71.1	73.0	49.7		
		14:25	68.7	71.8	47.0		
		14:30	66.8	70.0	46.9		

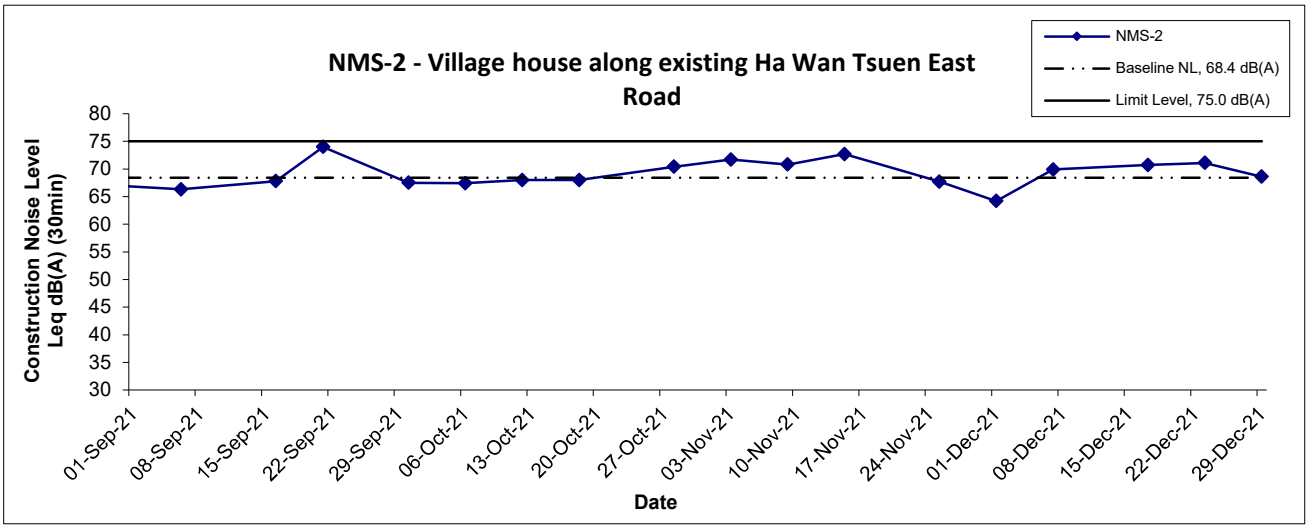
Appendix G - Noise Monitoring Results

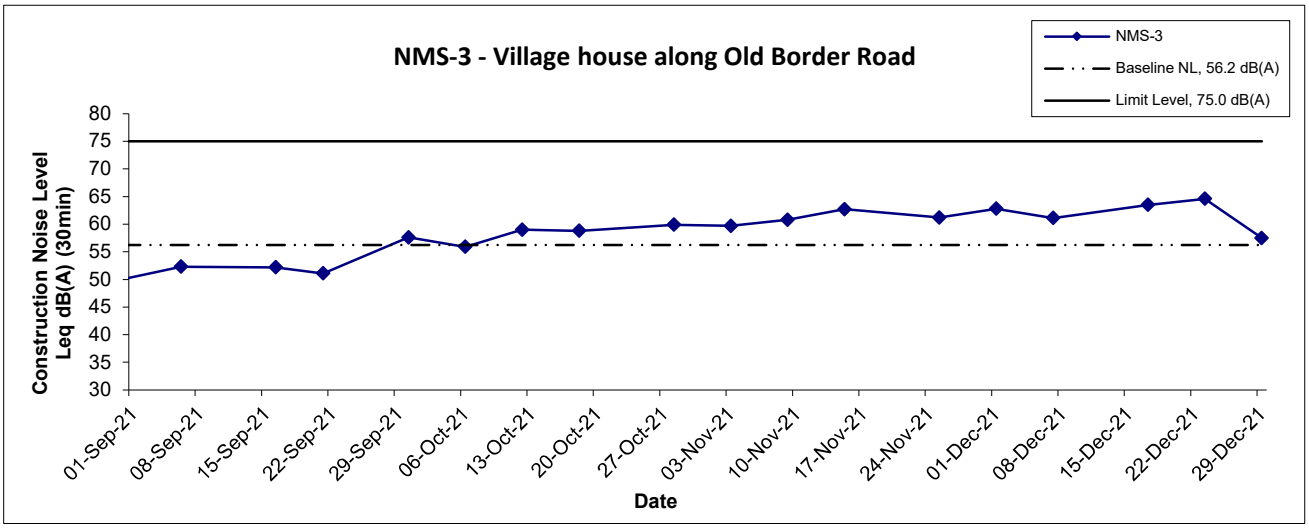
Location NMS-3 - Village house along Old Border Road							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
1-Dec-21	Sunny	13:20	61.5	62.1	60.7	62.8	56.2
		13:25	61.7	62.5	60.9		
		13:30	63.0	62.8	61.1		
		13:35	62.2	62.8	60.9		
		13:40	64.8	66.6	60.7		
		13:45	62.4	64.8	59.9		
7-Dec-21	Sunny	13:30	61.3	61.7	60.7	61.1	
		13:35	60.7	61.3	60.1		
		13:40	60.9	61.4	60.2		
		13:45	60.9	61.3	60.3		
		13:50	61.4	62.3	60.5		
		13:55	61.2	61.5	60.6		
17-Dec-21	Cloudy	13:05	64.1	65.0	63.3	63.5	
		13:10	64.4	65.2	63.6		
		13:15	64.4	65.4	63.6		
		13:20	61.4	63.2	60.3		
		13:25	61.8	63.4	60.0		
		13:30	63.7	64.9	60.4		
23-Dec-21	Cloudy	10:35	63.0	63.5	62.5	64.6	
		10:40	64.2	64.8	62.5		
		10:45	63.5	64.0	62.5		
		10:50	63.8	64.1	62.3		
		10:55	62.6	63.1	62.1		
		11:00	67.9	70.6	62.3		
29-Dec-21	Cloudy	10:50	57.9	58.9	57.1	57.5	
		10:55	58.0	58.8	56.5		
		11:00	57.1	57.9	56.2		
		11:05	57.1	58.0	56.2		
		11:10	57.4	58.0	56.2		
		11:15	57.7	58.3	55.5		

Location NMS-4A - Hong Kong Police Force, Lok Ma Chau Operation Base at Horn Hill							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
1-Dec-21	Sunny	09:51	57.4	60.3	51.6	55.2	52.5
		09:56	57.0	59.5	52.6		
		10:01	55.0	58.1	49.8		
		10:06	51.4	53.0	49.5		
		10:11	54.0	55.8	51.0		
		10:16	53.8	55.4	50.6		
7-Dec-21	Cloudy	13:00	47.5	49.1	43.5	49.0	
		13:05	45.7	47.0	42.8		
		13:10	53.3	55.0	43.6		
		13:15	46.1	47.5	43.4		
		13:20	44.8	46.3	43.3		
		13:25	50.0	47.5	43.4		
17-Dec-21	Cloudy	09:00	51.3	54.0	46.1	52.7	
		09:05	53.4	56.4	47.9		
		09:10	52.2	55.0	47.9		
		09:15	53.2	54.6	47.8		
		09:20	53.0	56.3	48.0		
		09:25	52.8	55.5	48.7		
23-Dec-21	Cloudy	13:29	51.8	55.4	43.8	50.0	
		13:34	53.9	57.9	45.5		
		13:39	49.6	53.2	43.5		
		13:44	46.7	49.7	43.5		
		13:49	44.3	45.3	43.4		
		13:54	45.0	46.6	43.5		
29-Dec-21	Cloudy	10:00	51.1	48.6	44.3	52.8	
		10:05	58.9	65.5	44.7		
		10:10	48.0	49.0	45.5		
		10:15	47.7	48.5	45.7		
		10:20	47.3	48.7	45.3		
		10:25	47.7	49.7	45.6		

Noise Levels

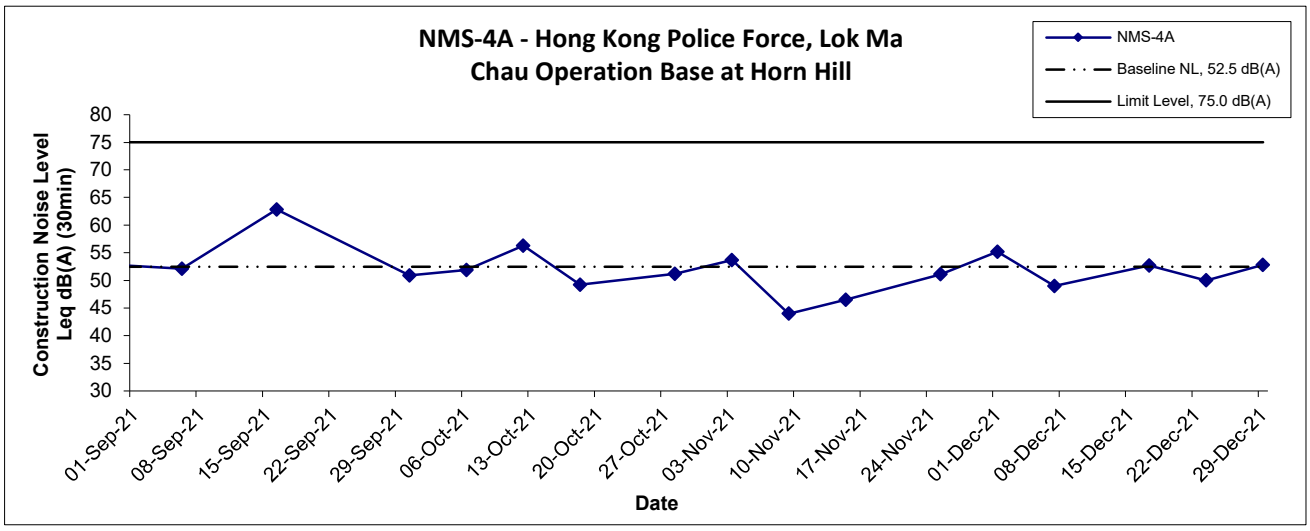






Title: Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: WMA21009	WELLAB 匯力 consulting . testing . research
	Date: Dec 21	Appendix: G	

Noise Levels



Title: Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: WMA21009	WELLAB 匯力 consulting . testing . research
	Date: Dec 21	Appendix: G	

APPENDIX H
WATER QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATION

Water Quality Monitoring Results at CS1

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Dec-21	Sunny	Calm	09:19	Middle	0.6	18.0 18.0	18.0	7.9 7.9	7.9	3.2 3.2	3.2	86.8 86.8	86.8	8.1 8.1	8.1	16.5 16.3	16.4	26 25	25.5
3-Dec-21	Sunny	Calm	09:20	Middle	0.5	16.7 16.7	16.7	8.4 8.4	8.4	3.3 3.3	3.3	103.1 103.1	103.1	9.8 9.8	9.8	15.8 15.4	15.6	30 25	27.5
6-Dec-21	Sunny	Calm	09:23	Middle	0.5	16.8 16.8	16.8	8.8 8.8	8.8	4.0 4.0	4.0	108.0 108.1	108.1	10.2 10.2	10.2	21.4 21.4	21.4	22 22	22.0
8-Dec-21	Sunny	Calm	08:44	Middle	0.5	18.7 18.7	18.7	8.8 8.8	8.8	3.8 3.8	3.8	111.9 111.9	111.9	10.2 10.2	10.2	15.9 15.8	15.9	25 26	25.5
10-Dec-21	Sunny	Calm	09:55	Middle	0.5	20.5 20.5	20.5	8.5 8.5	8.5	1.7 1.7	1.7	109.2 109.3	109.3	9.7 9.8	9.8	12.0 11.9	12.0	15 14	14.5
13-Dec-21	Sunny	Calm	09:53	Middle	0.5	19.3 19.3	19.3	8.3 8.3	8.3	3.5 3.5	3.5	92.4 92.3	92.4	8.3 8.3	8.3	13.0 13.1	13.1	19 17	18.0
15-Dec-21	Sunny	Calm	10:34	Middle	0.5	22.1 22.1	22.1	8.8 8.8	8.8	2.1 2.1	2.1	114.5 114.6	114.6	9.9 9.9	9.9	16.8 16.8	16.8	19 16	17.5
17-Dec-21	Cloudy	Calm	10:07	Middle	0.5	22.5 22.5	22.5	8.2 8.2	8.2	4.4 4.4	4.4	95.5 95.6	95.6	8.1 8.1	8.1	17.4 17.3	17.4	32 37	34.5
20-Dec-21	Cloudy	Calm	09:22	Middle	0.5	17.7 17.7	17.7	7.9 7.9	7.9	3.1 3.2	3.2	96.9 96.4	96.7	9.1 9.0	9.1	14.3 14.4	14.4	24 30	27.0
22-Dec-21	Cloudy	Calm	08:05	Middle	0.5	17.1 17.1	17.1	7.8 7.8	7.8	4.6 4.6	4.6	87.7 87.6	87.7	8.2 8.2	8.2	18.4 18.4	18.4	28 34	31.0
24-Dec-21	Cloudy	Calm	09:53	Middle	0.5	20.1 20.1	20.1	8.4 8.5	8.5	4.7 4.7	4.7	114.7 115.0	114.9	10.1 10.2	10.2	10.0 9.8	9.9	18 18	18.0
27-Dec-21	Rainy	Calm	09:50	Middle	0.5	14.9 14.9	14.9	8.1 8.1	8.1	4.4 4.4	4.4	99.6 99.7	99.7	9.8 9.8	9.8	18.1 17.9	18.0	32 39	35.5
29-Dec-21	Cloudy	Calm	09:16	Middle	0.6	16.1 16.1	16.1	8.4 8.5	8.5	4.6 4.6	4.6	114.6 114.9	114.8	11.0 11.0	11.0	14.5 14.8	14.7	22 28	25.0
31-Dec-21	Sunny	Calm	09:21	Middle	0.6	17.9 17.9	17.9	8.6 8.6	8.6	4.7 4.7	4.7	126.5 126.9	126.7	11.7 11.7	11.7	14.0 13.9	14.0	26 29	27.5

Remarks: *DA: Depth-Averaged
**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

Water Quality Monitoring Results at CS5

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Dec-21	Sunny	Calm	10:37	Middle	0.1	16.1 16.1	16.1	8.9 8.9	8.9	0.3 0.3	0.3	112.4 112.4	112.4	11.0 11.0	11.0	4.6 4.6	4.6	6 6	6.0
3-Dec-21	Sunny	Calm	10:31	Middle	0.2	17.0 17.0	17.0	8.3 8.2	8.3	1.0 1.0	1.0	69.4 69.1	69.3	6.7 6.6	6.7	21.2 21.2	21.2	27 28	27.5
6-Dec-21	Sunny	Calm	10:35	Middle	0.1	17.6 17.6	17.6	8.5 8.5	8.5	1.2 1.2	1.2	96.0 96.0	96.0	9.1 9.1	9.1	7.9 7.9	7.9	15 16	15.5
8-Dec-21	Sunny	Calm	09:58	Middle	0.1	18.9 18.9	18.9	8.4 8.4	8.4	1.5 1.5	1.5	86.8 86.8	86.8	8.0 8.0	8.0	9.7 9.7	9.7	18 19	18.5
10-Dec-21	Sunny	Calm	11:15	Middle	0.1	20.8 20.8	20.8	8.6 8.6	8.6	0.8 0.8	0.8	100.7 100.8	100.8	9.0 9.0	9.0	6.5 6.6	6.6	11 9	10.0
13-Dec-21	Sunny	Calm	11:08	Middle	0.1	18.5 18.5	18.5	8.7 8.7	8.7	0.9 0.9	0.9	105.0 105.0	105.0	9.8 9.8	9.8	11.5 11.4	11.5	12 10	11.0
15-Dec-21	Sunny	Calm	11:45	Middle	0.2	22.8 22.8	22.8	9.0 9.0	9.0	0.9 0.9	0.9	128.6 128.6	128.6	11.0 11.0	11.0	6.0 6.0	6.0	3 3	3.0
17-Dec-21	Cloudy	Calm	11:12	Middle	0.1	22.0 22.0	22.0	8.4 8.4	8.4	0.8 0.8	0.8	109.1 109.1	109.1	9.5 9.5	9.5	21.8 24.8	23.3	7 6	6.5
20-Dec-21	Cloudy	Calm	10:37	Middle	0.1	17.0 17.0	17.0	8.3 8.3	8.3	1.2 1.2	1.2	92.4 92.4	92.4	8.9 8.9	8.9	11.3 11.6	11.5	10 9	9.5
22-Dec-21	Cloudy	Calm	09:22	Middle	0.1	17.3 17.3	17.3	8.0 8.0	8.0	0.8 0.8	0.8	68.9 68.8	68.9	6.6 6.6	6.6	26.6 26.2	26.4	38 35	36.5
24-Dec-21	Cloudy	Calm	11:17	Middle	0.1	20.9 20.9	20.9	8.3 8.3	8.3	1.4 1.4	1.4	94.5 94.5	94.5	8.4 8.4	8.4	3.5 3.4	3.5	12 11	11.5
27-Dec-21	Rainy	Calm	11:23	Middle	0.1	11.7 11.7	11.7	8.6 8.6	8.6	0.6 0.6	0.6	100.0 100.1	100.1	10.8 10.8	10.8	7.7 7.7	7.7	14 11	12.5
29-Dec-21	Cloudy	Calm	10:30	Middle	0.1	16.5 16.5	16.5	8.4 8.4	8.4	0.7 0.7	0.7	88.2 87.9	88.1	8.6 8.6	8.6	28.7 28.8	28.8	10 11	10.5
31-Dec-21	Sunny	Calm	11:02	Middle	0.1	19.3 19.3	19.3	8.7 8.7	8.7	0.9 0.9	0.9	117.0 117.0	117.0	10.7 10.7	10.7	9.5 9.7	9.6	20 19	19.5

Remarks: *DA: Depth-Averaged

**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

Water Quality Monitoring Results at IS1

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Dec-21	Sunny	Calm	09:58	Middle	0.5	18.5 18.5	18.5	8.8 8.8	8.8	0.1 0.1	0.1	111.7 111.6	111.7	10.5 10.5	10.5	13.5 13.6	13.6	24 27	25.5
3-Dec-21	Sunny	Calm	09:51	Middle	0.5	17.3 17.3	17.3	9.2 9.2	9.2	2.3 2.3	2.3	128.0 128.1	128.1	12.1 12.1	12.1	13.5 13.4	13.5	22 23	22.5
6-Dec-21	Sunny	Calm	09:57	Middle	0.5	18.1 18.1	18.1	9.0 9.0	9.0	4.5 4.5	4.5	122.6 122.8	122.7	11.3 11.3	11.3	10.8 10.7	10.8	16 19	17.5
8-Dec-21	Sunny	Calm	09:10	Middle	0.5	19.2 19.2	19.2	8.8 8.8	8.8	2.1 2.1	2.1	113.5 113.6	113.6	10.4 10.4	10.4	11.4 11.3	11.4	20 24	22.0
10-Dec-21	Sunny	Calm	10:25	Middle	0.5	20.8 20.8	20.8	8.8 8.8	8.8	1.9 1.9	1.9	127.8 128.0	127.9	11.3 11.3	11.3	9.8 9.9	9.9	16 19	17.5
13-Dec-21	Sunny	Calm	10:24	Middle	0.5	19.8 19.8	19.8	8.3 8.3	8.3	4.9 4.9	4.9	103.7 103.7	103.7	9.2 9.2	9.2	15.3 15.4	15.4	20 21	20.5
15-Dec-21	Sunny	Calm	11:04	Middle	0.5	21.8 21.8	21.8	8.5 8.5	8.5	2.2 2.2	2.2	116.3 116.5	116.4	10.1 10.1	10.1	12.9 12.7	12.8	15 14	14.5
17-Dec-21	Cloudy	Calm	10:32	Middle	0.5	22.6 22.6	22.6	8.0 8.0	8.0	5.3 5.3	5.3	111.1 111.3	111.2	9.3 9.3	9.3	10.8 11.0	10.9	18 19	18.5
20-Dec-21	Cloudy	Calm	09:53	Middle	0.5	17.5 17.5	17.5	8.1 8.1	8.1	2.5 2.5	2.5	100.0 100.0	100.0	9.4 9.4	9.4	15.6 15.7	15.7	28 23	25.5
22-Dec-21	Cloudy	Calm	08:40	Middle	0.5	17.0 17.0	17.0	8.0 8.0	8.0	5.0 5.0	5.0	103.5 103.5	103.5	9.7 9.7	9.7	11.7 11.6	11.7	27 27	27.0
24-Dec-21	Cloudy	Calm	10:27	Middle	0.5	20.4 20.4	20.4	8.6 8.6	8.6	2.3 2.3	2.3	146.0 146.2	146.1	13.0 13.0	13.0	14.9 14.5	14.7	26 22	24.0
27-Dec-21	Rainy	Calm	10:15	Middle	0.5	14.4 14.4	14.4	8.3 8.3	8.3	4.7 4.7	4.7	100.0 99.9	100.0	9.9 9.9	9.9	18.0 18.0	18.0	27 27	27.0
29-Dec-21	Cloudy	Calm	09:46	Middle	0.5	16.4 16.4	16.4	8.7 8.7	8.7	2.3 2.3	2.3	127.1 127.5	127.3	12.3 12.3	12.3	13.5 13.5	13.5	26 28	27.0
31-Dec-21	Sunny	Calm	09:59	Middle	0.5	18.4 18.4	18.4	9.2 9.2	9.2	2.2 2.2	2.2	117.2 117.3	117.3	10.9 10.9	10.9	15.6 15.5	15.6	25 25	25.0

Remarks: *DA: Depth-Averaged

**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

Water Quality Monitoring Results at IS2

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Dec-21	Sunny	Calm	10:18	Middle	0.2	20.0 20.0	20.0	8.1 8.1	8.1	2.6 2.6	2.6	94.3 94.2	94.3	8.4 8.5	8.5	23.5 23.5	23.5	37 40	38.5
3-Dec-21	Sunny	Calm	10:14	Middle	0.1	19.5 19.5	19.5	8.0 8.0	8.0	6.0 6.0	6.0	88.2 88.1	88.2	7.8 7.8	7.8	22.0 22.0	22.0	30 33	31.5
6-Dec-21	Sunny	Calm	10:20	Middle	0.1	18.6 18.6	18.6	9.2 9.2	9.2	4.9 4.9	4.9	129.2 129.4	129.3	11.7 11.8	11.8	12.9 12.9	12.9	20 23	21.5
8-Dec-21	Sunny	Calm	09:34	Middle	0.1	19.8 19.8	19.8	8.8 8.8	8.8	5.0 5.0	5.0	110.5 110.5	110.5	9.8 9.8	9.8	14.2 14.3	14.3	23 23	23.0
10-Dec-21	Sunny	Calm	10:56	Middle	0.1	21.8 21.8	21.8	8.9 8.9	8.9	5.1 5.1	5.1	121.5 122.4	122.0	10.3 10.4	10.4	14.3 14.2	14.3	26 22	24.0
13-Dec-21	Sunny	Calm	10:48	Middle	0.1	20.7 20.7	20.7	8.1 8.0	8.1	2.4 2.4	2.4	83.4 83.0	83.2	7.4 7.3	7.4	13.7 13.7	13.7	17 19	18.0
15-Dec-21	Sunny	Calm	11:27	Middle	0.1	22.7 22.7	22.7	8.3 8.3	8.3	2.5 2.5	2.5	106.2 106.3	106.3	9.0 9.0	9.0	15.2 15.2	15.2	12 11	11.5
17-Dec-21	Cloudy	Calm	10:53	Middle	0.1	23.3 23.3	23.3	8.1 8.1	8.1	5.4 5.4	5.4	109.7 109.6	109.7	9.1 9.1	9.1	26.9 26.8	26.9	24 22	23.0
20-Dec-21	Cloudy	Calm	10:18	Middle	0.1	17.5 17.5	17.5	8.3 8.3	8.3	2.6 2.6	2.6	105.8 105.9	105.9	10.0 10.0	10.0	18.8 18.7	18.8	22 19	20.5
22-Dec-21	Cloudy	Calm	09:04	Middle	0.1	17.3 17.3	17.3	8.0 8.0	8.0	2.2 2.2	2.2	93.5 93.4	93.5	8.9 8.9	8.9	14.2 13.9	14.1	21 22	21.5
24-Dec-21	Cloudy	Calm	11:06	Middle	0.1	21.2 21.2	21.2	8.2 8.2	8.2	4.5 4.5	4.5	111.9 111.9	111.9	9.7 9.7	9.7	18.1 18.2	18.2	26 23	24.5
27-Dec-21	Rainy	Calm	10:42	Middle	0.1	15.1 15.1	15.1	8.1 8.1	8.1	2.2 2.2	2.2	97.7 97.4	97.6	9.7 9.7	9.7	14.2 14.2	14.2	21 18	19.5
29-Dec-21	Cloudy	Calm	10:10	Middle	0.1	17.5 17.5	17.5	8.3 8.3	8.3	4.8 4.8	4.8	107.1 107.2	107.2	10.0 10.0	10.0	14.8 14.6	14.7	23 23	23.0
31-Dec-21	Sunny	Calm	10:45	Middle	0.1	20.2 20.2	20.2	7.8 7.8	7.8	6.0 6.0	6.0	81.5 81.2	81.4	7.1 7.1	7.1	28.5 27.9	28.2	32 30	31.0

Remarks: *DA: Depth-Averaged

**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

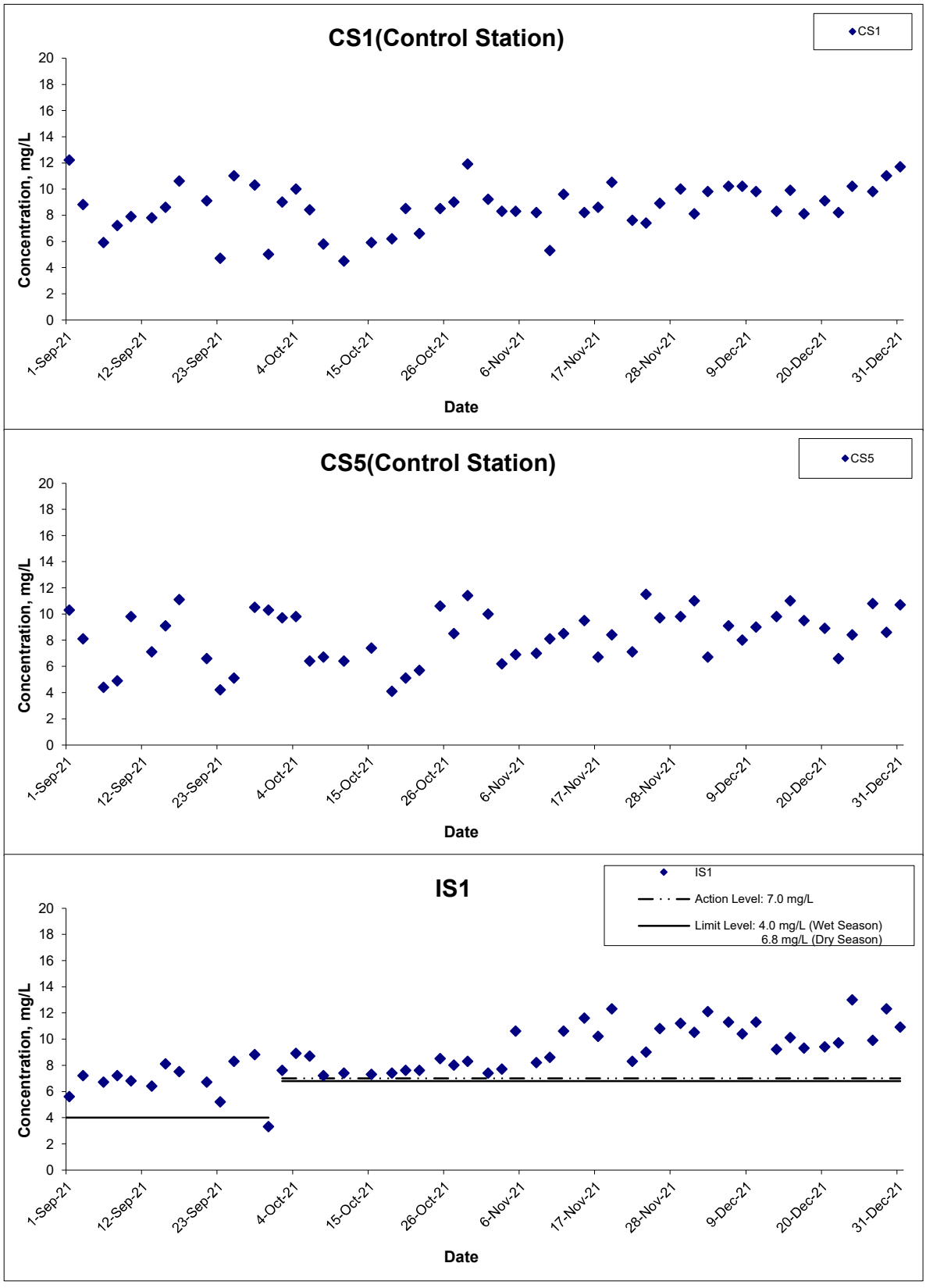
Water Quality Monitoring Results at IS4

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
1-Dec-21	Sunny	Calm	10:58	Middle	0.2	17.5 17.5	17.5	7.6 7.6	7.6	0.1 0.1	0.1	49.7 49.7	49.7	4.8 4.8	4.8	10.2 10.1	10.2	4 4	4.0
3-Dec-21	Sunny	Calm	10:53	Middle	0.1	16.6 16.6	16.6	8.0 8.0	8.0	0.2 0.2	0.2	51.3 50.9	51.1	5.0 5.0	5.0	9.8 9.8	9.8	7 8	7.5
6-Dec-21	Sunny	Calm	10:55	Middle	0.2	17.2 17.2	17.2	7.8 7.8	7.8	0.1 0.1	0.1	45.4 45.2	45.3	4.4 4.3	4.4	7.4 7.4	7.4	7 6	6.5
8-Dec-21	Sunny	Calm	10:20	Middle	0.1	18.6 18.6	18.6	7.6 7.6	7.6	0.2 0.2	0.2	51.1 51.1	51.1	4.8 4.8	4.8	8.2 8.2	8.2	5 5	5.0
10-Dec-21	Sunny	Calm	11:32	Middle	0.1	19.4 19.4	19.4	8.1 8.0	8.1	0.1 0.1	0.1	46.1 45.5	45.8	4.3 4.2	4.3	8.6 8.7	8.7	5 5	5.0
13-Dec-21	Sunny	Calm	11:19	Middle	0.2	18.0 18.0	18.0	8.1 8.1	8.1	0.1 0.1	0.1	50.0 49.7	49.9	4.7 4.7	4.7	16.2 16.1	16.2	6 5	5.5
15-Dec-21	Sunny	Calm	12:05	Middle	0.2	20.2 20.2	20.2	7.8 7.8	7.8	0.1 0.1	0.1	51.6 51.5	51.6	4.7 4.7	4.7	26.8 26.9	26.9	3 3	3.0
17-Dec-21	Cloudy	Calm	11:26	Middle	0.2	20.4 20.4	20.4	7.9 7.9	7.9	0.1 0.1	0.1	57.0 56.5	56.8	5.2 5.1	5.2	19.6 19.7	19.7	6 7	6.5
20-Dec-21	Cloudy	Calm	10:57	Middle	0.1	17.0 17.0	17.0	8.0 7.9	8.0	0.1 0.1	0.1	56.1 55.1	55.6	5.4 5.3	5.4	17.3 17.2	17.3	7 8	7.5
22-Dec-21	Cloudy	Calm	09:40	Middle	0.1	17.9 17.9	17.9	7.6 7.6	7.6	0.1 0.1	0.1	45.8 45.8	45.8	4.4 4.3	4.4	17.1 17.1	17.1	8 10	9.0
24-Dec-21	Cloudy	Calm	11:36	Middle	0.1	19.9 19.9	19.9	7.8 7.7	7.8	0.2 0.2	0.2	53.8 53.7	53.8	4.9 4.9	4.9	11.1 11.1	11.1	7 7	7.0
27-Dec-21	Rainy	Calm	11:46	Middle	0.2	14.2 14.1	14.2	7.8 7.8	7.8	0.1 0.1	0.1	60.7 60.2	60.5	6.2 6.2	6.2	10.1 10.2	10.2	6 7	6.5
29-Dec-21	Cloudy	Calm	10:42	Middle	0.1	16.9 16.9	16.9	7.9 7.8	7.9	0.1 0.1	0.1	43.8 44.2	44.0	4.2 4.3	4.3	8.2 8.0	8.1	6 6	6.0
31-Dec-21	Sunny	Calm	11:25	Middle	0.1	18.0 18.0	18.0	8.2 8.2	8.2	0.1 0.1	0.1	55.8 55.2	55.5	5.3 5.2	5.3	10.9 10.7	10.8	8 8	8.0

Remarks: *DA: Depth-Averaged

**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

Dissolved Oxygen



Title	Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team	Scale	N.T.S	Project No. WMA21009
	Graphical Presentation of Water Quality Monitoring Results	Date	Dec 21	Appendix H

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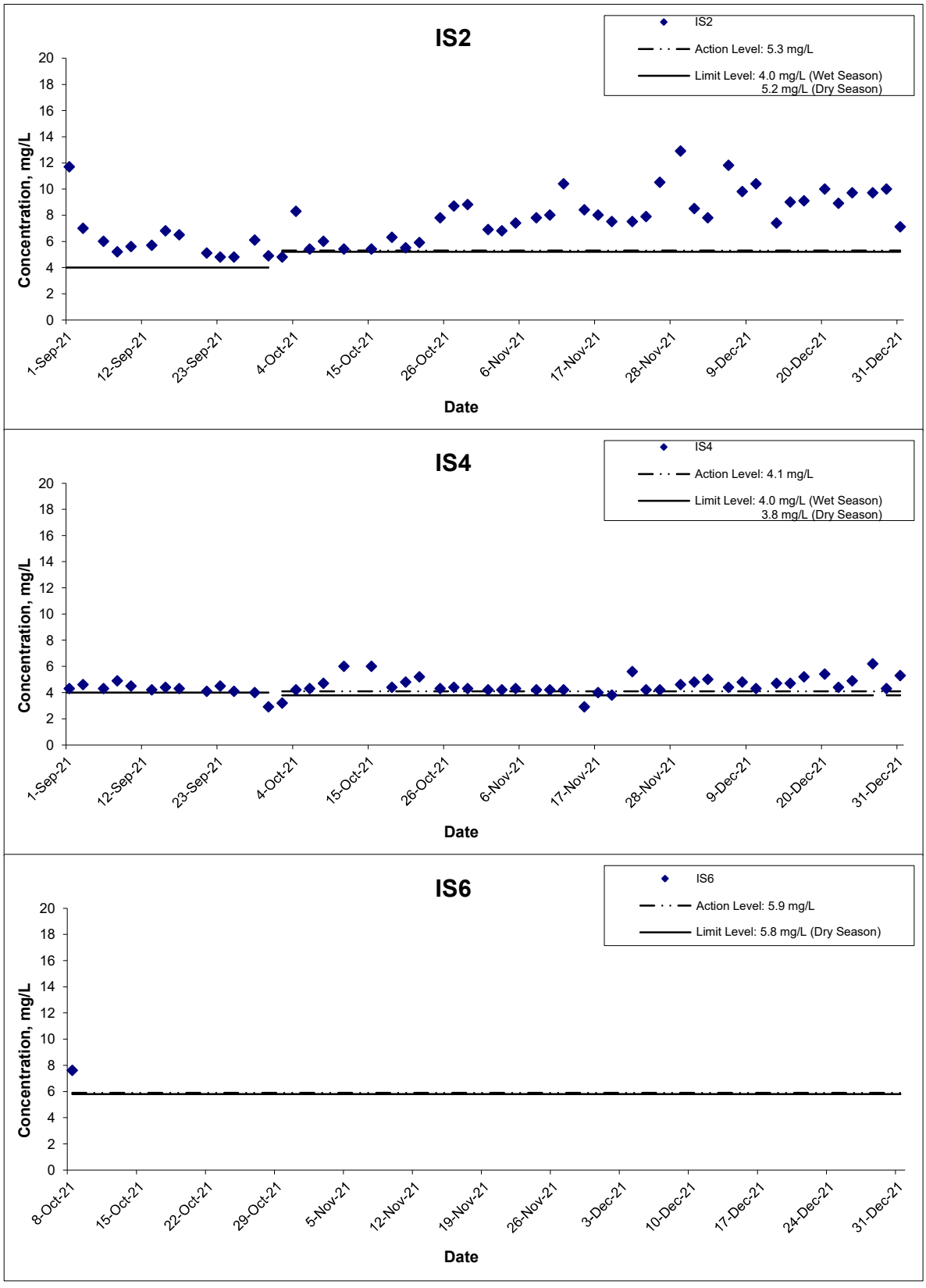
Dissolved Oxygen



Title	Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA21009	WELLAB 匯力 consulting . testing . research
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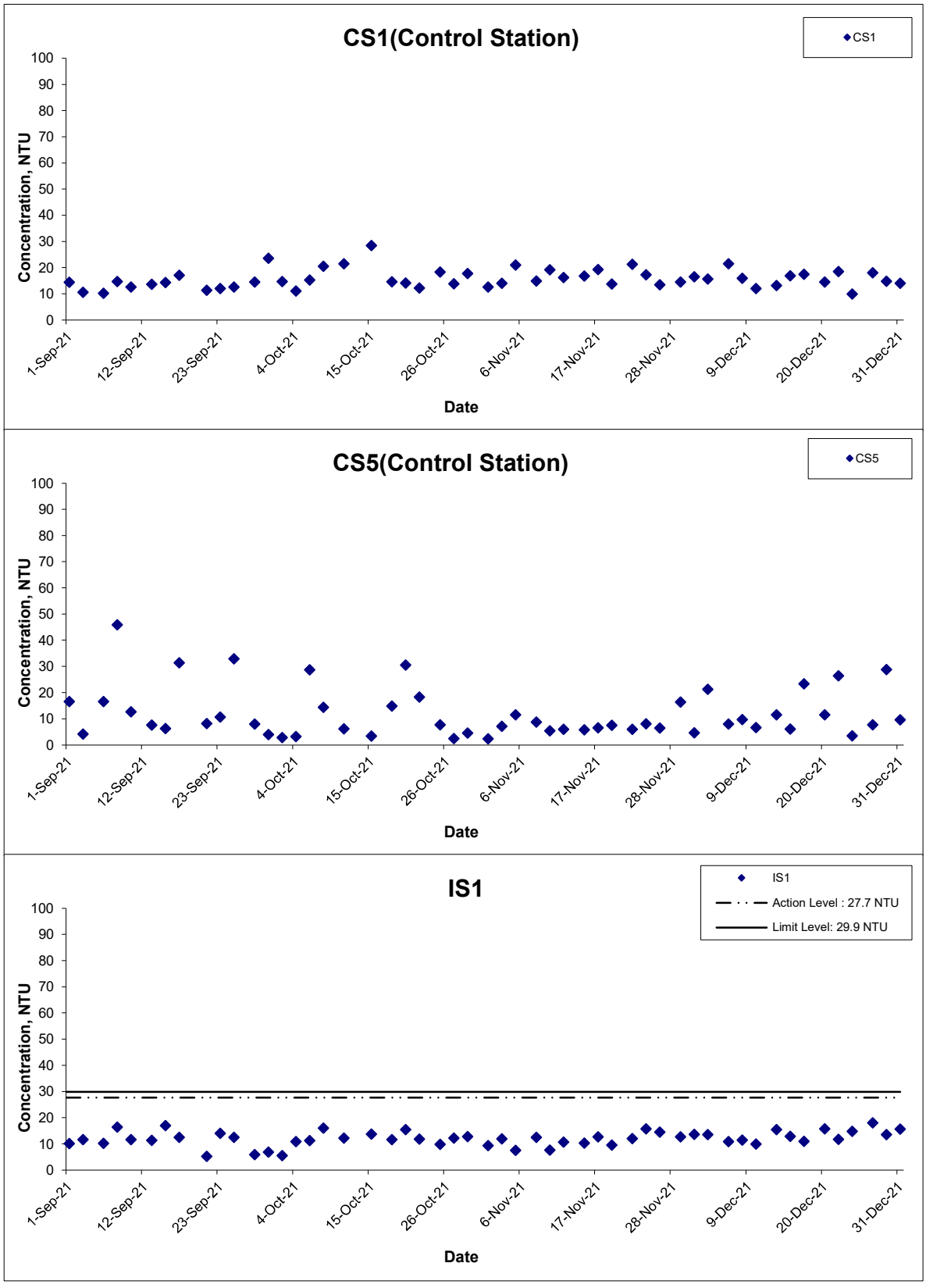
Turbidity



Title	Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA21009	WELLAB 匯力 consulting . testing . research
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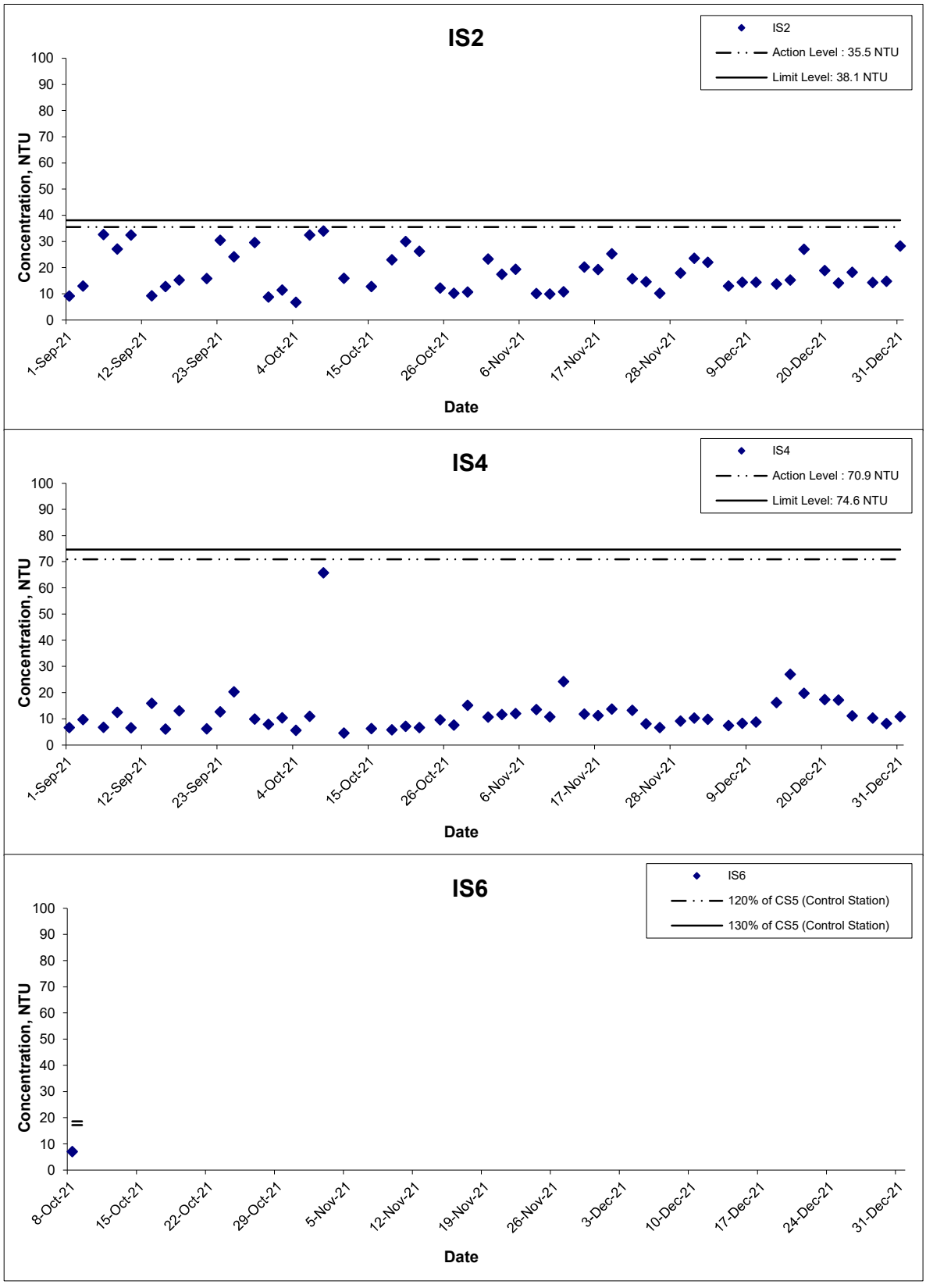
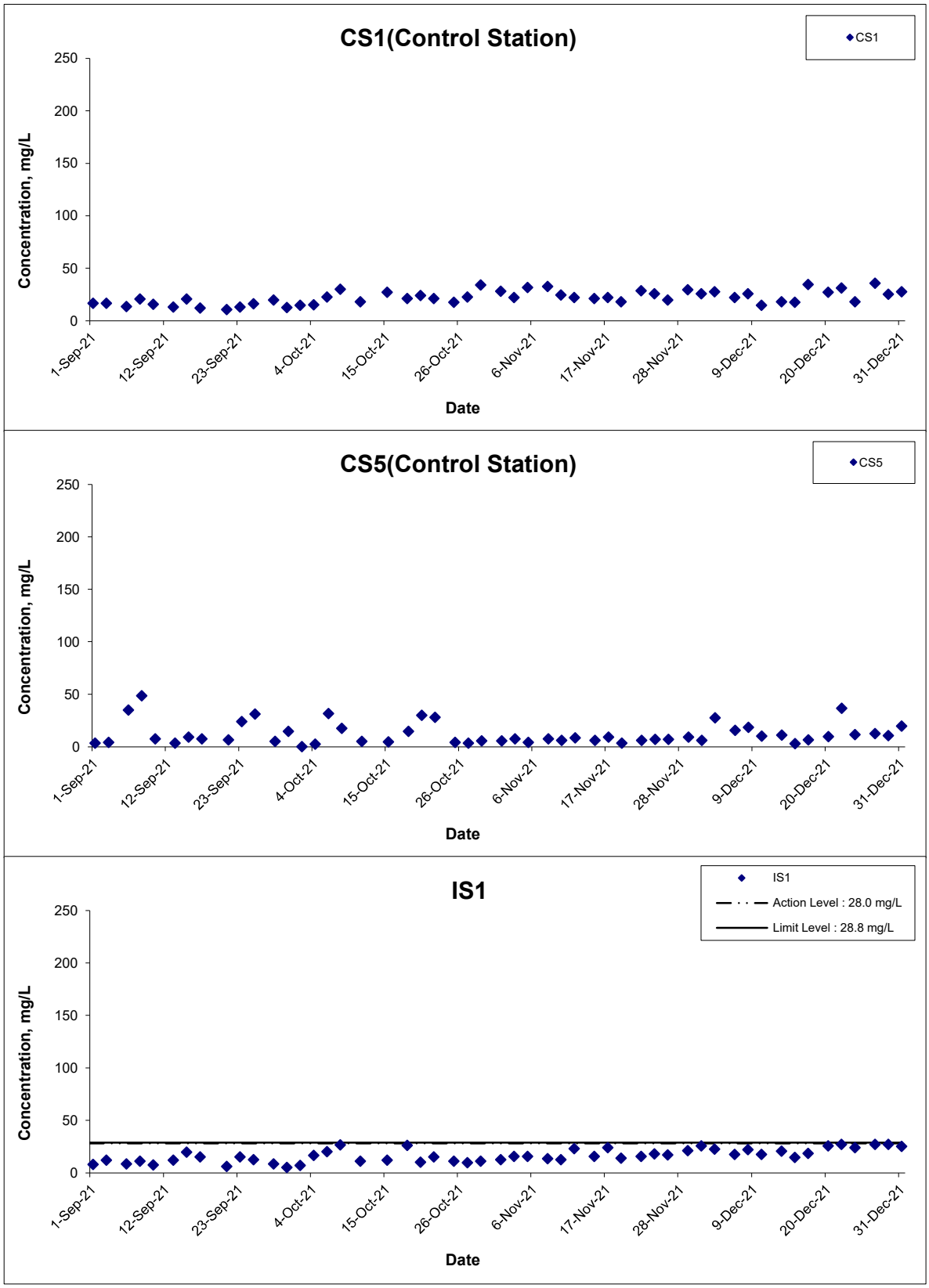
Turbidity



Title	Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S Date Dec 21	Project No. WMA21009 Appendix H	WELLAB 匯力 consulting . testing . research

Suspended Solids



Remark: The graphical point at zero concentration is presented as <2.5 mg/L

Title	Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team	Scale	N.T.S	Project No. WMA21009
	Graphical Presentation of Water Quality Monitoring Results	Date	Dec 21	Appendix H

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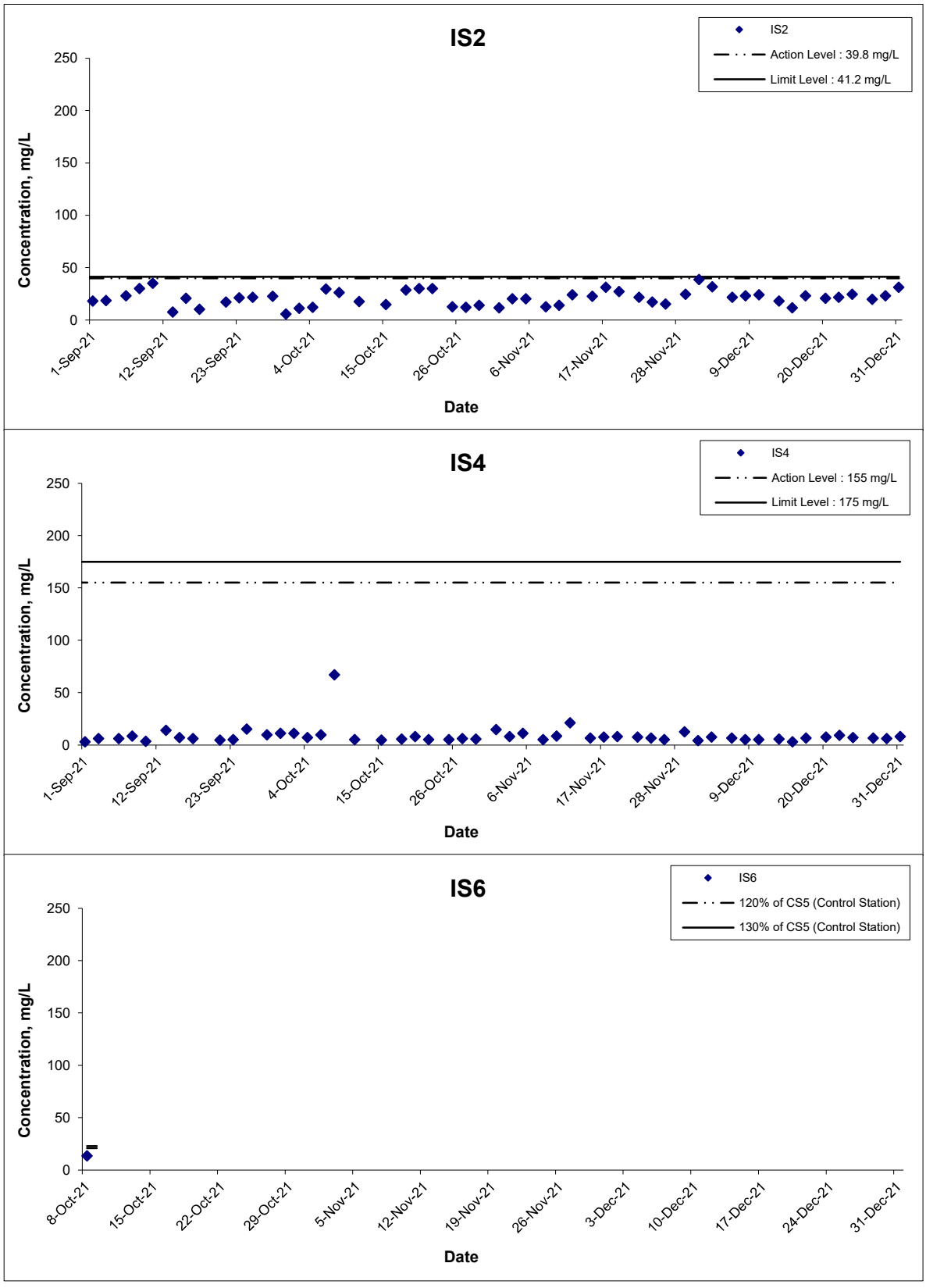
Suspended Solids



Remark: The graphical point at zero concentration is presented as <2.5 mg/L

Title	Service Contract No. WD/04/2020 Development of Lok Ma Chau Loop: Main Works Package 1 - Environmental Team Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: WMA21009	WELLAB 匯力 consulting . testing . research
		Date: Dec 21	Appendix: H	

APPENDIX I
WEATHER CONDITION

APPENDIX I –
GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 December 2021	17.3	40	-
2 December 2021	17.4	42	-
3 December 2021	18	35	-
4 December 2021	18.1	46	-
5 December 2021	19.1	55	-
6 December 2021	19.2	59	-
7 December 2021	19.9	65	-
8 December 2021	20.1	67	-
9 December 2021	20.2	72	-
10 December 2021	20.9	73	-
11 December 2021	21.4	74	-
12 December 2021	21.5	75	-
13 December 2021	19.4	67	-
14 December 2021	20.5	72	Trace
15 December 2021	21.5	78	0.2
16 December 2021	23.2	81	Trace

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
17 December 2021	21.7	69	-
18 December 2021	18.1	58	-
19 December 2021	17.9	51	-
20 December 2021	17.2	78	9.4
21 December 2021	17.3	88	2.4
22 December 2021	19.3	80	Trace
23 December 2021	19.9	77	0.8
24 December 2021	19.9	84	1.7
25 December 2021	19.6	75	Trace
26 December 2021	15	78	3.5
27 December 2021	12	81	1.3
28 December 2021	15.3	74	0.2
29 December 2021	18.4	74	-
30 December 2021	18.1	77	-
31 December 2021	18	78	Trace

* The above information was extracted from the daily weather summary by Hong Kong Observatory.

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
1-Dec-2021	00:00	1.3	SSW
1-Dec-2021	01:00	1.3	SSW
1-Dec-2021	02:00	0.9	SSW
1-Dec-2021	03:00	1.3	SSW
1-Dec-2021	04:00	1.3	SSW
1-Dec-2021	05:00	1.3	SSW
1-Dec-2021	06:00	1.3	SSW
1-Dec-2021	07:00	1.3	SSW
1-Dec-2021	08:00	0.9	SSW
1-Dec-2021	09:00	0.9	S
1-Dec-2021	10:00	0.9	SSW
1-Dec-2021	11:00	1.3	S
1-Dec-2021	12:00	1.3	S
1-Dec-2021	13:00	1.3	SSW
1-Dec-2021	14:00	0.9	SSW
1-Dec-2021	15:00	0.9	SSW
1-Dec-2021	16:00	0.4	SSW
1-Dec-2021	17:00	0.0	SSE
1-Dec-2021	18:00	0.0	SSE
1-Dec-2021	19:00	0.0	S
1-Dec-2021	20:00	0.0	SSE
1-Dec-2021	21:00	0.0	SSW
1-Dec-2021	22:00	0.4	SW
1-Dec-2021	23:00	0.4	SSW
2-Dec-2021	00:00	0.4	SSW
2-Dec-2021	01:00	1.3	SSW
2-Dec-2021	02:00	0.9	SSW
2-Dec-2021	03:00	0.9	SSW
2-Dec-2021	04:00	0.4	SSW
2-Dec-2021	05:00	0.9	SSW
2-Dec-2021	06:00	0.9	SSW
2-Dec-2021	07:00	0.9	SSW
2-Dec-2021	08:00	0.4	SSW
2-Dec-2021	09:00	0.4	SSW
2-Dec-2021	10:00	0.9	SSW
2-Dec-2021	11:00	0.9	SSE
2-Dec-2021	12:00	0.4	SSE
2-Dec-2021	13:00	0.4	S
2-Dec-2021	14:00	0.0	SSW
2-Dec-2021	15:00	0.4	SSW
2-Dec-2021	16:00	0.0	SSE
2-Dec-2021	17:00	0.0	SSE
2-Dec-2021	18:00	0.0	SSW
2-Dec-2021	19:00	0.0	SSW
2-Dec-2021	20:00	0.0	---
2-Dec-2021	21:00	0.0	SSW
2-Dec-2021	22:00	0.0	SSW
2-Dec-2021	23:00	0.0	SSW
3-Dec-2021	00:00	0.0	SSW
3-Dec-2021	01:00	0.0	SSW
3-Dec-2021	02:00	0.0	S
3-Dec-2021	03:00	0.4	SSE
3-Dec-2021	04:00	0.0	S
3-Dec-2021	05:00	0.0	S

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
3-Dec-2021	06:00	0.0	SW
3-Dec-2021	07:00	0.0	---
3-Dec-2021	08:00	0.0	---
3-Dec-2021	09:00	0.0	SSW
3-Dec-2021	10:00	0.9	SSW
3-Dec-2021	11:00	1.3	SSW
3-Dec-2021	12:00	0.9	SSW
3-Dec-2021	13:00	1.3	SSW
3-Dec-2021	14:00	0.9	SSW
3-Dec-2021	15:00	0.4	SSW
3-Dec-2021	16:00	0.9	SSW
3-Dec-2021	17:00	0.4	SSW
3-Dec-2021	18:00	0.0	SSW
3-Dec-2021	19:00	0.0	SW
3-Dec-2021	20:00	0.0	WSW
3-Dec-2021	21:00	0.0	SW
3-Dec-2021	22:00	0.4	WSW
3-Dec-2021	23:00	0.9	SSW
4-Dec-2021	00:00	0.0	SSW
4-Dec-2021	01:00	0.0	SSW
4-Dec-2021	02:00	0.4	SSW
4-Dec-2021	03:00	0.4	SSW
4-Dec-2021	04:00	0.4	SSW
4-Dec-2021	05:00	0.4	SSW
4-Dec-2021	06:00	0.4	SSW
4-Dec-2021	07:00	0.4	SSW
4-Dec-2021	08:00	0.4	SSW
4-Dec-2021	09:00	0.9	SSW
4-Dec-2021	10:00	0.9	SSW
4-Dec-2021	11:00	0.4	SSW
4-Dec-2021	12:00	0.0	SSE
4-Dec-2021	13:00	0.0	S
4-Dec-2021	14:00	0.0	SSE
4-Dec-2021	15:00	0.4	SSW
4-Dec-2021	16:00	0.0	SSW
4-Dec-2021	17:00	0.0	SSW
4-Dec-2021	18:00	0.0	WSW
4-Dec-2021	19:00	0.0	---
4-Dec-2021	20:00	0.0	WSW
4-Dec-2021	21:00	0.0	WSW
4-Dec-2021	22:00	0.0	---
4-Dec-2021	23:00	0.0	---
5-Dec-2021	00:00	0.0	WSW
5-Dec-2021	01:00	0.0	WSW
5-Dec-2021	02:00	0.0	WSW
5-Dec-2021	03:00	0.0	WSW
5-Dec-2021	04:00	0.0	SW
5-Dec-2021	05:00	0.0	SW
5-Dec-2021	06:00	0.0	SSW
5-Dec-2021	07:00	0.0	---
5-Dec-2021	08:00	0.0	SSW
5-Dec-2021	09:00	0.0	SSW
5-Dec-2021	10:00	0.4	SSW
5-Dec-2021	11:00	0.4	SSE

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
5-Dec-2021	12:00	0.4	SSW
5-Dec-2021	13:00	0.4	SSE
5-Dec-2021	14:00	0.4	SSW
5-Dec-2021	15:00	0.4	SSW
5-Dec-2021	16:00	0.0	SSW
5-Dec-2021	17:00	0.0	S
5-Dec-2021	18:00	0.0	SSW
5-Dec-2021	19:00	0.0	SSE
5-Dec-2021	20:00	0.0	W
5-Dec-2021	21:00	0.0	W
5-Dec-2021	22:00	0.0	---
5-Dec-2021	23:00	0.0	WSW
6-Dec-2021	00:00	0.0	WSW
6-Dec-2021	01:00	0.0	SSE
6-Dec-2021	02:00	0.0	---
6-Dec-2021	03:00	0.0	SSE
6-Dec-2021	04:00	0.0	S
6-Dec-2021	05:00	0.0	SSW
6-Dec-2021	06:00	0.0	SSW
6-Dec-2021	07:00	0.0	SSW
6-Dec-2021	08:00	0.0	SSW
6-Dec-2021	09:00	0.0	SSW
6-Dec-2021	10:00	0.4	SSW
6-Dec-2021	11:00	0.4	SSE
6-Dec-2021	12:00	0.4	SSE
6-Dec-2021	13:00	1.3	SSW
6-Dec-2021	14:00	0.9	SSW
6-Dec-2021	15:00	0.9	SSW
6-Dec-2021	16:00	0.9	SSW
6-Dec-2021	17:00	0.4	SSW
6-Dec-2021	18:00	0.0	SSW
6-Dec-2021	19:00	0.0	SW
6-Dec-2021	20:00	0.4	W
6-Dec-2021	21:00	0.0	WSW
6-Dec-2021	22:00	0.0	WSW
6-Dec-2021	23:00	0.0	---
7-Dec-2021	00:00	0.0	W
7-Dec-2021	01:00	0.0	---
7-Dec-2021	02:00	0.0	SW
7-Dec-2021	03:00	0.0	---
7-Dec-2021	04:00	0.0	---
7-Dec-2021	05:00	0.0	---
7-Dec-2021	06:00	0.0	WSW
7-Dec-2021	07:00	0.0	SSE
7-Dec-2021	08:00	0.0	---
7-Dec-2021	09:00	0.0	SSW
7-Dec-2021	10:00	0.4	SSE
7-Dec-2021	11:00	0.4	SSW
7-Dec-2021	12:00	0.4	SSW
7-Dec-2021	13:00	0.4	SSW
7-Dec-2021	14:00	0.0	SSW
7-Dec-2021	15:00	0.0	SSW
7-Dec-2021	16:00	0.0	SSE
7-Dec-2021	17:00	0.0	WSW

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
7-Dec-2021	18:00	0.4	W
7-Dec-2021	19:00	0.4	SSW
7-Dec-2021	20:00	0.0	SSW
7-Dec-2021	21:00	0.9	SSW
7-Dec-2021	22:00	0.9	SSW
7-Dec-2021	23:00	0.9	SSW
8-Dec-2021	00:00	0.9	SSW
8-Dec-2021	01:00	0.4	SSW
8-Dec-2021	02:00	0.4	SSW
8-Dec-2021	03:00	0.4	WSW
8-Dec-2021	04:00	0.9	SW
8-Dec-2021	05:00	0.4	SSW
8-Dec-2021	06:00	0.4	WSW
8-Dec-2021	07:00	0.0	SW
8-Dec-2021	08:00	0.0	WSW
8-Dec-2021	09:00	0.4	SSW
8-Dec-2021	10:00	0.4	SSW
8-Dec-2021	11:00	0.4	WSW
8-Dec-2021	12:00	0.4	SSW
8-Dec-2021	13:00	0.4	SSW
8-Dec-2021	14:00	0.4	SSW
8-Dec-2021	15:00	0.4	WSW
8-Dec-2021	16:00	0.4	WSW
8-Dec-2021	17:00	0.4	SSW
8-Dec-2021	18:00	0.4	SSW
8-Dec-2021	19:00	0.4	WNW
8-Dec-2021	20:00	0.0	WSW
8-Dec-2021	21:00	0.0	SSW
8-Dec-2021	22:00	0.0	SSW
8-Dec-2021	23:00	0.4	SSW
9-Dec-2021	00:00	0.9	SSW
9-Dec-2021	01:00	0.9	SSW
9-Dec-2021	02:00	0.9	SSW
9-Dec-2021	03:00	1.3	SSW
9-Dec-2021	04:00	0.9	SW
9-Dec-2021	05:00	0.9	SW
9-Dec-2021	06:00	0.9	SSW
9-Dec-2021	07:00	0.9	SSW
9-Dec-2021	08:00	0.4	SSW
9-Dec-2021	09:00	0.4	SSW
9-Dec-2021	10:00	0.4	SSW
9-Dec-2021	11:00	0.4	SSW
9-Dec-2021	12:00	0.4	SSW
9-Dec-2021	13:00	0.0	SSE
9-Dec-2021	14:00	0.0	SSE
9-Dec-2021	15:00	0.0	SSW
9-Dec-2021	16:00	0.0	SSW
9-Dec-2021	17:00	0.0	---
9-Dec-2021	18:00	0.0	NE
9-Dec-2021	19:00	0.0	NE
9-Dec-2021	20:00	0.4	W
9-Dec-2021	21:00	0.4	WSW
9-Dec-2021	22:00	0.0	WSW
9-Dec-2021	23:00	0.0	---

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
10-Dec-2021	00:00	0.0	---
10-Dec-2021	01:00	0.0	---
10-Dec-2021	02:00	0.0	W
10-Dec-2021	03:00	0.0	---
10-Dec-2021	04:00	0.0	SW
10-Dec-2021	05:00	0.0	SW
10-Dec-2021	06:00	0.0	---
10-Dec-2021	07:00	0.0	---
10-Dec-2021	08:00	0.0	---
10-Dec-2021	09:00	0.0	SW
10-Dec-2021	10:00	0.0	SE
10-Dec-2021	11:00	0.0	SSE
10-Dec-2021	12:00	0.4	SSW
10-Dec-2021	13:00	1.3	SSW
10-Dec-2021	14:00	0.9	SSW
10-Dec-2021	15:00	0.9	W
10-Dec-2021	16:00	0.4	SSW
10-Dec-2021	17:00	0.4	SSW
10-Dec-2021	18:00	0.4	SSW
10-Dec-2021	19:00	0.4	SSW
10-Dec-2021	20:00	0.4	SSW
10-Dec-2021	21:00	0.4	SSW
10-Dec-2021	22:00	0.4	SSW
10-Dec-2021	23:00	0.4	SSW
11-Dec-2021	00:00	0.4	SSW
11-Dec-2021	01:00	0.4	SSW
11-Dec-2021	02:00	0.9	SSW
11-Dec-2021	03:00	0.4	SW
11-Dec-2021	04:00	0.9	SW
11-Dec-2021	05:00	0.4	SSW
11-Dec-2021	06:00	0.9	WSW
11-Dec-2021	07:00	0.4	SSW
11-Dec-2021	08:00	0.4	SSW
11-Dec-2021	09:00	0.0	SSW
11-Dec-2021	10:00	0.0	SSW
11-Dec-2021	11:00	0.0	SSW
11-Dec-2021	12:00	0.0	SSW
11-Dec-2021	13:00	0.0	ESE
11-Dec-2021	14:00	0.0	SSE
11-Dec-2021	15:00	0.0	SSW
11-Dec-2021	16:00	0.0	WNW
11-Dec-2021	17:00	0.0	NE
11-Dec-2021	18:00	0.0	NE
11-Dec-2021	19:00	0.0	WSW
11-Dec-2021	20:00	0.0	WSW
11-Dec-2021	21:00	0.0	S
11-Dec-2021	22:00	0.0	S
11-Dec-2021	23:00	0.0	SW
12-Dec-2021	00:00	0.0	SSW
12-Dec-2021	01:00	0.0	SSW
12-Dec-2021	02:00	0.0	SW
12-Dec-2021	03:00	0.0	SSW
12-Dec-2021	04:00	0.0	SW
12-Dec-2021	05:00	0.0	W

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
12-Dec-2021	06:00	0.0	WSW
12-Dec-2021	07:00	0.4	WSW
12-Dec-2021	08:00	0.0	SSW
12-Dec-2021	09:00	0.0	SW
12-Dec-2021	10:00	0.0	SSW
12-Dec-2021	11:00	0.0	SSW
12-Dec-2021	12:00	0.0	SSE
12-Dec-2021	13:00	0.0	SSW
12-Dec-2021	14:00	0.0	SSW
12-Dec-2021	15:00	0.4	SSW
12-Dec-2021	16:00	0.0	SSW
12-Dec-2021	17:00	0.0	SSW
12-Dec-2021	18:00	0.0	S
12-Dec-2021	19:00	0.0	SSE
12-Dec-2021	20:00	0.0	WSW
12-Dec-2021	21:00	0.0	SSW
12-Dec-2021	22:00	0.4	SSW
12-Dec-2021	23:00	1.3	SSW
13-Dec-2021	00:00	0.9	SSW
13-Dec-2021	01:00	0.9	SSW
13-Dec-2021	02:00	0.9	SSW
13-Dec-2021	03:00	0.9	SSW
13-Dec-2021	04:00	0.4	SSW
13-Dec-2021	05:00	0.4	SSW
13-Dec-2021	06:00	0.0	SSW
13-Dec-2021	07:00	0.4	SSW
13-Dec-2021	08:00	0.4	SSE
13-Dec-2021	09:00	0.4	SSW
13-Dec-2021	10:00	0.4	SSW
13-Dec-2021	11:00	0.4	SSE
13-Dec-2021	12:00	0.9	SSW
13-Dec-2021	13:00	0.4	SSW
13-Dec-2021	14:00	0.0	SSE
13-Dec-2021	15:00	0.0	SSE
13-Dec-2021	16:00	0.0	SW
13-Dec-2021	17:00	0.0	SW
13-Dec-2021	18:00	0.0	SW
13-Dec-2021	19:00	0.0	WSW
13-Dec-2021	20:00	0.4	W
13-Dec-2021	21:00	0.0	WSW
13-Dec-2021	22:00	0.0	---
13-Dec-2021	23:00	0.0	W
14-Dec-2021	00:00	0.0	W
14-Dec-2021	01:00	0.0	W
14-Dec-2021	02:00	0.0	W
14-Dec-2021	03:00	0.0	W
14-Dec-2021	04:00	0.0	---
14-Dec-2021	05:00	0.0	W
14-Dec-2021	06:00	0.0	SSE
14-Dec-2021	07:00	0.0	SSW
14-Dec-2021	08:00	0.4	SSW
14-Dec-2021	09:00	0.4	SSW
14-Dec-2021	10:00	0.4	SSW
14-Dec-2021	11:00	0.4	SSW

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
14-Dec-2021	12:00	0.4	SSW
14-Dec-2021	13:00	0.0	SSW
14-Dec-2021	14:00	0.0	SSW
14-Dec-2021	15:00	0.0	SSW
14-Dec-2021	16:00	0.0	---
14-Dec-2021	17:00	0.0	---
14-Dec-2021	18:00	0.0	---
14-Dec-2021	19:00	0.0	---
14-Dec-2021	20:00	0.0	WNW
14-Dec-2021	21:00	0.4	WSW
14-Dec-2021	22:00	0.0	WSW
14-Dec-2021	23:00	0.0	SSW
15-Dec-2021	00:00	0.0	SSW
15-Dec-2021	01:00	0.4	SSW
15-Dec-2021	02:00	0.4	SSW
15-Dec-2021	03:00	0.0	SSW
15-Dec-2021	04:00	0.0	SW
15-Dec-2021	05:00	0.4	WSW
15-Dec-2021	06:00	0.0	WSW
15-Dec-2021	07:00	0.0	WSW
15-Dec-2021	08:00	0.0	WSW
15-Dec-2021	09:00	0.0	SSW
15-Dec-2021	10:00	0.4	SSW
15-Dec-2021	11:00	0.9	SSW
15-Dec-2021	12:00	0.9	SSW
15-Dec-2021	13:00	0.4	SSW
15-Dec-2021	14:00	0.4	SSW
15-Dec-2021	15:00	0.4	SSW
15-Dec-2021	16:00	0.4	SSW
15-Dec-2021	17:00	0.0	SSW
15-Dec-2021	18:00	0.0	SSW
15-Dec-2021	19:00	0.0	SW
15-Dec-2021	20:00	0.0	SSW
15-Dec-2021	21:00	0.0	SSW
15-Dec-2021	22:00	0.9	SSW
15-Dec-2021	23:00	0.4	WSW
16-Dec-2021	00:00	0.0	WSW
16-Dec-2021	01:00	0.0	SSW
16-Dec-2021	02:00	0.4	SSW
16-Dec-2021	03:00	0.0	SSW
16-Dec-2021	04:00	0.0	SSW
16-Dec-2021	05:00	0.9	SW
16-Dec-2021	06:00	0.4	SW
16-Dec-2021	07:00	0.0	WSW
16-Dec-2021	08:00	0.0	SSW
16-Dec-2021	09:00	0.4	SSW
16-Dec-2021	10:00	0.0	SSW
16-Dec-2021	11:00	0.9	SSW
16-Dec-2021	12:00	0.4	SSW
16-Dec-2021	13:00	0.9	SW
16-Dec-2021	14:00	0.9	SSW
16-Dec-2021	15:00	0.9	W
16-Dec-2021	16:00	0.9	SSW
16-Dec-2021	17:00	0.4	WSW

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
16-Dec-2021	18:00	0.0	SSW
16-Dec-2021	19:00	0.0	SW
16-Dec-2021	20:00	0.0	SSW
16-Dec-2021	21:00	0.0	SSW
16-Dec-2021	22:00	0.0	SSW
16-Dec-2021	23:00	0.0	SW
17-Dec-2021	00:00	0.0	---
17-Dec-2021	01:00	0.0	---
17-Dec-2021	02:00	0.0	---
17-Dec-2021	03:00	0.0	---
17-Dec-2021	04:00	0.0	SW
17-Dec-2021	05:00	0.4	SSW
17-Dec-2021	06:00	0.0	SSW
17-Dec-2021	07:00	0.0	SSW
17-Dec-2021	08:00	0.0	SSW
17-Dec-2021	09:00	0.9	SSW
17-Dec-2021	10:00	0.9	S
17-Dec-2021	11:00	0.9	SSW
17-Dec-2021	12:00	0.9	S
17-Dec-2021	13:00	0.4	SSE
17-Dec-2021	14:00	0.9	SSE
17-Dec-2021	15:00	0.9	SSW
17-Dec-2021	16:00	0.9	S
17-Dec-2021	17:00	0.9	SSW
17-Dec-2021	18:00	0.4	SSW
17-Dec-2021	19:00	0.4	SSE
17-Dec-2021	20:00	0.4	SSW
17-Dec-2021	21:00	0.9	SSW
17-Dec-2021	22:00	0.4	SSW
17-Dec-2021	23:00	0.9	SSW
18-Dec-2021	00:00	0.9	SSW
18-Dec-2021	01:00	0.4	SSW
18-Dec-2021	02:00	0.4	SSW
18-Dec-2021	03:00	0.9	SSW
18-Dec-2021	04:00	1.3	SSW
18-Dec-2021	05:00	0.9	SSW
18-Dec-2021	06:00	0.4	SSW
18-Dec-2021	07:00	0.9	SSW
18-Dec-2021	08:00	0.9	SSW
18-Dec-2021	09:00	0.4	SSW
18-Dec-2021	10:00	0.4	SSW
18-Dec-2021	11:00	0.9	SSW
18-Dec-2021	12:00	0.9	SSW
18-Dec-2021	13:00	0.9	SSW
18-Dec-2021	14:00	0.4	SSW
18-Dec-2021	15:00	0.9	SSW
18-Dec-2021	16:00	0.9	SSW
18-Dec-2021	17:00	0.4	SSW
18-Dec-2021	18:00	0.4	SSW
18-Dec-2021	19:00	0.0	SSW
18-Dec-2021	20:00	0.0	SSW
18-Dec-2021	21:00	0.0	SSW
18-Dec-2021	22:00	0.9	SSW
18-Dec-2021	23:00	0.9	SSW

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
19-Dec-2021	00:00	0.4	SSW
19-Dec-2021	01:00	0.9	SSW
19-Dec-2021	02:00	0.9	SSW
19-Dec-2021	03:00	0.4	SSW
19-Dec-2021	04:00	0.9	SSW
19-Dec-2021	05:00	0.9	SSW
19-Dec-2021	06:00	0.9	SSW
19-Dec-2021	07:00	0.9	SSW
19-Dec-2021	08:00	0.9	SSW
19-Dec-2021	09:00	0.9	SSW
19-Dec-2021	10:00	0.9	SSW
19-Dec-2021	11:00	0.4	SSW
19-Dec-2021	12:00	0.4	SSW
19-Dec-2021	13:00	0.4	SSE
19-Dec-2021	14:00	0.0	SSE
19-Dec-2021	15:00	0.0	SSE
19-Dec-2021	16:00	0.0	SSW
19-Dec-2021	17:00	0.0	SSW
19-Dec-2021	18:00	0.0	SSW
19-Dec-2021	19:00	0.4	SSW
19-Dec-2021	20:00	0.0	SSW
19-Dec-2021	21:00	0.0	SSW
19-Dec-2021	22:00	0.0	WSW
19-Dec-2021	23:00	0.0	SSW
20-Dec-2021	00:00	0.0	SSW
20-Dec-2021	01:00	0.0	SW
20-Dec-2021	02:00	0.0	SW
20-Dec-2021	03:00	0.4	SSW
20-Dec-2021	04:00	0.0	SSW
20-Dec-2021	05:00	0.0	SSW
20-Dec-2021	06:00	0.0	SSW
20-Dec-2021	07:00	0.4	SSW
20-Dec-2021	08:00	0.9	SSW
20-Dec-2021	09:00	0.9	SW
20-Dec-2021	10:00	0.9	SSW
20-Dec-2021	11:00	0.4	SSW
20-Dec-2021	12:00	0.9	SSW
20-Dec-2021	13:00	0.4	SSW
20-Dec-2021	14:00	0.4	SSW
20-Dec-2021	15:00	0.9	SSW
20-Dec-2021	16:00	0.4	SSW
20-Dec-2021	17:00	0.9	SSW
20-Dec-2021	18:00	0.9	SSW
20-Dec-2021	19:00	0.4	SSW
20-Dec-2021	20:00	0.4	SSW
20-Dec-2021	21:00	0.4	SSW
20-Dec-2021	22:00	0.0	SSW
20-Dec-2021	23:00	0.0	SSW
21-Dec-2021	00:00	0.4	SSW
21-Dec-2021	01:00	0.4	SSW
21-Dec-2021	02:00	0.4	SSW
21-Dec-2021	03:00	0.0	SSW
21-Dec-2021	04:00	0.0	SSW
21-Dec-2021	05:00	0.0	SSE

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
21-Dec-2021	06:00	0.0	SSW
21-Dec-2021	07:00	0.0	SSW
21-Dec-2021	08:00	0.0	SSE
21-Dec-2021	09:00	0.0	SSE
21-Dec-2021	10:00	0.0	SSE
21-Dec-2021	11:00	0.4	SSE
21-Dec-2021	12:00	0.4	SSE
21-Dec-2021	13:00	0.0	SSE
21-Dec-2021	14:00	0.0	SSE
21-Dec-2021	15:00	0.0	SSW
21-Dec-2021	16:00	0.0	SSE
21-Dec-2021	17:00	0.0	SSE
21-Dec-2021	18:00	0.0	S
21-Dec-2021	19:00	0.0	---
21-Dec-2021	20:00	0.0	---
21-Dec-2021	21:00	0.0	---
21-Dec-2021	22:00	0.0	S
21-Dec-2021	23:00	0.0	---
22-Dec-2021	00:00	0.0	S
22-Dec-2021	01:00	0.0	---
22-Dec-2021	02:00	0.0	---
22-Dec-2021	03:00	0.0	NE
22-Dec-2021	04:00	0.0	SSE
22-Dec-2021	05:00	0.0	SSE
22-Dec-2021	06:00	0.0	ESE
22-Dec-2021	07:00	0.0	ESE
22-Dec-2021	08:00	0.0	S
22-Dec-2021	09:00	0.0	SSW
22-Dec-2021	10:00	0.0	SSW
22-Dec-2021	11:00	0.4	SSE
22-Dec-2021	12:00	0.4	SSE
22-Dec-2021	13:00	0.0	SSW
22-Dec-2021	14:00	0.0	SSW
22-Dec-2021	15:00	0.0	SSW
22-Dec-2021	16:00	0.0	SSW
22-Dec-2021	17:00	0.0	SW
22-Dec-2021	18:00	0.0	---
22-Dec-2021	19:00	0.0	SSW
22-Dec-2021	20:00	0.0	SW
22-Dec-2021	21:00	0.0	WSW
22-Dec-2021	22:00	0.0	SW
22-Dec-2021	23:00	0.0	SSW
23-Dec-2021	00:00	0.0	---
23-Dec-2021	01:00	0.0	---
23-Dec-2021	02:00	0.0	---
23-Dec-2021	03:00	0.0	WSW
23-Dec-2021	04:00	0.0	SSW
23-Dec-2021	05:00	0.4	SSW
23-Dec-2021	06:00	0.9	SSW
23-Dec-2021	07:00	1.3	SSW
23-Dec-2021	08:00	0.4	SSW
23-Dec-2021	09:00	0.0	SSW
23-Dec-2021	10:00	0.9	SSW
23-Dec-2021	11:00	0.4	SSW

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Date	Time	Wind Speed m/s	Direction
23-Dec-2021	12:00	0.4	SSW
23-Dec-2021	13:00	0.0	SSW
23-Dec-2021	14:00	0.0	SSW
23-Dec-2021	15:00	0.0	SSW
23-Dec-2021	16:00	0.0	W
23-Dec-2021	17:00	0.0	W
23-Dec-2021	18:00	0.0	WNW
23-Dec-2021	19:00	0.0	NNW
23-Dec-2021	20:00	0.0	---
23-Dec-2021	21:00	0.0	W
23-Dec-2021	22:00	0.0	W
23-Dec-2021	23:00	0.0	WSW
24-Dec-2021	00:00	0.0	WSW
24-Dec-2021	01:00	0.0	WSW
24-Dec-2021	02:00	0.0	WSW
24-Dec-2021	03:00	0.0	WSW
24-Dec-2021	04:00	0.0	SW
24-Dec-2021	05:00	0.0	---
24-Dec-2021	06:00	0.0	---
24-Dec-2021	07:00	0.0	W
24-Dec-2021	08:00	0.0	---
24-Dec-2021	09:00	0.0	---
24-Dec-2021	10:00	0.0	SW
24-Dec-2021	11:00	0.0	SW
24-Dec-2021	12:00	0.0	---
24-Dec-2021	13:00	0.0	---
24-Dec-2021	14:00	0.0	NW
24-Dec-2021	15:00	0.0	---
24-Dec-2021	16:00	0.0	---
24-Dec-2021	17:00	0.0	SSE
24-Dec-2021	18:00	0.0	SSE
24-Dec-2021	19:00	0.0	---
24-Dec-2021	20:00	0.0	---
24-Dec-2021	21:00	0.0	---
24-Dec-2021	22:00	0.0	---
24-Dec-2021	23:00	0.0	---
25-Dec-2021	00:00	0.0	---
25-Dec-2021	01:00	0.0	SSW
25-Dec-2021	02:00	0.4	SSW
25-Dec-2021	03:00	0.0	SSW
25-Dec-2021	04:00	0.4	SSW
25-Dec-2021	05:00	0.0	SW
25-Dec-2021	06:00	0.4	SSW
25-Dec-2021	07:00	0.0	SSW
25-Dec-2021	08:00	0.0	SSW
25-Dec-2021	09:00	0.0	SSW
25-Dec-2021	10:00	0.4	SSW
25-Dec-2021	11:00	0.4	SSW
25-Dec-2021	12:00	0.4	SSE
25-Dec-2021	13:00	0.0	SSE
25-Dec-2021	14:00	0.0	SSW
25-Dec-2021	15:00	0.0	SSW
25-Dec-2021	16:00	0.0	SSW
25-Dec-2021	17:00	0.4	SSW

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Date	Time	Wind Speed m/s	Direction
25-Dec-2021	18:00	0.4	SSW
25-Dec-2021	19:00	0.0	SSW
25-Dec-2021	20:00	0.4	SSW
25-Dec-2021	21:00	0.4	SSW
25-Dec-2021	22:00	0.4	SSW
25-Dec-2021	23:00	0.0	SSW
26-Dec-2021	00:00	0.4	SSW
26-Dec-2021	01:00	0.4	SSW
26-Dec-2021	02:00	0.4	SSW
26-Dec-2021	03:00	0.9	SSW
26-Dec-2021	04:00	0.9	SSW
26-Dec-2021	05:00	0.4	SSW
26-Dec-2021	06:00	0.4	SSW
26-Dec-2021	07:00	0.4	SSW
26-Dec-2021	08:00	0.9	SSW
26-Dec-2021	09:00	0.9	SSW
26-Dec-2021	10:00	0.9	SSW
26-Dec-2021	11:00	0.4	SSW
26-Dec-2021	12:00	0.4	SSE
26-Dec-2021	13:00	0.4	SSW
26-Dec-2021	14:00	0.4	SSE
26-Dec-2021	15:00	0.4	SSW
26-Dec-2021	16:00	0.0	SSW
26-Dec-2021	17:00	0.0	SSW
26-Dec-2021	18:00	0.4	SSW
26-Dec-2021	19:00	0.4	SSW
26-Dec-2021	20:00	0.4	SSW
26-Dec-2021	21:00	0.4	SSW
26-Dec-2021	22:00	0.4	SSW
26-Dec-2021	23:00	0.9	SSW
27-Dec-2021	00:00	0.4	SSE
27-Dec-2021	01:00	0.4	SSW
27-Dec-2021	02:00	0.4	SSW
27-Dec-2021	03:00	0.4	SSW
27-Dec-2021	04:00	0.4	SSE
27-Dec-2021	05:00	0.4	SSW
27-Dec-2021	06:00	0.4	SSE
27-Dec-2021	07:00	0.4	SSW
27-Dec-2021	08:00	0.4	SSW
27-Dec-2021	09:00	0.0	SSW
27-Dec-2021	10:00	0.0	SSE
27-Dec-2021	11:00	0.4	SSW
27-Dec-2021	12:00	0.4	SSW
27-Dec-2021	13:00	0.0	SSE
27-Dec-2021	14:00	0.4	SSE
27-Dec-2021	15:00	0.0	SSE
27-Dec-2021	16:00	0.4	SSE
27-Dec-2021	17:00	0.4	SSW
27-Dec-2021	18:00	0.0	SSW
27-Dec-2021	19:00	0.4	SSW
27-Dec-2021	20:00	0.4	SSW
27-Dec-2021	21:00	0.4	SSW
27-Dec-2021	22:00	0.4	SSW
27-Dec-2021	23:00	0.0	SSW

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
28-Dec-2021	00:00	0.0	SSE
28-Dec-2021	01:00	0.0	SSW
28-Dec-2021	02:00	0.0	SSW
28-Dec-2021	03:00	0.0	SSW
28-Dec-2021	04:00	0.0	SSW
28-Dec-2021	05:00	0.0	SSE
28-Dec-2021	06:00	0.0	SSW
28-Dec-2021	07:00	0.0	SSW
28-Dec-2021	08:00	0.0	SSE
28-Dec-2021	09:00	0.0	SSW
28-Dec-2021	10:00	0.0	SSW
28-Dec-2021	11:00	0.0	SSW
28-Dec-2021	12:00	0.0	SSW
28-Dec-2021	13:00	0.0	SSW
28-Dec-2021	14:00	0.0	SE
28-Dec-2021	15:00	0.0	SE
28-Dec-2021	16:00	0.0	---
28-Dec-2021	17:00	0.0	---
28-Dec-2021	18:00	0.0	---
28-Dec-2021	19:00	0.0	---
28-Dec-2021	20:00	0.0	SSE
28-Dec-2021	21:00	0.0	SSW
28-Dec-2021	22:00	0.0	SSW
28-Dec-2021	23:00	0.0	SSW
29-Dec-2021	00:00	0.0	SSW
29-Dec-2021	01:00	0.0	SSW
29-Dec-2021	02:00	0.0	SSE
29-Dec-2021	03:00	0.0	SSE
29-Dec-2021	04:00	0.0	SSE
29-Dec-2021	05:00	0.0	SSE
29-Dec-2021	06:00	0.0	SW
29-Dec-2021	07:00	0.0	SSE
29-Dec-2021	08:00	0.0	---
29-Dec-2021	09:00	0.0	SW
29-Dec-2021	10:00	0.0	SSE
29-Dec-2021	11:00	0.0	---
29-Dec-2021	12:00	0.0	NE
29-Dec-2021	13:00	0.0	NE
29-Dec-2021	14:00	0.0	NNE
29-Dec-2021	15:00	0.0	NE
29-Dec-2021	16:00	0.0	SSE
29-Dec-2021	17:00	0.0	SSE
29-Dec-2021	18:00	0.0	ESE
29-Dec-2021	19:00	0.0	---
29-Dec-2021	20:00	0.0	---
29-Dec-2021	21:00	0.0	---
29-Dec-2021	22:00	0.0	SSE
29-Dec-2021	23:00	0.0	---
30-Dec-2021	00:00	0.0	---
30-Dec-2021	01:00	0.0	---
30-Dec-2021	02:00	0.0	SSE
30-Dec-2021	03:00	0.0	SSE
30-Dec-2021	04:00	0.0	S
30-Dec-2021	05:00	0.0	S

Appendix I - Wind Data

Date	Time	Wind Speed m/s	Direction
30-Dec-2021	06:00	0.0	SSE
30-Dec-2021	07:00	0.0	SSE
30-Dec-2021	08:00	0.0	SSE
30-Dec-2021	09:00	0.0	SSE
30-Dec-2021	10:00	0.4	SSE
30-Dec-2021	11:00	0.9	SSE
30-Dec-2021	12:00	0.4	SSE
30-Dec-2021	13:00	0.0	SSE
30-Dec-2021	14:00	0.4	SSE
30-Dec-2021	15:00	0.0	SSE
30-Dec-2021	16:00	0.0	SSE
30-Dec-2021	17:00	0.0	SSW
30-Dec-2021	18:00	0.0	WSW
30-Dec-2021	19:00	0.0	WSW
30-Dec-2021	20:00	0.0	WSW
30-Dec-2021	21:00	0.0	WNW
30-Dec-2021	22:00	0.0	NW
30-Dec-2021	23:00	0.0	WSW
31-Dec-2021	00:00	0.0	---
31-Dec-2021	01:00	0.0	---
31-Dec-2021	02:00	0.0	---
31-Dec-2021	03:00	0.0	WSW
31-Dec-2021	04:00	0.0	SW
31-Dec-2021	05:00	0.0	SW
31-Dec-2021	06:00	0.0	SSW
31-Dec-2021	07:00	0.0	SSW
31-Dec-2021	08:00	0.0	SSW
31-Dec-2021	09:00	0.4	SSW
31-Dec-2021	10:00	0.4	SSW
31-Dec-2021	11:00	0.0	SSE
31-Dec-2021	12:00	0.4	SSW
31-Dec-2021	13:00	0.0	SSW
31-Dec-2021	14:00	0.0	S
31-Dec-2021	15:00	0.0	WSW
31-Dec-2021	16:00	0.0	SSW
31-Dec-2021	17:00	0.4	SSW
31-Dec-2021	18:00	0.4	SSW
31-Dec-2021	19:00	0.9	SSW
31-Dec-2021	20:00	0.0	SSW
31-Dec-2021	21:00	0.0	SSW
31-Dec-2021	22:00	0.0	---
31-Dec-2021	23:00	0.0	SSW

APPENDIX J
EVENT ACTION PLANS

Appendix J Event / Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Rectify any unacceptable practice and implement remedial measures; and 3. Amend working methods agreed with ER if appropriate.
2. Exceedance for two or more consecutive samples	Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Advise the ER and Contractor on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC, ER and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal if appropriate.

LIMIT LEVEL				
1.Exceedance for one sample	Identify source, investigate the causes of exceedanceand propose remedial measures; 2. Inform ER, Contractor, IEC and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ER and ET on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise and ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event / Action Plan for Construction Noise

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Action Level	Notify IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals.
Limit Level	. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Water Quality

	Action			
Event	**ET**	**IEC**	**ER**	**Contractor**
Action level being exceeded by one sampling day	. Inform IEC, Contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; and 3. Discuss remedial measures with IEC and Contractor and ER.	1. Discuss with ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; 3. Supervise the implementation of agreed remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4.Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with ER, ET and IEC and purpose remedial measures to IEC and ER; and 7. Implement the agreed mitigation measures.
Action level being exceeded by two or more consecutive sampling days	Repeat in-situ measurement on next day of exceedance to confirm findings; 2. Inform IEC, contractor and ER; 3. Check monitoring data, all plant, equipment and Contractor's working methods; 4. Discuss remedial measures with IEC, contractor and ER 5. Ensure remedial measures are implemented	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the proposed mitigation measures; 2. Make agreement on the remedial measures to be implemented ; and 3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed mitigation measures.
Limit level being exceeded by one	Repeat measurement on next day of exceedance to confirm findings;	1. Discuss with ET, Contractor and ER on the implemented mitigation	1. Discuss with ET, IEC and Contractor on the implemented remedial	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of

	Action			
Event	**ET**	**IEC**	**ER**	**Contractor**
sampling day	2. Inform IEC, contractor and ER; 3. Rectify unacceptable practice; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Consider changes of working methods; 6. Discuss mitigation measures with IEC, ER and Contractor; and 7. Ensure the agreed remedial measures are implemented	measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; and 4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures.
Limit level being exceeded by two or more consecutive sampling days	Inform IEC, contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; 3. Discuss mitigation measures with IEC, ER and Contractor; and 4. Ensure mitigation measures are implemented; and 5. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the implemented remedial measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; 4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the dredging activities until no exceedance of Limit level.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures. 7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

Each step of actions required shall be implemented within 1 working day unless otherwise specified or agreed with EPD.

APPENDIX K
SUMMARY OF EXCEEDANCE

Appendix K Exceedance Report

(A) Exceedance Report for Air Quality

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of the Project	
		Action Level	Limit Level	Action Level	Limit Level
Air Quality	1-hr TSP	0	0	0	0
	24-hr TSP	0	0	0	0

(B) Exceedance Report for Construction Noise

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of the Project	
		Action Level	Limit Level	Action Level	Limit Level
Noise	L_{eq}(30 min.) dB(A)	0	0	0	0

(C) Exceedance Report for Water Quality

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of the Project	
		Action Level	Limit Level	Action Level	Limit Level
Water Quality	Dissolved Oxygen (DO)	0	0	0	0
	Turbidity	0	0	0	0
	Suspended Solids (SS)	0	0	0	0

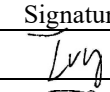
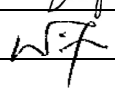
APPENDIX L
SITE AUDIT SUMMARY

Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211208
Date	8 December 2021 (Wednesday)
Time	13:30 – 14:00

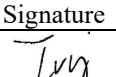
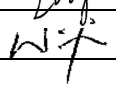
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	Follow-up on previous audit section (Ref. No.: 211130), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Ivy Tam		8 December 2021
Checked by	Dr. Priscilla Choy		8 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211215
Date	15 December 2021 (Wednesday)
Time	14:30 – 15:00

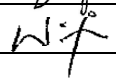
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	Follow-up on previous audit section (Ref. No.: 211208), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Ivy Tam		15 December 2021
Checked by	Dr. Priscilla Choy		15 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211222
Date	22 December 2021 (Wednesday)
Time	13:30 – 14:00

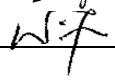
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	Follow-up on previous audit section (Ref. No.: 211215), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Ivy Tam		22 December 2021
Checked by	Dr. Priscilla Choy		22 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211229
Date	29 December 2021 (Wednesday)
Time	13:30 – 14:05

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	Follow-up on previous audit section (Ref. No.: 211222), no major environmental deficiency was identified during site inspection.	

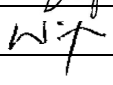
	Name	Signature	Date
Recorded by	Ivy Tam		29 December 2021
Checked by	Dr. Priscilla Choy		29 December 2021

Contract No. YL/2020/01 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211208
Date	8 December 2021 (Wednesday)
Time	14:30 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
211208-R02	• The stockpiles of dusty materials at TAR1 should be covered.	B2
211208-R05	• The exposed slope along east side of meander should be covered properly.	B2
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
211208-R03	• Provide mitigation measures to protect the stream at TAR1.	D26.
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
211208-R04	• The tree at near the stream at TAR1 shall be checked and tagged to retain or fell.	G1
	H. Ecology	
211208-R03	• Provide mitigation measures to protect the stream at TAR1.	H13
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
211208-R01	• To update the environmental permits which were displayed on site.	J5
	K. Others	
	• Follow-up on previous audit section (Ref. No.: 211130), no major environmental deficiency was identified during the site inspection.	

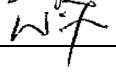
	Name	Signature	Date
Recorded by	Ivy Tam		8 December 2021
Checked by	Dr. Priscilla Choy		8 December 2021

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	211215
Date	15 December 2021 (Wednesday)
Time	15:30 – 16:30

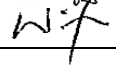
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
211215-R01	• The exposed slope along east side of meander should be covered properly.	B2
211215-R02	• To enhance the dust mitigation measures at TAR1 and Loop.	B1
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
211215-R01	• The exposed slope along east side of meander should be covered properly.	D8
211215-R03	• Provide mitigation measures to protect the stream at TAR1.	D26
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
211215-R03	• Provide mitigation measures to protect the stream at TAR1.	H13
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	• Follow-up on previous audit section (Ref. No.: 211208), follow-up action was required for item 211208-R03 and 211208-R05 which were remarked as item 211215-R03 and 211215-R01 respectively. Other items were rectified.	

	Name	Signature	Date
Recorded by	Ivy Tam		15 December 2021
Checked by	Dr. Priscilla Choy		15 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211222
Date	22 December 2021 (Wednesday)
Time	14:00 – 15:00

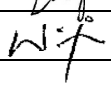
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
211222-R01	• Properly cover the exposed slopes at near the water channel (GI site at TAR1).	B2
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
211222-R01	• Properly cover the exposed slopes at near the water channel (GI site at TAR1).	D8
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
211222-R02	• To allow sufficient space and provide protection for the retain trees at hoarding area (TAR1).	G1
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	• Follow-up on previous audit section (Ref. No.: 211215), all environmental deficiencies have been improved/ rectified by the contractor.	

	Name	Signature	Date
Recorded by	Ivy Tam		22 December 2021
Checked by	Dr. Priscilla Choy		22 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211229
Date	29 December 2021 (Wednesday)
Time	14:15 – 15:15

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
211229-R01	• Properly cover the stockpile of dusty materials to avoid dust emission at Portion 15.	B2
211229-R02	• NRMM label should be provided for he wheeled loader before operation on site. (Portion 15.1)	B24
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	• Follow-up on previous audit section (Ref. No.: 211222), all environmental deficiencies have been improved/ rectified by the contractor.	

	Name	Signature	Date
Recorded by	Ivy Tam		29 December 2021
Checked by	Dr. Priscilla Choy		29 December 2021

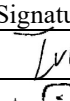
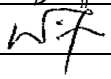
Contract No. YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211208
Date	8 December 2021 (Wednesday)
Time	9:30 – 10:15

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

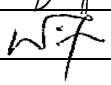
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
211208-R02	• Protection fencing should be provided around the preserved trees at Reedbed 3A.	G1
	H. Ecology	
211208-R03	• Ecological mitigation measures (such as permit-to-work system, limit the PME used for works during the period between 9:00 to 17:00, patrol check for the presence of waterbirds prior to commencement of works etc.) should be implemented at Reedbed 3A.	H2
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
211208-R01	• To replace the environmental permit displayed at Reedbed 3A with updated version.	J5
	K. Others	
	• N/A	

	Name	Signature	Date
Recorded by	Ivy Tam		8 December 2021
Checked by	Dr. Priscilla Choy		8 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211215
Date	15 December 2021 (Wednesday)
Time	9:30 – 10:15

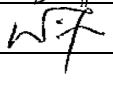
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
211215-R01	• To designate the area for wheel washing and set up the associated drainage for water from a wheel wash at Reedbed 3A.	D14
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	• Follow-up on previous audit section (Ref. No.: 211208), follow up action is required for the item 211208-R02 which is renamed as 211215-R02.	

	Name	Signature	Date
Recorded by	Ivy Tam		15 December 2021
Checked by	Dr. Priscilla Choy		15 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211222
Date	22 December 2021 (Wednesday)
Time	9:30 – 10:45

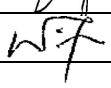
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
211222-R01	• To designate the area for wheel washing and set up the associated drainage for water from a wheel wash at Fu Tai site area.	D14
	E. Waste / Chemical Management	
211222-R02	• Clear the oil spillage and provide drip tray for the oil container with pump at Reedbed 3A.	E12 & 13
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	• Follow-up on previous audit section (Ref. No.: 211215), follow up action is required for the item 211212-R01 and 211215-R02 which are renamed as 211222-R01 and 211222-R03 respectively.	

	Name	Signature	Date
Recorded by	Ivy Tam		22 December 2021
Checked by	Dr. Priscilla Choy		22 December 2021

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	211229
Date	29 December 2021 (Wednesday)
Time	9:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
211229-R01	• Provide measures to avoid the discharging of muddy water from GI works at LCS outside the site boundary.	D14
211229-R02	• Provide measures to avoid the construction debris from getting to the nearby water channel at TAR1.	D8
211229-R03	• To designate the area for wheel washing and set up the associated drainage for water from a wheel wash at Reedbed 3A and Fu Tai Site Area.	D14
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
211229-R04	• Protective fencing should be provided around the preserved trees at Reedbed 3A.	G1
	H. Ecology	
211229-R02	• Provide measures to avoid the construction debris from getting to the nearby water channel at TAR1.	H15
	I. Fisheries	
	• No environmental deficiency was identified during site inspection.	
	J. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	K. Others	
	• Follow-up on previous audit section (Ref. No.: 211222), follow up action is required for the item 211222-R01 and 211222-R03 which are renamed as 211229-R03 and 211229-R04 respectively.	

	Name	Signature	Date
Recorded by	Ivy Tam		29 December 2021
Checked by	Dr. Priscilla Choy		29 December 2021

APPENDIX M
ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
Construction Dust Impact							
S3.8	D1-DP1/DP2	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 92.1%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.6 L/m2 to achieve the respective dust removal efficiencies	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	*
S3.8	D2-DP1/DP2	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation • All vehicles shall be shut down in intermittent use • Only well-maintained plant should be operated on-site to avoid emission of dark smoke • Valid No-Road Mobile Machinery (NRMM) labels should be provided to regulated machines	Reduce air pollution emission from construction vehicles and plants	Contractor	All construction sites	Construction stage	^ ^ ^
S3.8	D2-DP1/DP2	• Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction Phase • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; • The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty material do not leak from	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	* * ^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		the vehicle; • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; Any skip hoist for material transport should be totally enclosed by impervious sheeting; • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by					* ^ ^ ^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		impervious sheeting or placed in an area sheltered on the top and the 3 sides; • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and • Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.					N/A N/A ^
S3.8	D4-DP1/DP2	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction stage	^
Construction Noise Impact							
S4.8	N-CP1-DP1/DP2	Implement the following good site management practices: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction	Control construction airborne noise	Contractor	All construction sites	Construction stage	^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		equipment should be properly fitted and maintained during the construction works; • Mobile plant should be sited as far away from NSRs as possible and practicable; • Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.					^ ^
S4.8	N-CP2-DP1/DP2	Install temporary site hoarding (approx 2.4m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites where practicable	Construction phase	^
S4.8	N-CP3-DP1/DP2	Install movable noise barriers and full enclosure, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction phase	^
S4.8	N-CP4-DP1/DP2	Use of “Quiet” Plant and Working Methods	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	Construction phase	^
S4.8	N-CP5-DP1/DP2	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction phase	^
S4.8	N-CP6-DP2	Setting the concrete lorry mixer at around 25m away from the existing NSRs along Ha Wan Tsuen Road and Lok Ma Chau Road	Reduce the noise levels from concrete lorry mixer	Contractor	Sections with NSRs along Ha Wan Tsuen Road and Lok	Construction phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
					Ma Chau Road		
S4.8	N-CP8-DP2	Provide temporary noise barrier during construction phase.	Control airborne noise from construction access road traffic	Contractor	Refer to Figure 4-8 of the EIA report	Construction phase	^
S4.8	N-CP7-DP2/N-CP6-DP1	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representative noise monitoring station	Construction phase	^
Water Quality Impact (Construction Phase)							
S5.7	W1-CP-DP1/DP2	Construction Runoff and Site Drainage In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures, where appropriate, should include the following: • Update and implementation of Stormwater Pollution Control Plan • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction. • Diversion of natural stormwater should be provided as far	Minimize water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where practicable	Construction phase	^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipments in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped. • The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction. • Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.					^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		• All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • All open stockpiles of construction materials (for example, aggregates, sand and fill material) of should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events. • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the					^ ^ * ^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheelwash bay to prevent vehicle tracking of soil and silty water to public roads and drains. • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. • All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. • Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds.					^ * ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
S5.7	W3-CP-DP1/DP2	*Groundwater from Contaminated Area* • No mitigation measure is required for groundwater treatment in LMC Loop. • Additional investigation is required to identify if contaminated groundwater is found. • If the investigation results indicated that the groundwater to be generated from construction works would be contaminated, the contaminated groundwater should be either discharged into recharged wells, or properly treated in compliance with the requirements of Technical Memorandum on Standards for Effluents Discharged into Drainage on Sewerage Systems, Inland and Coastal Waters. • If recharged well method were used, the groundwater quality in the recharged well should not be affected by recharging operation, i.e. the pollution levels of the recharged groundwater should not be higher than that in the recharging wells. • If treatment and discharge method were used, the design of wastewater treatment facilities, such as active carbon and petrol interceptor, should be submitted to the EPD and a discharge license should be obtained under the WPCO through the Regional Offices of EPD.	Minimize groundwater quality impact from contaminated area	Contractor	Areas where contamination is found.	Construction phase	N/A N/A N/A N/A N/A
S5.7	W3-CP-DP1/DP2	*Sewage from Workforce* • Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets to cater 0.15m3/day/employed populations and be responsible for appropriate disposal and maintenance.	Minimize water quality from sewage effluent	Contractor	All construction sites where practicable	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. • Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site.					^ ^
S5.7	W4-CP-DP1	*Riverbanks Formation* • In order to prevent sediment transport during riverbank works, deployment of silt curtain should be implemented, especially when construction works encroach or occur in close distance to water body. It is recommended to carry out all the riverbank works within a cofferdam or diaphragm wall. • Water quality of the Shenzhen River and the meander would be monitored to ensure effectiveness of the implemented mitigation measures.	Minimize water quality impact from riverbank works	Contractor	Riverbank works	Construction Phase	^ ^
S5.7	W1-CP-BR	*Bio-remediation in Shenzhen River* • Water quality monitoring and audit is recommended to ensure that the proposed bio-remediation operation would not result in adverse water quality impact. Details of the water quality monitoring programme are presented in the EM&A Manual. If unacceptable water quality impact in the receiving water is recorded, additional measures such as slowing down, or rescheduling of works should be implemented as necessary.	Minimize water quality impact from bio-remediation of Shenzhen River	Contractor	Shenzhen River where practicable	Construction phase	N/A
S5.7	W5-	*Construction of Bridge Crossing* • Good site management as stipulated in ProPECC PN1/94	Minimize water quality	Contractor	Construction	Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
	CP-DP2	should be fully implemented to avoid polluted liquid or solid wastes from falling into the WSRs. • All the fishponds will be drained and no fishpond will be affected by bridge crossing. • In the meander, cofferdam or diaphragm walls should be deployed for protecting fish ponds or nearby rivers during bridge pier construction and or road widening work at fishponds. • For the low level viaducts crossing the small streams at Ma Tso Lung, Ping Hang and channel near Lung Hau Road, precast structures will be used such that there will be no construction work in the water streams, and thus, to avoid direct water quality impacts.	impact from construction of bridge crossing		sites for bridge crossing where practicable	phase	N/A N/A N/A
Waste Management (Construction Waste)							
S7.6	WM1-DP1/DP2	<u>*Waste Reduction Measures*</u> Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: • Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; • proper storage and site practices to minimize the potential for damage and contamination of construction materials; • plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; • sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions	Reduce waste generation	Contractor	All construction sites where practicable	Construction phase	^ ^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		(i.e. soil, broken concrete, metal etc.); • provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.					^
S7.6	WM2-DP1/DP2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	^
S7.6	WM2-DP1/DP2	*Good Site Practice* The following good site practices are recommended throughout the construction activities: • Nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • Provision of sufficient waste disposal points and regular collection for disposal; • Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	^ ^ ^ ^ ^
S7.6	WM4-DP1/DP2	*Storage of Waste* The following recommendation should be implemented to minimize the impacts: • Waste such as soil should be handled and stored well to	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		ensuresecure containment; • Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; • Different locations should be designated to stockpile each material to enhance reuse;					^ ^
S7.6	WM5-DP1/DP2	<u>*Collection and Transportation of Waste*</u> The following recommendation should be implemented to minimize the impacts: • Remove waste in timely manner; • Employ the trucks with cover or enclosed containers for waste transportation; • Obtain relevant waste disposal permits from the appropriate authorities; and • Disposal of waste should be done at licensed waste disposal facilities.	Minimize waste impact from storage	Contractor	All construction sites	Construction phase	^ ^ ^ ^
S7.6	WM6-DP1/DP2	<u>*Excavated and C&D Material*</u> Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at Public Fill Reception Facilities areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: • Maintain temporary stockpiles and reuse excavated fill material for backfilling; • Carry out on-site sorting; • Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and • Implement a trip-ticket system for each works contract to	Minimize waste impacts from excavated and C&D material	Contractor	All construction sites	Construction phase	^ ^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		ensure that the disposal of C&D materials are properly documented and verified. The recommended C&D materials handling should include: • On-site Sorting of C&D Materials • Reuse of C&D Materials • Use of Standard Formwork and Planning of Construction Materials Purchasing • Provision of Wheel Wash Facilities Details refer to Section 7.6.1.4 of the EIA report.					^ ^ ^ ^
S7.6	WM7-DP1/DP2	*Contaminated Soil* As a precaution, it is recommended that standard good site practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of mitigation measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.	Remediate contaminated soil	Contractor	All construction sites where applicable	Construction phase	N/A
S7.6	WM8-DP1/DP2	*Chemical Waste* • If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	All construction sites	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		accordance with the Waste Disposal (Chemical Waste) (General) Regulation.					
S7.6	WM9-DP1/DP2	*General Waste* • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. • Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily basis.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	^ ^ ^
S7.6	WM10-DP1/DP2	*Sewage* • The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. • Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts.	Minimize production of sewage impacts	Contractor	All construction sites	Construction phase	^ ^
S7.6	WM11-DP2	*Sediment* The following mitigation measures are recommended during transportation and stockpiling: • stockpiling area(s) must be properly designed and closed to the dredging locations as far as possible; • Stockpiling area(s) should be lined with impermeable	Minimize waste impacts from sediment	Contractor	All construction sites	Construction phase	N/A N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		sheeting and bunded; • stockpiles should be properly covered by impermeable sheeting; • vehicles delivering the sediments should be covered, and truck bodies and tailgates should be sealed to prevent any discharge during transportation; • bulk earth moving equipments should be utilized as much as possible to minimize workers' handling and contact of the excavated materials; and • personal protective clothing should be provided to site workers. In case contamination of excavated materials is confirmed after testing, the mitigation measures described in Land Contamination Impacts section should also be implemented to minimize potential environmental impacts.					N/A N/A N/A N/A
Land Contamination							
S8.7	LC1-DP2	*Remediation of arsenic-contaminated soil* • "Solidification/Stabilization" (S/S) treatment method was proposed for the remediation of arsenic-contaminated soil. Toxicity Characteristic Leaching Procedure (TCLP) test should be undertaken after S/S in order to ensure that the contaminant will not leach to the environment. Unconfined Compressive Strength (UCS) test should be conducted, and not less than 1MPa should be met prior to the backfilling	To remediate arsenic-contaminated soil	Project Proponent/ Contractor	LMC Loop, contaminated area	Prior to commencement of construction works within the contaminated area	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		or stockpiled for future reuse within the study area. Off-site disposal or reuse of the solidified material is not allowed.					
S8.7	LC1-DP1/DP2	*Excavation and Transportation* • Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; • In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; • Excavation should be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils; • Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of contaminated soil to minimize contaminated runoff; • Supply of suitable clean backfill material after excavation, if required; • Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated run-off, and truck bodies and tailgates should be sealed to prevent any discharge during transport or	To minimise the potential environmental impacts arising from the handling of contaminated materials	Contractor	Contaminated area		N/A N/A N/A N/A N/A N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		during wet season; • Speed control for the trucks carrying contaminated materials should be enforced; and • Vehicle wheel washing facilities at the site's exit points should be established and used.					N/A N/A
S8.7	LC3-DP1/DP2	*Solidification/Stabilization* • The loading, unloading, handling, transfer or storage of cement should be carried out in an enclosed system; • Mixing process and other associated material handling activities should be properly scheduled to minimise potential noise impact and dust emission; • The mixing facilities should be sited as far apart as practicable from the nearby noise sensitive receivers; • Mixing of contaminated soil and cement / water / other additive(s) should be undertaken at a solidification plant to minimise the potential for leaching; • Runoff from the solidification / stabilization area should be prevented by constructing a concrete bund along the perimeter of the solidification / stabilization area; • The run-off contained in the concrete bund area along the perimeter of the paved solidification / stabilization area, if any, will be collected, stored and used for the mixing process of cement / contaminated soil; • If stockpile of treated soil is required, the stockpiling site(s)	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	Contaminated area	The course of remediation	N/A N/A N/A N/A N/A N/A N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		should be lined with impermeable sheeting and bunded. • Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or site run-off during rainy season; and If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials.					N/A
Landscape and Visual Impact (Construction Phase)							
S11.5.4 Table11.5 .9	L-CP1-DP1	*Preservation and Protection of Existing Trees (Good Site Practice)* • The proposed works should avoid disturbance to the existing trees within and close to the works areas. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at detailed design phase for further retention of individual trees. • It is recommended that a full detailed tree survey and felling application will be undertaken and submitted for approval by the relevant government departments in accordance with ETWB TCW No. 3/2006, 'Tree Preservation'. This will be conducted during the detailed design phase of the project and submitted to DLO for approval. The methodology and scope including the programme for the tree survey and felling application are also subject to the approval of the relevant authorities. • Trees which are not in conflict with the proposals would be	Avoid disturbance and protection of existing trees	Detailed design consultant/ Contractor	Within project site	Detailed design and construction phase	* ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		retained and shall be protected by means of fencing during construction phase to prevent damage to tree canopies and root zones from vehicles and storage of materials. • Specifications for the protection of existing trees will be provided during the preparation of the detailed tree survey by Detailed Design consultants at detailed design and construction phase.					*
S11.5.4 Table 11.5.9	L-CP2-DP1/DP2	*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, the location and appearance of site accommodation and site storage; and the careful design of site lighting to prevent light spillage. • The temporary works areas shall be restored to its original condition or enhanced through the introduction of new amenity areas or planting areas following the completion of the construction phase.	Minimize landscape impacts	Contractor	The whole project area where applicable	Construction phase	^ ^ ^
	L-CP3-DP1/DP2	*Advance Implementation of Mitigation Planting* • Replanting of existing / disturbed vegetation shall be undertaken at the earliest possible stage of the construction phase of the project using predominantly native plant species although ornamental species may be used for	Minimize landscape impacts	Contractor	The whole project area where applicable	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		roadside planting and amenity areas.					
	L-CP4-DP1/DP2	<u>*Transplantation of Existing Trees*</u> • Some specimens have relatively higher amenity value which are in conflict with the proposals shall be considered for transplantation. For trees affected by the proposed infrastructure works the final receptor sites shall be preferably adjacent to their current locations alongside of the alignment to retain their contribution to the local landscape context. For the LMC Loop the receptor locations will be selected to allow the trees to be moved directly to their final locations in accordance with the detailed landscape proposals. • The transplanting proposals are subject to review at the detailed design phase and to agreement-in-principle with the relevant management and maintenance agents and/or government departments. The implementation programme for the proposed works shall reserve sufficient time for the advanced tree transplanting preparation works to enhance the survival of the transplanted trees. • The transplanting proposals will be subject to the findings of the detailed tree survey and felling application to be undertaken by the detailed design consultants and following approval by the relevant departments.	Minimize landscape impacts	Contractor	The whole project area where applicable	Construction phase	^ ^ ^
	L-CP6-	<u>*Creation of Wetland and Landscape Buffer*</u>	Compensation of the loss	Project	The whole	Detailed design,	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
	DP1/DP2	• The existing reedbed acquired for development areas for the project will be reinstated as part of the Ecological Area. The reinstatement shall be undertaken at the earliest possible stage during the construction phase of the project. • Creation of 12.78ha of Ecological Area (EA) containing reed marsh and marsh will be created at the southern portion of the LMC Loop, and a 50m width landscape buffer area will be set up in between the EA and the development area. Wetland creation concepts please refer to Figure 11.9zf and Chapter 12 Ecology Impact Assessment of this EIA. • Native tree and shrub mix will be utilised for the creation of landscape buffer along northern edge of EA to support the creation of avifauna habitat from ecologist perspectives as well as enhance the aesthetic and landscape diversity within the LMC Loop Development. • Creation of minimum 11.72 Ha. of permanent compensatory off-site wetland areas at Sam Po Shue and Hoo Hok Wai. For the potential locations for off-site wetlands please refer to Figure 11.9zf and 11.9zh, Chapter 2 Project Description and Chapter 12 Ecology Impact Assessment of this EIA.	of landscape resources	Proponent/ Detailed design consultant/ Contractor/ Operator	project area where applicable	construction and operational phases	^ ^ ^ N/A
	V-CP5-DP1/DP2	*Coordination with Concurrent Projects* • Coordinated implementation programme with concurrent projects to minimise impacts and where possible reduce the period of disturbance.	Minimize landscape impacts	Contractor	The whole project area where applicable	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
Ecology (Construction Phase)							
S12.7	E1-DP1	*Disturbance to Fish Ponds at HHW* • Development set back a minimum of 23m from the edge Meander. • Management of fish pond habitat to enhance ecological value to twice existing value, in order to compensate for disturbance to large waterbirds. • Creation and establishment will occur prior to commencement of substantive works associated with any element of the project for which fish pond compensation is required. *Construction phase* • Erection of a 3m high, dull green site boundary fence to minimise disturbance to wetland habitats caused by human activity in LMC Loop.	On the disturbance to fish ponds at HHW	Detailed design consultant/ Contractor	Fish ponds at HHW and LMC	Detailed design, construction phase	N/A N/A N/A ^
S12.7	E2-DP1	*Construction run-off* • Temporary sewerage and drainage will be designed and installed to collect wastewater and prevent it from entering nearby water bodies; • Proper locations well away from nearby water bodies will be used for temporary storage of materials (i.e. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction debris and spoil, and these will be identified before commencement of works;	Minimise the indirect impact from the increasing suspended solids and pollutants in LMC Meander	Contractor	Seawall,	During construction	^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		• To prevent muddy water entering nearby water bodies, work sites close to nearby water bodies will be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures will also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work site; • If temporary access along a riverbed is unavoidable, this will be kept to the minimum in width and length. Temporary river crossings will be supported on stilts above the river bed; • Stockpiling of construction materials, if necessary, will be properly covered and located away from nearby water bodies; • Construction debris and spoil will be covered and/or properly disposed of as soon as possible to avoid being washed into nearby water bodies; • Construction effluent, site run-off and sewage will be properly collected and/or treated. Wastewater from any construction site will be minimised via the following in descending order: reuse, recycling and treatment; • Proper locations for discharge outlets of wastewater treatment facilities well away from sensitive receivers will be identified (i.e. treated wastewater will not be discharged into LMC Meander, natural streams, marsh, reedbed, active or					* ^ ^ * ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		abandoned fish ponds); • Adequate lateral support will be erected where necessary in order to prevent soil/mud from slipping into the Ecological Area or LMC Meander; • Site boundary will be clearly marked and any works beyond the boundary strictly prohibited; • Regular water monitoring and site audit will be carried out at adequate points along LMC Meander, and at the outfalls of the natural streams around LMC Loop. If the monitoring and audit results show that pollution occurs, adequate measures including temporarily cessation of works will be considered.					^ ^ ^
S12.7	E3-DP1/DP2	*Pollutant Runoff to Downstream areas from Accidental Spillage* • Prepare an emergency contingency plan The plan will include, but not be limited to, the following: - Potential emergency situations; - Chemicals or hazardous materials used on-site (and their location); - Emergency response team; - Emergency response procedures; - List of emergency telephone hotlines; - Locations and types of emergency response equipment; - Training plan and testing for effectiveness.	Minimize indirect impact from pollutant runoff to downstream areas from accidental spillage	Contractor/ Operator	Area within project site near streams	Construction phase and operation phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
S12.7	E4-DP1/DP2	• Use opaque, non-transparent, non-reflective noise barriers for all developments associated with the Project. • Design of buildings should not incorporate use of night-time lighting at or near top of buildings, highly reflective materials should not be used where vegetation is adjacent and glass surfaces should not be angled upwards in a way that reflects the sky. Unnecessary lighting should be eliminated. Appropriate glass and façade treatments should be used where required to minimise impact. Unnecessary lighting should be avoided. These include the following: • Fritting, or the placement of ceramic lines or dots on glass, has little effect on the human-perceived transparency of the window but creates a visual barrier to birds outside. This treatment also has the advantage of reducing air conditioning loads by lowering heat gain, while still allowing light transmission for interior spaces. It is most successful when the frits are applied on the outside surface. Frosted glass has similar effects. • Angled glass may be used only for smaller panes in buildings with a limited amount of glass. • The use of glass that reflects UV light (primarily visible to birds, but not to humans) acts to reduce collision. • Film and art treatment allow glass surfaces to be used a	Minimize the mortality impacts on birds	Developer / Detailed design consultant/ contractor/ operator	Area within project site	Detailed design, construction and operation phases	^ ^ ^ ^ ^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		medium of expression, often related to the nature and use of the building, as well indicating to birds their impenetrability. • Lightweight external screens can be added to windows or become a façade element of larger buildings, and are suitable where non-operable windows are prevalent, which is often the case in modern buildings in HK. In terms of reducing night-time mortality impacts, eliminating unnecessary lighting is one of the easiest methods, and has the added advantage of saving energy and expense. Potential impacts of nocturnal avian collision with buildings should be minimised by not creating sky glow from the use of night-time lighting at or near the top of buildings or other structures. In addition to avoiding uplighting, light spillage should be minimised, while green and blue lights should be used where possible. As far as possible, lights should be controlled by motion sensors, and building operations should be managed in such a way as reduce or eliminate night lighting near windows. The potential advantages of removing unnecessary lighting in terms of reducing the carbon footprint of the LMC Loop development are obvious.					^
S12.7	E5-DP1/DP2	• Minimize loss of natural vegetation along LMC Meander, and suitable replacement planting with possible installation of otter holts and the provision of potential feeding area and spraint locations for otters in the stabilized bank subject to detailed design. • No significant change to velocity of water flow, water level or water quality.	Minimize impacts on Eurasian Otter	Detailed design consultant/ Contractor	Construction site within the project	Detailed design, construction phase	^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		• No direct lighting on Meander. • 3m high, dull green site boundary fence for all developments associated with the project. • Pre-construction surveys for otter holts or natal dens will be conducted in LMC Loop before the commencement of construction works. Work in the area of any otter holt found to cease pending examination by experienced Ecologist. If in use for breeding, works in the area will temporarily stop until end of breeding activity. • No construction activities within 100m of LMC Meander between one hour prior to sunset and one hour after sunrise. • Provision of compensatory reed marsh in the Ecological Area in LMC Loop, including open water channels and islands within the reed marsh, both of which features are considered to be used by the species.					^ ^ ^ ^ ^
S12.7	E8-DP2	• Refer to E2 and E3	Prevent impacts on Rose Bitterling, small snakehead and *Somanniathelphus zanklon*	Contractor	Within project site	Construction phase	N/A
S12.7	E10-DP1	• Preserve undisturbed, semi-natural habitat conditions of LMC Meander and adjacent areas of LMC Loop up to approximately 150m in width in order to avoid disturbance	Minimize impacts on flight line corridor from LMC Loop development	Developer / Detailed design	Within project site	Detailed design, construction and operation	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		to core part of flight line corridor. • This area to comprise an Ecological Area largely constituting reed marsh and a 50m wide buffer zone densely planted with shrubs and trees. Small number of low buildings (max 14mPD high, except the building height of on-site STW is 15mPD high) allowed in inner 25m of this area at a plot ratio of 0.1. • At Ha Wan Tsuen entry point for many birds to LMC Loop area provide a wider Ecological Area to minimize disturbance from nearby buildings. • Further minimisation of impact by maintaining a lower building height in areas adjacent to the buffer zone for the EA. In addition, the sewage treatment works, which is located near the point where many birds cross from the Meander to HHW, should not exceed 15mPD.		consultant/ Contractor/ Operator		phases	^ N/A N/A
S12.7	E11-DP1	• Employ site boundary fence as long as possible. Use of movable barrier for more intense site formation activity. Provision of fencing with 30cm gap between the existing reed marsh and LMC Meander during the establishment period of Ecological Area and the gap will be closed once established. • Restrict work to period from 0900h to 1700h. All major works along the edge of LMC Meander and in the Ecological Area will be conducted in the wet season.	Minimize disturbance impacts of mitigation provisions	Contractor	Within project site	Construction phase	^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
S12.7	E12-DP1/DP2	• Minimal night-time lighting • No direct light on Meander	Minimize impacts on LMC Meander	Contractor/ Operator	All	Construction and operation phases	^ ^
S12.7	E13-DP2	• Construction limited to wet season between the hours of 9am and 5pm. • Use of opaque visual/noise barriers and planting of trees shrubs along length of road adjacent to fish ponds. • Compensatory habitat management elsewhere to mitigate wetland loss.	Minimize impacts from the construction and operation disturbance impacts	Contractor/ Operator	Pond habitat along alignment (mainly Ha Wan Tsuen Road)	Construction and operation phases	^ ^ ^
S12.7	E16-DP1	• Provision of compensatory reed marsh in the Ecological Area will provide habitat suitable for Common Evening Hawker. • Measures designed to protect other fauna and water quality will generally benefit odonata.	Protect Odonata	Project Proponent/ Detailed design consultant/ Contractor Operator	Ecological area	EA established prior to construction and manage at all phases	^ ^
S12.7	E14-DP2	• Replacement planting of native tree species relevant to Deep Bay area and the area impacted. Planting to occur in tandem with that required for woodland loss arising	Minimize the ecological impacts	Contractor	Woodland and shrubland habitat along Ha Wan Tsuen Road	Construction phase	^
S12.7	E15-DP2	• Use noise/visual barriers to minimise disturbance. • Construction activities should not be carried out before 0900h or after 1700h in order to minimise disturbance to the	Minimize impacts on flight line corridor from Western Connection	Contractor	Construction site from Western	Construction phase	^ ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to Implement the measures?	Implementation Status
		flight line corridor (and to mammals).	Road		Connection Road		
S12.7	E16-DP2	• Use of opaque visual/noise barriers and roadside planting of trees and shrubs to minimize disturbance impacts.	Minimize impacts on flight line corridor from Western Connection Road	Project Proponent/ Detailed design consultant/ Contractor Operator	Construction site from Western Connection Road	Detailed design, construction and operation phases	^
Fisheries (Construction Phase)							
S13.7	F4-	• Reprovision of replacement Artificial Reefs(of the same volume as the existing ARs inside Marine Exclusion Zone)	Mitigate water quality impacts on the existing ARs	Project proponent	To be determined	Construction phase or operation phase	N/A
S11.7	F2	• Reduce re-suspension of sediments • Limit dredging and works fronts. • Good site practices • Strict enforcement of no marine dumping • Spill response plan	Minimise marine water quality impacts	Contractor	Seawall	During construction	N/A N/A N/A N/A N/A

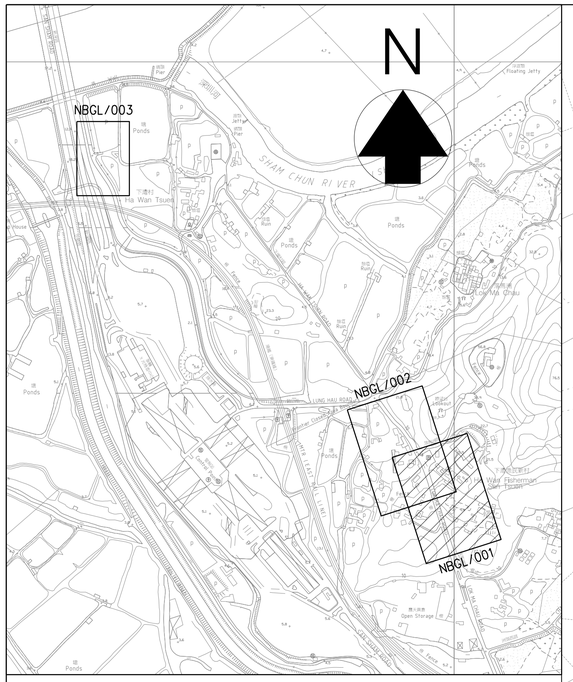
Remarks: ^ Compliance of mitigation measure

* Recommendation was made during site audit but improved/rectified by the contractor

\# Recommendation was made during site audit but not yet improved/rectified by the contractor.

N/A Not Applicable at this stage as no such site activities were conducted in the reporting period (e.g. concrete batching plan, barging point, seawall dredging and filling, bored piling, landscaping works etc)

APPENDIX N
TEMPORARY NOISE BARRIERS



LOCATION PLAN
N.T.S.

NOTES:

1. FOR DETAILS OF NOISE BARRIER, PLEASE REFER TO DRAWING NO. 184794/B&V/NB15/001/R & NO. 184794/B&V/NB15/002/R.

LEGEND:

- 1.5m - HIGH TEMPORARY NOISE BARRIER
- 1.5m - HIGH MOVEABLE TEMPORARY NOISE BARRIER

WORK AS EXECUTED

DATE OF COMMENCEMENT : 22 JUN 2018
DATE OF COMPLETION :

核准
Approved

合約編號 Contract No. YL/2017/03

合約編號 Agreement No. CE 5/2014 (CE)

合約名稱 Contract title
DEVELOPMENT OF LOK MA CHAU LOOP: LAND DECONTAMINATION AND ADVANCE ENGINEERING WORKS

圖則名稱 Drawing title AS-CONSTRUCTED DRAWING
NOISE BARRIER - GENERAL LAYOUT PLAN
(SHEET 1 OF 3)

圖則參考編號 Drawing Reference No. 184794/NBGL/001/R	修訂 Revision –
合約圖則編號 Contract Drawing No.	修訂 Revision –

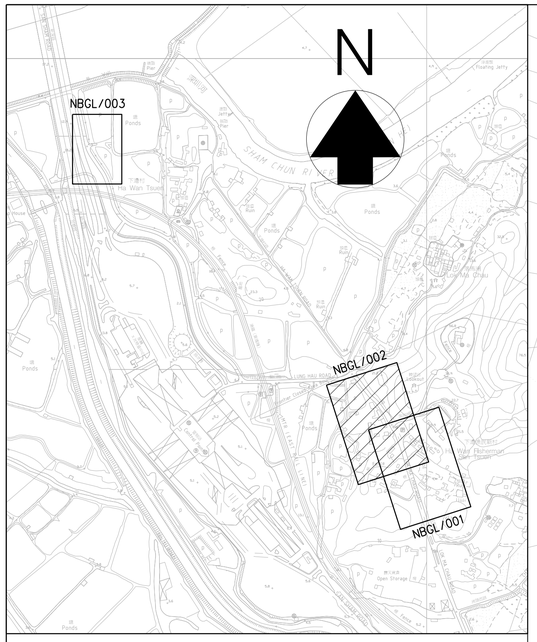
比例 Scale A1 1 : 300
A3 1 : 600

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = 10/29/2021

CAD Filename = R:\YL201703\03-As-built Drawing (YL201703)\As-built Editable\184794-B&V-NBGL-001-R.dgn



LOCATION PLAN
N.T.S.

NOTES:

1. FOR DETAILS OF NOISE BARRIER, PLEASE REFER TO DRAWING NO. 184794/B&V/NB15/001/R & NO. 184794/B&V/NB15/002/R.

LEGEND:

- 1.5m - HIGH TEMPORARY NOISE BARRIER
- 1.5m - HIGH MOVEABLE TEMPORARY NOISE BARRIER

WORK AS EXECUTED

DATE OF COMMENCEMENT : 22 JUN 2018
DATE OF COMPLETION :

核准
Approved

合約編號
Contract No. YL/2017/03

合約編號
Agreement No. CE 5/2014 (CE)

合約名稱
Contract title
DEVELOPMENT OF LOK MA CHAU LOOP: LAND DECONTAMINATION AND ADVANCE ENGINEERING WORKS

圖則名稱
Drawing title AS-CONSTRUCTED DRAWING
NOISE BARRIER - GENERAL LAYOUT PLAN
(SHEET 2 OF 3)

圖則參考編號 Drawing Reference No.	修訂 Revision
184794/NBGL/002/R	–
合約圖則編號 Contract Drawing No.	修訂 Revision
	–

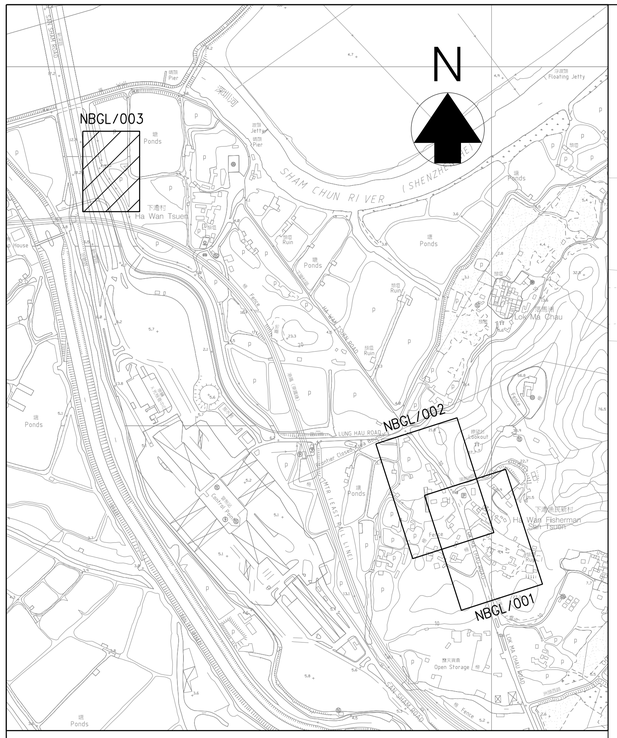
比例 Scale A1 1 : 300
A3 1 : 600

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = 10/29/2021

CAD Filename = R:\YL201703\03-As-built Drawing (YL201703)\As-built Editable\184794-B&V-NBGL-002-R.dgn



LOCATION PLAN
N.T.S.

NOTE:

1. FOR DETAILS OF NOISE BARRIER, PLEASE REFER TO DRAWING NO. 184794/B&V/NB08/001/R.

LEGEND:

0.8m - HIGH TEMPORARY NOISE BARRIER (TYPE A)

0.8m - HIGH TEMPORARY NOISE BARRIER (TYPE B)

825500 E

841800 N

825400 E

TNB1

TNB15

LOK MA CHAU ROAD

新深路

Nullah

渠

排水口

Outfall

TS

PO

CUL

WORK AS EXECUTED

DATE OF COMMENCEMENT : 22 JUN 2018

DATE OF COMPLETION :

核准
Approved

合約編號
Contract No. YL/2017/03

合約編號
Agreement No. CE 5/2014 (CE)

合約名稱
Contract title

DEVELOPMENT OF LOK MA CHAU LOOP: LAND DECONTAMINATION AND ADVANCE ENGINEERING WORKS

圖則名稱
Drawing title AS-CONSTRUCTED DRAWING

NOISE BARRIER - GENERAL LAYOUT PLAN

(SHEET 3 OF 3)

圖則參考編號 Drawing Reference No. 184794/NBGL/003/R	修訂 Revision –
合約圖則編號 Contract Drawing No.	修訂 Revision –

比例 Scale A1 1 : 200
A3 1 : 400

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

BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Plot Date = 11/1/2021

CAD Filename = R:\YL201703\03-As-built Drawing (YL201703)\As-built Editable\184794-B&V-NBGL-003-R.dgn

YL/2017/03
Development of Lok Ma Chau Loop – Land Decontamination and Advance Engineering Works
Record Photographs for Temporary Noise Barriers at Lok Ma Chau Road

TNB ID	Photo
TNB1	
TNB2 TNB11	
TNB3 TNB4	

YL/2017/03
Development of Lok Ma Chau Loop – Land Decontamination and Advance Engineering Works
Record Photographs for Temporary Noise Barriers at Lok Ma Chau Road

TNB ID	Photo
TNB6	
TNB7	
TNB8	

YL/2017/03
Development of Lok Ma Chau Loop – Land Decontamination and Advance Engineering Works
Record Photographs for Temporary Noise Barriers at Lok Ma Chau Road

TNB ID	Photo
TNB9	
TNB10	
TNB13	

YL/2017/03
Development of Lok Ma Chau Loop – Land Decontamination and Advance Engineering Works
Record Photographs for Temporary Noise Barriers at Lok Ma Chau Road

TNB ID	Photo
TNB14	
TNB15	

APPENDIX O
PROPOSAL OF ECOLOGICAL MITIGATION MEASURES FOR OWCAS

Contract No. YL/2020/01

Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1

Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

Ecological Protection Measures at the Off-site Wetland Compensation Areas (OWCA)

Prepared by: Klinsmann Cheung (Ecosystem Limited)

Lila Lui (CRKLPY.JV)

Date:6 Dec 2021

1. Project Description

1.1.1 Mitigation measures for project components implemented under this project (Contract No. YL/2020/01Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1) include the provision of Offsite Wetland Compensation Areas (OWCAs). These comprise permanent and temporary compensatory off-site wetland areas to be constructed prior to corresponding direct and indirect impacts to wetlands.

2. Objective

2.1.1 The present document aims to state the protection measures to minimize the impacts to wildlife and associate habitats during the enhancement works at the OWCAs.

3.Ecological Protection Measure

3.1Design Approach to Protect Ecology

3.1.1Provision of OWCA in advance of any corresponding wetland loss to attract target species.

3.1.2 Utilize the existing pond bunds with suitable gradient profiles as much as possible to minimize reprofile works to reduce soil transport.

3.1.3 All material for reprofiling of the ponds should be reused within the OWCA to minimize transport disturbance to wildlife.

3.1.4 Reprofiling works should be structurally stable and should not affect the stability of wetlands outside OWCA.

3.2 On-Site Measures to Protect Ecology

3.2.1 Implementing measures to minimise magnitude of construction runoff and to avoid/minimise the potential impact of spillage events, if any

3.2.2Habitat survey before works such as search for otter holts, ardeid nest and herpetofauna of conservation importance to minimize impacts to existing ecology.

3.2.3 Adoption of approved Quiet Powered Mechanical Equipment to minimize noise impacts to wildlife. **(See Appendix A)**

3.2.4 Before the commencement of any construction works involving powered mechanical equipment each morning, a patrol check for the presence of large flock of waterbirds should be conducted. Works should commence only when there are no waterbird flocks near the physical work site (at least the safe distance of the mechanical equipment).

3.2.5 Implementation of permit-to-work system, including issuance of permit before work and cancelation of permit after work. The early checking by the Specialists to ensure the observed birds are in the safety location and no significant effect to the birds **(See Appendix B)**

3.2.6 Using powered mechanical equipment for construction works only during the period 9am to 5pm at and near the old Shenzhen River meander and other identified important ecologically sensitive areas, if any; No night works should be carried out (after 5pm) and no flush light in both day and night times to avoid affecting night roost of birds.

3.2.7 Reprofiling works of Pond 53, 54 and 57 in Area 2 completed in October and ready for drain down that can draw the birds away from the works site. **(See Appendix C)**

3.2.8 Set up a chat group in instant messenger app (i.e. WhatsApp) to share daily site photos before and after the use of powered mechanical equipment on site, in order to update the site conditions. **(See Appendix D)**

3.2.9 Provision of regularly equipment maintenance for the operated plant to minimize the noise impact arising from the construction activities.

3.2.10 Speed of all vehicles moving within the site area to below 8 km/hr is not only to minimize the noise generated from traffic of the vehicles but also the fugitive dust emission.

3.2.11 Erection of the temporary protective fencing along or beyond the perimeter of the tree protection zone of each individual tree to minimize the impact on the preservation tree.

Appendix A

Adoption of Quiet Powered Mechanical Equipment

Appendix B

Implementation of permit-to-work system

CRCC - Kwan Lee - Paul Y. JV

Contract No: YL/2020/01 Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

Off-site Wetland Compensation Area Permit to Work
濕地補償區工作許可證

Date 填寫日期:_____ *於濕地補償區工作必須填寫此許可證

Part 1 Application 第一部份 – 申請 (to be completed by Applicant 由申請人填寫)

Applicant 申請人:_____	分判商 Sub-contractor: _____
On-Site-In-Charge 駐工地負責人 Name 姓名: Company 公司: Position 職位: Tel 電話:	**Emergency Contact Person** 緊急事故聯絡人 Name 姓名: Position 職位: Company 公司: Tel 電話:

Nature of Work and Powered Mechanical Equipment To Be Used 工作性質 及 擬使用之機動設備

Workings day: 工作日期:	Working Hours 工作時段:	Location, Nature of Work and Equipment Required 工作地點, 工作性質 及 所需機械設備			No. of Unit 數量
		工作地點	工作性質	所需機械設備	

Part 2 Checking 第二部份–查核: (to be completed by the Construction Team/ Ecological Specialist)由工程組/生態專家填寫

No noisy construction works involving the use of mechanical equipment before 9 a.m. 是 Y☐ 否 N☐
上午 9 點前沒有進行涉及使用機械設備的噪音建築工程

No birds are observed nearby the operating equipment. Remark:_____ 是 Y☐ 否 N☐
在操作設備附近沒有觀察到雀鳥。 備註:_____

All the equipment is in good condition such as: no extract noise generated from the mechanical equipment. 是 Y☐ 否 N☐
所有設備狀況良好，例如：機械設備沒有產生額外的噪音

Checked by the Foreman/ Ecological Specialist 管工/生態專家查核

Name of Foremen/ Ecological Specialist 管工/生態專家姓名: _____ Signature of Foremen/ Ecological Specialist 管工/生態專家簽署: _____ Date 日期: _____

Part3 Cancellation of Permit 第三部份許可證註銷 (to be completed by the Construction Team) 由工程組填寫

Placed all the equipment in the proper location. 是 Y☐ 否 N☐
將所有設備放置在正確的位置

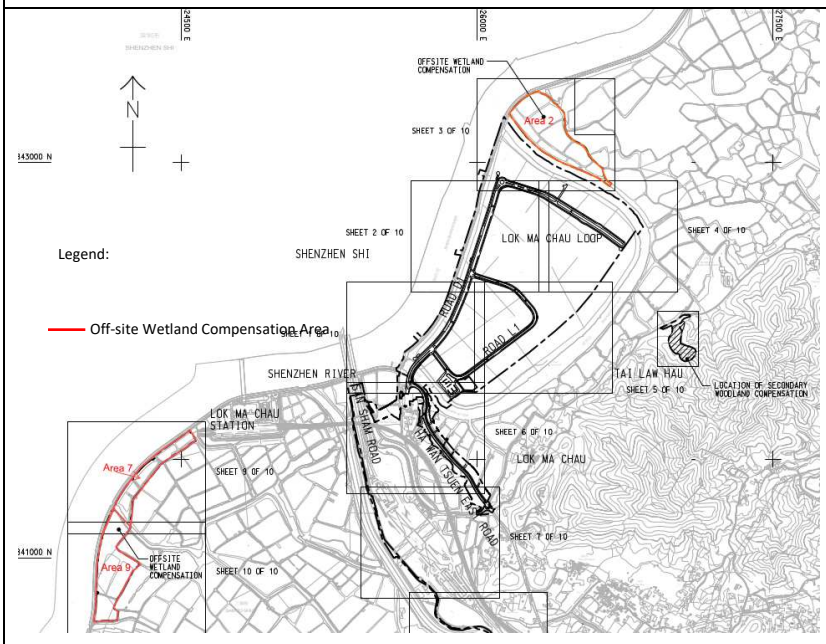
Turned off all the equipment within the works area. 是 Y☐ 否 N☐
已關閉工地所有設備

No noisy construction works involving the use of mechanical equipment after 5p.m. 是 Y☐ 否 N☐
下午 5 點後沒有使用機械設備的建築工程

環保組 Environmental Team 環保主任/整潔員簽署 (Signature by EO/ES)		日期/時間 Date/Time		工程組 Construction Team 管工簽署 (Signature by Foreman)		日期/時間 Date/Time	

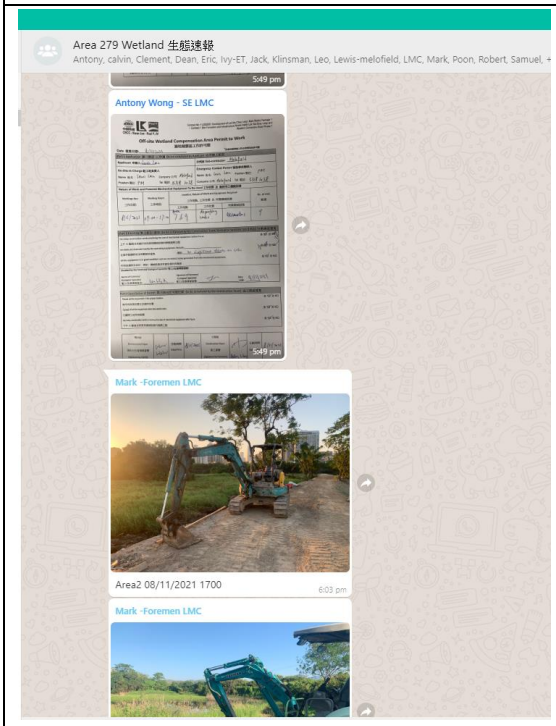
Appendix C

Layout plan of OWCA and the Photo of Pond 53,54,57 in Area 2 after drain down



Appendix D

A chat group to share daily site photos before and after the use of powered mechanical equipment on site



APPENDIX P
WASTE GENERATION IN THE REPORTING MONTH

Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works

Monthly Summary Waste Flow Table for 2021

Contract No.: YL/2017/03

Month in Year 2021	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rock and Large Borken Concrete	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (See note 3)	Chemical Waste	Other, e.g. Yard Waste	Other, e.g. general refuse
	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m3]
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.07
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04
June	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05
July	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.07
August	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.07
September	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
October	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
November	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
December	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 (*)	0 (*)	0.00	0.00	0.62

Note: (1) Conversion to 1000m3 for general refuse is number of truck dumped multiply by 13.5 m3 (volumn of rubbish skip on site)

(2) Conversion to 1000m3 for Inert C&D is weight in 1000kg multiply by 0.0005

(3) Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material (*) Represents the waste generated is negligible

Year 2019 (Jan - Dec)	Actual Quantities of Inert C&D Materials Generated						Actual Quantities of C&D Wastes Generated					
	Total Quantity Generated	Hard Rock and Large Borken Concrete	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (See note 3)	Chemical Waste	Other, e.g. Yard Waste	Other, e.g. general refuse
	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m3]
TOTAL	0.0	0.0	149.0	0.0	0.0	100.5	0.0	0 (*)	0 (*)	0.13	0.00	1.49
Year 2020 (Jan - Dec)	Actual Quantities of Inert C&D Materials Generated						Actual Quantities of C&D Wastes Generated					
	Total Quantity Generated	Hard Rock and Large Borken Concrete	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (See note 3)	Chemical Waste	Other, e.g. Yard Waste	Other, e.g. general refuse
	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000m3]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m3]
TOTAL	0.0	0.0	101.0	0.0	0.0	54.7	0.0	0 (*)	0 (*)	0.11	17.80	0.94

Refer to Notes above.

Contract No. YL/2020/01 - Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

Monthly Summary Waste Flow Table for 2021 (year)

Name of Person completing the record: Lila Lui (EO)

Development of Lok Ma Chau Loop : Main Works Package 1 – Contract 1 Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Contract No.: YL/2020/01

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rock and Large Broken Concrete	*Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging/	Plastics (see Note 3)	Yard Waste	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan-21												
Feb-21												
Mar-21												
Apr-21												
May-21												
Jun-21												
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Jul-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Aug-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sep-21	1.040	0.000	1.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035
Oct-21	2.337	0.000	1.648	0.000	0.000	0.689	0.000	0.000	0.000	24.820	0.000	0.154
Nov-21	9.544	0.000	3.648	0.000	0.000	5.896	0.000	0.000	0.000	15.620	0.000	1.849
Dec-21	5.386	0.000	3.608	0.000	0.000	1.778	0.000	0.000	0.000	101.260	0.000	1.815
Total	18.307	0.000	9.944	0.000	0.000	8.363	0.000	0.000	0.000	141.700	0.000	3.853

Remarks:

1.Assume the density of soil fill=2.0 tonnes/m3
2.Assume the density of rock and broken concrete=2.5 tonnes/m3
3.Assume the density of refuse = 1.5 tonnes/m3
4. The inert C&D material except slurry and bentonite are disposed at Tuen Mun 38
5. The slurry and bentonite are disposed at Tseung Kuwn O 137.
6.The non-inert C&D wastes, including general refuse are disposed at NENT

Contract No. YL/2020/02 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 2 Western Connection Road Phase 2, Connection Roads to Fanling / San Tin Highway and Direct Road Link Phase 1

Monthly Summary Waste Flow Table for 2021 (year)

Name of Person completing the record: Calvin So (EO)

Project : Development of Lok Ma Chau Loop: Main Works Package 1– Contract 2, Western Connection Road Phase 2, Connection Roads in Fanling / San Tin Highway and Direct Road Link Phase 1

Contract No.: YL/2020/02

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 m^3)
Jan											
Feb											
Mar											
Apr											
May											
Jun											
Sub-total											
Jul											
Aug											
Sep	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Oct	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.068
Dec	0.000	0.000	0.000	0.000	0.000	4.362	0.000	0.000	0.000	0.000	0.569
Total	0.000	0.000	0.000	0.000	0.000	4.362	0.000	0.000	0.000	0.000	0.638

Note:

1. For non-inert portion of C&D material, assume the density of 1 m^3 general refuse is equal to 200 kg.
2. For inert portion of C&D material, assume 6 m^3 per each full-filled dump truck.
3. All values are round off to the third decimal places.

APPENDIX Q
COMPLAINT LOGS

Appendix Q - Complaint Log

Contract No. YL/2017/03 – Development of Lok Ma Chau Loop: Land Decontamination and Advance Engineering Works

Log Ref.	Date of Complaint	Complaint Route	Reference No.	Complaint Nature	Investigation Fining	Status
1	9-Sep-19	EPD	EPD Ref: 25222-19	Water quality and air quality	Non-project related	Interim report was submitted to EPD on 23 Sep 2019
2	11-Oct-19	EPD	EPD Ref: 28550-19	Air quality	Non-project related	Interim report was submitted to EPD on 6 Nov 2019
3	30-Oct-19	EPD	EPD Ref: 30478-19	Air quality	Non-project related	Interim report was submitted to EPD 14 Nov 2019
4	10-Dec-19	1823 (CEDD)	1823 Case no: 2-6145710343	Noise and air quality	Non-project related	Final reply to 1823 on 24 Dec 2019. IR prepared by Contractor was agreed by IEC and ET
5	5-Mar-21	1823	1823 Case no: 3-6641544979	Air quality	Non-project related	Final reply to 1823 on 11 Mar 2021. IR prepared by Contractor was agreed by IEC and ET

Contract No. YL/2020/01 – Development of Lok Ma Chau Loop: Main Works Package 1 – Contract 1 – Site Formation and Infrastructure Works inside Lok Ma Chau Loop and Western Connection Road Phase 1

Log Ref.	Date of Complaint	Complaint Route	Reference No.	Details of Complaint	Investigation Fining	Status
COM-2021-10-01	11 October 2021	EPD	EPD File Ref.: N07/RN/00024120-21	EPD received a public complaint on 11 October 2021. The complainant alleged the following: (a) Discharge of muddy water from construction sites of "Development of Lok Ma Chau Loop" project to Shenzhen River in the morning of 8 October 2021; and, (b) Use of powered mechanical equipment (including excavators and dump trucks) in the construction sites of "Development of Lok Ma Chau Loop" project on Sunday.	(a) Water Quality Non-project related According to the interim report, wastewater treatment facilities and relevant mitigation measures were properly implemented and there is no direct evidence to demonstrate the muddy discharge was inducted by the Contract. Further preventive measures, such as increasing the height of the temporary drainage by using sandbag and providing the earth bund with geo-textile along the site boundary, were implemented on 12 October 2021 in order to avoid muddy water from leaking into Shen Zhen River. (b) Noise Project related Typhoon No. 8 (Tropical cyclone: Lion Rock) was hoisted on 9 October 2021. Severe rainfall was recorded due to the adverse weather. To avoid leakage of the muddy water into the meander of the Shenzhen River, JV mobilized an excavator and dump truck to clear the blockage as an emergency measure. ET reminded the Contractor to update the site drainage plan according to the construction programme and closely check the effectiveness of the implemented mitigation measures on site so that the EP, EIA and EM&A manual	Interim report was submitted to EPD on 29 Oct 2021

Log Ref.	Date of Complaint	Complaint Route	Reference No.	Details of Complaint	Investigation Fining	Status
					recommendation and requirements are complied with. In addition, the Contractor was also reminded to prepare a contingency plan for emergency environmental incidents.	
COM-2021-11-01	15 November 2021	EPD	EPD File Ref.: N06/RN/00027302-21	EPD received a public complaint on 15 November 2021. The complainant concerned about the dust nuisance in the construction sites of "Development of Lok Ma Chau Loop" project.	According to the interim report, dust mitigation measures have been properly implemented on site: - Haul road of the main site have been paved with concrete and the speed of the vehicle has been restricted to below 8kmper hour within the construction area to minimize fugitive dust emission. - Wheel washing fallibilities have been established at the location where the vehicles into the haul road in order to keep clear of any loose surface material. - Mist spray and water trucks have been provided to water the paved haul road regularly and at least once per hour on exposed work site. - Water spray has been provided during the handling of the fill material at the site and all the dusty loads transported to, from and between site location have been covered. - Induction training and tool box talk have been provided to the site staff and workers regarding the dust suppression measure. - Temporary covers have been provided to stockpile of the dusty materials and the exposed slope. Further preventive measures, establishment of the automatic water spray system along the haul road and	Interim report was submitted to EPD on 25 Nov 2021

Log Ref.	Date of Complaint	Complaint Route	Reference No.	Details of Complaint	Investigation Fining	Status
					increasing the amount of the mist spray machine to enhance the efficiency of the dust suppression measures will also be provided.	

APPENDIX R
SUMMARY OF SUCCESSFUL PROSECUTION

Appendix R - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up
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APPENDIX S
PHOTO RECORDS OF ECOLOGICAL SURVEY (MAMMALS)

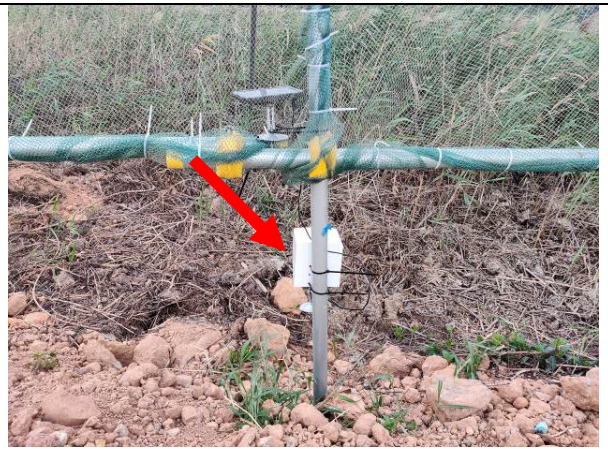
Appendix S – Photographic Records of Ecological Monitoring (Otter and Mammals)

Camera A

Position of camera

Eurasian Wild Pig (*Sus scrofa*)

Domestic Dog (*Canis lupus familiaris)*

Camera B	
	
Position of camera	
	
Eurasian Wild Pig (*Sus scrofa*)	Eurasian Wild Pig (*Sus scrofa*)

Camera C	
	
Position of camera	