ANEWR

Water Supplies Department
New Works Branch
Construction Division
11 Tai Yip Lane
Kowloon Bay
Kowloon
Hong Kong

Your reference:

Our reference: HKWSD201/50/107915

Date: 28 March 2022

Attention: Mr Y M Chan

BY POST

Dear Sirs

Quotation No.: WQ/17/A071
Independent Environmental Checker for Water Supplies Department
– Proposed Desalination Plant in TKO Area 137 for Contract No. 13/WSD/16
Verification of Monthly EM&A Report No.43

We refer to emails of 16, 21 and 25 March 2022 attaching Monthly EM&A Report No.43 for the captioned project prepared by the ET.

We have no further comment and hereby verify the captioned report in accordance with Clause 3.5 of the Environmental Permit no. EP-503/2015/A.

Should you have any queries regarding the above, please do not hesitate to contact the undersigned or our Mr Louis Kwan 2618 2831.

Yours faithfully
ANEWR CONSULTING LIMITED

James Choi
Independent Environmental Checker

CPSJ/KSYL/lsmt

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水務署
Water Supplies Department

Contract No. 13/WSD/16

Mainlaying in Tseung Kwan O

Monthly EM&A Report No. 43
(Period from 1 to 28 February 2022)

March 2022
(Rev. 0)

	Prepared by:	Reviewed and Certified by:
Name	Howard Chan	Jacky Leung
Position	Environmental Team	Environmental Team Leader
Signature		
Date:	08/03/2022	08/03/2022

Revision History

0	1st Submission	10 March 2022
Rev.	**DESCRIPTION OF MODIFICATION**	**DATE**

CONTENT

EXECUTIVE SUMMARY

Introduction

A1. Penta-Ocean - Concentric Joint Venture (POCJV) is contracted to carry out the Mainlaying in Tseung Kwan O under Contract No. 13/WSD/16 (hereinafter known as "the Project").

A2. In accordance with the Environmental Monitoring and Audit (EM&A) Manual for the Project, EM&A works should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Project.

A3. This is the 43rd Monthly EM&A Report, prepared by ASCL, for the Project summarizing the monitoring results and audit findings of the EM&A programme at and around Tseung Kwan O (TKO) during the reporting period from 1 February to 28 February 2022.

A4. The EM&A programme for this contract has covered environmental monitoring on construction noise level at selected NSRs and Contractor's environmental performance auditing in the aspects of construction dust, construction noise, water quality, waste management, landscape and visual and ecology.

Summary of Main Works Undertaken & Key Mitigation Measures Implemented

A5. Key works carried out in this reporting period for the Project included the followings:

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit A	• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C will be conducted.
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	• Excavation and ELS works for jacking pit 1
	Wan Po Rd – Workfront 2	• Excavation and ELS works for jacking pit 2
	Wan Po Rd – Workfront 3	• Pipe trench excavation and pipe laying
	Wan Po Rd – Workfront 4	• Pipe trench excavation and pipe laying
	Wan Po Rd – Pit A	• Setting up for MTBM pipe jacking works
	Wan Po Rd – Pit B	• Preparation for MTBM pipe jacking • Commence MTBM pipe jacking
	Shek Kok Road – Pit D	• MTBM pipe jacking
	Shek Kok Road – Hand-shield	• Construction of wing wall
	Landfill Stage 1 – Area A	• Trench excavation and pipe laying
	Pet Garden's Road	• Trench excavation and pipe laying
	Pung Loi Road – Pit WPR1	• Excavation and ELS works for jacking pit
	Roundabout – Pit G1A	• Preparation for pipe laying between Pit G1A to Pit J1A
	Roundabout – Pit J1A	
	Velodrome – Pit K	• Pipe installation works inside sleeve pipe between Pit K to Pit L
	Velodrome – Pit M	• Grouting for sleeve pipe between Pit M1 to M2

	Velodrome – Pit O to Pit N	• Trench excavation and pipe laying
	Velodrome – Pit O to Pit P	• Site setup works for trenchless works
	Abandoned Road near Mau Wu Tsai WF-1	• Gate valve chamber construction
	Po Lam Road South	• Trench excavation and pipe laying works
	Po Lam Road (D2)	• Trench excavation and pipe laying works
	Po Lam Road (C2)	• Pipe piling of pipe bridge at Location A Westside slop
	Po Lam Road (B4)	• Trench rock breaking • Trench excavation and pipe laying works
	Tsui Lam Road	• Predrilling for mini pile
	TKO Primary Service Reservoir	• Trench excavation and pipe laying works

A6. The major environmental impacts brought by the above construction works include:

- Construction dust and noise generation from mainlaying of pipes, TBM break through and excavation;
- Waste generation from the construction activities; and
- Impact on water quality from construction activities

A7. The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:

- Reduction of construction dust generation from mainlaying of pipes, TBM break through and excavation;
- Reduction of noise from equipment and machinery on-site;
- Sorting and storage of general refuse and construction waste; and
- Treatment of wastewater through water treatment facilities before discharge

Summary of Exceedance & Investigation & Follow-up

A8. Noise monitoring was scheduled in the reporting month for NSR4 Creative Secondary School on 4, 9, 18 and 24 February 2022 as construction works were conducted within 300m to the noise sensitive receiver. No project-related exceedance of the Action and Limit Level was recorded during the reporting period.

A9. No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

Complaint Handling and Prosecution

A10. No environmental complaint was received in the reporting month.

A11. Neither notifications of summons nor prosecution was received for the Project in the reporting month.

Reporting Change

A12. There were no changes reported that may affect the on-going EM&A programme.

Summary of Upcoming Key Issues and Key Mitigation Measures

A13. Key works in March 2022 (the next reporting month) for the Project will include the followings:

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit A	• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C will be conducted.
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	• Excavation and ELS works for jacking Pit 1
	Wan Po Rd – Workfront 2	• Setup for MTMB pipe jacking
	Wan Po Rd – Workfront 3	• Pipe trench excavation and pipe laying
	Wan Po Rd – Workfront 4	• Pipe trench excavation and pipe laying
	Wan Po Rd – Pit A	• Setting up for MTBM pipe jacking works • Commence MTMB pipe jacking
	Wan Po Rd – Pit B	• MTBM pipe jacking
	Wan Po Rd – Pit D	• MTBM pipe jacking
	Shek Kok Road – Pit D	• MTBM pipe jacking.
	Shek Kok Road – Hand-shield	• Construction of wing wall.
	Landfill Stage 1 – Area A	• Trench excavation and pipe laying
	Pet Garden's Road	• Trench excavation and pipe laying
	Pung Loi Road – Pit WPR1	• Setup for MTMB pipe jacking
	Roundabout – Pit G1A	• Pipe laying inside sleeve pipe
	Roundabout – Pit J1A	
	Velodrome – Pit K	• Grouting for sleeve pipe between Pit K to Pit L after completion of pipe laying.
	Velodrome – Pit O to Pit N	• Trench excavation and pipe laying.
	Velodrome – Pit O to Pit P	• Site setup for trenchless works.
	Mau Wu Tsai – Workfront 1	• Gate valve chamber construction • Trench reinstatement
	Po Lam Road South	• Trench excavation and pipe laying
	Po Lam Road (C2)	• Pipe piling of pipe bridge at Location A Westside slope.
	Po Lam Road (D2)	• Trench excavation and pipe laying
	Po Lam Road (B4)	• Trench rock breaking • Trench excavation and pipe laying
	Tsui Lam Road	• Predrilling for mini pile
	TKO Primary Service Reservoir	• Trench excavation and pipe laying

A14. The major environmental impacts brought by the above construction works will include:

- Construction dust and noise generation of mainlaying of pipes, TBM break through, and excavation works;
- Waste generation from construction activities; and
- Impact on water quality from construction activities.

A15. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Reduction of construction dust generation of mainlaying of pipes, TBM break through and excavation works by regular water spraying and covering of dusty materials with screenings;
- Reduction of noise from equipment and machinery on-site;
- Sorting and storage of general refuse and construction waste; and
- Treatment of wastewater through water treatment facilities before discharge.

1. BASIC PROJECT INFORMATION

1.1 Background

The proposed Desalination Plant at Tseung Kwan O (DPTKO) will produce potable water with an initial capacity of 135 million liters per day (MLD), expandable to an ultimate capacity of 270 MLD in the future to provide a secure and alternative fresh water resource complying with the World Health Organization (WHO) standards. The plant will adopt the Seawater Reverse Osmosis (SWRO) technology, which dominates the market due to its reliability and progressive reduction in cost as the technology advances.

Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection granted the Variation of Environmental Permit (No. EP-503/2015/A) to Water Supplies Department (WSD) for the Project on 26 January 2018.

The scope of the Contract may be considered in brief, to consist of the laying of about 10 km long 1200 mm diameter fresh water mains and the associated works along the alignment of the Project as shown with the overall view in **Appendix B.**

1.2 The Reporting Scope

This is the 43rd Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 February to 28 February 2022.

1.3 Project Organization

The Project Organization structure for Construction Phase is presented in **Figure 1.1**.

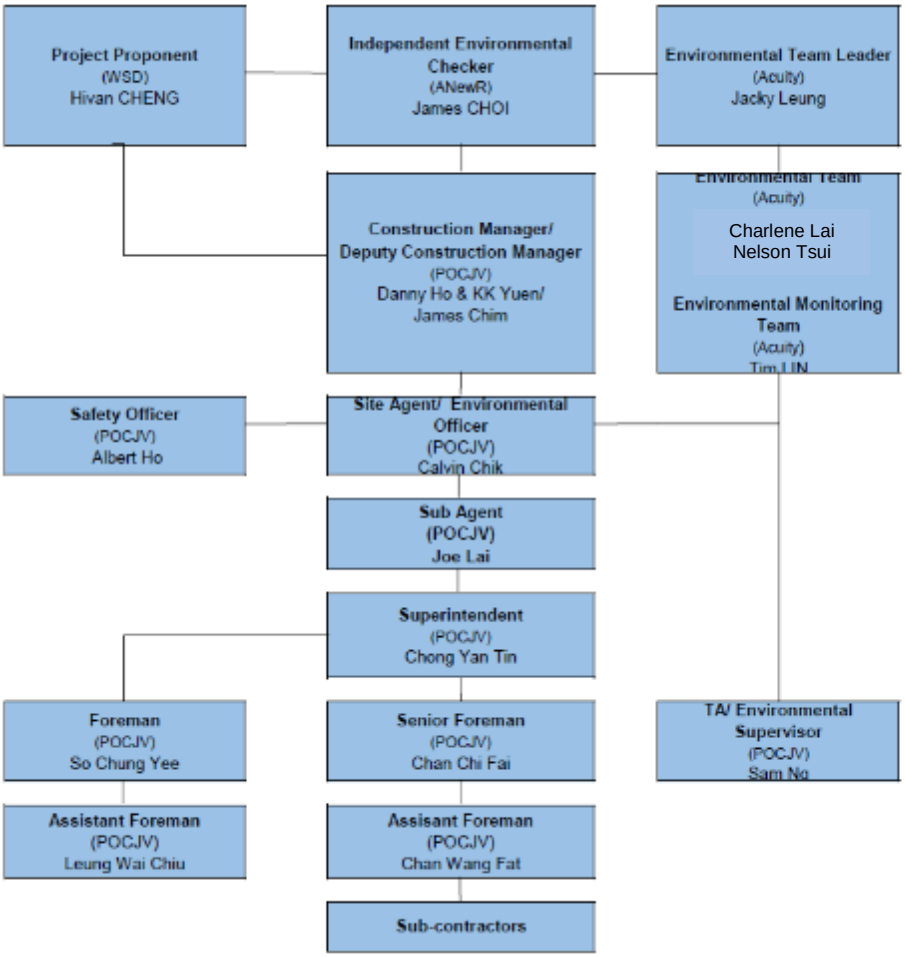


Figure 1.1 Project Organization Chart

Contact details of the key personnel are presented in **Table 1.1** below:

Table 1.1 Contact details of the key personnel

Party	**Position**	**Name**	**Telephone no.**
Penta-Ocean - Concentric Joint Venture	Environmental Officer	Calvin Chik	9863 5630
Acuity Sustainability Consulting Limited	Environmental Team Leader	Jacky Leung	2698 6833
ANewR Consulting Limited	Independent Environmental Checker	James Choi	2618 2831

1.4 Summary of Construction Works

Details of the major construction works undertaken in this reporting period are shown in **Table 1.2** and the construction works locations are shown in **Appendix B**. The construction programme is presented in **Appendix A**.

Table 1.2 Summary of the Construction Works Undertaken during the Reporting Month

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit A	• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C will be conducted.
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	• Excavation and ELS works for jacking pit 1
	Wan Po Rd – Workfront 2	• Excavation and ELS works for jacking pit 2
	Wan Po Rd – Workfront 3	• Pipe trench excavation and pipe laying
	Wan Po Rd – Workfront 4	• Pipe trench excavation and pipe laying
	Wan Po Rd – Pit A	• Setting up for MTBM pipe jacking works
	Wan Po Rd – Pit B	• Preparation for MTBM pipe jacking • Commence MTBM pipe jacking
	Shek Kok Road – Pit D	• MTBM pipe jacking
	Shek Kok Road – Hand-shield	• Construction of wing wall
	Landfill Stage 1 – Area A	• Trench excavation and pipe laying
	Pet Garden's Road	• Trench excavation and pipe laying
	Pung Loi Road – Pit WPR1	• Excavation and ELS works for jacking pit
	Roundabout – Pit G1A	• Preparation for pipe laying between Pit G1A to Pit J1A
	Roundabout – Pit J1A	• Pipe installation works inside sleeve pipe between Pit K to Pit L will be conducted.
	Velodrome – Pit K	• Pipe installation works inside sleeve pipe between Pit K to Pit L
	Velodrome – Pit M	• Grouting for sleeve pipe between Pit M1 to M2
	Velodrome – Pit O to Pit N	• Trench excavation and pipe laying
	Velodrome – Pit O to Pit P	• Site setup works for trenchless works
	Abandoned Road near Mau Wu Tsai WF-1	• Gate valve chamber construction
	Po Lam Road South	• Trench excavation and pipe laying works
	Po Lam Road (D2)	• Trench excavation and pipe laying works
	Po Lam Road (C2)	• Pipe piling of pipe bridge at Location A Westside slop
	Po Lam Road (B4)	• Trench rock breaking • Trench excavation and pipe laying works
	Tsui Lam Road	• Predrilling for mini pile
	TKO Primary Service Reservoir	• Trench excavation and pipe laying works
	TKO 137 Pit A	• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C will be conducted.

A summary of the valid permits, licences, and or notifications on environmental protection for this Project is presented in **Table 1.3**.

Table 1.3 Summary of the Status of Valid Environmental Licence, Notification, Permit and Documentations

Permit/ Licences/ Notification	Reference	Validity Period
Variation of Environmental Permit	EP no.: EP-503/2015/A	Throughout the Contract
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation (Form NA)	Ref no.: 423775	Throughout the Contract
Chemical Waste Producer Registration	WPN: 5213-839-P3287-01	Throughout the Contract
Billing Account for Disposal of Construction Waste	A/C no.: 7029491	Throughout the Contract
Water Discharge Licence	WT00032336-2018	Until 31 Dec 2023
Construction Noise Permit (Hong Kong Velodrome)	GW-RE1219-21	Until 01 April 2022
Construction Noise Permit (Wan Po Road near Wan O Road and Chun Yat Street, Tseung Kwan O, N.T.)	GW-RE1211-21	Until 01 April 2022
Construction Noise Permit (Shek Kok Road near Shrewsbury International School Hong Kong, Tseung Kwan O, N.T.)	GW-RE1224-21	Until 01 April 2022

The status for all environmental aspects is presented **Table 1.4**.

Table 1.4 Summary of Status for Key Environmental Aspects under the EM&A Manual

Parameters	Status
Noise	
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under VEP Condition 3.4.
Impact Monitoring	On-going
Waste Management	
Mitigation Measures in Waste Management Plan	On-going
Landfill Gas	
Impact Monitoring	On-going
Environmental Audit	
Site Inspection	On-going

Other than the EM&A works by ET, regular environmental management meetings were conducted in order to enhance environmental awareness and closely monitor the environmental performance of the contractors.

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

2. NOISE MONITORING

2.1 Monitoring Requirements

To ensure no adverse noise impact, noise monitoring is recommended to be carried out within 300m radius from the nearby noise sensitive receivers (NSRs), during construction phase. The NSRs selected as monitoring station are (i) NSR4 – Creative Secondary School, (ii) NSR24 – PLK Laws Foundation College, and (iii) NSR31 – School of Continuing and Professional Studies – CUHK respectively.

In accordance with the EM&A Manual, baseline noise level at the noise monitoring stations were established as presented in the Baseline Monitoring Report. Impact noise monitoring will be conducted once per week in the form of 30-minute measurements Leq, L10 and L90 levels recorded at each monitoring station between 0700 and 1900 on normal weekdays.

Referring to EM&A manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

Impact monitoring for noise impact was conducted in the reporting month for NSR4 – Creative Secondary School on 4, 9, 18 and 24 February 2022 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

2.2 Noise Monitoring Parameters, Time, Frequency

Impact noise monitoring was conducted weekly in the reporting period between 0700-1900 on normal weekdays. Construction works would follow the requirements as stipulated in the valid CNPs if works have to be conducted during 1900-0700 in all days or any time on Sundays or general holidays.

Construction noise level was measured in terms of the A-weighted equivalent continuous sound pressure level (LAeq). $L_{eq\ 30min}$ was used as the monitoring parameter for the time period between 0700 and 1900 on normal weekdays. **Table 2.1** summarizes the monitoring parameters, frequency and duration of the impact noise monitoring. The monitoring schedule is provided in **Appendix D**.

Table 2.1 Noise Monitoring Parameters, Time, Frequency and Duration

Time	Frequency	Duration	Parameters
Daytime: 0700-1900	Once per week	Continuously in $L_{eq\ 5min}$/$L_{eq\ 30min}$ (average of 6 consecutive $L_{eq\ 5min}$)	L_{eq}, L_{10} & L_{90}

2.3 Noise Monitoring Locations

The monitoring locations should normally be made at a point 1m from the exterior of the NSRs building façade and be at a position 1.2m above the ground. A correction of +3dB(A) should be made to the free-field measurements.

According to the environmental findings detailed in the EIA report and Baseline Monitoring Report, the designated locations for the construction noise monitoring are listed in **Table 2.2** below.

Table 2.2 Noise Monitoring Location

NSR ID	Noise Sensitive Receivers	Monitoring Location	Position
NSR 4	Creative Secondary School	Roof Floor	1 m from facade
NSR 24	PLK Laws Foundation College	Pedestrian Road on Ground Floor	Free-field
NSR 31	School of Continuing and Professional Studies - CUHK	Roof Floor	1 m from facade

Three noise monitoring locations for impact monitoring at the nearby sensitive receivers are shown in **Figure 2.1-2.3**.

Figure 2.1 NSR4 Creative Secondary School

Figure 2.2 NSR24 PLK Laws Foundation College

Figure 2.3 NSR31 School of Continuing and Professional Studies - CUHK

2.4 Impact Monitoring Methodology

Integrated sound level meters were used for the noise monitoring. The meters were in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meters was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level before and after the noise measurements agree to within 1.0 dB(A).

Calibration certificates of the instruments used are presented in **Appendix E**. Noise measurements were not made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed would be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Table 2.3 Impact Noise Monitoring Equipment

Equipment	Brand and Model	Serial Number	Date of Calibration	Calibration Certificate Expiry Date	Detection Limit
Sound Level Meter	Svantek 971	96062	05/07/2021	04/07/2022	15-140 dB(A)
Sound Level Meter Calibrator	Pulsar 105	63705	07/08/2021	06/08/2022	Nil
Pocket Wind Meter Anemometer	Kestrel 1000 Wind Meter	Nil	Nil	Nil	Nil

2.5 Action and Limit Levels

The Action/Limit Levels are in line with the criteria of Practice Note for Professional Persons (ProPECC PN 2/93) "Noise from Construction Activities – Non-statutory Controls" and Technical Memorandum on Environmental Impact Assessment Process issued by HKSAR Environmental Protection Department ["EPD"] under the Environmental Impact Assessment Ordinance, Cap 499, S.16 are presented in **Table 2.4**.

Table 2.4 Action and Limit Levels for Noise

Time Period	Action Level	Limit Level (dB(A))
0700-1900 on normal weekdays	When one documented complaint is received from any one of the noise sensitive receivers	• 70 dB(A) for school and • 65 dB(A) during examination period
Notes: (a) Limits specified in the GW-TM and IND-TM for construction and operation noise, respectively.		

If exceedances are found during noise monitoring, the actions in accordance with the Event and Action Plan will be carried out according to **Appendix F**.

2.6 Monitoring Results and Observations

Referring to EM&A manual Section 4.1.2, impact monitoring for noise impact was scheduled weekly in the reporting month for NSR4 – Creative Secondary School on 4, 9, 18 and 24 February 2022 Detailed monitoring results are presented in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

No construction works were conducted within 300m radius of NSR24 and NSR31. Thus, no monitoring works was carried at these two locations in the reporting month.

3. WASTE MANAGEMENT

The waste generated from this Project includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as these materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 3.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H**.

Table 3.1 Quantities of waste generated from the Project

Reporting period	Quantity					
	Inert C&D Materials (in '000m3)	Chemical Waste (in '000kg)	Non-inert C&D Materials			
			Others, e.g. General Refuse disposed at Landfill (in '000m3)	Recycled materials		
				Paper/card board (in '000kg)	Plastics (in '000kg)	Metals (in '000kg)
February 2022	2.184	0.000	0.001	0.058	0.000	0.000

4. LANDFILL GAS MONITORING

4.1 Monitoring Requirement

In accordance with Section 11 of the EM&A Manual, monitoring of landfill gas is required for construction works within the 250m Consultation Zone. Part of the desalination plant and the indicative area of natural slope mitigation works fall within the SENT Landfill Extension Consultation Zone; and part of the 1,200 mm diameter fresh water mains along Wan Po Road falls within the SENT Landfill and SENT Landfill Extension Consultation Zones, TKO Stage II/III Restored Landfill and TKO Stage I Restored Landfill Consultation Zones.

4.2 Monitoring Location

Monitoring of oxygen, methane, carbon dioxide and barometric pressure was performed for excavations at 1m depth or more within the Consultation Zone. In this reporting period, 321 times of monitoring was recorded.

During construction of works within the consultation zones, excavations of 1m depth or more was monitored:

- At the ground surface before excavation commences;
- Immediately before any worker enters the excavation;
- At the beginning of each working day for the entire period when the excavation remains open; and
- Periodically through the working day whilst workers are in the excavation.

For excavations between 300mm and 1m deep, measurements should be carried out:

- Directly after the excavation has been completed; and
- Periodically whilst the excavation remains open.

The area required to be monitored for landfill gas in the reporting period are shown in **Figure 4.1** to **Figure 4.20**.

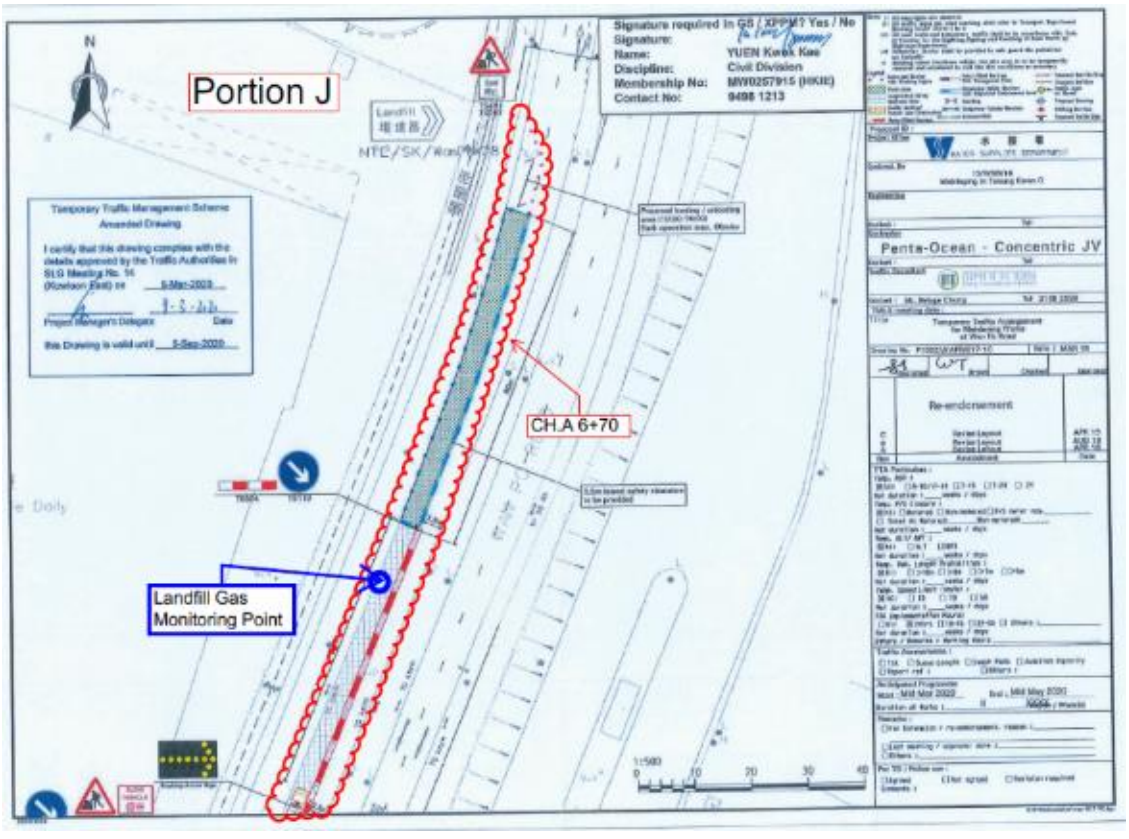


Figure 4.1 Monitoring Location - CH.A 6+70

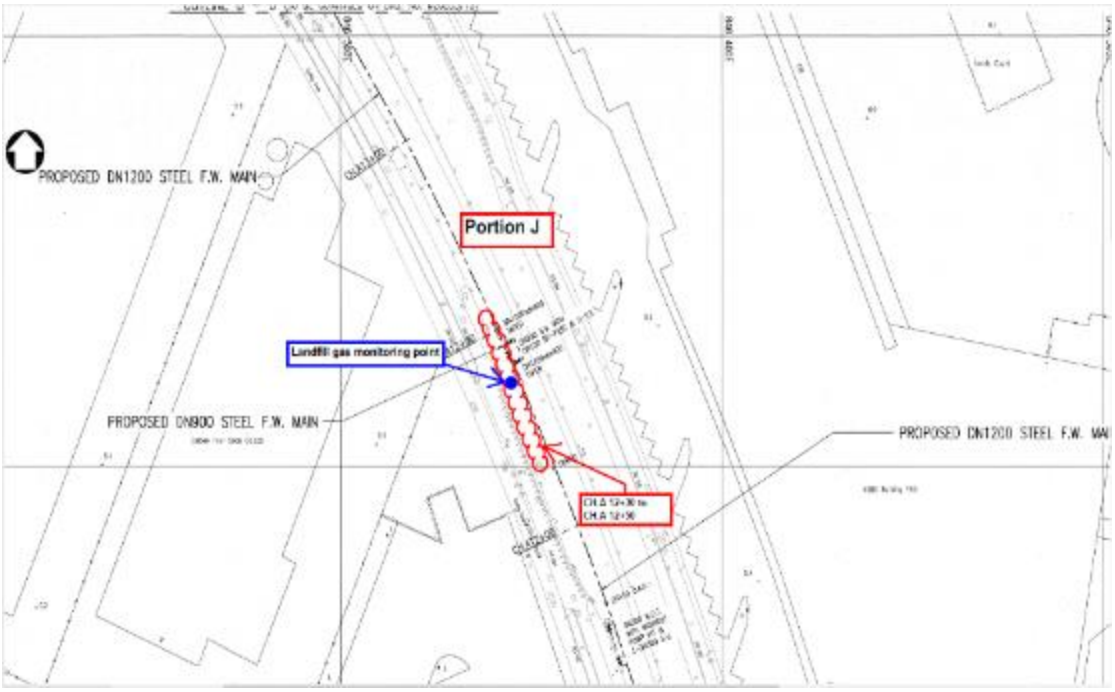


Figure 4.2 Monitoring Location – CH.A 12+30 ~ 12+50

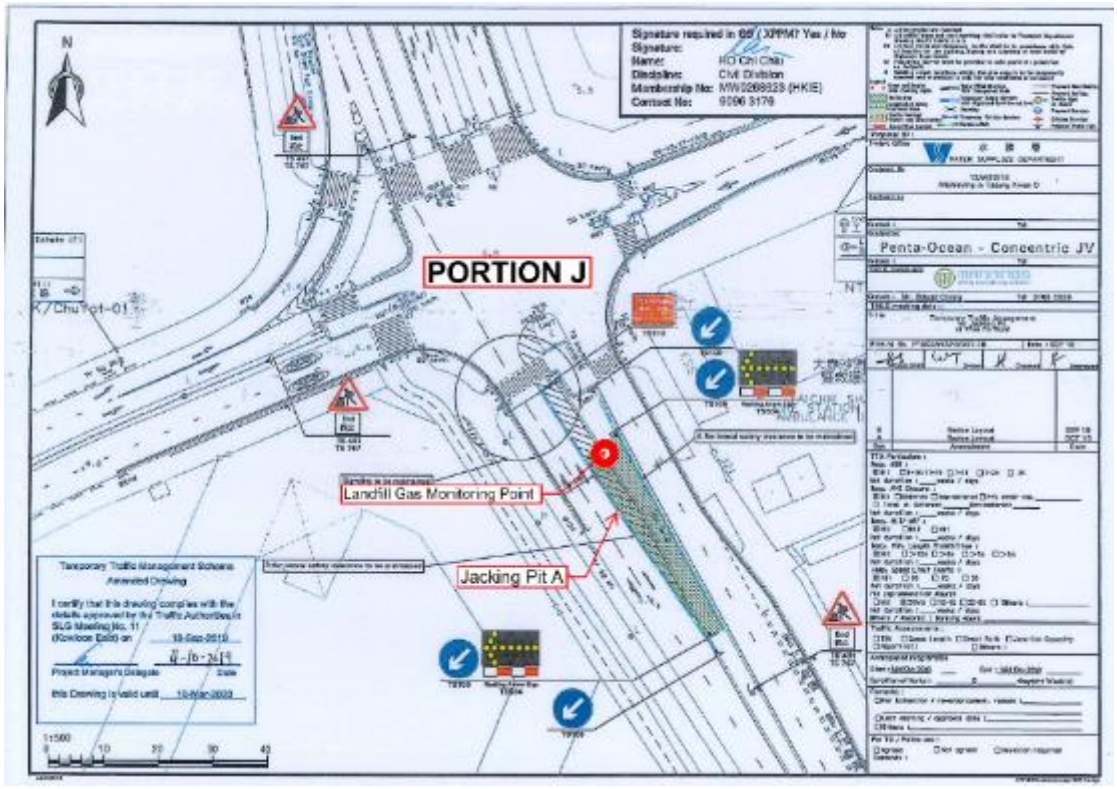


Figure 4.3 Monitoring Location – CH.A 13+50 ~ 14+00 (Pit A)

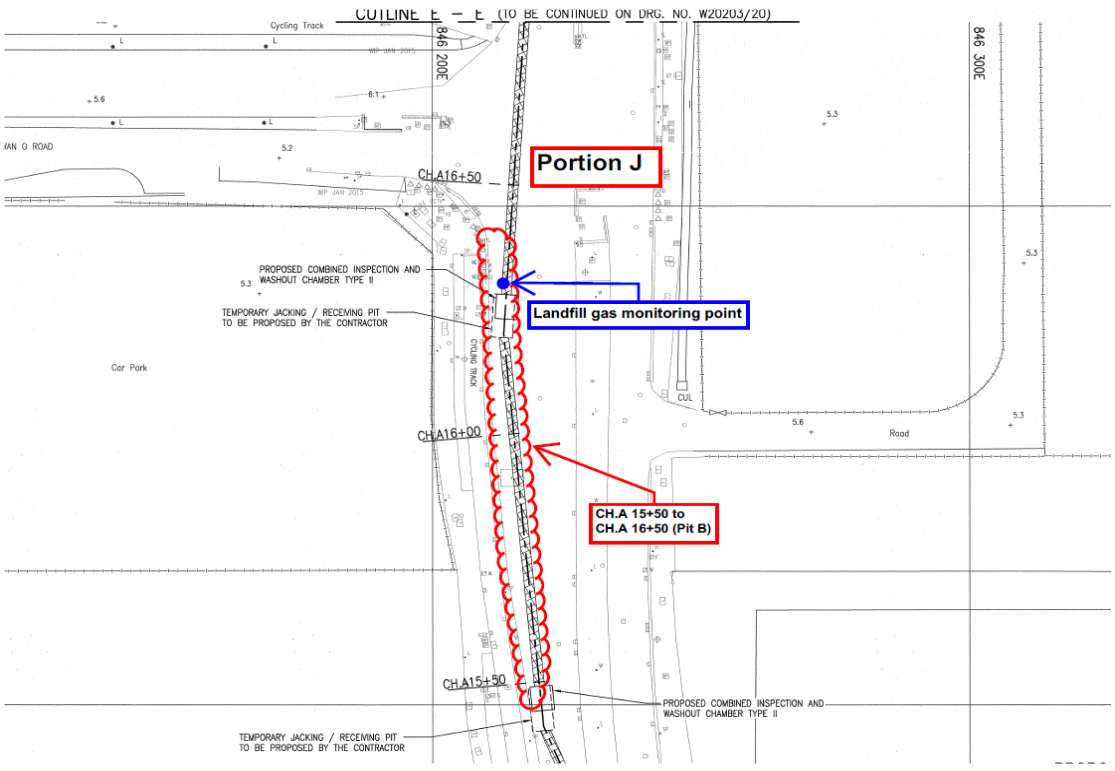


Figure 4.4 Monitoring Location – CH.A 15+50 ~16+50 (Jacking Pit B)

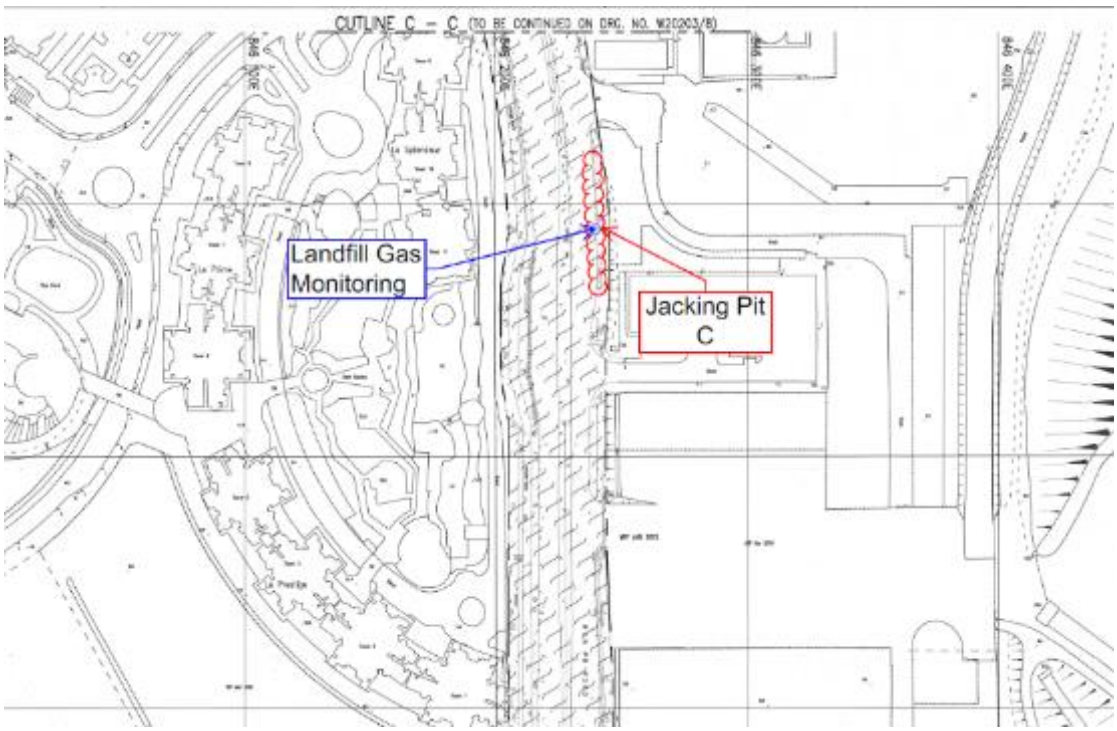


Figure 4.5 Monitoring Location – CH.A 19+15 ~19+50 (Pit C)

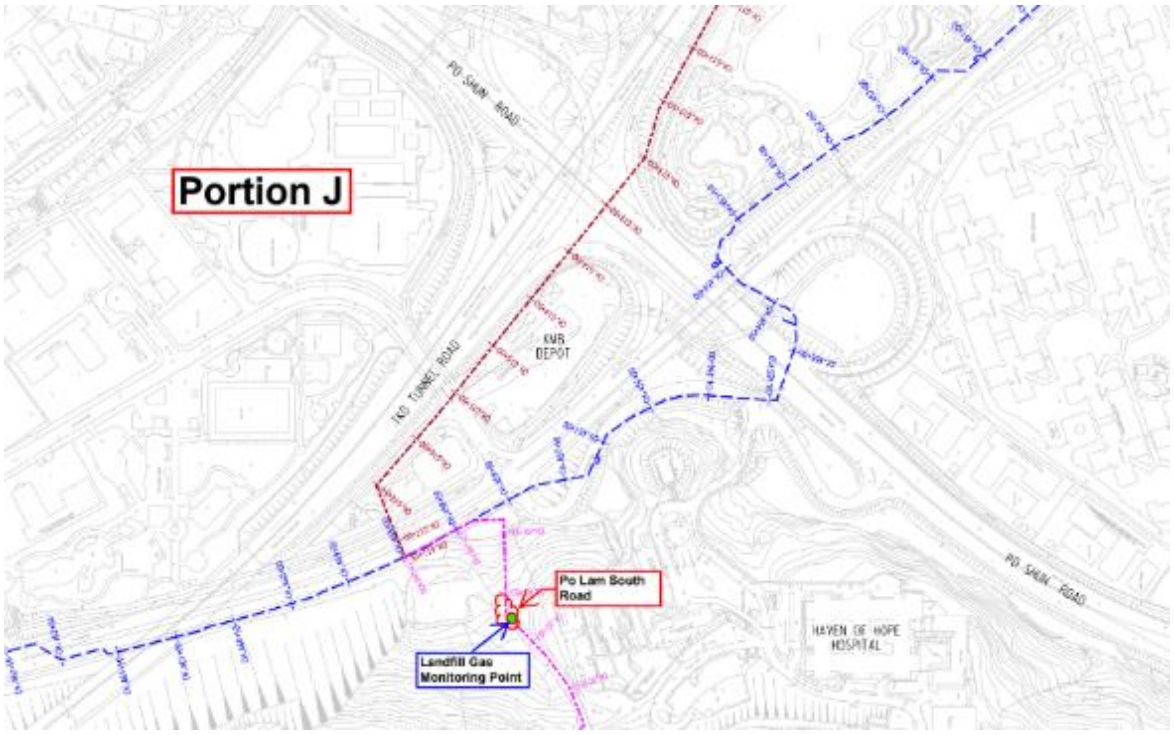


Figure 4.6a Monitoring Location – Mau Wu Tsai 1

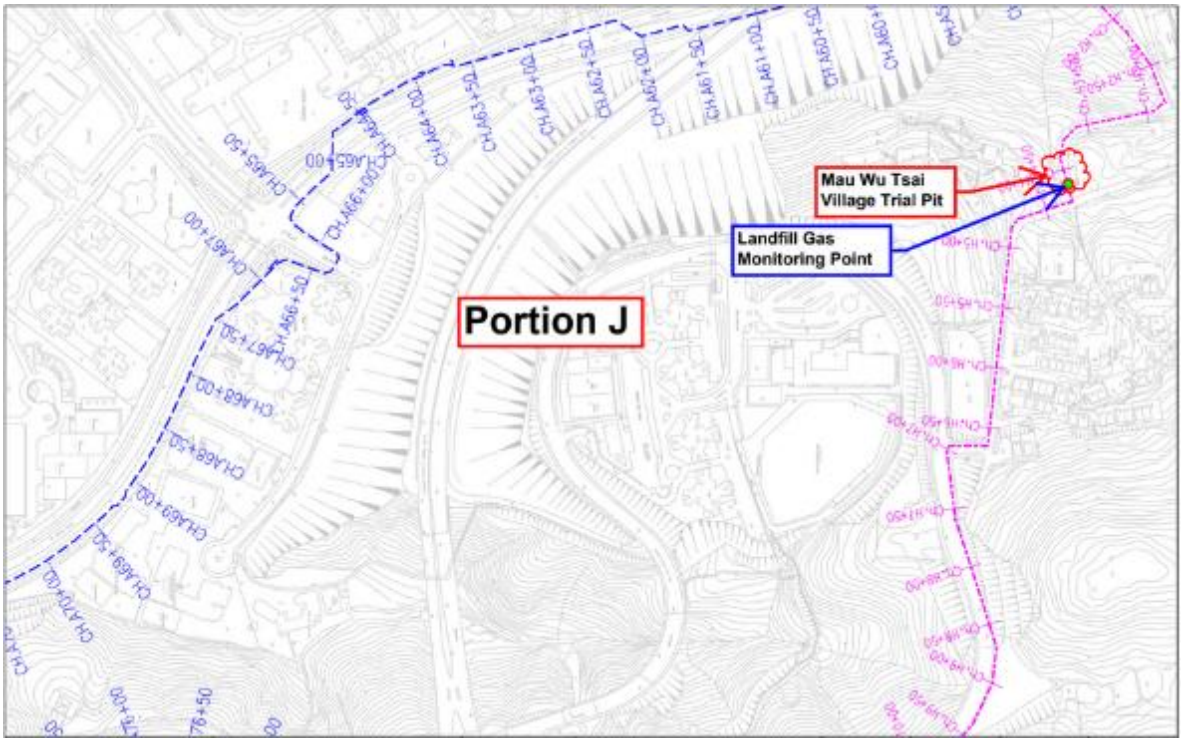


Figure 4.6b Monitoring Location – Mau Wu Tsai 2

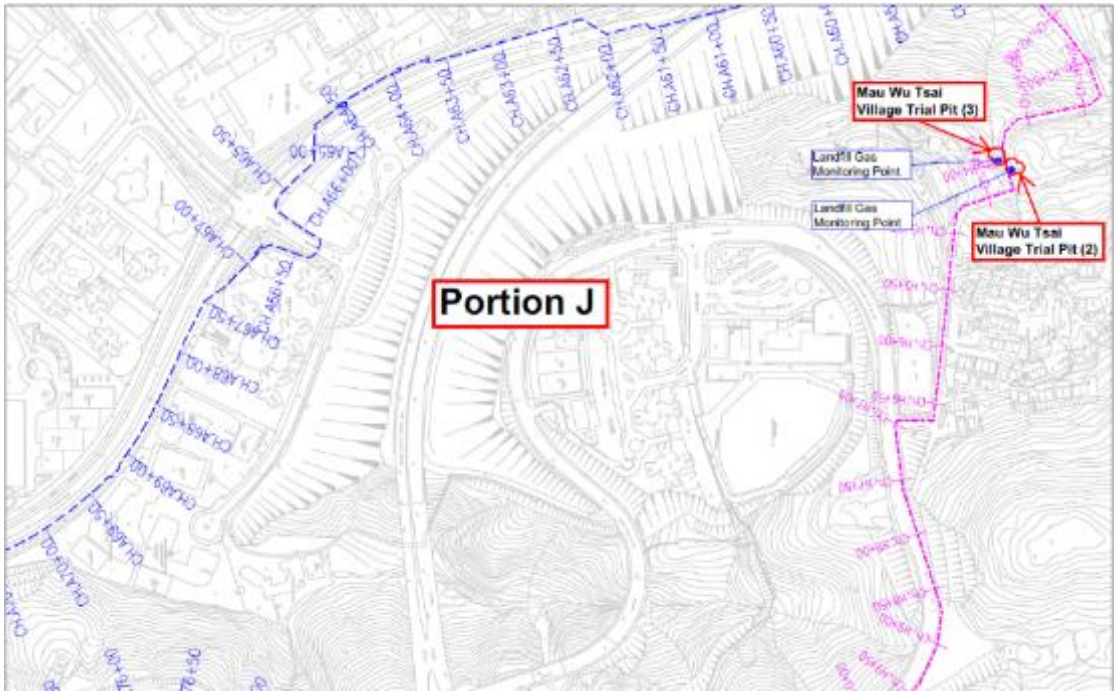


Figure 4.6c Monitoring Location – Mau Wu Tsai 3

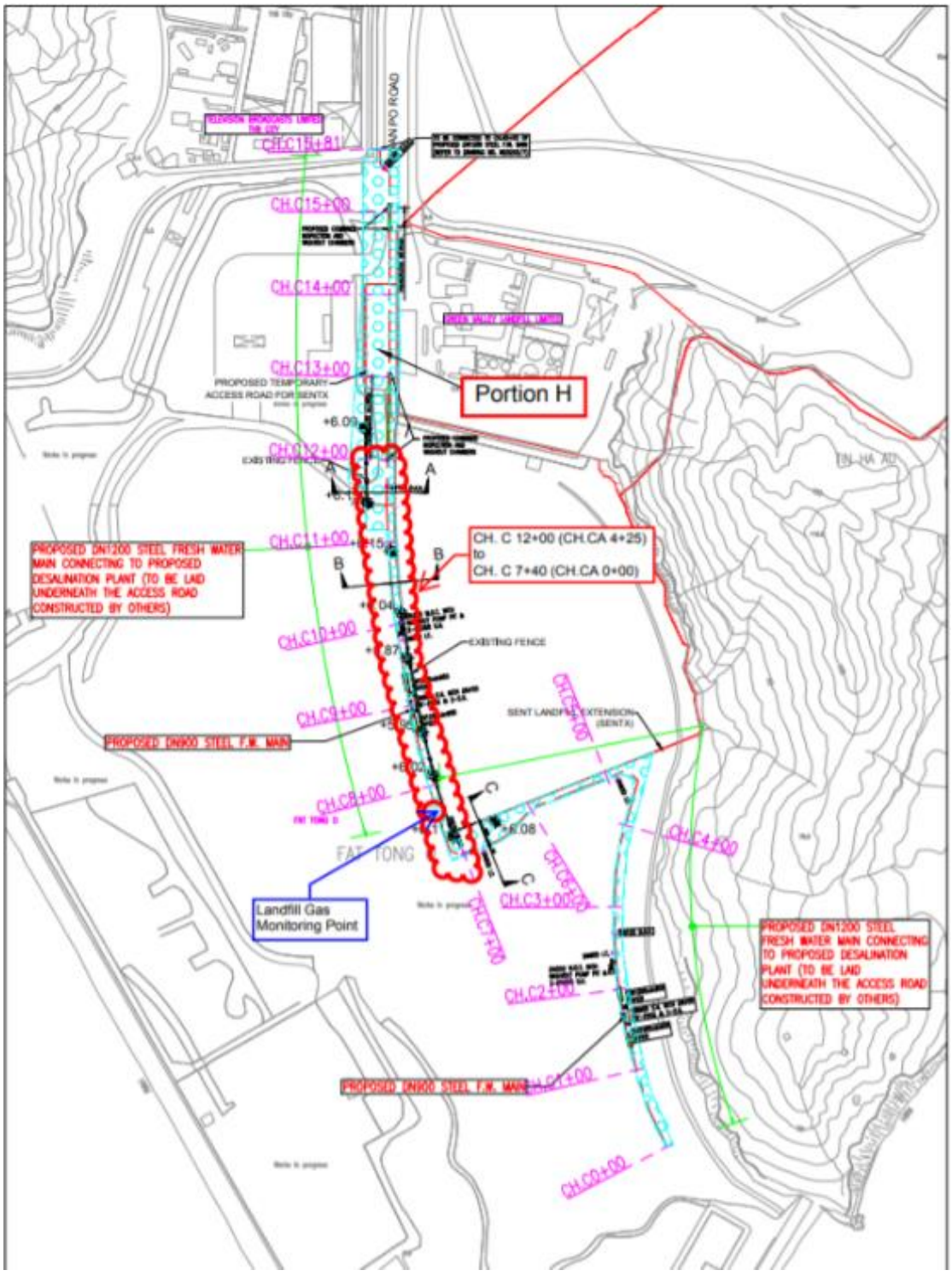


Figure 4.7 Monitoring Location –CH.CA 0+00 to CH.CA 04+25 (CH.C 7+40 ~ 12+00)

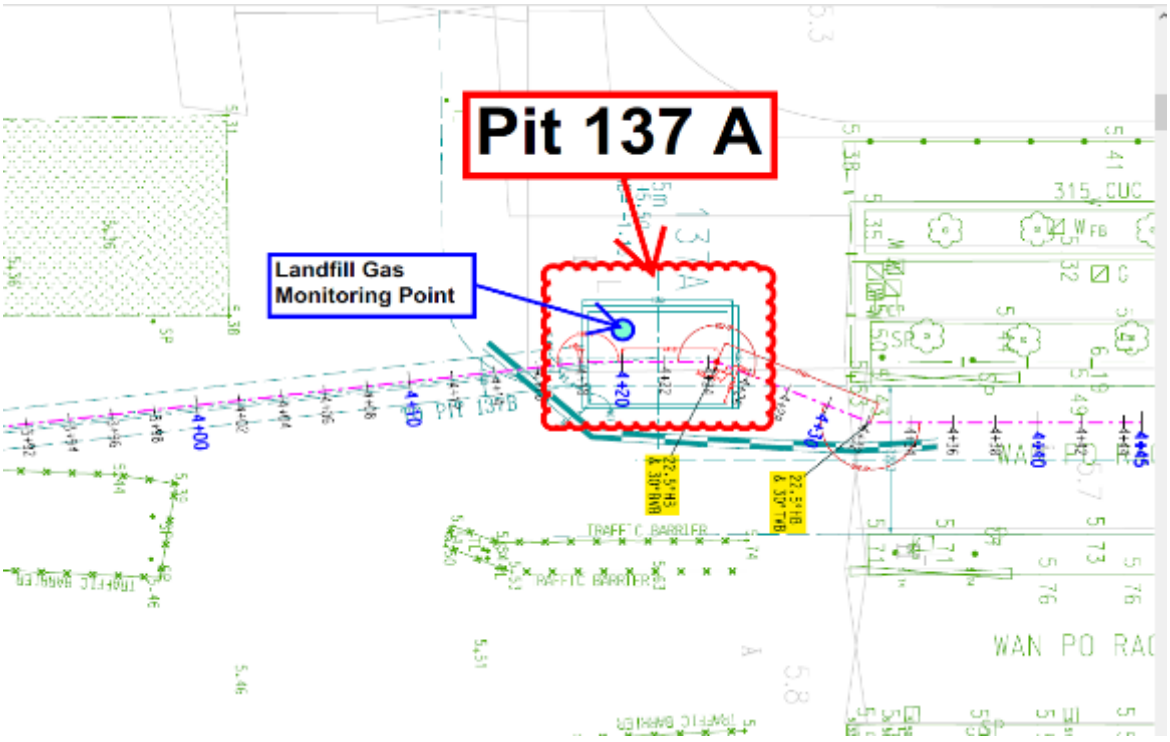


Figure 4.8a Monitoring Location – Pit 137A (137 Pit A)

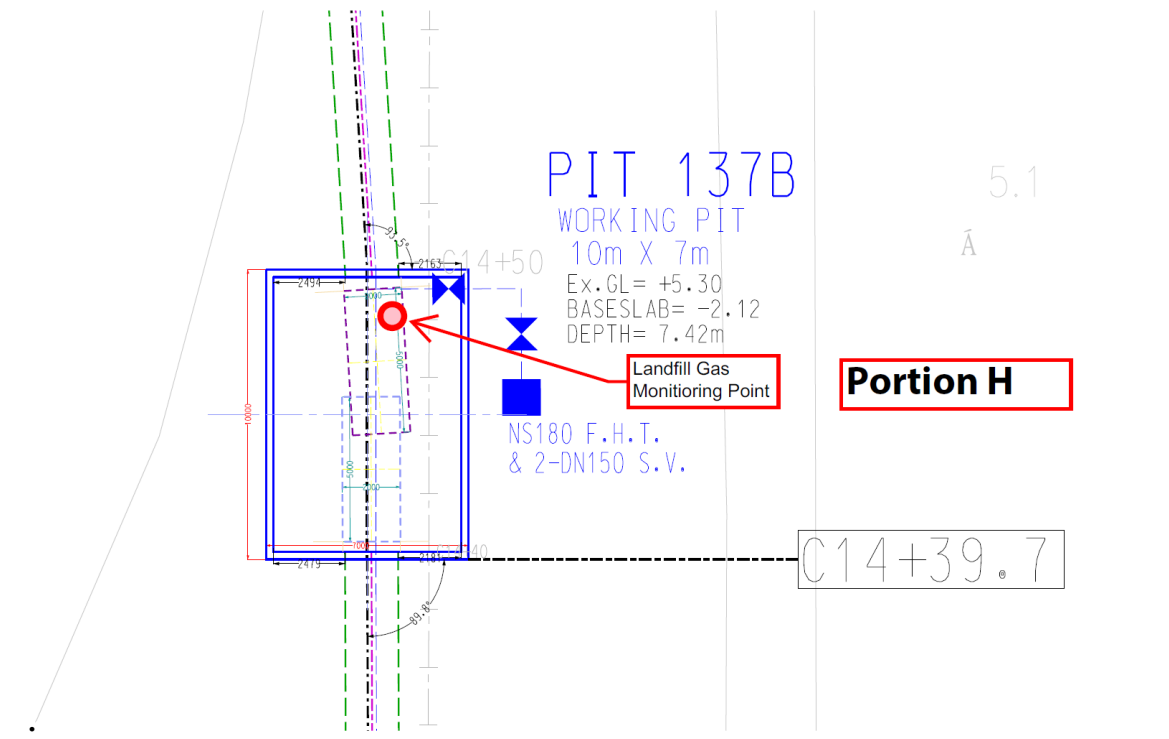


Figure 4.8b Monitoring Location – Pit 137B (137 Pit B)

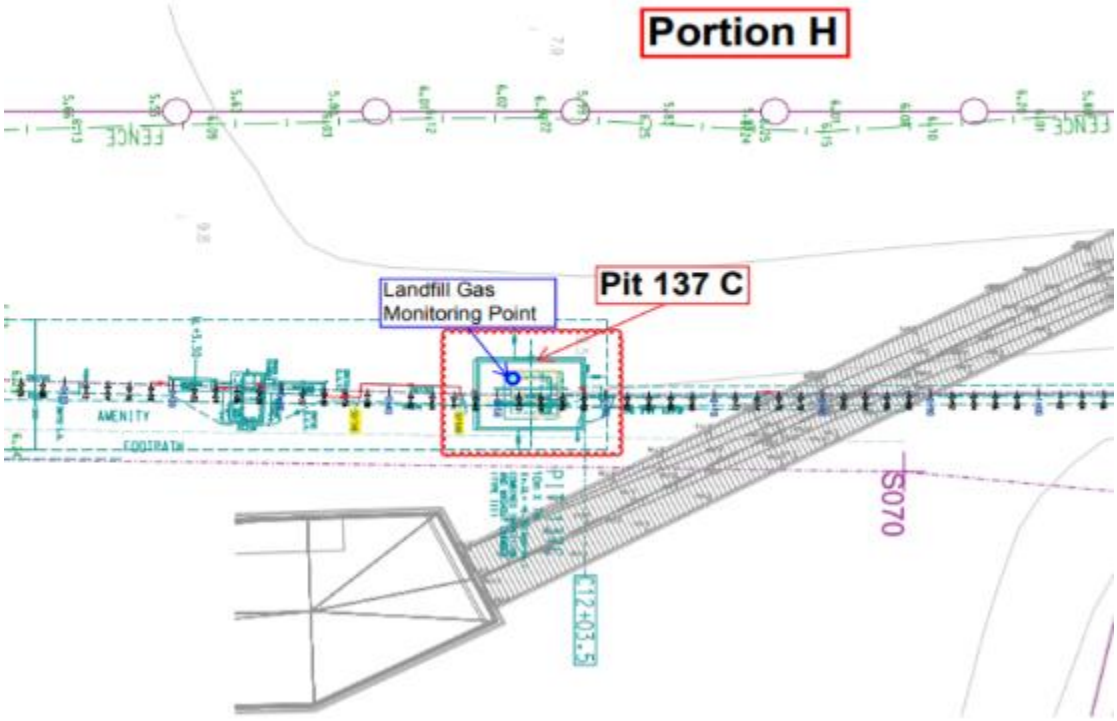


Figure 4.8c Monitoring Location – Pit 137C (137 Pit C)

Figure 4.9 Monitoring Location – Jacking Pit F

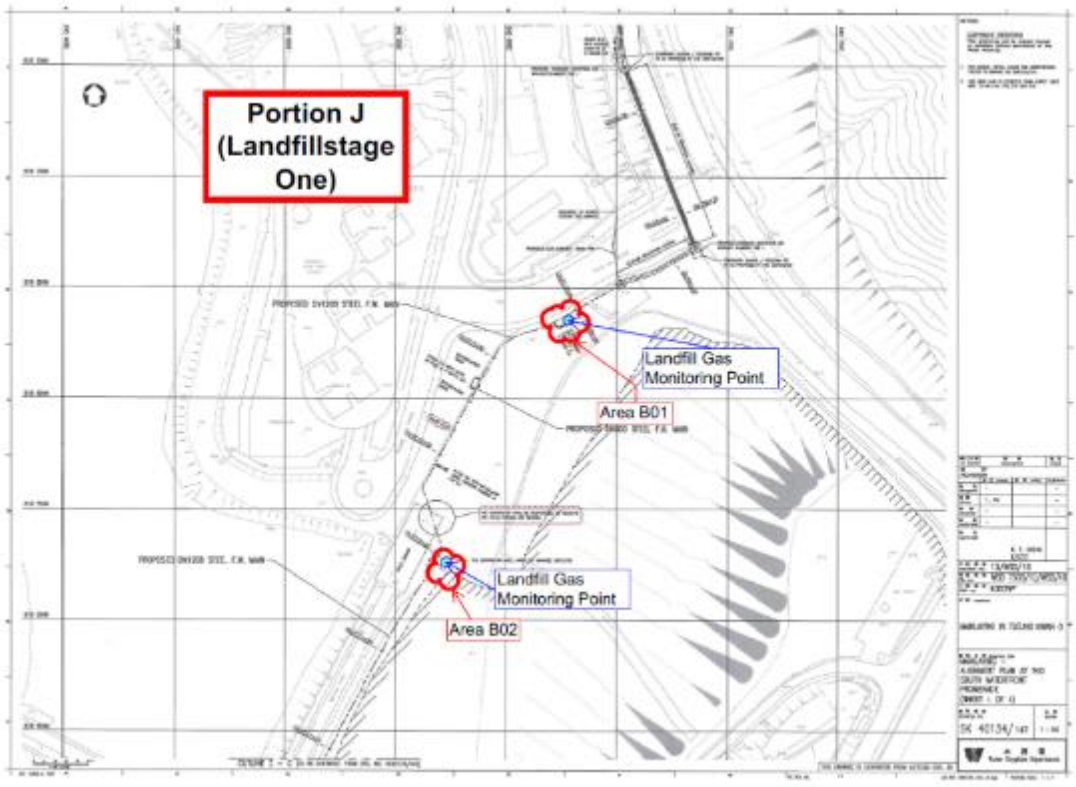


Figure 4.10a Monitoring Location – Landfill Stage 1 (Area B01-B02)

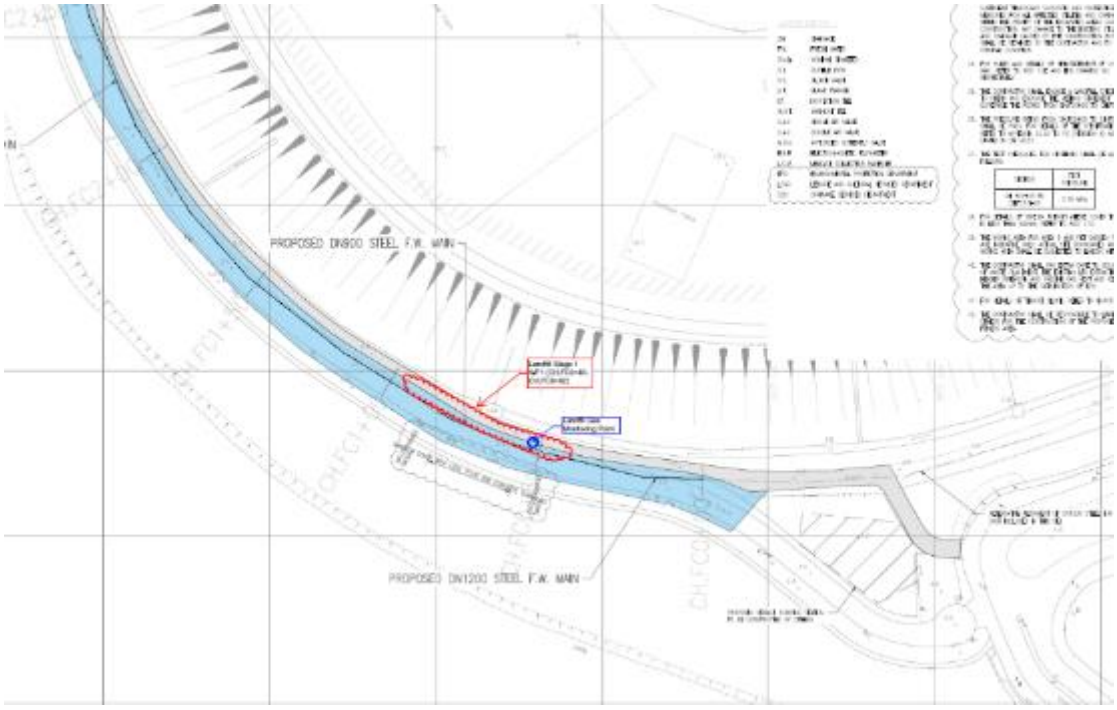


Figure 4.10b Monitoring Location – Landfill Stage 1 (FC0+64-FC0+92)

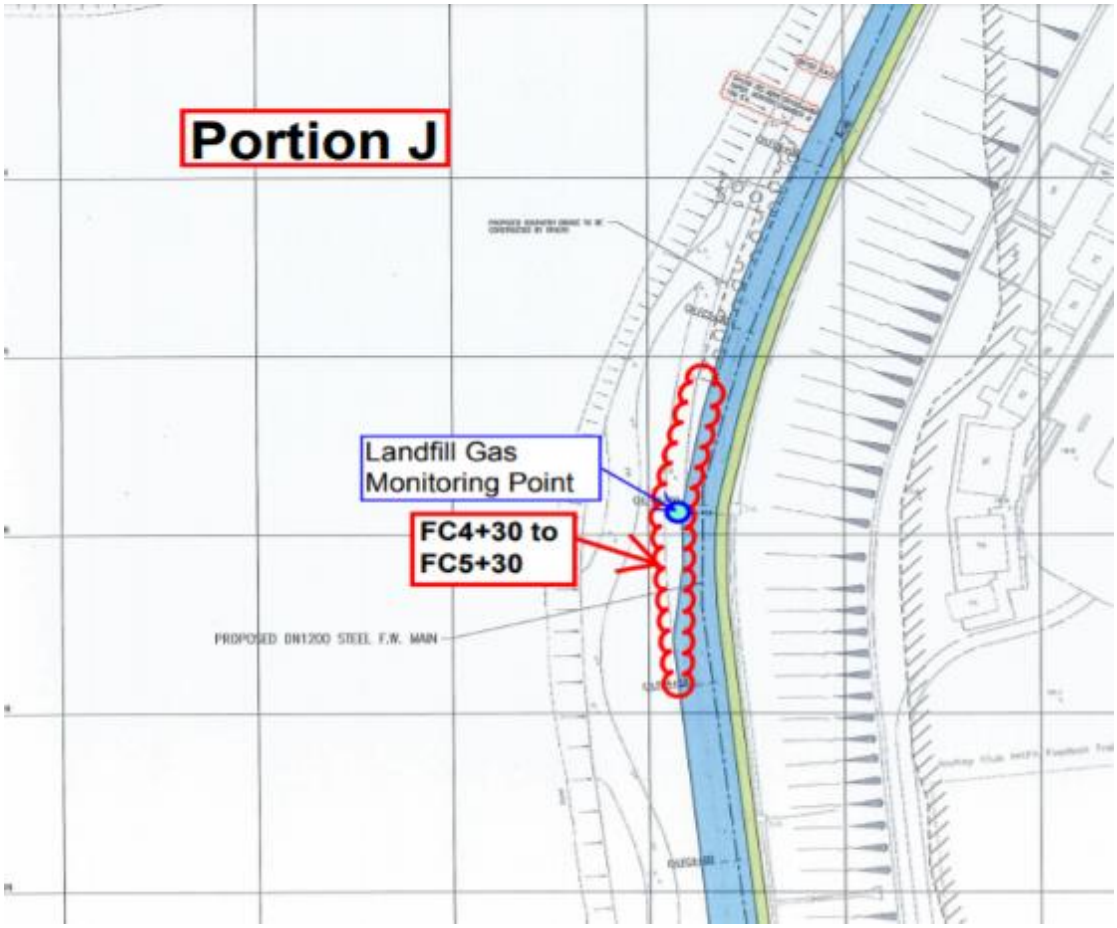


Figure 4.10c Monitoring Location – Landfill Stage 1 (FC4+30-FC5+30)

Figure 4.10d Monitoring Location – Landfill Stage 1 (FC8+38)

Figure 4.11a Monitoring Location – Pit L-M-N, J1A, K

Figure 4.11b Monitoring Location – Pit N-O-P

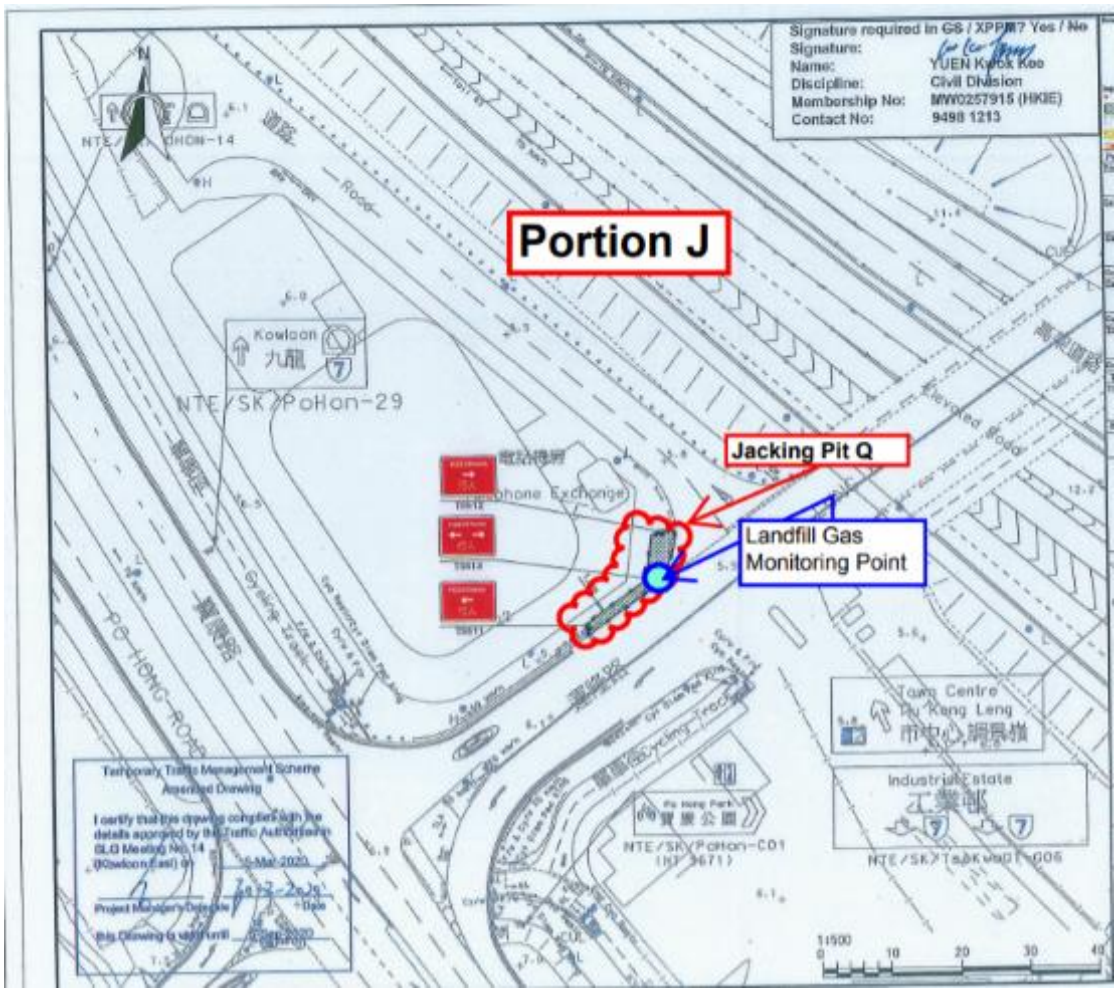


Figure 4.11c Monitoring Location – Pit Q

Figure 4.12 Po Lam South Road

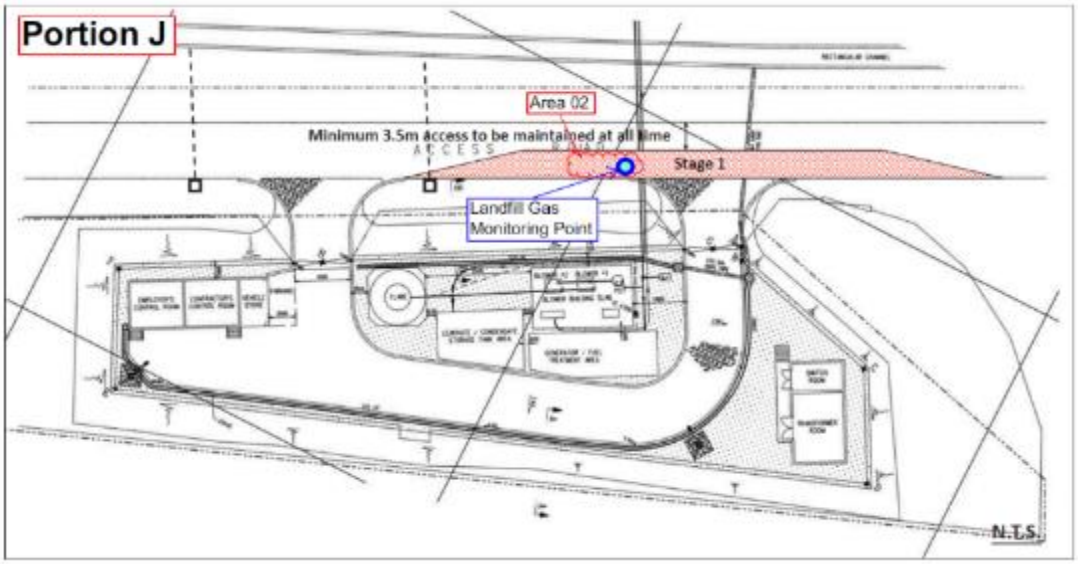


Figure 4.13 Monitoring Location – Area A02

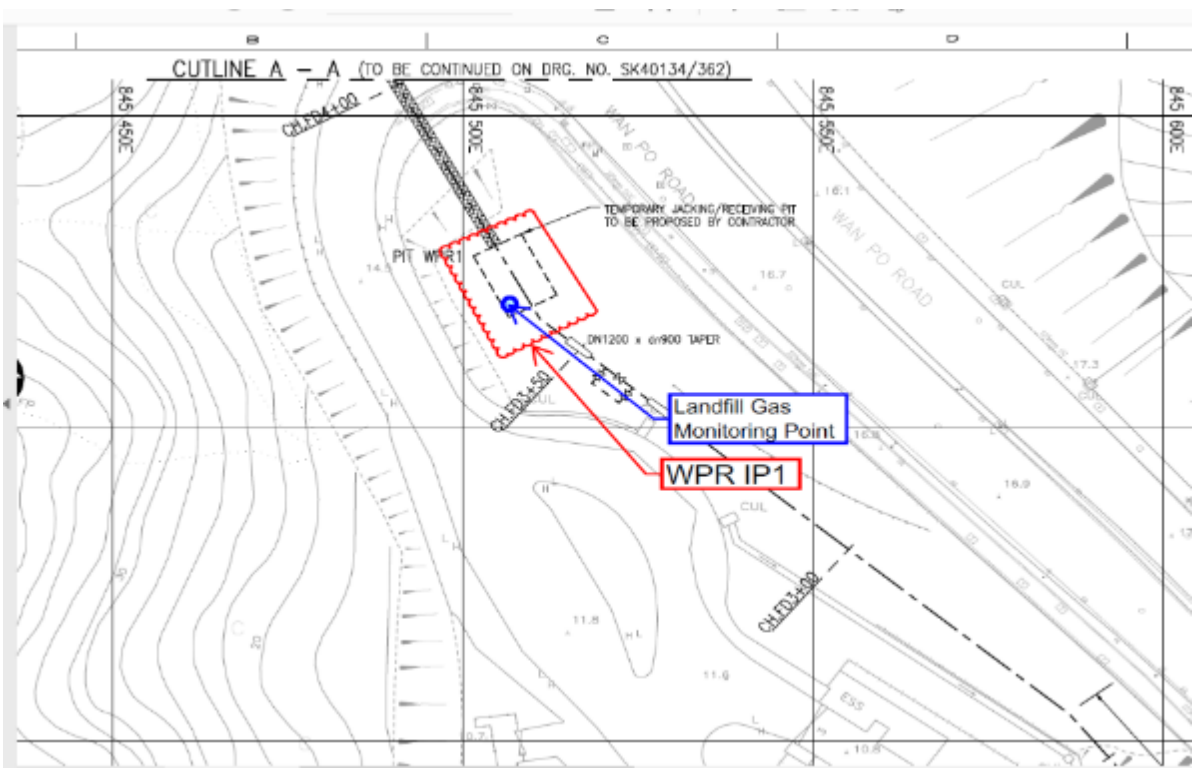


Figure 4.14 Monitoring Location – WPR IP1

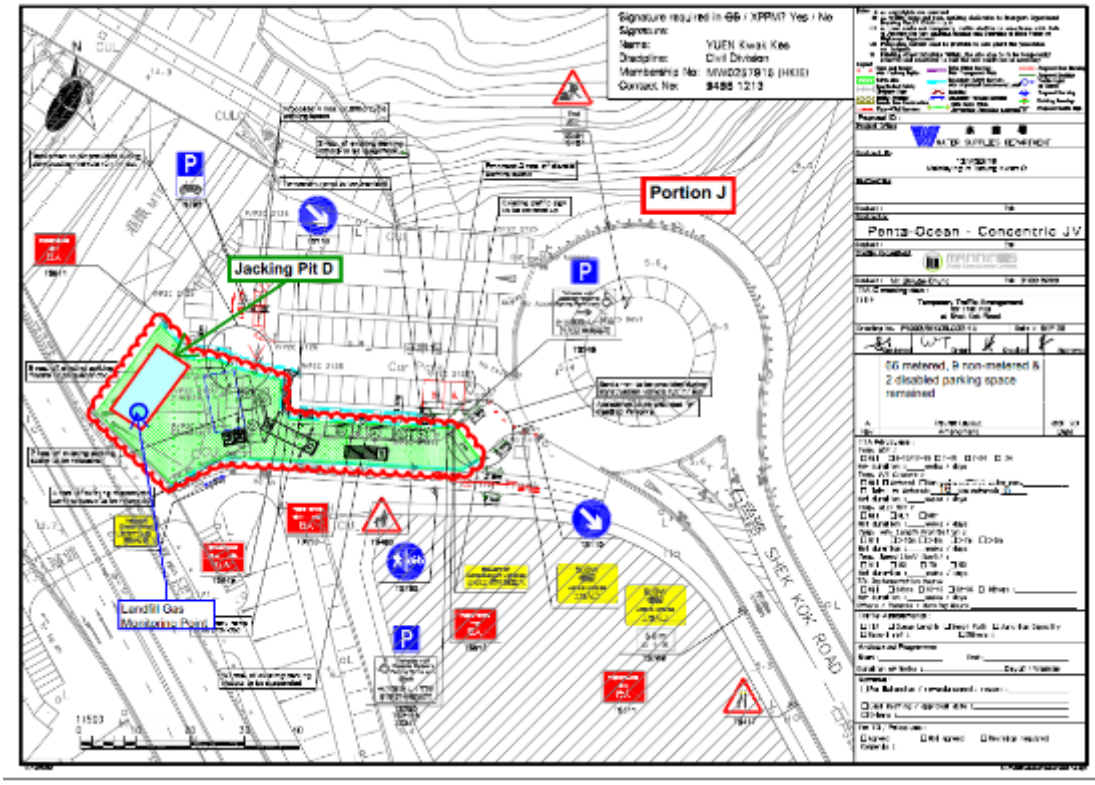


Figure 4.15 Monitoring Location – Jacking Pit D

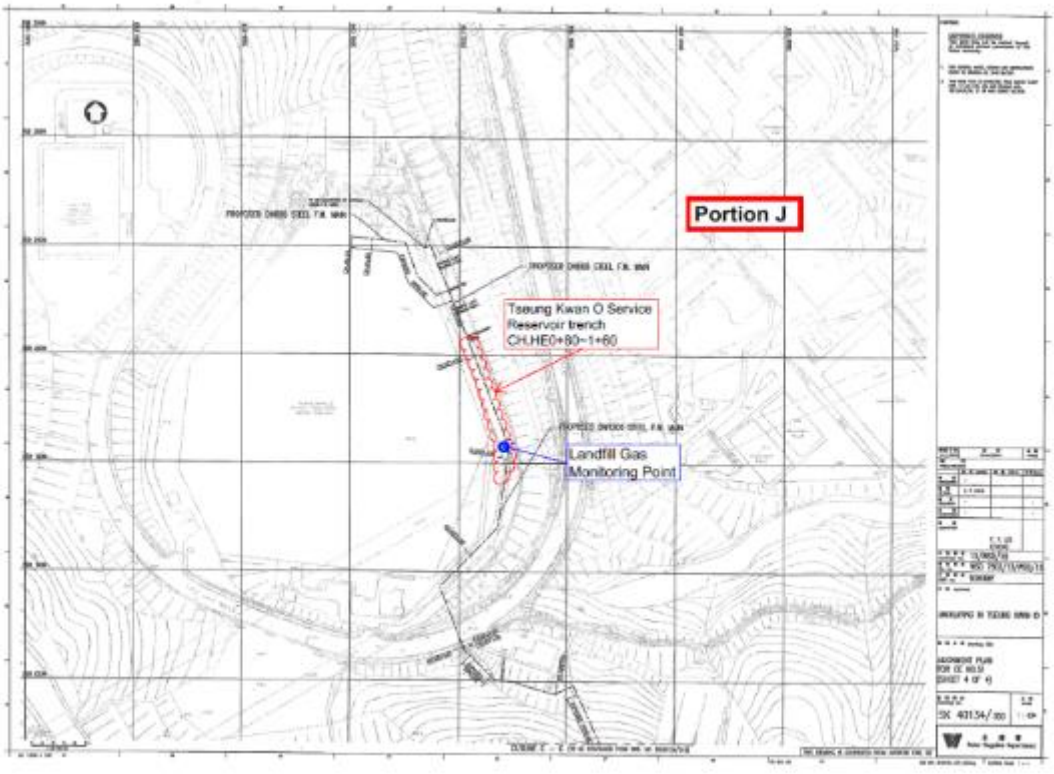


Figure 4.16 Monitoring Location – CH.HE0+80-1+60

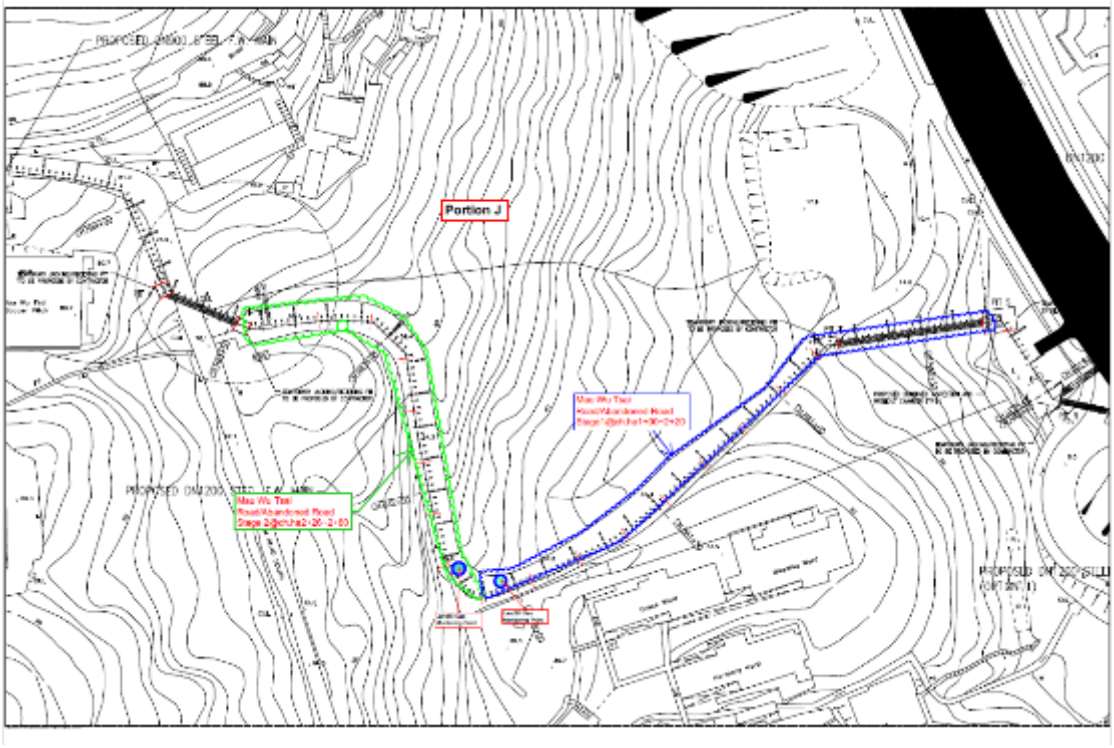


Figure 4.17 Monitoring Location – Mau Wu Tsai Abandoned Road

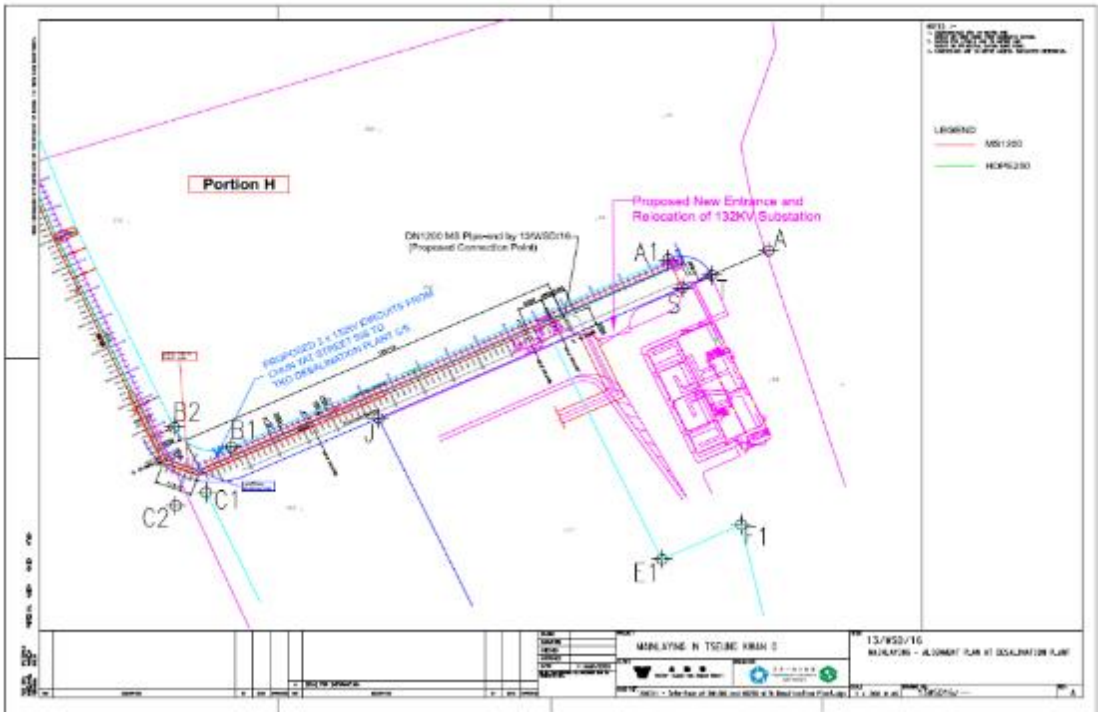


Figure 4.18a Monitoring Location - CH.CT 0+07 ~ 2+58

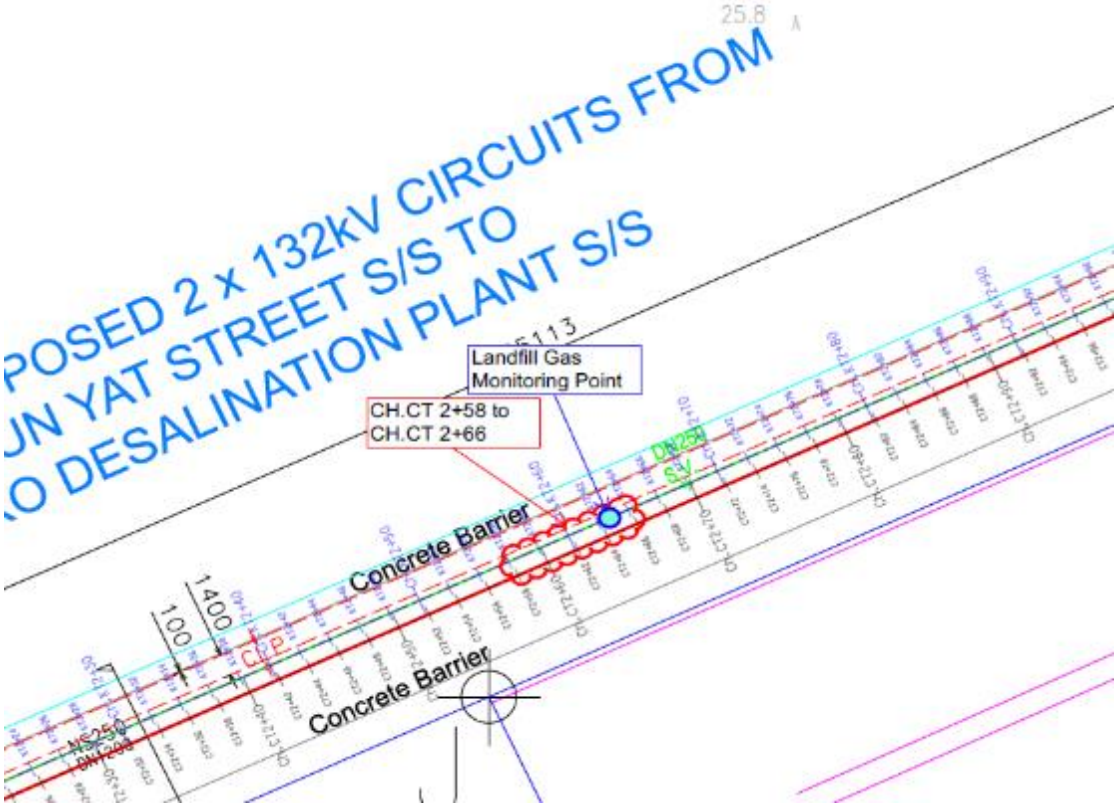


Figure 4.18b Monitoring Location - CH.CT 2+58 ~ 2+66

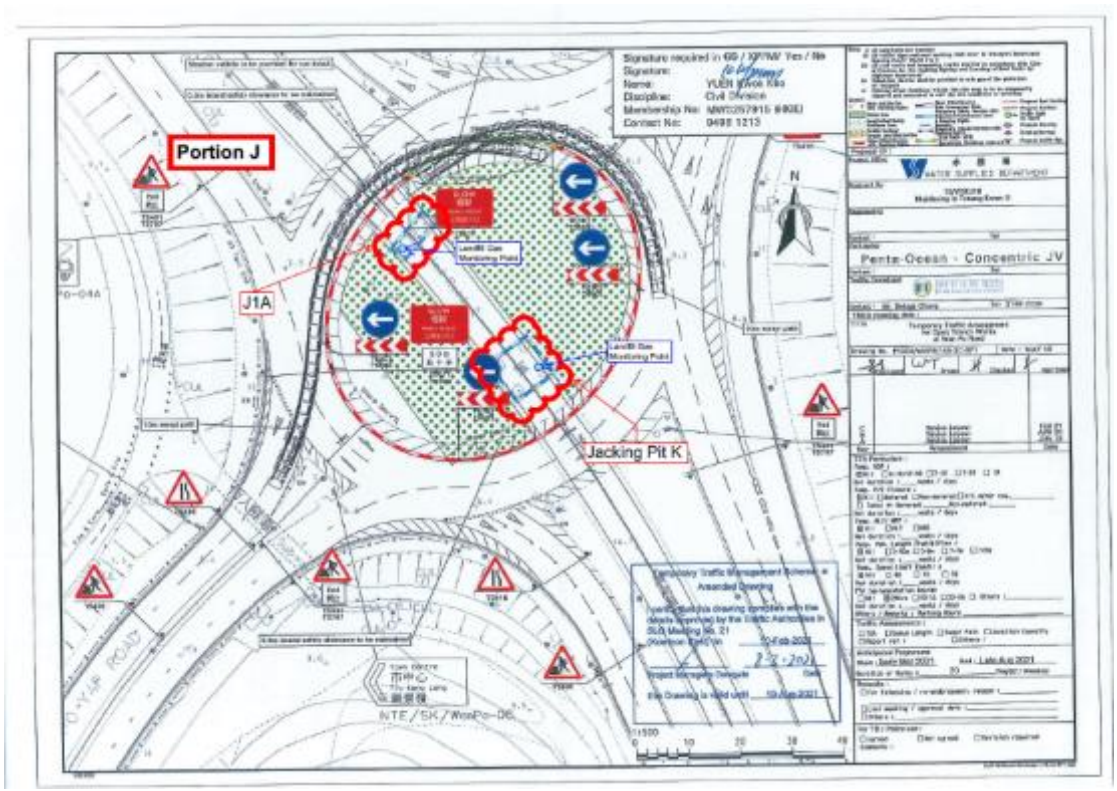


Figure 4.19 Monitoring Location – Pit K

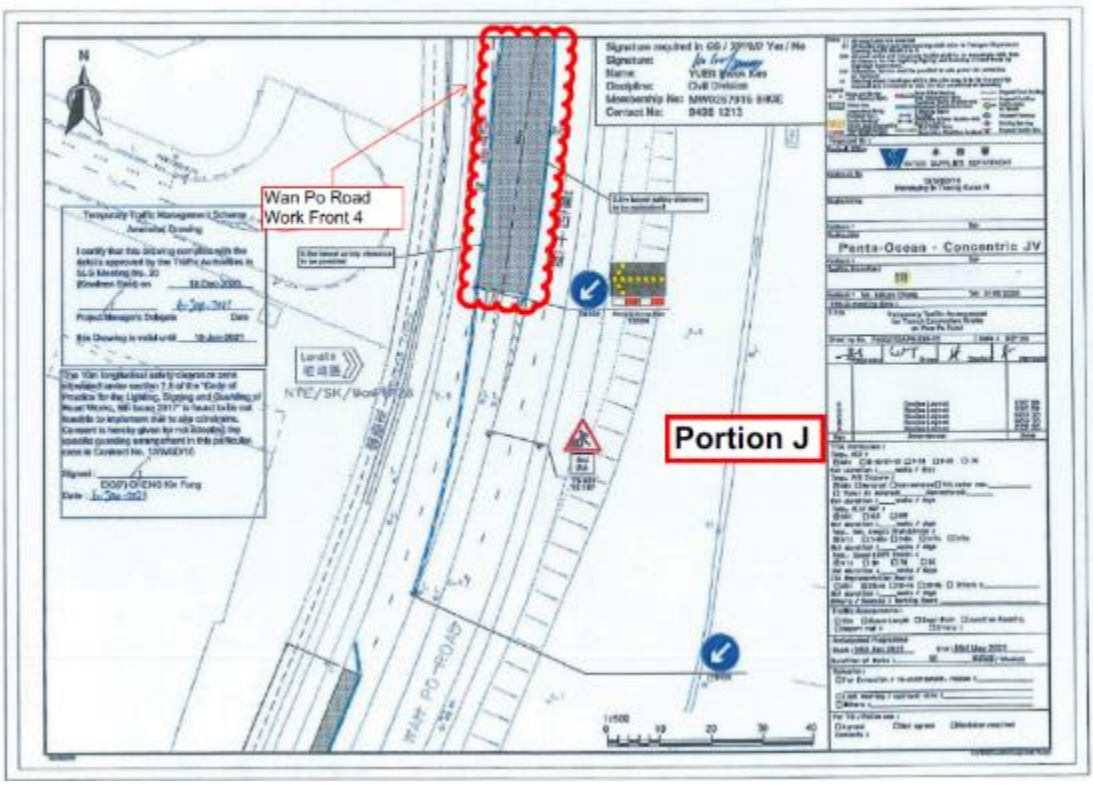


Figure 4.20a Monitoring Location – Wan Po Road 4

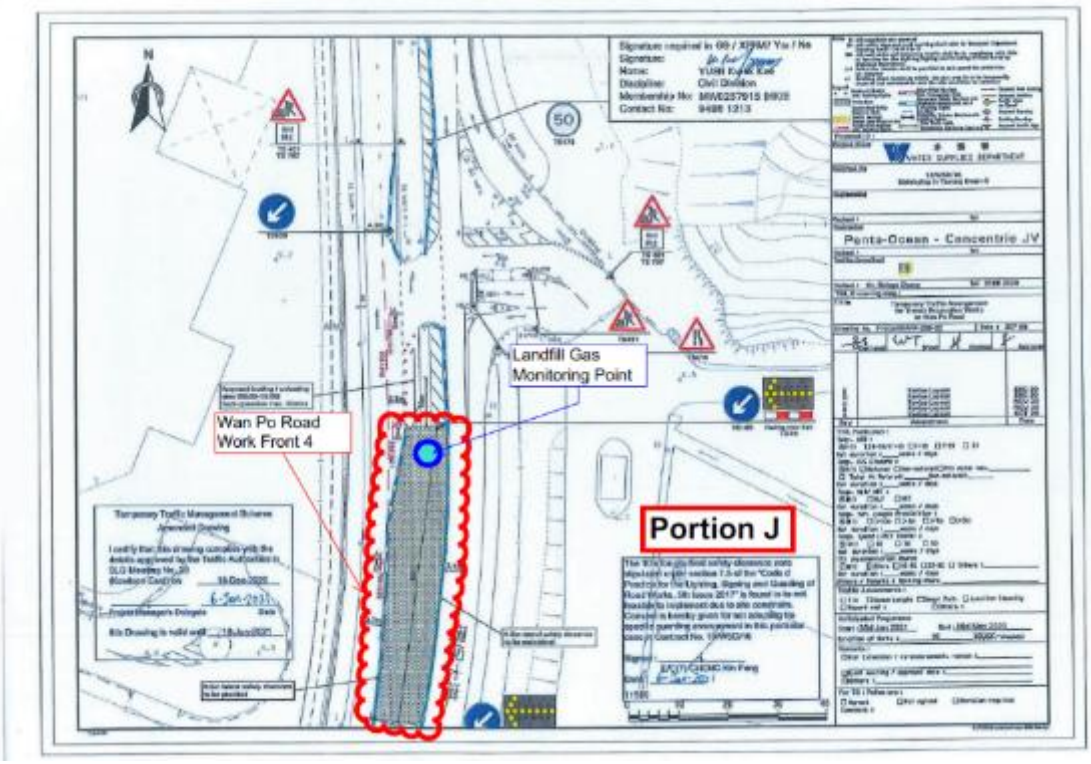


Figure 4.20b Monitoring Location – Wan Po Road 4

4.3 Monitoring Parameters

Landfill Gas monitoring was carried out to identify any migration between the landfill and the Project and to ensure the safety of the construction, operation and maintenance personnel working on-site, visitors and any other person within the Project area.

The following parameters were monitored:

- Methane.
- Oxygen.
- Carbon Dioxide.
- Barometric Pressure.

4.4 Action and Limit Level

Action and Limit Level are provided in **Table 4.1**.

Table 4.1 Action and Limit Level for Landfill Gas Monitoring Equipment

Parameters	Action Level	Limit Level
Oxygen (O2)	<19% O2	<19% O2
Methane (CH4)	>10% LEL	>20% LEL
Carbon Dioxide (CO2)	>0.5% CO2	>1.5% CO2

4.5 Monitoring Equipment

Landfill Gas monitoring was carried out using intrinsically-safe, portable multi-gas monitoring instruments. The gas monitoring equipment is:

- Complying with the Landfill Gas Hazard Assessment Guidance Note as intrinsically safe;
- Capable of continuous barometric pressure and gas pressure measurements;
- Normally operated in diffusion mode unless required for spot sampling, when it should be capable of operating by means of an aspirator or pump;
- Having low battery, fault and over range indication incorporated;
- Capable of storing monitoring data, and shall be capable of being down-loaded directly;
- Measure in the following ranges:

methane	0-100% Lower Explosion Limit (LEL) and 0-100% v/v;
oxygen	0-25% v/v;
carbon dioxide	0-5% v/v; and
barometric pressure	mBar (absolute)

alarm (both audibly and visually) in the event that the concentrations of the following are exceeded:

methane	>10% LEL;
oxygen	<19% by volume; and
carbon dioxide	>0.5% by volume
barometric pressure	mBar (absolute)

Monitoring Equipment used in the reporting period are summarised in **Table 4.2**. The Landfill Gas monitoring equipment calibration certificate is presented in **Appendix I**.

Table 4.2 Landfill Gas Monitoring Equipment

Equipment	Brand and Model	Calibration Expiry Date
Portable Gas Detector	QRAE III	27 July 2022
MultiRAE Lite	PGM-6208	06 April 2022
Portable Gas Detector	XT-XWHM-Y-OR	08 June 2022

4.6 Monitoring Results

In the reporting period, construction works within the consultation zones, excavations of 1m depth or more was monitored. Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations for 321 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

5. SUMMARY OF MONITORING EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

The Environmental Complaint Handling Procedure is shown in below **Figure 5.1**:

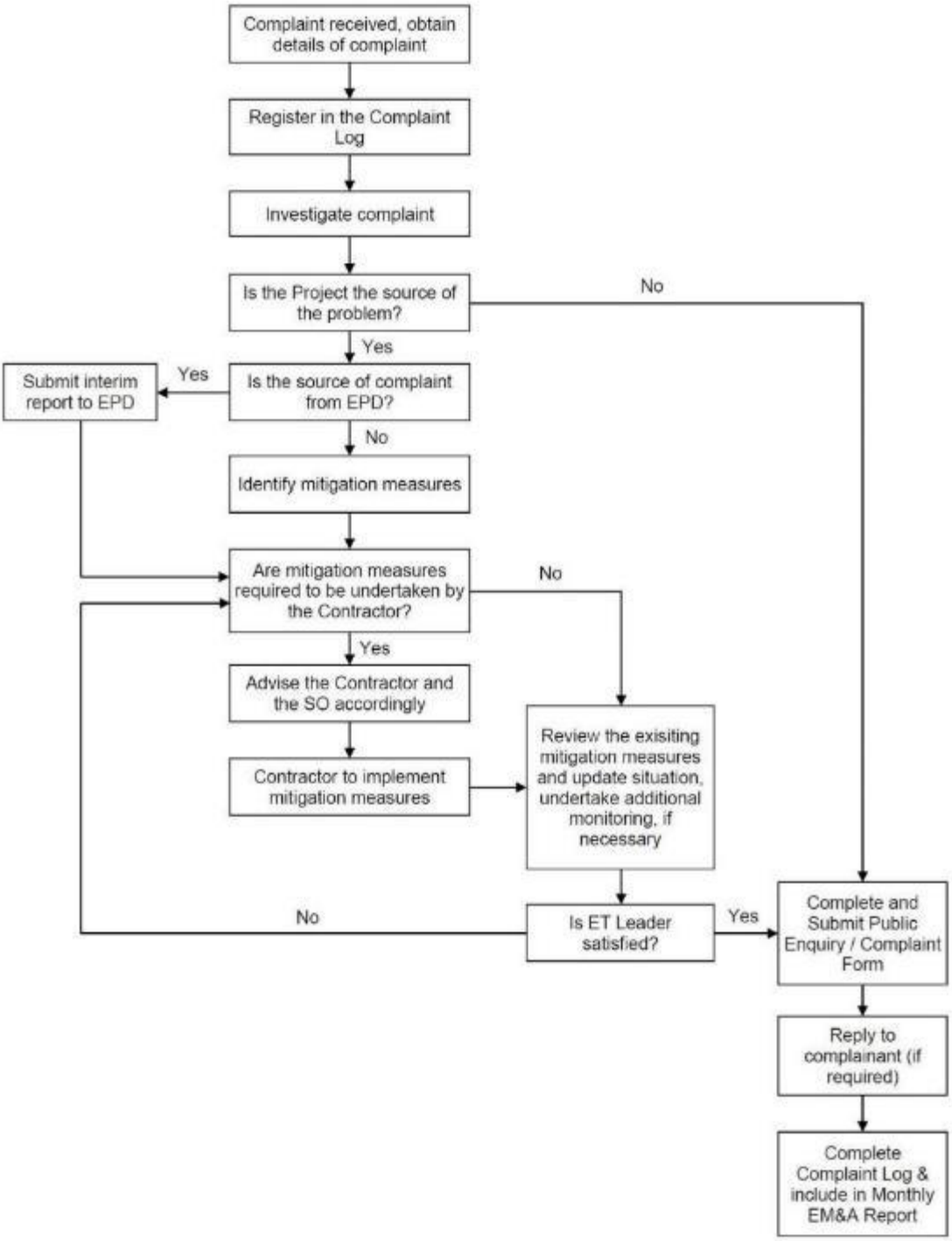


Figure 5.1 Environmental Complaint Handling Procedure

Impact monitoring for noise impact was scheduled in the reporting month for NSR4 – Creative Secondary School on 4, 9, 18 and 24 February 2022 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations and within the consultation zones for 321 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

No exceedance of the Action and Limit Level was recorded during the reporting period.

No project-related environmental complaint was received in the reporting period.

No notification of summons and prosecution was received in the reporting period.

Statistics on complaints and regulatory compliance are summarized in **Appendix K**.

6. EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on 11, 17 and 24 February 2022 at the site portions list in **Table 6.1** below.

Table 6.1 Site Inspection Record

Date	Inspected Site Portion	Time
11 February 2022	Portion J	09:30am – 10:30am
17 February 2022	Portion J	13:15am – 14:15am
24 February 2022	Portion J	09:40am – 11:00am

One joint site inspection with IEC was carried out on 24 February 2022.

Minor deficiencies were observed during weekly site inspections. Key observations during the site inspections are summarized in **Table 6.2**.

Table 6.2 Site Observations

Date	Environmental Observations	Follow-up Status
11 February 2022	1. Drip tray should be provided for chemical storage at Pit X. 2. To review water mitigation measure at piling area (Pit X). 3. Regular clear the rubbish in storm drainage to avoid blockage at Pit X.	1. Chemicals were removed. 2. Sandbags was provided to direct surface runoff to wastewater treatment facilities. 3. Rubbishes in storm drainage were cleaned.
17 February 2022	1. Gullies were observed not protected by sandbags/geo-textile on 4 sides at Wan Po Road 3.	1. Gullies were protected by geo-textile.
24 February 2022	1. Drip tray should be provided for chemical storage at Pit D. 2. To establish tree protection zone at Pit D. 3. Wastewater should be properly treated before discharge at Pit A and workfront 4b. 4. To clear stagnant water in drip tray (Pit A). 5. Gully should be covered and provide sandbags around the gully to avoid muddy surface runoff flow into gully. (workfront 4)	1. Chemicals were removed. 2. Tree protection zone was established at Pit D. 3. There was no wastewater discharged at Pit A and workfront 4b. 4. Stagnant water in drip tray was cleared. 5. Gully was covered by geo-textile.

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

Site inspection proforma of the reporting period is provided in **Appendix L**.

7. FUTURE KEY ISSUES

Key works that will be anticipated in the next reporting period for the Project are shown in **Table 7.1**.

Table 7.1. Key works for the next reporting month

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit A	• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C will be conducted.
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	• Excavation and ELS works for jacking Pit 1
	Wan Po Rd – Workfront 2	• Setup for MTMB pipe jacking
	Wan Po Rd – Workfront 3	• Pipe trench excavation and pipe laying
	Wan Po Rd – Workfront 4	• Pipe trench excavation and pipe laying
	Wan Po Rd – Pit A	• Setting up for MTBM pipe jacking works • Commence MTMB pipe jacking
	Wan Po Rd – Pit B	• MTBM pipe jacking
	Wan Po Rd – Pit D	• MTBM pipe jacking
	Shek Kok Road – Pit D	• MTBM pipe jacking.
	Shek Kok Road – Hand-shield	• Construction of wing wall.
	Landfill Stage 1 – Area A	• Trench excavation and pipe laying
	Pet Garden's Road	• Trench excavation and pipe laying
	Pung Loi Road – Pit WPR1	• Setup for MTMB pipe jacking
	Roundabout – Pit G1A	• Pipe laying inside sleeve pipe
	Roundabout – Pit J1A	• Preparation for pipe laying between Pit G1A to Pit J1A. • Grouting for sleeve pipe between Pit K to Pit L after completion of pipe laying.
	Velodrome – Pit K	
	Velodrome – Pit O to Pit N	• Trench excavation and pipe laying.
	Velodrome – Pit O to Pit P	• Site setup for trenchless works.
	Mau Wu Tsai – Workfront 1	• Gate valve chamber construction • Trench reinstatement
	Po Lam Road South	• Trench excavation and pipe laying
	Po Lam Road (C2)	• Pipe piling of pipe bridge at Location A westside slope.
	Po Lam Road (D2)	• Trench excavation and pipe laying
	Po Lam Road (B4)	• Trench rock breaking • Trench excavation and pipe laying
	Tsui Lam Road	• Predrilling for mini pile
	TKO Primary Service Reservoir	• Trench excavation and pipe laying

The major environmental impacts brought by the above construction works will include:

- Construction dust and noise generation of mainlaying of pipes, TBM break through, and excavation works;
- Waste generation from construction activities; and
- Impact on water quality from construction activities.

The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Dust suppression by regular wetting and water spraying for excavation works, mainlaying of pipes and TBM break through works;
- Reduction of noise from equipment and machinery on-site;
- Sorting and storage of general refuse and construction waste; and
- Treatment of wastewater with water treatment facilities before discharge.

The proactive environmental protection proforma for the next reporting month is listed in **Appendix M**.

Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

The tentative impact monitoring schedule for the next reporting month is attached in **Appendix N**.

8. CONCLUSION AND RECOMMENDATIONS

This is the 43rd monthly Environmental Monitoring and Audit (EM&A) Report presenting the EM&A works undertaken during the period from 1 February to 28 February 2022, in accordance with the EM&A Manual and the requirement under EP-503/2015/A.

Impact monitoring for noise impact was scheduled in the reporting month for NSR4 – Creative Secondary School on 4, 9, 18 and 24 February 2022 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations and within the consultation zones for 321 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

No exceedance of the Action and Limit Level was recorded during the reporting period.

Weekly environmental site inspections were conducted during the reporting month. Minor deficiencies were observed during site inspection and were rectified. The environmental performance of the project was therefore considered satisfactory.

According to the environmental site inspections performed in the reporting month, the contractor is reminded to pay attention on maintaining site tidiness, water treatment facilities, dust suppression mitigations and proper materials storage.

No environmental complaint was received in the reporting month.

No notification of summons or prosecution was received since the commencement of the Contract.

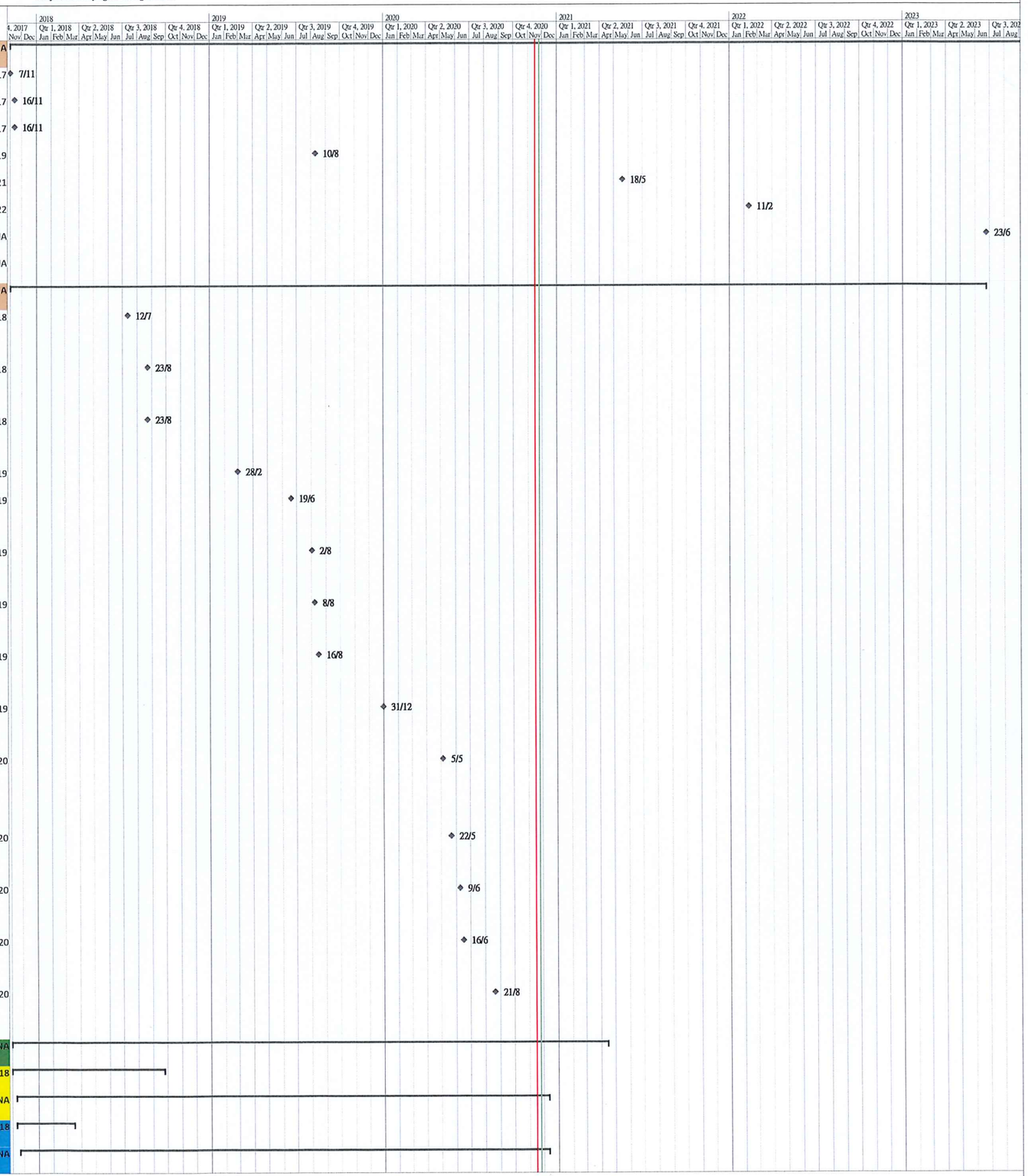
The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Appendix A

Construction Programme

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
1	**Key Dates**	**2420 days**	**7 Nov '17**	**22 Jun '24**	**Calendar Day**			**0%**	**7 Nov '17**	**NA**
2	Contract Date	0 days	7 Nov '17	7 Nov '17	Calendar Day		36,28,29F:	100%	7 Nov '17	7 Nov '17
3	Starting Date	0 days	16 Nov '17	16 Nov '17	Calendar Day			100%	16 Nov '17	16 Nov '17
4	Access Date of Portion A, B, C, D, E, F and G	0 days	16 Nov '17	16 Nov '17	Calendar Day		59,32,40,4	100%	16 Nov '17	16 Nov '17
5	Access Date of Portion H	0 days	10 Aug '19	10 Aug '19	Calendar Day		582	100%	10 Aug '19	10 Aug '19
6	Completion Date (Contract)	0 days	18 May '21	18 May '21	Calendar Day			100%	18 May '21	18 May '21
7	Revised Completion Date (Including EOT - CE01 & CE23)	0 days	11 Feb '22	11 Feb '22	Calendar Day			100%	11 Feb '22	11 Feb '22
8	Planned Completion	0 days	23 Jun '23	23 Jun '23	Calendar Day	10		0%	NA	NA
9	Defect Date	0 days	22 Jun '24	22 Jun '24	Calendar Day	10FS+365 days		0%	NA	NA
10	**Mainlaying In Tseung Kwan O**	**2055 days**	**7 Nov '17**	**23 Jun '23**	**Calendar Day**		**9FS+365 d**	**35%**	**7 Nov '17**	**NA**
11	Issue CE No. 01 - Change in Pressure Rating of Watermain, Valves and Fittings from PN16 to PN25	0 days	12 Jul '18	12 Jul '18	Calendar Day		37	100%	12 Jul '18	12 Jul '18
12	Issue CE No. 04 - Feasibility Study of Realignment of Pipeline between Po Hung Road and TKO Freshwater PSR	0 days	23 Aug '18	23 Aug '18	Calendar Day			100%	23 Aug '18	23 Aug '18
13	Issue CE No. 05 - Feasibility Study of Realignment of Pipeline at Tseung Kwan O Stage 1 Landfill	0 days	23 Aug '18	23 Aug '18	Calendar Day			100%	23 Aug '18	23 Aug '18
14	Issue CE No. 10 - Contractor Design of The Realignment	0 days	28 Feb '19	28 Feb '19	Calendar Day			100%	28 Feb '19	28 Feb '19
15	Issue CE No. 20 - Traffic Count and Preliminary Traffic Analysis in Po Lam Road and Tsui Lam Road	0 days	19 Jun '19	19 Jun '19	Calendar Day			100%	19 Jun '19	19 Jun '19
16	Issue CE No. 27 - Underground Utilities Detection Survey for Working Pit D (CH. A22+75)	0 days	2 Aug '19	2 Aug '19	Calendar Day			100%	2 Aug '19	2 Aug '19
17	Issue CE No. 21 - Temporary Diversion of Uncharted Underground Utilities near Wan O Road at CH. A16+00 (Pit B)	0 days	8 Aug '19	8 Aug '19	Calendar Day			100%	8 Aug '19	8 Aug '19
18	Issue CE No. 26 - Change in Cathodic Protection System for Mild Steel Pipes	0 days	16 Aug '19	16 Aug '19	Calendar Day		54	100%	16 Aug '19	16 Aug '19
19	Issue CE No. 35 - Feasibility Study on the Alternative Alignment by Trenchless Method in the Wan Po Road J/O Lohas Park Road	0 days	31 Dec '19	31 Dec '19	Calendar Day			100%	31 Dec '19	31 Dec '19
20	Issue CE No. 55 - Design of the Water Mains Structure and Associated Pipe Support across the Natural Stream Course for Alternative Alignment in Tsui Lam	0 days	5 May '20	5 May '20	Calendar Day			100%	5 May '20	5 May '20
21	Issue CE No. 56 - Excavation of Inspection Pits for the Alternative Alignment (Batch No. 2)	0 days	22 May '20	22 May '20	Calendar Day			100%	22 May '20	22 May '20
22	Issue CE No. 64 - Tree Survey at Tsui Lam (Location A and Location B)	0 days	9 Jun '20	9 Jun '20	Calendar Day			100%	9 Jun '20	9 Jun '20
23	Issue CE No. 62 - Design of Pipe Support in Tsui Lam (Location B) .	0 days	16 Jun '20	16 Jun '20	Calendar Day			100%	16 Jun '20	16 Jun '20
24	Issue CE No. 66 - Excavation of Inspection Pits for the Alternative Alignment (Batch No. 3)	0 days	21 Aug '20	21 Aug '20	Calendar Day			100%	21 Aug '20	21 Aug '20
25	**Preliminaries**	**1255 days**	**7 Nov '17**	**14 Apr '21**	**Calendar Day**			**80%**	**7 Nov '17**	**NA**
26	**Submission and Permit Application**	**322 days**	**7 Nov '17**	**24 Sep '18**	**Calendar Day**			**100%**	**7 Nov '17**	**24 Sep '18**
38	**Subcontracting**	**1122 days**	**16 Nov '17**	**11 Dec '20**	**Calendar Day**			**97%**	**16 Nov '17**	**NA**
39	**Submission and Approval**	**122 days**	**16 Nov '17**	**17 Mar '18**	**Calendar Day**			**100%**	**16 Nov '17**	**17 Mar '18**
46	**Subcontractor Selection and Subcontracting**	**1115 days**	**23 Nov '17**	**11 Dec '20**	**Calendar Day**			**97%**	**23 Nov '17**	**NA**

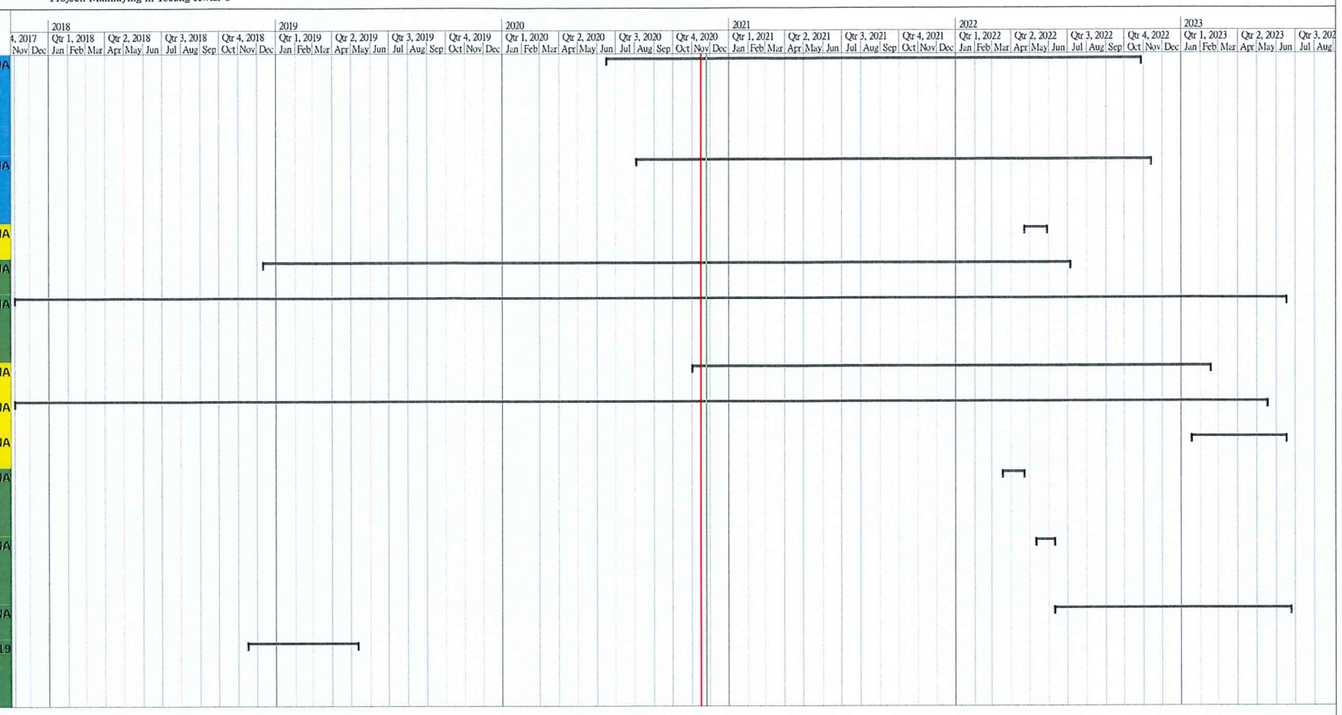


Working Programme No. 11
Data Date : 15 Nov 2020

Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Critical, Critical Split, Progress, Manual Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
534	Water Main Structure and Associated Pipe Support from Po Lam Road to Tsui Lam Road (CH. HD0+00 ~ CH. HD1+01)	702 days	16 Jun '20	27 Oct '22	HK Working Day		643	13%	16 Jun '20	NA
555	From Tsui Lam Road to TKO Freshwater PSR (CH. HE.0+00 ~ CH. HE2+00) & (CH.J0+00 CH.J0+57)	677 days	3 Aug '20	12 Nov '22	HK Working Day		643	0%	NA	NA
571	Final Connection to TKO Fresh Water Service Reservoir	30 days	22 Apr '22	28 May '22	HK Working Day			0%	NA	NA
574	Mainlaying in Tseung Kwan O Area 137 (Portion H)	1051 days	11 Dec '18	4 Jul '22	HK Working Day			59%	11 Dec '18	NA
635	DN1200 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, Sterilization and Water Sampling	2048 days	7 Nov '17	16 Jun '23	Calendar Day			0%	NA	NA
636	Static Pressure Test	838 days	1 Nov '20	16 Feb '23	Calendar Day			0%	NA	NA
644	Pipeline Cleaning and CCTV Inspection	2018 days	7 Nov '17	17 May '23	Calendar Day		653FF+30	0%	NA	NA
652	Sterilization and Water Sampling	150 days	18 Jan '23	16 Jun '23	Calendar Day			0%	NA	NA
654	DN800 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, Sterilization and Water Sampling	35 days	18 Mar '22	21 Apr '22	Calendar Day		572,573	0%	NA	NA
658	NS250 HDPE Pipe Static Pressure, Pipeling Cleaning, CCTV Inspection, Sterilization and Water Sampling	30 days	11 May '22	9 Jun '22	Calendar Day			0%	NA	NA
660	Handover Portion I and Portion H to WSD Region	379 days	10 Jun '22	23 Jun '23	Calendar Day			0%	NA	NA
663	Water Supply to Tseung Kwan O Desalination Plant at Fill Bank of Tseung Kwan O Area 137 (Portion J)	141 days	16 Nov '18	11 May '19	HK Working Day			100%	16 Nov '18	11 May '19

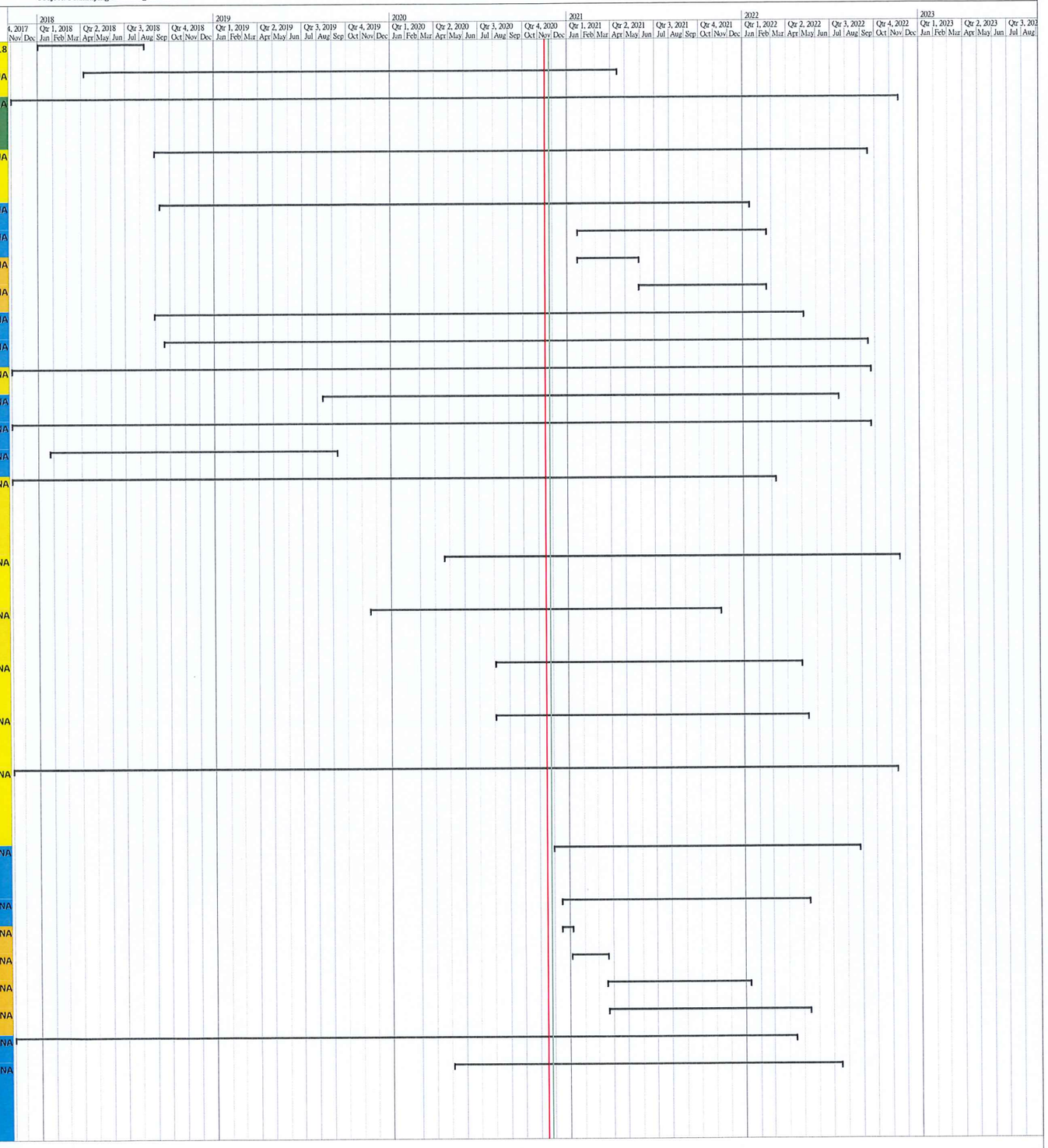


Working Programme No. 11
Data Date : 15 Nov 2020

Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Critical, Critical Split, Progress, Manual Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
57	Site Establishment	220 days	2 Jan '18	9 Aug '18	Calendar Day			100%	2 Jan '18	9 Aug '18
60	Procurement of Major Material	1104 days	7 Apr '18	14 Apr '21	Calendar Day			54%	7 Apr '18	NA
70	Mainlaying From Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service Reservoir (Portion I)	1491 days	7 Nov '17	18 Nov '22	HK Working Day			26%	7 Nov '17	NA
71	Open Cut Excavation, Pipe Laying and Reinstatement at Wan Po Road	1198 days	30 Aug '18	15 Sep '22	HK Working Day		638	52%	30 Aug '18	NA
72	Open Cut CH.A0+00 to CH.A3+62 (Pit 1)	992 days	10 Sep '18	14 Jan '22	HK Working Day			66%	10 Sep '18	NA
83	Trenchless Works (Pit 1 to Pit 2)	317 days	22 Jan '21	18 Feb '22	HK Working Day			0%	NA	NA
84	Construction of Jacking / Receiving Pits	100 days	22 Jan '21	28 May '21	HK Working Day			0%	NA	NA
87	TMB Pipe Jacking Pit 1- Pit 2	217 days	29 May '21	18 Feb '22	HK Working Day		99	0%	NA	NA
98	Open Cut CH.A5+29.5 (Pit 2) to CH.A7+12	1088 days	30 Aug '18	5 May '22	HK Working Day			73%	30 Aug '18	NA
108	Open Cut CH.A7+12 to CH.A13+79.5	1181 days	19 Sep '18	15 Sep '22	HK Working Day			47%	19 Sep '18	NA
132	Trenchless Work at Wan Po Road From Pit A to Pit F	1443 days	7 Nov '17	21 Sep '22	HK Working Day		639	24%	7 Nov '17	NA
133	Trenchless Works (Pit A to Pit C)	867 days	12 Aug '19	16 Jul '22	HK Working Day			17%	12 Aug '19	NA
164	Crossing Wan Po Road and Lohas Park Road	1780 days	7 Nov '17	21 Sep '22	Calendar Day			7%	7 Nov '17	NA
227	Miscellaneous	594 days	25 Jan '18	10 Sep '19	Calendar Day			80%	25 Jan '18	NA
230	Open Cut Excavation, Pipe Laying and Reinstatement at TKO Landfill Stage 1 and TKO South Waterfront Promenade	1283 days	7 Nov '17	8 Mar '22	HK Working Day		640	54%	7 Nov '17	NA
289	Burned Pipe, Exposed Pipe, Trenchless Works From Loi Avenue to Po Yap Road Roundabout	768 days	20 Apr '20	18 Nov '22	HK Working Day		641	7%	20 Apr '20	NA
347	Trenchless Work from Po Yap Road Roundabout to KMB Depot (Pit K to Pit P)	590 days	18 Nov '19	13 Nov '21	HK Working Day		642	37%	18 Nov '19	NA
428	Trenchless Work from KMB Depot to Po Hong Road (Pit P to Pit R)	515 days	3 Aug '20	29 Apr '22	HK Working Day		642	25%	3 Aug '20	NA
452	Open Trench from Pit R to Pit S & Trenchless Works from Pit S to Pit T	524 days	3 Aug '20	12 May '22	HK Working Day		642	1%	3 Aug '20	NA
471	Open Cut Excavation, Pipe Laying and Reinstatement at Abandoned Road / Mau Wu Tsai Village / Po Lam Road North	1486 days	7 Nov '17	12 Nov '22	HK Working Day			6%	7 Nov '17	NA
472	Open Trench Pipelaying at Abandoned Road & Mau Wu Tsai Village	513 days	30 Nov '20	25 Aug '22	HK Working Day		642	0%	NA	NA
475	Trenchless Work at Mau Wu Tsui Village	412 days	16 Dec '20	13 May '22	HK Working Day		642	0%	NA	NA
476	Inspection Pit Excavation	16 days	16 Dec '20	6 Jan '21	HK Working Day			0%	NA	NA
481	Construction of Jacking / Receiving Pits	62 days	5 Jan '21	20 Mar '21	HK Working Day			0%	NA	NA
486	Hand Shield Pipe Jacking from Pit U to Pit V (~30m)	241 days	19 Mar '21	10 Jan '22	HK Working Day			0%	NA	NA
498	Hand Shield Pipe Jacking from Pit W to Pit X (~85m)	336 days	22 Mar '21	13 May '22	HK Working Day			0%	NA	NA
510	Open Trench Pipe Laying at Po Lam Road North	1314 days	7 Nov '17	14 Apr '22	HK Working Day		643	0%	NA	NA
513	Water Main Structure and Associated Pipe Support across the Natural Stream Course (CH. HB0+00 ~ CH.HB0+94)	653 days	5 May '20	16 Jul '22	HK Working Day		643	19%	5 May '20	NA



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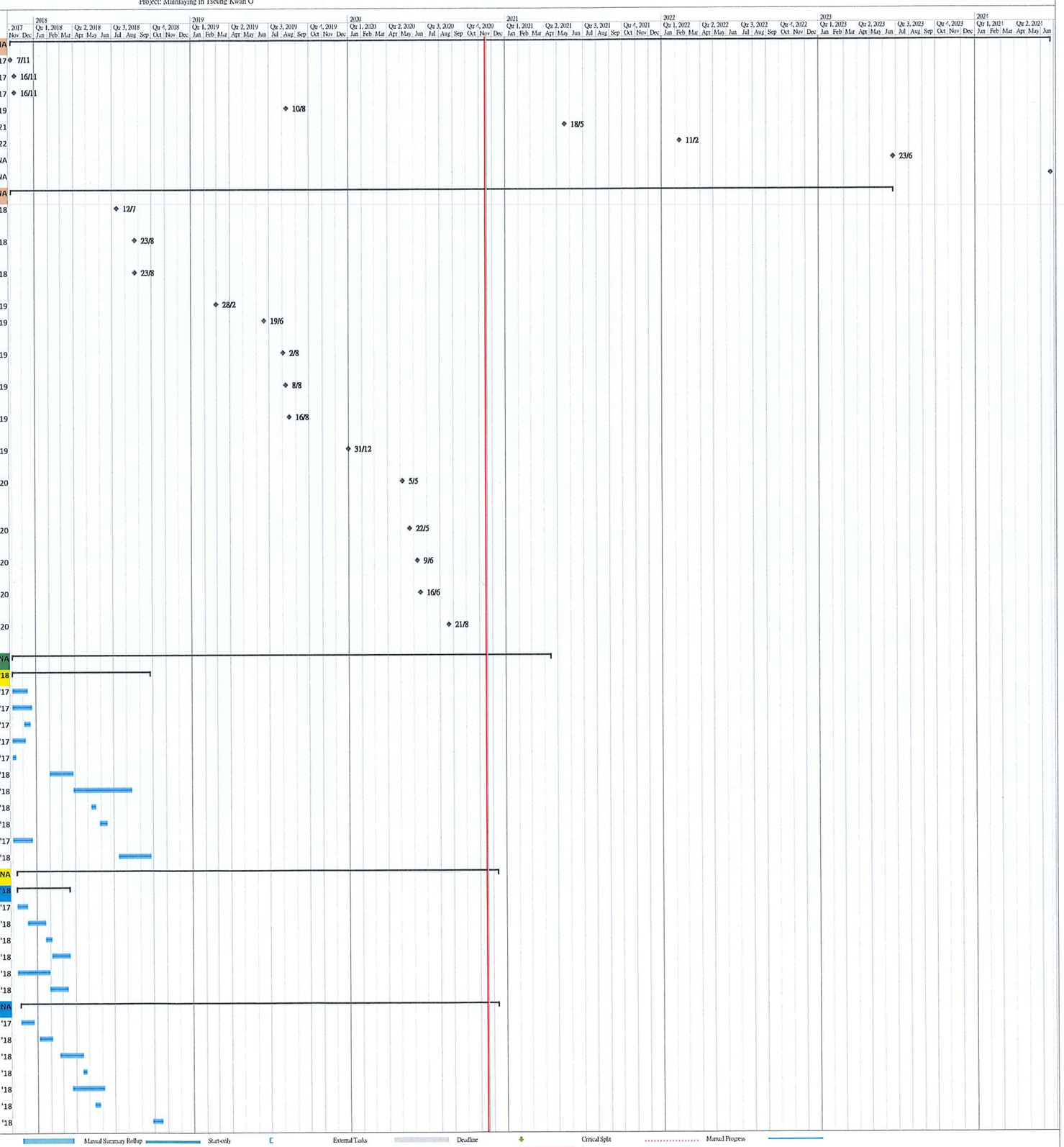
Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Critical, Critical Split, Progress, Manual Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
1	**Key Dates**	**2420 days**	**7 Nov '17**	**22 Jun '24**	**Calendar Day**			**0%**	**7 Nov '17**	**NA**
2	Contract Date	0 days	7 Nov '17	7 Nov '17	Calendar Day		36,28,29F!	100%	7 Nov '17	7 Nov '17
3	Starting Date	0 days	16 Nov '17	16 Nov '17	Calendar Day			100%	16 Nov '17	16 Nov '17
4	Access Date of Portion A, B, C, D, E, F and G	0 days	16 Nov '17	16 Nov '17	Calendar Day		59,32,40,4	100%	16 Nov '17	16 Nov '17
5	Access Date of Portion H	0 days	10 Aug '19	10 Aug '19	Calendar Day		582	100%	10 Aug '19	10 Aug '19
6	Completion Date (Contract)	0 days	18 May '21	18 May '21	Calendar Day			100%	18 May '21	18 May '21
7	Revised Completion Date (Including EOT - CE01 & CE23)	0 days	11 Feb '22	11 Feb '22	Calendar Day			100%	11 Feb '22	11 Feb '22
8	Planned Completion	0 days	23 Jun '23	23 Jun '23	Calendar Day	10		0%	NA	NA
9	Defect Date	0 days	22 Jun '24	22 Jun '24	Calendar Day	10FS+365 days		0%	NA	NA
10	**Mainlaying In Tseung Kwan O**	**2055 days**	**7 Nov '17**	**23 Jun '23**	**Calendar Day**		**9FS+365 d**	**35%**	**7 Nov '17**	**NA**
11	Issue CE No. 01 - Change in Pressure Rating of Watermain, Valves and Fittings from PN16 to PN25	0 days	12 Jul '18	12 Jul '18	Calendar Day		37	100%	12 Jul '18	12 Jul '18
12	Issue CE No. 04 - Feasibility Study of Realignment of Pipeline between Po Hung Road and TKO Freshwater PSR	0 days	23 Aug '18	23 Aug '18	Calendar Day			100%	23 Aug '18	23 Aug '18
13	Issue CE No. 05 - Feasibility Study of Realignment of Pipeline at Tseung Kwan O Stage 1 Landfill	0 days	23 Aug '18	23 Aug '18	Calendar Day			100%	23 Aug '18	23 Aug '18
14	Issue CE No. 10 - Contractor Design of The Realignment	0 days	28 Feb '19	28 Feb '19	Calendar Day			100%	28 Feb '19	28 Feb '19
15	Issue CE No. 20 - Traffic Count and Preliminary Traffic Analysis in Po Lam Road and Tsui Lam Road	0 days	19 Jun '19	19 Jun '19	Calendar Day			100%	19 Jun '19	19 Jun '19
16	Issue CE No. 27 - Underground Utilities Detection Survey for Working Pit D (CH. A22+75)	0 days	2 Aug '19	2 Aug '19	Calendar Day			100%	2 Aug '19	2 Aug '19
17	Issue CE No. 21 - Temporary Diversion of Uncharted Underground Utilities near Wan O Road at CH. A16+00 (Pit B)	0 days	8 Aug '19	8 Aug '19	Calendar Day			100%	8 Aug '19	8 Aug '19
18	Issue CE No. 26 - Change in Cathodic Protection System for Mild Steel Pipes	0 days	16 Aug '19	16 Aug '19	Calendar Day		54	100%	16 Aug '19	16 Aug '19
19	Issue CE No. 35 - Feasibility Study on the Alternative Alignment by Trenchless Method in the Wan Po Road J/O Lohas Park Road	0 days	31 Dec '19	31 Dec '19	Calendar Day			100%	31 Dec '19	31 Dec '19
20	Issue CE No. 55 - Design of the Water Mains Structure and Associated Pipe Support across the Natural Stream Course for Alternative Alignment in Tsui Lam	0 days	5 May '20	5 May '20	Calendar Day			100%	5 May '20	5 May '20
21	Issue CE No. 56 - Excavation of Inspection Pits for the Alternative Alignment (Batch No. 2)	0 days	22 May '20	22 May '20	Calendar Day			100%	22 May '20	22 May '20
22	Issue CE No. 64 - Tree Survey at Tsui Lam (Location A and Location B)	0 days	9 Jun '20	9 Jun '20	Calendar Day			100%	9 Jun '20	9 Jun '20
23	Issue CE No. 62 - Design of Pipe Support in Tsui Lam (Location B) .	0 days	16 Jun '20	16 Jun '20	Calendar Day			100%	16 Jun '20	16 Jun '20
24	Issue CE No. 66 - Excavation of Inspection Pits for the Alternative Alignment (Batch No. 3)	0 days	21 Aug '20	21 Aug '20	Calendar Day			100%	21 Aug '20	21 Aug '20
25	**Preliminaries**	**1255 days**	**7 Nov '17**	**14 Apr '21**	**Calendar Day**			**80%**	**7 Nov '17**	**NA**
26	**Submission and Permit Application**	**322 days**	**7 Nov '17**	**24 Sep '18**	**Calendar Day**			**100%**	**7 Nov '17**	**24 Sep '18**
27	Submission of Safety Plan	35 days	7 Nov '17	11 Dec '17	Calendar Day	2		100%	7 Nov '17	11 Dec '17
28	Submission of Site Management Plan and Trip Ticket	45 days	7 Nov '17	21 Dec '17	Calendar Day	2		100%	7 Nov '17	21 Dec '17
29	Submission of Key People	14 days	4 Dec '17	17 Dec '17	Calendar Day	2FS+27 days		100%	4 Dec '17	17 Dec '17
30	Submission of Subcontractor Management Plan	30 days	7 Nov '17	6 Dec '17	Calendar Day	2		100%	7 Nov '17	6 Dec '17
31	Submission of First Programme	7 days	7 Nov '17	13 Nov '17	Calendar Day	2		100%	7 Nov '17	13 Nov '17
32	Submission of Pipe Material (PN16)	54 days	1 Feb '18	27 Mar '18	Calendar Day	4	33	100%	1 Feb '18	27 Mar '18
33	Approval of Pipe material submission (PN16)	137 days	28 Mar '18	11 Aug '18	Calendar Day	32	61SS+7 da	100%	28 Mar '18	11 Aug '18
34	Appointment of Environmental Team	10 days	9 May '18	18 May '18	Calendar Day	50	35	100%	9 May '18	18 May '18
35	Environmental Baseline Monitoring	17 days	29 May '18	14 Jun '18	Calendar Day	34		100%	29 May '18	14 Jun '18
36	Submission of Environmental Management Plan	45 days	7 Nov '17	21 Dec '17	Calendar Day	2		100%	7 Nov '17	21 Dec '17
37	Submission & Approval of CE01 Pipe Material PN25	75 days	12 Jul '18	24 Sep '18	Calendar Day	11	65	100%	12 Jul '18	24 Sep '18
38	**Subcontracting**	**1122 days**	**16 Nov '17**	**11 Dec '20**	**Calendar Day**			**97%**	**16 Nov '17**	**NA**
39	**Submission and Approval**	**122 days**	**16 Nov '17**	**17 Mar '18**	**Calendar Day**			**100%**	**16 Nov '17**	**17 Mar '18**
40	Submission of sub-contractor selection procedure	24 days	16 Nov '17	9 Dec '17	Calendar Day	4	41	100%	16 Nov '17	9 Dec '17
41	Approval of sub-contractor selection procedure	42 days	10 Dec '17	20 Jan '18	Calendar Day	40	56,51,52F!	100%	10 Dec '17	20 Jan '18
42	Submission of Sub-contractor Condition	14 days	21 Jan '18	3 Feb '18	Calendar Day	4	43	100%	21 Jan '18	3 Feb '18
43	Approval of Sub-contractor Condition	42 days	4 Feb '18	17 Mar '18	Calendar Day	42	56,51,52F!	100%	4 Feb '18	17 Mar '18
44	Submission of Supplier Selection Procedure	75 days	16 Nov '17	29 Jan '18	Calendar Day	4	45	100%	16 Nov '17	29 Jan '18
45	Approval of Supplier Selection Procedure	42 days	30 Jan '18	12 Mar '18	Calendar Day	44	61	100%	30 Jan '18	12 Mar '18
46	**Subcontractor Selection and Subcontracting**	**1115 days**	**23 Nov '17**	**11 Dec '20**	**Calendar Day**			**97%**	**23 Nov '17**	**NA**
47	Traffic Consultant for Investigation Works	30 days	23 Nov '17	22 Dec '17	Calendar Day	4		100%	23 Nov '17	22 Dec '17
48	Consultancy: Landscape for Investigation works	30 days	5 Jan '18	3 Feb '18	Calendar Day	4	228	100%	5 Jan '18	3 Feb '18
49	Consultancy: Traffic consultant	55 days	21 Feb '18	16 Apr '18	Calendar Day			100%	21 Feb '18	16 Apr '18
50	Environmental Team	9 days	16 Apr '18	24 Apr '18	Calendar Day		34	100%	16 Apr '18	24 Apr '18
51	Temporary site office, hoarding & project sign board	75 days	22 Mar '18	4 Jun '18	Calendar Day	43,41	58FS+13 d	100%	22 Mar '18	4 Jun '18
52	Consultancy: Independent Checking Engineer	12 days	14 May '18	25 May '18	Calendar Day	41FS+10 days,43		100%	14 May '18	25 May '18
53	Survey Services	23 days	26 Sep '18	18 Oct '18	Calendar Day			100%	26 Sep '18	18 Oct '18



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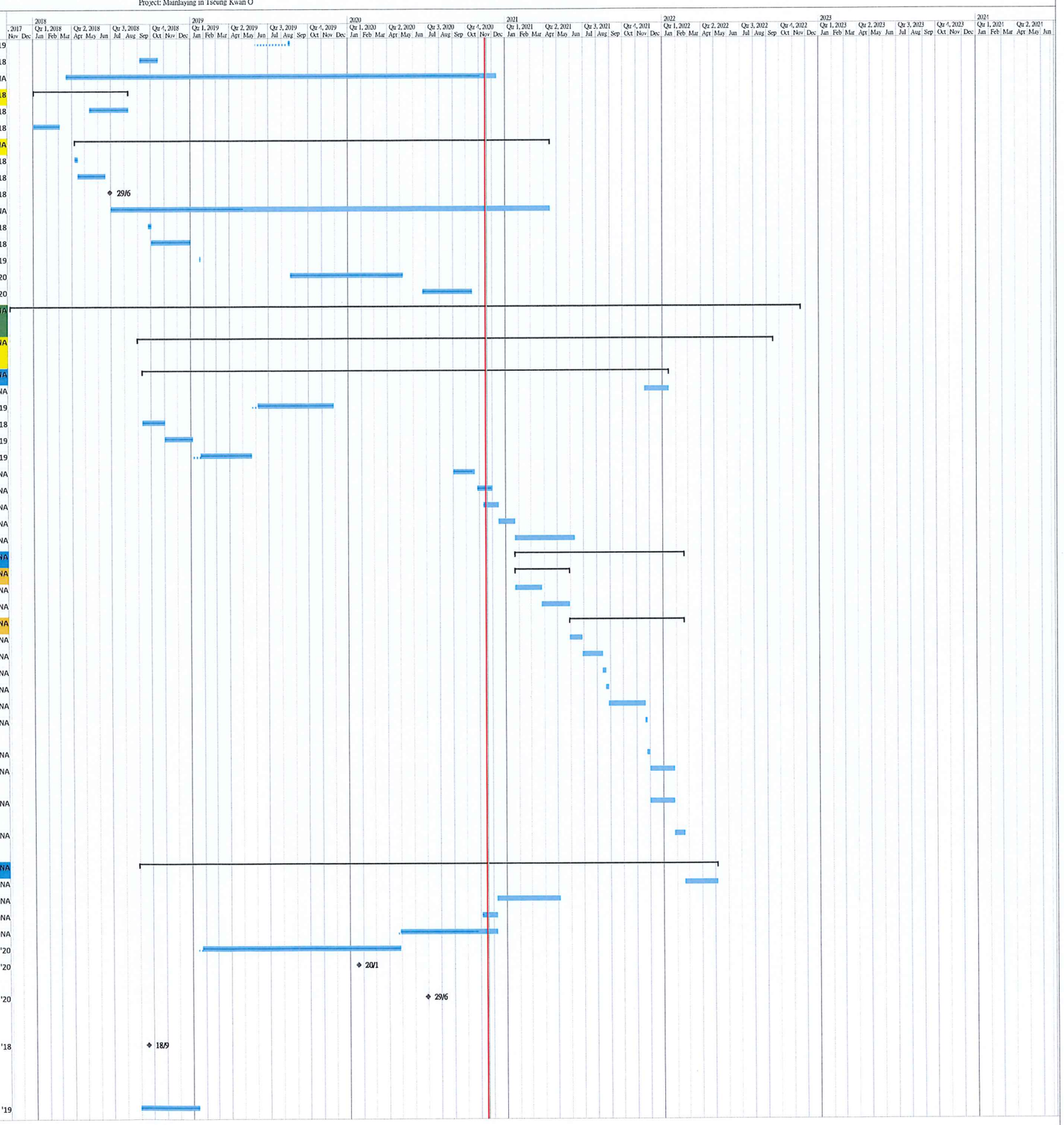
Task · Split · Milestone · Summary · Project Summary · Inactive Task · Inactive Milestone · Inactive Summary · Manual Task · Duration-only · Manual Summary Rollup · Manual Summary · Start-only · Finish-only · External Tasks · External Milestone · Deadline · Critical · Critical Split · Progress · Manual Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
54	Sacrificial Anode Cathodic Protection (SACP)	82 days	30 May '19	19 Aug '19	Calendar Day	18	68	100%	30 May '19	19 Aug '19
55	Landscaping Works	42 days	6 Sep '18	17 Oct '18	Calendar Day	41,43		100%	6 Sep '18	17 Oct '18
56	Miscellaneous	1000 days	18 Mar '18	11 Dec '20	Calendar Day	43,41		96%	18 Mar '18	NA
57	**Site Establishment**	**220 days**	**2 Jan '18**	**9 Aug '18**	**Calendar Day**			**100%**	**2 Jan '18**	**9 Aug '18**
58	Setting up PM's and Contractor Accommodation	90 days	12 May '18	9 Aug '18	Calendar Day	51FS+13 days		100%	12 May '18	9 Aug '18
59	Initial Survey of the Site	60 days	2 Jan '18	2 Mar '18	Calendar Day	4		100%	2 Jan '18	2 Mar '18
60	**Procurement of Major Material**	**1104 days**	**7 Apr '18**	**14 Apr '21**	**Calendar Day**			**54%**	**7 Apr '18**	**NA**
61	Preparation of Purchase Order	7 days	7 Apr '18	13 Apr '18	Calendar Day	33SS+7 days,45	62	100%	7 Apr '18	13 Apr '18
62	1st Batch of Material Delivery	65 days	14 Apr '18	17 Jun '18	Calendar Day	61	63	100%	14 Apr '18	17 Jun '18
63	1st Batch of Material Delivery on site	0 days	29 Jun '18	29 Jun '18	Calendar Day	62	64	100%	29 Jun '18	29 Jun '18
64	Material Delivery by Batches	1020 days	30 Jun '18	14 Apr '21	Calendar Day	63		30%	30 Jun '18	NA
65	Preparation of CE01 Purchase Order	7 days	25 Sep '18	1 Oct '18	Calendar Day	37	66	100%	25 Sep '18	1 Oct '18
66	1st Batch of CE01 Material Delivery	90 days	2 Oct '18	30 Dec '18	Calendar Day	65	67	100%	2 Oct '18	30 Dec '18
67	1st Batch of CE01 Material Delivery on site	1 day	22 Jan '19	22 Jan '19	Calendar Day	66		100%	22 Jan '19	22 Jan '19
68	SCAP Material Submission and Approval	261 days	20 Aug '19	6 May '20	Calendar Day	54	69	100%	20 Aug '19	6 May '20
69	SCAP Purchase Order & Material Delivery	115 days	22 Jun '20	14 Oct '20	Calendar Day	68		100%	22 Jun '20	14 Oct '20
70	**Mainlaying From Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service Reservoir (Portion I)**	**1491 days**	**7 Nov '17**	**18 Nov '22**	**HK Working Day**			**26%**	**7 Nov '17**	**NA**
71	**Open Cut Excavation, Pipe Laying and Reinstatement at Wan Po Road**	**1198 days**	**30 Aug '18**	**15 Sep '22**	**HK Working Day**		**638**	**52%**	**30 Aug '18**	**NA**
72	**Open Cut CH.A0+00 to CH.A3+62 (Pit 1)**	**992 days**	**10 Sep '18**	**14 Jan '22**	**HK Working Day**			**66%**	**10 Sep '18**	**NA**
73	CH. A0+00 - 0+14 OC	45 days	20 Nov '21	14 Jan '22	HK Working Day	609		0%	NA	NA
74	CH. A0+14 - 0+50 OC	156 days	23 May '19	26 Nov '19	HK Working Day			100%	23 May '19	26 Nov '19
75	CH. A0+50 - 1+50 OC	42 days	10 Sep '18	31 Oct '18	HK Working Day			100%	10 Sep '18	31 Oct '18
76	CH. A1+50 - 1+60 OC	53 days	1 Nov '18	4 Jan '19	HK Working Day			100%	1 Nov '18	4 Jan '19
77	CH. A1+60 - 2+14 OC	107 days	5 Jan '19	20 May '19	HK Working Day			100%	5 Jan '19	20 May '19
78	CH. A2+14 - 2+30 OC	40 days	1 Sep '20	19 Oct '20	HK Working Day			90%	1 Sep '20	NA
79	CH. A2+30 - 2+46 OC	30 days	27 Oct '20	30 Nov '20	HK Working Day			90%	27 Oct '20	NA
80	CH. A2+46 - 2+62 OC	30 days	10 Nov '20	14 Dec '20	HK Working Day		81	5%	10 Nov '20	NA
81	CH. A2+62 - 2+98 OC	30 days	15 Dec '20	21 Jan '21	HK Working Day	80	82	0%	NA	NA
82	CH. A2+98 - 3+62 OC with DN150 DAV	110 days	22 Jan '21	9 Jun '21	HK Working Day	81	85SS	0%	NA	NA
83	**Trenchless Works (Pit 1 to Pit 2)**	**317 days**	**22 Jan '21**	**18 Feb '22**	**HK Working Day**			**0%**	**NA**	**NA**
84	**Construction of Jacking / Receiving Pits**	**100 days**	**22 Jan '21**	**28 May '21**	**HK Working Day**			**0%**	**NA**	**NA**
85	CH. A3+62 - Pit 1	50 days	22 Jan '21	24 Mar '21	HK Working Day	82SS	88,86	0%	NA	NA
86	CH. A5+29.5 - Pit 2	50 days	25 Mar '21	28 May '21	HK Working Day	85	88	0%	NA	NA
87	**TMB Pipe Jacking Pit 1- Pit 2**	**217 days**	**29 May '21**	**18 Feb '22**	**HK Working Day**		**99**	**0%**	**NA**	**NA**
88	TBM Establishment	24 days	29 May '21	26 Jun '21	HK Working Day	85,86	89	0%	NA	NA
89	TBM Jacking Sleeve Pipe (L=180m, 4.5m/day)	40 days	28 Jun '21	13 Aug '21	HK Working Day	88	90	0%	NA	NA
90	Remove Setup including Thrust Wall	6 days	14 Aug '21	20 Aug '21	HK Working Day	89	91	0%	NA	NA
91	Setup Guard Rail	6 days	21 Aug '21	27 Aug '21	HK Working Day	90	92	0%	NA	NA
92	Pipe Laying inside Sleeve Pipe (8m pipe, 3 days per	69 days	28 Aug '21	19 Nov '21	HK Working Day	91	93	0%	NA	NA
93	Formwork & Setup for Grouting the Gap between Pipe and Sleeve	3 days	20 Nov '21	23 Nov '21	HK Working Day	92	94	0%	NA	NA
94	Grouting Works (30m/day)	6 days	24 Nov '21	30 Nov '21	HK Working Day	93	95,96	0%	NA	NA
95	Construction of Combined Inspection and Washout Chamber Type I at Pit 1	45 days	1 Dec '21	25 Jan '22	HK Working Day	94	97	0%	NA	NA
96	Construction of Combined Inspection and Washout Chamber Type I at Pit 2	45 days	1 Dec '21	25 Jan '22	HK Working Day	94	97	0%	NA	NA
97	Backfill, Remove ELS and Road Reinstatement at Pit 1 & pit 2	18 days	26 Jan '22	18 Feb '22	HK Working Day	95,96		0%	NA	NA
98	**Open Cut CH.A5+29.5 (Pit 2) to CH.A7+12**	**1088 days**	**30 Aug '18**	**5 May '22**	**HK Working Day**			**73%**	**30 Aug '18**	**NA**
99	CH. A5+29.5 - 5+88 OC	60 days	19 Feb '22	5 May '22	HK Working Day	100,87		0%	NA	NA
100	CH. A5+88 - 6+12 OC + DN300 Washout Pump Pit	115 days	9 Dec '20	4 May '21	HK Working Day	101	99	0%	NA	NA
101	CH. A6+12 - 6+20 OC	30 days	4 Nov '20	8 Dec '20	HK Working Day		100,116	10%	4 Nov '20	NA
102	CH. A6+20 - 6+54 OC	191 days	22 Apr '20	8 Dec '20	HK Working Day	103	116	80%	22 Apr '20	NA
103	CH. A6+54 - 6+70 OC + Handshield	378 days	14 Jan '19	26 Apr '20	HK Working Day		102	100%	14 Jan '19	26 Apr '20
104	Issue CE No. 22 - Instruction to Change in Mainlaying Method t Wan Po Road between CH.6+54 and A6+61	0 days	20 Jan '20	20 Jan '20	Calendar Day			100%	20 Jan '20	20 Jan '20
105	Issue CE No. 25 - Unforeseen Underground Conditions during Trench Excavation at Wan Po Road between CH. A6+68 and CH. A6+88	0 days	29 Jun '20	29 Jun '20	Calendar Day			100%	29 Jun '20	29 Jun '20
106	EWN No. 14 (covered by CNE No. 8 & CE No.06) - Unforeseen Underground Condition During Trench Excavation for Mainlaying at Wan Po Road Between CH.A6+90 and CH.A7+10	0 days	18 Sep '18	18 Sep '18	Calendar Day			100%	18 Sep '18	18 Sep '18
107	CH. A6+70 - 7+12 OC	111 days	30 Aug '18	12 Jan '19	HK Working Day			100%	30 Aug '18	12 Jan '19



Working Programme No. 11
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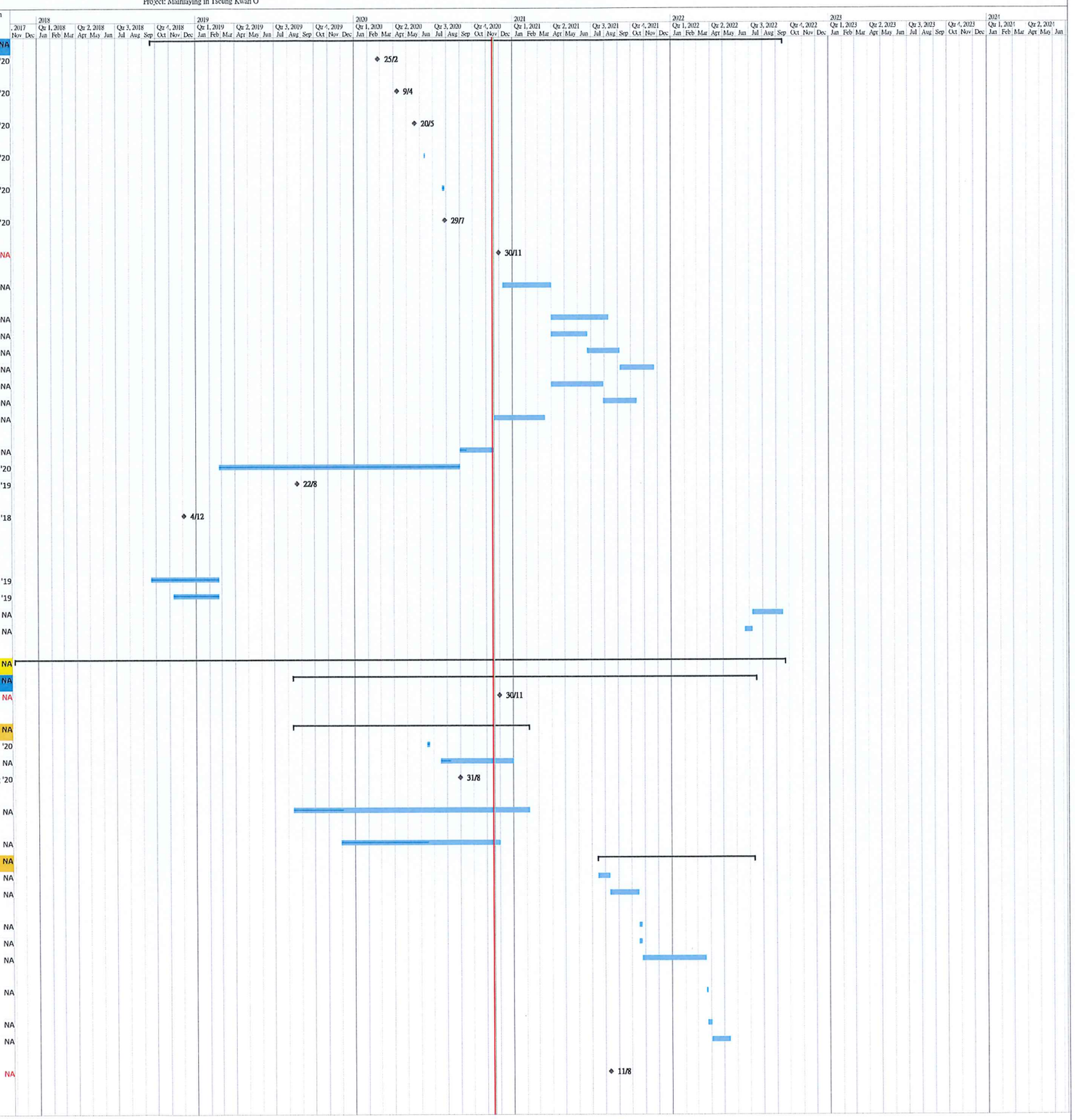
Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Critical | Critical Split | Progress | Manual Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
108	**Open Cut CH.A7+12 to CH.A13+79.5**	1181 days	19 Sep '18	15 Sep '22	HK Working Day			47%	19 Sep '18	NA
109	EWN No. 108 - TTA Implementation outside the entrance gate of Green Valley Landfill	0 days	25 Feb '20	25 Feb '20	Calendar Day			100%	25 Feb '20	25 Feb '20
110	EWN No. 108 - TTA Implementation outside the entrance gate of Green Valley Landfill	0 days	9 Apr '20	9 Apr '20	Calendar Day			100%	9 Apr '20	9 Apr '20
111	EWN No. 159 - Confimation of Revised Pipe Alignment outside the Entrance Gate of Green Valley Landfill	0 days	20 May '20	20 May '20	Calendar Day			100%	20 May '20	20 May '20
112	EWN No. 173 - Additional Inspection Pit at Wan Po Road Northbound outside the Entrance Gate of Green Valley Lanfill	1 day	11 Jun '20	11 Jun '20	Calendar Day			100%	11 Jun '20	11 Jun '20
113	Batch No. 3 - Inspection Pit Excavation at the footpath of Wan Po Road near Green Valley Landfill Entrance	4 days	23 Jul '20	27 Jul '20	HK Working Day			100%	23 Jul '20	27 Jul '20
114	EWN No. 189 - Inspection Pit on Footpath at Wan Po Road Northbound outside the Entrance Gate of Green Valley Lanfill	0 days	29 Jul '20	29 Jul '20	Calendar Day		115	100%	29 Jul '20	29 Jul '20
115	Expected CE No XX - Change to Trenchless Method near the entrance of Green Valley Landfill	0 days	30 Nov '20	30 Nov '20	Calendar Day	114		0%	NA	NA
116	CH. A7+12 - 7+64 OC with DN600 IT & DN900 Valve Chamber	90 days	9 Dec '20	30 Mar '21	HK Working Day	102,101	118,117,1:	0%	NA	NA
117	CH. A7+64 - 8+28 Trenchless (Handshield)	105 days	31 Mar '21	9 Aug '21	HK Working Day	116		0%	NA	NA
118	CH. A8+28 - 8+60 OC with DN150 DAV	64 days	31 Mar '21	21 Jun '21	HK Working Day	116	119	0%	NA	NA
119	CH. A8+60 - 9+24 OC	64 days	22 Jun '21	4 Sep '21	HK Working Day	118	120	0%	NA	NA
120	CH. A9+24 - 9+88 OC	64 days	6 Sep '21	22 Nov '21	HK Working Day	119		0%	NA	NA
121	CH. A9+88 - 10+52 OC with DN600 IT	95 days	31 Mar '21	28 Jul '21	HK Working Day	116	122	0%	NA	NA
122	CH. A10+52 - 11+16 OC	64 days	29 Jul '21	13 Oct '21	HK Working Day	121		0%	NA	NA
123	CH. A11+16 - 11+80 OC with DN300 Washout Pump Pit t & DN150 DAV	95 days	18 Nov '20	15 Mar '21	HK Working Day	124		0%	NA	NA
124	CH. A11+80 - 12+12 OC with DN600 IT	64 days	1 Sep '20	17 Nov '20	HK Working Day	125	123	20%	1 Sep '20	NA
125	CH. A12+12 - 12+50 OC with DN900 Valve Chamber	451 days	23 Feb '19	31 Aug '20	HK Working Day		124	100%	23 Feb '19	31 Aug '20
126	Issue CE No. 19 - Change in Design of Gate Valve Chamber at Wan Po Road near CH. A12+40	0 days	22 Aug '19	22 Aug '19	Calendar Day			100%	22 Aug '19	22 Aug '19
127	EWN No.23 (Covered by CNE No.16 & CE No. 18) - Unforeseen Ground Conditions at Open Trench of Mainlaying at Wan Po Road between CH.A12+89 and CH.A13+04	0 days	4 Dec '18	4 Dec '18	Calendar Day			100%	4 Dec '18	4 Dec '18
128	CH. A12+50 - 12+95 OC	125 days	19 Sep '18	21 Feb '19	HK Working Day			100%	19 Sep '18	21 Feb '19
129	CH. A12+95 - 13+13 OC	84 days	9 Nov '18	21 Feb '19	HK Working Day		130	100%	9 Nov '18	21 Feb '19
130	CH. A13+13 - 13+40 OC + DN150 DAV	60 days	7 Jul '22	15 Sep '22	HK Working Day	131,129		0%	NA	NA
131	CH. A13+40 - 13+60 OC & Connection from Open Cut Trench to Jacking Pit A	14 days	20 Jun '22	6 Jul '22	HK Working Day	151	130	0%	NA	NA
132	**Trenchless Work at Wan Po Road From Pit A to Pit F**	1443 days	7 Nov '17	21 Sep '22	HK Working Day		639	24%	7 Nov '17	NA
133	**Trenchless Works (Pit A to Pit C)**	867 days	12 Aug '19	16 Jul '22	HK Working Day			17%	12 Aug '19	NA
134	Expected CE No. 52 - Relocation of Working pits for Trenchless Works in Wan Po Road (Pit A to Pit C)	0 days	30 Nov '20	30 Nov '20	Calendar Day			0%	NA	NA
135	**Construction of Jacking / Receiving Pits**	445 days	12 Aug '19	6 Feb '21	HK Working Day			32%	12 Aug '19	NA
136	Removal of Existing Planter for Jacking Pit A	6 days	15 Jun '20	20 Jun '20	HK Working Day		137	100%	15 Jun '20	20 Jun '20
137	Jacking Pit A	139 days	17 Jul '20	31 Dec '20	HK Working Day	136		14%	17 Jul '20	NA
138	Issue CE No. 32 - Additional Ground Treatment Works in Pit B in Wan Po Road near Wan O Road	0 days	31 Aug '20	31 Aug '20	Calendar Day			100%	31 Aug '20	31 Aug '20
139	Jacking / Receiving Pit B with additional ground grouting works	445 days	12 Aug '19	6 Feb '21	HK Working Day		154	21%	12 Aug '19	NA
140	Receiving Pit C	298 days	29 Nov '19	30 Nov '20	HK Working Day			54%	29 Nov '19	NA
141	**TBM Pipe Jacking (Pit A to Pit B)**	293 days	15 Jul '21	11 Jul '22	HK Working Day			0%	NA	NA
142	Establishment at Pit A	24 days	15 Jul '21	11 Aug '21	HK Working Day	156	143,150	0%	NA	NA
143	Jacking DN1600 Precast Concrete Sleeve Pipe (Pit A - Pit B) (L=240m; 4.5m/day)	54 days	12 Aug '21	16 Oct '21	HK Working Day	142,156	144,145	0%	NA	NA
144	Remove setup including thrust wall at Pit A	6 days	18 Oct '21	23 Oct '21	HK Working Day	143		0%	NA	NA
145	Setup for Pipe Laying inside jacking Pit B	6 days	18 Oct '21	23 Oct '21	HK Working Day	143	146	0%	NA	NA
146	DN1200 MS Pipe Laying inside jacking pipe (240m) (2 days per 4m)(Only Internat Coating)	120 days	25 Oct '21	19 Mar '22	HK Working Day	145	147	0%	NA	NA
147	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	21 Mar '22	23 Mar '22	HK Working Day	146	148	0%	NA	NA
148	Grouting Works (30 meter/day)	8 days	24 Mar '22	1 Apr '22	HK Working Day	147	162,149	0%	NA	NA
149	Pipe Laying bends and thrust block construction inside Jacking Pit A	30 days	2 Apr '22	13 May '22	HK Working Day	148	151	0%	NA	NA
150	Expected CE No. XX - Special Type of Chamber for interface between Trencless Works and Open Cut Work near Jacking Pit A	0 days	11 Aug '21	11 Aug '21	Calendar Day	142	151	0%	NA	NA



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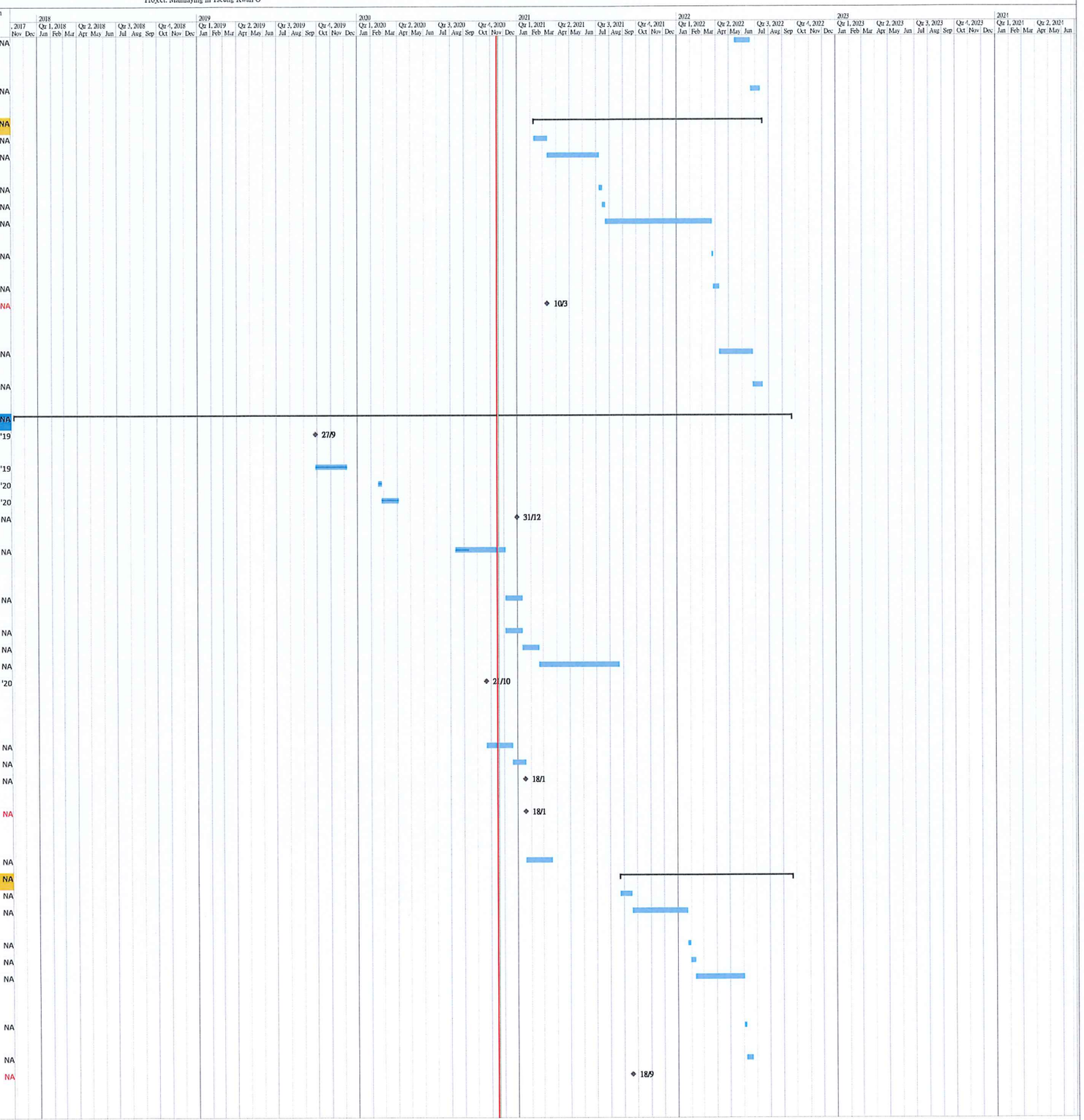
Task | Milestone | Project Summary | Inactive Milestone | Manual Task | Manual Summary Rollup | Start-only | External Tasks | Deadline | Critical Split | Manual Progress
Split | Summary | Inactive Task | Inactive Summary | Duration-only | Manual Summary | Finish-only | External Milestone | Critical | Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
151	Construction of Thrust Block between Trenchless Works and Open Cut Work near Jacking Pit A	30 days	14 May '22	18 Jun '22	HK Working Day	149,150	152,131	0%	NA	NA
152	Remove ELS and Reinstatement of Road works and planter	18 days	20 Jun '22	11 Jul '22	HK Working Day	151		0%	NA	NA
153	**TBM Pipe Jacking (Pit B to Pit C)**	**422 days**	**8 Feb '21**	**16 Jul '22**	**HK Working Day**			0%	NA	NA
154	Establishment at Pit B	24 days	8 Feb '21	10 Mar '21	HK Working Day	139	155,161	0%	NA	NA
155	Jacking DN1600 Precast Concrete Sleeve Pipe From Pit B to Pit C (L=326m; 3.5m/day)	94 days	11 Mar '21	7 Jul '21	HK Working Day	154	156	0%	NA	NA
156	Remove setup Including Thrust Wall at Pit B	6 days	8 Jul '21	14 Jul '21	HK Working Day	155	143,157,1	0%	NA	NA
157	Setup for Pipe Laying inside jacking Pit B	6 days	15 Jul '21	21 Jul '21	HK Working Day	156	158	0%	NA	NA
158	DN1200 MS Pipe Laying inside jacking pipe (326m) (2 days per 4m)(Only Internal Coating)	200 days	22 Jul '21	22 Mar '22	HK Working Day	157	159	0%	NA	NA
159	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	23 Mar '22	25 Mar '22	HK Working Day	158	160	0%	NA	NA
160	Grouting Works (30 meter/day)	11 days	26 Mar '22	8 Apr '22	HK Working Day	159	162,191	0%	NA	NA
161	Expected CE No. XX - Special Type of Chamber for interface between Trencless Works and Open Cut Work near Jacking/Receiving Pit B	0 days	10 Mar '21	10 Mar '21	Calendar Day	154	162	0%	NA	NA
162	Construction of Special Chamber at Jacking / Receiving Pit B	60 days	9 Apr '22	24 Jun '22	HK Working Day	148,160,161,185	163	0%	NA	NA
163	Remove ELS including extracting sheet piles at Pit B & Reinstatement of Road works and planter	18 days	25 Jun '22	16 Jul '22	HK Working Day	162		0%	NA	NA
164	**Crossing Wan Po Road and Lohas Park Road**	**1780 days**	**7 Nov '17**	**21 Sep '22**	**Calendar Day**			7%	7 Nov '17	NA
165	Issue CE No. 24 - Ground Investigation for Working Pit E, F and Trenchless Works across MT Tunnel	0 days	27 Sep '19	27 Sep '19	Calendar Day		166	100%	27 Sep '19	27 Sep '19
166	Tender & Subletting	71 days	27 Sep '19	6 Dec '19	Calendar Day	165		100%	27 Sep '19	6 Dec '19
167	Mobilization and Establishment of GI equipment	7 days	17 Feb '20	24 Feb '20	HK Working Day		168	100%	17 Feb '20	24 Feb '20
168	Ground Investigation GI No. 3	33 days	25 Feb '20	2 Apr '20	HK Working Day	167		100%	25 Feb '20	2 Apr '20
169	Obtain MTR's approval on the alignment and construction method about MTR's tunnels	0 days	31 Dec '20	31 Dec '20	Calendar Day			0%	NA	NA
170	TTA submission and Approval , Suspension of Parking Meters and TTA Implement for Jacking Pit D	114 days	12 Aug '20	3 Dec '20	Calendar Day		172,171	27%	12 Aug '20	NA
171	Inspection Pits for Lohas Park Road Footpath in frontal of Viaduct Utilities Trough	30 days	4 Dec '20	11 Jan '21	HK Working Day	170	179	0%	NA	NA
172	Inspection Pits & GI Works for Jacking Pit D	30 days	4 Dec '20	11 Jan '21	HK Working Day	170	179,173	0%	NA	NA
173	Design of Jacking D	30 days	12 Jan '21	18 Feb '21	HK Working Day	172	174	0%	NA	NA
174	Jacking Pit D at Car Park	150 days	19 Feb '21	21 Aug '21	HK Working Day	173	182	0%	NA	NA
175	Issue CE Bo. 77 - Design of Water Main Structure and Modification Works to the Affected Geotechnical Features in Wan Po Road and Lohas Park Road	0 days	21 Oct '20	21 Oct '20	Calendar Day		176	100%	21 Oct '20	21 Oct '20
176	Submission for CE77	60 days	21 Oct '20	19 Dec '20	Calendar Day	175	177	0%	NA	NA
177	Approval of CE77	30 days	20 Dec '20	18 Jan '21	Calendar Day	176	179	0%	NA	NA
178	TPRP Appoval for Tree at Slope Feature 12SW-A/FR102	0 days	18 Jan '21	18 Jan '21	Calendar Day		195	0%	NA	NA
179	Expected CE No. XX - Relocation of Working pits for Trenchless Works in Wan Po Road juction with Lohas Park Road	0 days	18 Jan '21	18 Jan '21	Calendar Day	172,171,177	180	0%	NA	NA
180	Subletting works for CE No. XX	60 days	19 Jan '21	19 Mar '21	Calendar Day	179	196,210,2	0%	NA	NA
181	**TBM Pipe Jacking (Pit D to Pit C)**	**321 days**	**23 Aug '21**	**21 Sep '22**	**HK Working Day**			0%	NA	NA
182	Establishment at Pit D	24 days	23 Aug '21	18 Sep '21	HK Working Day	174	183,189,1	0%	NA	NA
183	DN1600 Precast Concrete Sleeve Pipe (Pit D - Pit C) (CH.A19+26 to CH.A22+80) in Soil (354m; 3.5m/day)	102 days	20 Sep '21	22 Jan '22	HK Working Day	182	184	0%	NA	NA
184	Remove setup including Thrust Wall at Pit D	6 days	24 Jan '22	29 Jan '22	HK Working Day	183	185	0%	NA	NA
185	Setup for Pipe Laying inside jacking Pit D	6 days	31 Jan '22	9 Feb '22	HK Working Day	184	186	0%	NA	NA
186	DN1200 MS Pipe Laying inside jacking pipe (354m) (say 2 days per 8m)(only Internal Coating)	90 days	10 Feb '22	1 Jun '22	HK Working Day	185	187	0%	NA	NA
187	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	2 Jun '22	6 Jun '22	HK Working Day	186	188	0%	NA	NA
188	Grouting Works (30 meter/day)	12 days	7 Jun '22	20 Jun '22	HK Working Day	187	191,192	0%	NA	NA
189	Issue CE No. XX - Special Type of Chamber for interface between Trencless Works and Open Cut Work near Receiving Pit C	0 days	18 Sep '21	18 Sep '21	Calendar Day	182	162,191	0%	NA	NA



Working Programme No. 11
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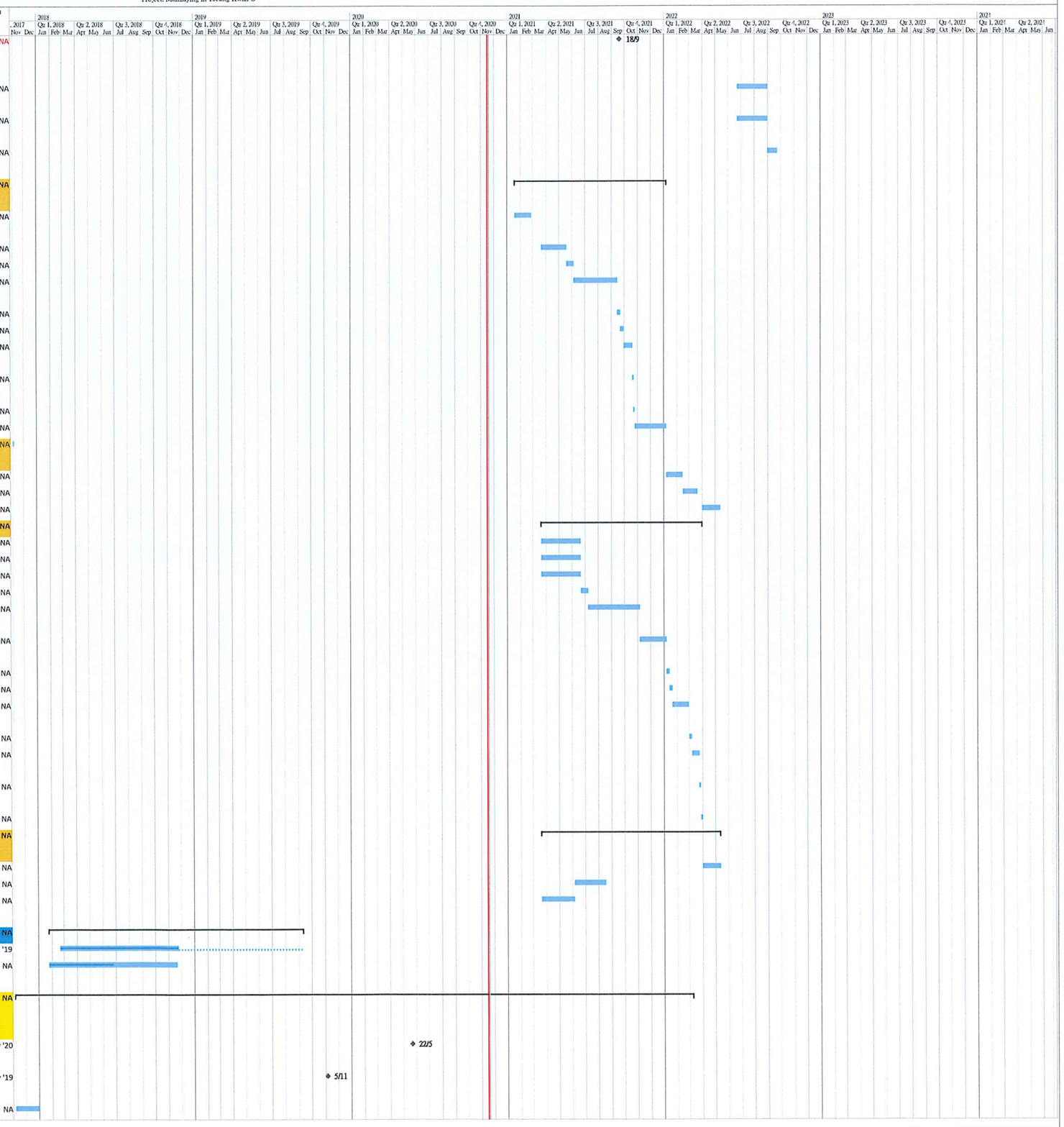
Task | Milestone | Project Summary | Inactive Milestone | Manual Task | Manual Summary Rollup | Start-only | External Tasks | Deadline | Critical Split | Manual Progress
Split | Summary | Inactive Task | Inactive Summary | Duration-only | Manual Summary | Finish-only | External Milestone | Critical | Progress

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
190	Issue CE No. XX - Special Type of Chamber for interface between Trencless Works and Open Cut Work near Receiving Pit D	0 days	18 Sep '21	18 Sep '21	Calendar Day	182	162,192	0%	NA	NA
191	Construction of Special Chamber inside Receiving Pit C	60 days	21 Jun '22	30 Aug '22	HK Working Day	188,189,160	193	0%	NA	NA
192	Construction of Special Chamber inside Receiving Pit D	60 days	21 Jun '22	30 Aug '22	HK Working Day	188,190		0%	NA	NA
193	Remove ELS including extracting sheet piles at Pit C & Reinstatement of Road works and planter	18 days	31 Aug '22	21 Sep '22	HK Working Day	191		0%	NA	NA
194	Handshield Crossing Wan Po Road (CH. FA0+15 to CH. FA0+50)	286 days	18 Jan '21	5 Jan '22	HK Working Day			0%	NA	NA
195	Tree Felling and Tree Works at Slope Feature 12SW-A/FR102	30 days	18 Jan '21	24 Feb '21	HK Working Day	178		0%	NA	NA
196	Strengthen Works at Feature 12SW-A/R27 & R28	45 days	20 Mar '21	17 May '21	HK Working Day	180	197	0%	NA	NA
197	Handshiled Establishment	14 days	18 May '21	3 Jun '21	HK Working Day	196	198	0%	NA	NA
198	Mild Steel Sleeve Pipe in Soil Mix (35m; 0.4m/day)	85 days	4 Jun '21	13 Sep '21	HK Working Day	197	199	0%	NA	NA
199	Remove estabishment	6 days	14 Sep '21	20 Sep '21	HK Working Day	198	200	0%	NA	NA
200	Setup for Pipe Laying inside jacking	6 days	21 Sep '21	28 Sep '21	HK Working Day	199	201	0%	NA	NA
201	DN900 MS Pipe Laying inside jacking pipe (35m) (say 3 days per 8m)	15 days	29 Sep '21	18 Oct '21	HK Working Day	200	202	0%	NA	NA
202	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	19 Oct '21	21 Oct '21	HK Working Day	201	203	0%	NA	NA
203	Grouting Works (30 meter/day)	2 days	22 Oct '21	23 Oct '21	HK Working Day	202	204	0%	NA	NA
204	Pipe laying Works From Pit D to CH.FA0+15	60 days	25 Oct '21	5 Jan '22	HK Working Day	203	206	0%	NA	NA
205	Vertical Pipes, Exposed Pipes & Burned Pipes above MTR Tunnels (CH.FA0+50 to CH.FA0+85)	1 day	7 Nov '17	7 Nov '17	None			0%	NA	NA
206	Vertical pipes with Concrete Surround	30 days	6 Jan '22	12 Feb '22	HK Working Day	204	207	0%	NA	NA
207	Exposed pipes with concrete surround	30 days	14 Feb '22	19 Mar '22	HK Working Day	206	208	0%	NA	NA
208	Open cut pipe laying with concrete surround	30 days	31 Mar '22	11 May '22	HK Working Day	222,207		0%	NA	NA
209	Hand Shield Pipe Jacking crossing Lohas Park Road	305 days	20 Mar '21	30 Mar '22	HK Working Day			0%	NA	NA
210	Design & Construction of Receiving Pit E	72 days	20 Mar '21	19 Jun '21	HK Working Day	180		0%	NA	NA
211	Design & Constuction of Jacking Pit F	72 days	20 Mar '21	19 Jun '21	HK Working Day	180	213	0%	NA	NA
212	Design & Construction og Receiving Pit G	72 days	20 Mar '21	19 Jun '21	HK Working Day	180		0%	NA	NA
213	Establishment at Pit F	14 days	21 Jun '21	7 Jul '21	HK Working Day	211	214	0%	NA	NA
214	Mild Steel Sleeve Pipe (Pit F - Pit E) in Soil Mix (40m; 0.4m/day)	100 days	8 Jul '21	4 Nov '21	HK Working Day	213	215	0%	NA	NA
215	Mild Steel Sleeve Pipe (Pit F - Pit G) in Soil Mix (20m; 0.4m/day)	50 days	5 Nov '21	5 Jan '22	HK Working Day	214	216	0%	NA	NA
216	Remove setup Including Thrust Wall at Pit F	6 days	6 Jan '22	12 Jan '22	HK Working Day	215	217	0%	NA	NA
217	Setup for Pipe Laying inside jacking Pit F	6 days	13 Jan '22	19 Jan '22	HK Working Day	216	218	0%	NA	NA
218	DN900 MS Pipe Laying from Pit F to Pit E (40m) (say 3 days per 4m)	30 days	20 Jan '22	26 Feb '22	HK Working Day	217	219	0%	NA	NA
219	Modify Setup for Pipe Laying inside jacking Pit F	6 days	28 Feb '22	5 Mar '22	HK Working Day	218	220	0%	NA	NA
220	DN900 MS Pipe Laying from Pit F to Pit G (20m) (say 3 days per 4m)	15 days	7 Mar '22	23 Mar '22	HK Working Day	219	221	0%	NA	NA
221	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	24 Mar '22	26 Mar '22	HK Working Day	220	222	0%	NA	NA
222	Grouting Works (30 meter/day)	3 days	28 Mar '22	30 Mar '22	HK Working Day	221	208,224	0%	NA	NA
223	Vertical Pipes, Exposed Pipes & Burned Pipes above MTR Tunnels (CH.FA1+50 to CH.FA2+17)	335 days	20 Mar '21	11 May '22	None			0%	NA	NA
224	Vertical pipes with Concrete Surround	30 days	31 Mar '22	11 May '22	HK Working Day	222		0%	NA	NA
225	Exposed pipes with concrete surround	60 days	5 Jun '21	16 Aug '21	HK Working Day	226		0%	NA	NA
226	Open cut pipe laying with concrete surround (CH.FA1+64 to CH.FA2+17)	60 days	20 Mar '21	4 Jun '21	HK Working Day	180	225	0%	NA	NA
227	Miscellaneous	594 days	25 Jan '18	10 Sep '19	Calendar Day			80%	25 Jan '18	NA
228	Trial Pit Excavation for Pit 1 to Pit 20	462 days	20 Feb '18	10 Sep '19	HK Working Day	48		100%	20 Feb '18	10 Sep '19
229	Liaison with MTRC for works inside MTR Railway Protection Zone	300 days	25 Jan '18	20 Nov '18	Calendar Day			50%	25 Jan '18	NA
230	Open Cut Excavation, Pipe Laying and Reinstatement at TKO Landfill Stage 1 and TKO South Waterfront Promenade	1283 days	7 Nov '17	8 Mar '22	HK Working Day	640		54%	7 Nov '17	NA
231	Issue CE No. 36 - Realignment of Watermain along the Bituminous Road adjacent to Lohas Park Road	0 days	22 May '20	22 May '20	Calendar Day			100%	22 May '20	22 May '20
232	Issue CE No. 34 - Realignment of Watermain along TKO Stage I Landfill	0 days	5 Nov '19	5 Nov '19	Calendar Day			100%	5 Nov '19	5 Nov '19
233	Open Cut from CH.FB5+34 to Pit F)	45 days	7 Nov '17	30 Dec '17	HK Working Day			0%	NA	NA



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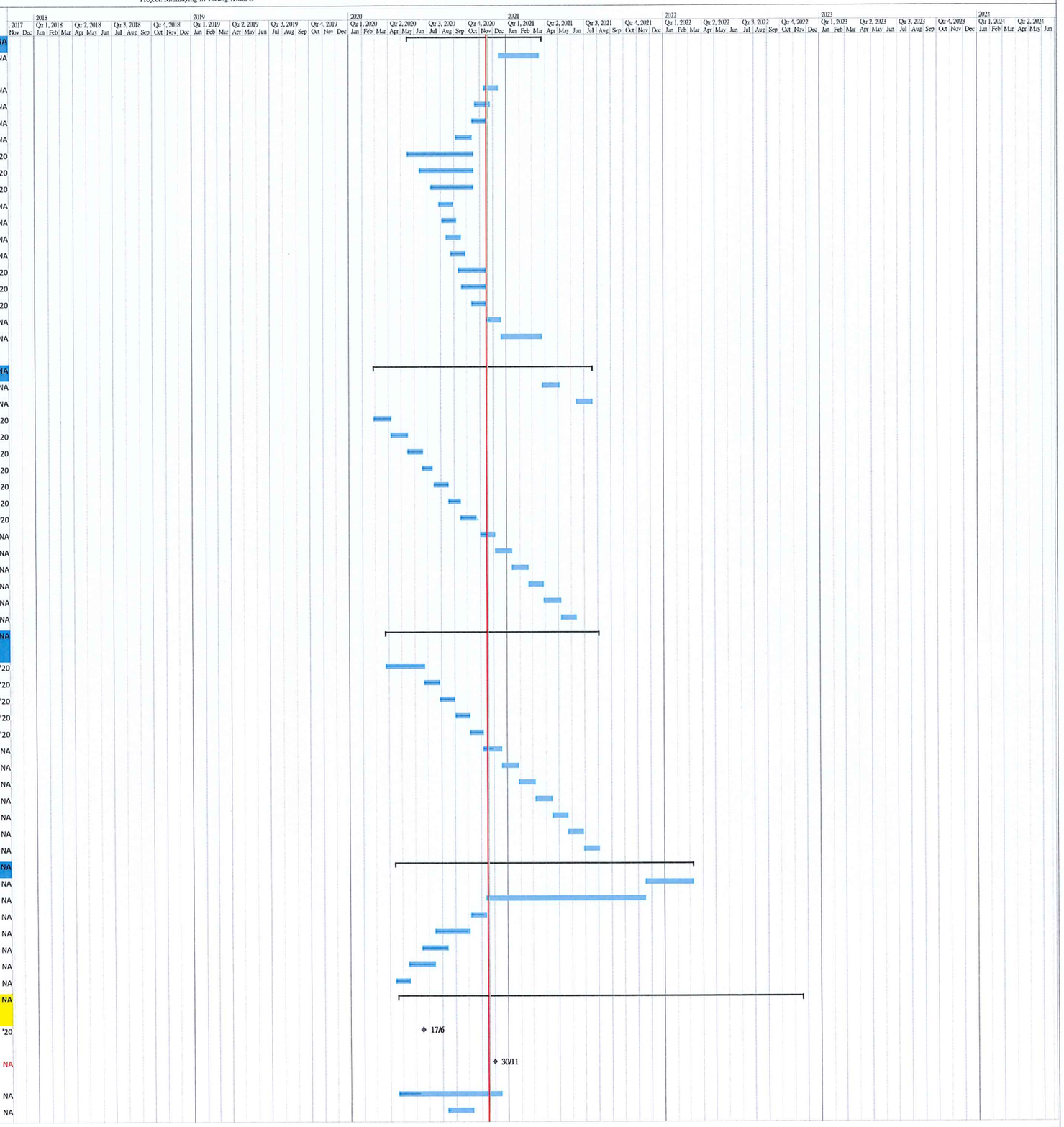
Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Critical, Critical Split, Progress, Manual Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
234	**TKO Landfill Stage I Area A (CH. FB0+00 to CH.FB5+34)**	**257 days**	**15 May '20**	**23 Mar '21**	**HK Working Day**		**639**	**75%**	**15 May '20**	**NA**
235	CH. FB0+00 - 0+38 OC with DN900 Valve Chamber and Wash out Pump Pit	75 days	14 Dec '20	17 Mar '21	HK Working Day	236		0%	NA	NA
236	CH. FB0+38 - 0+70 OC	30 days	9 Nov '20	12 Dec '20	HK Working Day		235	0%	9 Nov '20	NA
237	CH. FB0+70 - 1+02 OC	30 days	19 Oct '20	23 Nov '20	HK Working Day			90%	19 Oct '20	NA
238	CH. FB1+02 - 1+34 OC	30 days	12 Oct '20	16 Nov '20	HK Working Day			90%	12 Oct '20	NA
239	CH. FB1+34 - 1+66 OC	30 days	5 Sep '20	12 Oct '20	HK Working Day			95%	5 Sep '20	NA
240	CH. FB1+66 - 2+06 OC	128 days	15 May '20	15 Oct '20	HK Working Day			100%	15 May '20	15 Oct '20
241	CH. FB2+06 - 2+38 OC	104 days	12 Jun '20	15 Oct '20	HK Working Day			100%	12 Jun '20	15 Oct '20
242	CH. FB2+38 - 2+70 OC	83 days	9 Jul '20	15 Oct '20	HK Working Day			100%	9 Jul '20	15 Oct '20
243	CH. FB2+70 - 3+02 OC	30 days	27 Jul '20	29 Aug '20	HK Working Day			95%	27 Jul '20	NA
244	CH. FB3+02 - 3+34 OC	30 days	3 Aug '20	5 Sep '20	HK Working Day			95%	3 Aug '20	NA
245	CH. FB3+34 - 3+66 OC	30 days	13 Aug '20	16 Sep '20	HK Working Day			95%	13 Aug '20	NA
246	CH. FB3+66 - 3+98 OC	30 days	24 Aug '20	26 Sep '20	HK Working Day			95%	24 Aug '20	NA
247	CH. FB3+98 - 4+30 OC	53 days	10 Sep '20	13 Nov '20	HK Working Day			100%	10 Sep '20	13 Nov '20
248	CH. FB4+30 - 4+62 OC	46 days	18 Sep '20	13 Nov '20	HK Working Day			100%	18 Sep '20	13 Nov '20
249	CH. FB4+62 - 4+86 OC	28 days	12 Oct '20	13 Nov '20	HK Working Day			100%	12 Oct '20	13 Nov '20
250	CH. FB4+86 - 5+18 OC	30 days	14 Nov '20	18 Dec '20	HK Working Day		251	30%	14 Nov '20	NA
251	CH. FB5+18 - 5+34 OC with DN600 IT & DN300 Washout	75 days	19 Dec '20	23 Mar '21	HK Working Day	250	253	0%	NA	NA
252	**TKO South Waterfront Promenade (CH. FC0+00 - 4+87)**	**412 days**	**26 Feb '20**	**19 Jul '21**	**HK Working Day**			**50%**	**26 Feb '20**	**NA**
253	CH. FC 0+00 - 0+33 OC	30 days	24 Mar '21	3 May '21	HK Working Day	251		0%	NA	NA
254	CH. FC 0+33 - 0+65 OC	30 days	12 Jun '21	19 Jul '21	HK Working Day	267		0%	NA	NA
255	CH. FC 0+65 - 0+95 OC	34 days	26 Feb '20	6 Apr '20	HK Working Day			100%	26 Feb '20	6 Apr '20
256	CH. FC 0+95 - 1+27 OC	30 days	6 Apr '20	15 May '20	HK Working Day			100%	6 Apr '20	15 May '20
257	CH. FC 1+27 - 1+59 OC	31 days	15 May '20	19 Jun '20	HK Working Day			100%	15 May '20	19 Jun '20
258	CH. FC 1+59 - 1+91 OC	21 days	19 Jun '20	15 Jul '20	HK Working Day			100%	19 Jun '20	15 Jul '20
259	CH. FC 1+91 - 2+23 OC	29 days	15 Jul '20	17 Aug '20	HK Working Day		260	100%	15 Jul '20	17 Aug '20
260	CH. FC 2+23 - 2+55 OC	25 days	17 Aug '20	14 Sep '20	HK Working Day	259	261	100%	17 Aug '20	14 Sep '20
261	CH. FC 2+55 - 2+87 OC	38 days	14 Sep '20	30 Oct '20	HK Working Day	260	262	100%	14 Sep '20	30 Oct '20
262	CH. FC 2+87 - 3+19 OC	31 days	30 Oct '20	4 Dec '20	HK Working Day	261	263	50%	30 Oct '20	NA
263	CH. FC 3+19 - 3+51 OC	30 days	5 Dec '20	12 Jan '21	HK Working Day	262	264	0%	NA	NA
264	CH. FC 3+51 - 3+83 OC	30 days	13 Jan '21	19 Feb '21	HK Working Day	263	265	0%	NA	NA
265	CH. FC 3+83 - 4+15 OC	30 days	20 Feb '21	26 Mar '21	HK Working Day	264	266	0%	NA	NA
266	CH. FC 4+15 - 4+47 OC	30 days	27 Mar '21	6 May '21	HK Working Day	265	267	0%	NA	NA
267	CH. FC 4+47 - 4+87 C	30 days	7 May '21	11 Jun '21	HK Working Day	266	254	0%	NA	NA
268	**TKO South Waterfront Promenade (CH. FC4+87 - 8+71)**	**401 days**	**24 Mar '20**	**2 Aug '21**	**HK Working Day**			**51%**	**24 Mar '20**	**NA**
269	CH. FC 4+87 - 5+19 OC with DN600 IT	72 days	24 Mar '20	22 Jun '20	HK Working Day			100%	24 Mar '20	22 Jun '20
270	CH. FC 5+19 - 5+51 OC	29 days	22 Jun '20	27 Jul '20	HK Working Day		271	100%	22 Jun '20	27 Jul '20
271	CH. FC 5+51 - 5+83 OC	32 days	27 Jul '20	1 Sep '20	HK Working Day	270	272	100%	27 Jul '20	1 Sep '20
272	CH. FC 5+83 - 6+15 OC	28 days	1 Sep '20	5 Oct '20	HK Working Day	271	273	100%	1 Sep '20	5 Oct '20
273	CH. FC 6+15 - 6+47 OC	27 days	5 Oct '20	5 Nov '20	HK Working Day	272	274	100%	5 Oct '20	5 Nov '20
274	CH. FC 6+47 - 6+79 OC	38 days	5 Nov '20	18 Dec '20	HK Working Day	273	275	50%	5 Nov '20	NA
275	CH. FC 6+79 - 7+11 OC	30 days	19 Dec '20	26 Jan '21	HK Working Day	274	276	0%	NA	NA
276	CH. FC 7+11 - 7+43 OC	30 days	27 Jan '21	5 Mar '21	HK Working Day	275	277	0%	NA	NA
277	CH. FC 7+43 - 7+75 OC	30 days	6 Mar '21	14 Apr '21	HK Working Day	276	278	0%	NA	NA
278	CH. FC 7+75 - 8+07 OC	30 days	15 Apr '21	21 May '21	HK Working Day	277	279	0%	NA	NA
279	CH. FC 8+07 - 8+39 OC	30 days	22 May '21	26 Jun '21	HK Working Day	278	280	0%	NA	NA
280	CH. FC 8+39 - 8+71 OC	30 days	28 Jun '21	2 Aug '21	HK Working Day	279		0%	NA	NA
281	**TKO Landfill Stage I Area B (CH. FC 8+71 - 13+26)**	**565 days**	**14 Apr '20**	**8 Mar '22**	**HK Working Day**			**34%**	**14 Apr '20**	**NA**
282	CH. FC 8+71 - 9+55 OC	90 days	17 Nov '21	8 Mar '22	HK Working Day	283		0%	NA	NA
283	CH. FC 9+55 - 11+90 OC with DN150 DAV	300 days	12 Nov '20	16 Nov '21	HK Working Day	284	282	0%	NA	NA
284	CH. FC 11+90 - 12+06 OC	30 days	7 Oct '20	11 Nov '20	HK Working Day		283	80%	7 Oct '20	NA
285	CH. FC 12+06 - 12+30 OC	68 days	15 Jul '20	3 Oct '20	HK Working Day			95%	15 Jul '20	NA
286	CH. FC 12+30 - 12+62 OC with Monitoring Chamber	50 days	15 Jun '20	13 Aug '20	HK Working Day			95%	15 Jun '20	NA
287	CH. FC 12+62 - 13+02 OC	50 days	15 May '20	14 Jul '20	HK Working Day			95%	15 May '20	NA
288	CH. FC 13+02 - 13+26 OC	28 days	14 Apr '20	18 May '20	HK Working Day			95%	14 Apr '20	NA
289	**Burned Pipe, Exposed Pipe, Trenchless Works From Loi Avenue to Po Yap Road Roundabout**	**768 days**	**20 Apr '20**	**18 Nov '22**	**HK Working Day**		**641**	**7%**	**20 Apr '20**	**NA**
290	Issue CE No. 65 - Landscaping Survey near Po Yap and Pung Loi Road	0 days	17 Jun '20	17 Jun '20	Calendar Day			100%	17 Jun '20	17 Jun '20
291	Expected CE No. XX - Realignment of Water Mains near Pung Loi Road	0 days	30 Nov '20	30 Nov '20	Calendar Day		296	0%	NA	NA
292	XP Application; DLO/LandsD Approval	240 days	20 Apr '20	15 Dec '20	Calendar Day		295	21%	20 Apr '20	NA
293	TTA preparation, SLG meetings and obtain RA	60 days	12 Aug '20	10 Oct '20	Calendar Day			10%	12 Aug '20	NA



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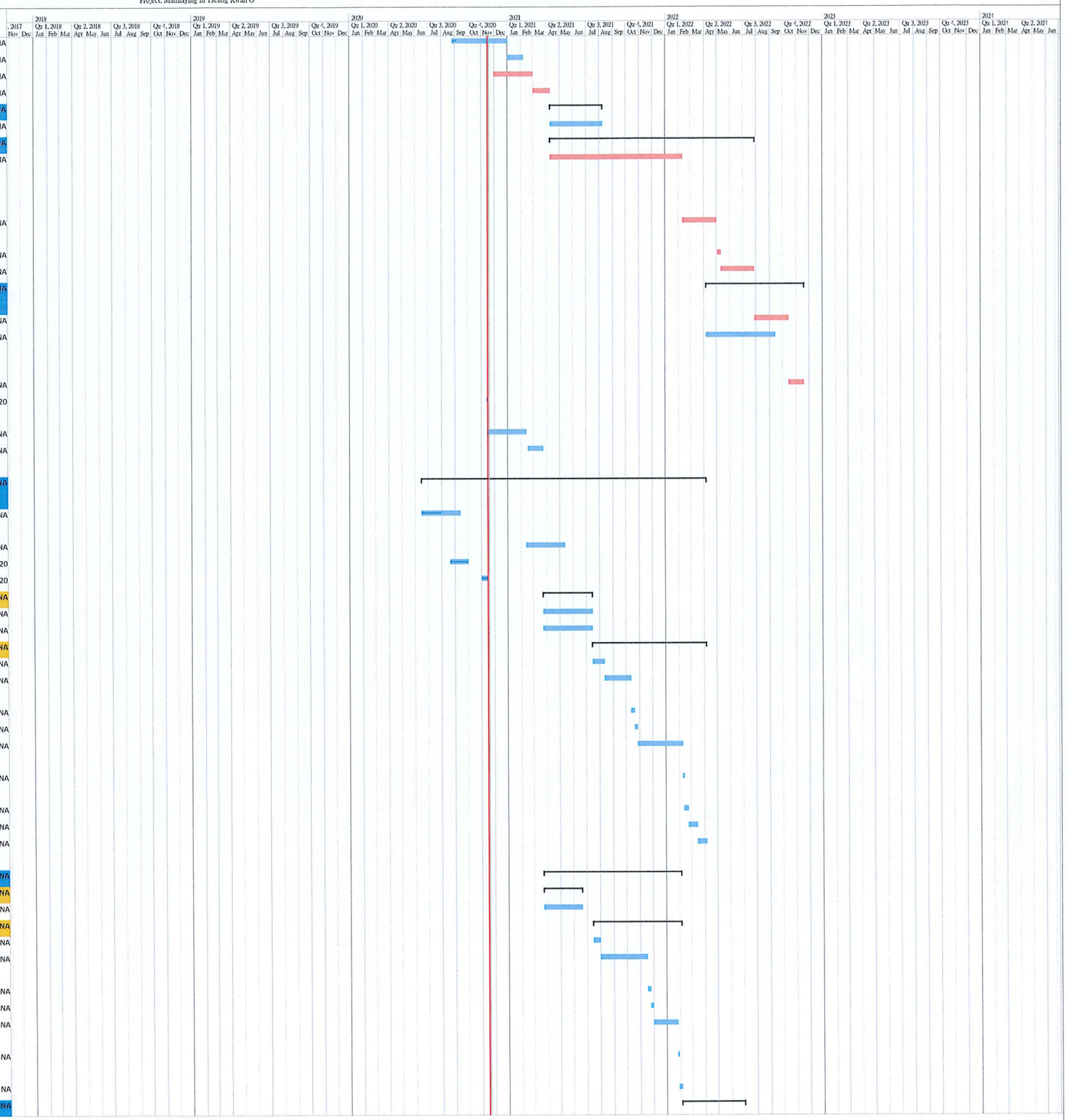
Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Critical, Critical Split, Progress, Manual Progress

Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
294	Tress Survey; TPRP Submission & Approval.	128 days	26 Aug '20	31 Dec '20	Calendar Day		295	8%	26 Aug '20	NA
295	Site Possession and Tree Removal Works	30 days	2 Jan '21	5 Feb '21	HK Working Day	294,292		0%	NA	NA
296	Tender Process and Tender Award for CE No. xx	90 days	30 Nov '20	27 Feb '21	Calendar Day	291	297	0%	NA	NA
297	Temporary Design and Advanced Works	30 days	1 Mar '21	8 Apr '21	HK Working Day	296	299,301	0%	NA	NA
298	Open Trench Crossing Pung Loi Avenue	100 days	9 Apr '21	7 Aug '21	HK Working Day		640	0%	NA	NA
299	CH.FC13+26 (CH.FD0+00 - CH.FD0+82)	100 days	9 Apr '21	7 Aug '21	HK Working Day	297		0%	NA	NA
300	Exposed Pipe From CH.FD00+82 to FD2+59	386 days	9 Apr '21	27 Jul '22	HK Working Day			0%	NA	NA
301	Excavation In Slope Toe; Construction of Concrete Support from CH.FD0+82 to CH.FD2+59, Length = 173m, 47 R.C. Pipe Supports @4m c/c spacing; @18 days cycle; 4 RC Support each time)	250 days	9 Apr '21	9 Feb '22	HK Working Day	297	302	0%	NA	NA
302	DN1200 Pipe Laying on Concrete Support with Concrete Hunching	65 days	10 Feb '22	30 Apr '22	HK Working Day	301	303	0%	NA	NA
303	Apply top coating of aliphatic polyurethane on site	6 days	3 May '22	10 May '22	HK Working Day	302	304	0%	NA	NA
304	Make Good Slope Toe and Landscape Work	65 days	11 May '22	27 Jul '22	HK Working Day	303	306	0%	NA	NA
305	Open Trench Connecting Trenchless and Exposed Pipe	185 days	6 Apr '22	18 Nov '22	HK Working Day			0%	NA	NA
306	CH.FD2+59 to CH.FD3+15 OC	65 days	28 Jul '22	14 Oct '22	HK Working Day	304	308	0%	NA	NA
307	CH.FDD3+15 to CH.FDD3+70 OC with DN900 Valve Chamber and By-pass Pipe and Connection to Pit WPR1	130 days	6 Apr '22	13 Sep '22	HK Working Day	329	308	0%	NA	NA
308	Make Good Slope Toe and Landscape Work	30 days	15 Oct '22	18 Nov '22	HK Working Day	306,307		0%	NA	NA
309	Issue of Draft CE No. 59 - Realignment of Water Mains near Pung Loi Road and Po Yap Road Roundabout	1 day	13 Nov '20	13 Nov '20	Calendar Day		310	100%	13 Nov '20	13 Nov '20
310	Tender Process and Tender Award for CE No. 59	90 days	14 Nov '20	11 Feb '21	Calendar Day	309	314,311	0%	NA	NA
311	Temporary Works Design for Jacking / Receiving Pitfor CE No. 59	30 days	16 Feb '21	22 Mar '21	HK Working Day	310	318,332,3	0%	NA	NA
312	Trenchless Crossing MTR Tunnels (Pit WPR1 to Pit G1A)	537 days	15 Jun '20	5 Apr '22	HK Working Day			15%	15 Jun '20	NA
313	Preliminary Works & MTR's Approval for RP Protection Zone	90 days	15 Jun '20	12 Sep '20	Calendar Day		321	50%	15 Jun '20	NA
314	Material Procurement for the issued CE	90 days	12 Feb '21	12 May '21	Calendar Day	310		0%	NA	NA
315	Trial Pit at Working Pit WPR1	36 days	20 Aug '20	30 Sep '20	HK Working Day			100%	20 Aug '20	30 Sep '20
316	Trial Pit at Working Pit G1A	12 days	1 Nov '20	14 Nov '20	HK Working Day			100%	1 Nov '20	14 Nov '20
317	Construction of Jacking Pit / Receiving Pit (TBM)	90 days	23 Mar '21	14 Jul '21	HK Working Day			0%	NA	NA
318	Jacking Pit WPR1 (Near Pung Loi Road)	90 days	23 Mar '21	14 Jul '21	HK Working Day	311	321	0%	NA	NA
319	Receiving Pit G1A (Near Po Yap Road)	90 days	23 Mar '21	14 Jul '21	HK Working Day	311	321,334	0%	NA	NA
320	TBM Pipe Jacking (WPR1 to G1A)	217 days	15 Jul '21	5 Apr '22	HK Working Day			0%	NA	NA
321	Establishment at Pit WPR1 in slope toe	24 days	15 Jul '21	11 Aug '21	HK Working Day	318,319,313	322	0%	NA	NA
322	Jacking DN1600 Precast Concrete Sleeve Pipe (224m; 4.5m/day)	50 days	12 Aug '21	11 Oct '21	HK Working Day	321	323	0%	NA	NA
323	Remove setup including Thrust Wall at Pit WPR1	6 days	12 Oct '21	19 Oct '21	HK Working Day	322	324	0%	NA	NA
324	Setup for Pipe Laying inside Jacking Pit WPR1	6 days	20 Oct '21	26 Oct '21	HK Working Day	323	325	0%	NA	NA
325	DN1200 MS Pipe Laying inside Jacking Pipe (224m) (3 days per 8m)	84 days	27 Oct '21	8 Feb '22	HK Working Day	324	326	0%	NA	NA
326	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	9 Feb '22	11 Feb '22	HK Working Day	325	327	0%	NA	NA
327	Grouting Works (30m per day)	8 days	12 Feb '22	21 Feb '22	HK Working Day	326	328	0%	NA	NA
328	Pipe Connection inside Working Pit WPR1	18 days	22 Feb '22	14 Mar '22	HK Working Day	327	329	0%	NA	NA
329	Remove ELS including extracting sheet piles at Pit WPR1; Reinstatement	18 days	15 Mar '22	5 Apr '22	HK Working Day	328	307	0%	NA	NA
330	Trenchless Works (Pit G1A or Pit J1A)	257 days	23 Mar '21	4 Feb '22	None			0%	NA	NA
331	Construction of Jacking Pit J1A (Hand Shield)	70 days	23 Mar '21	19 Jun '21	HK Working Day			0%	NA	NA
332	ELS Construction for Pit J1A	70 days	23 Mar '21	19 Jun '21	HK Working Day	311	334	0%	NA	NA
333	Handshield Pipe Jacking (Pit G1A to Pit J1A)	167 days	15 Jul '21	4 Feb '22	HK Working Day			0%	NA	NA
334	Establishment at Pit J1A	14 days	15 Jul '21	30 Jul '21	HK Working Day	319,332	335	0%	NA	NA
335	Segment @400mm Sleeve Pipe (~60m) in Soil (0.4m/day; 2 Teams)	90 days	31 Jul '21	16 Nov '21	HK Working Day	334	336	0%	NA	NA
336	Remove Setup including thrust wall at Pit J1A	6 days	17 Nov '21	23 Nov '21	HK Working Day	335	337	0%	NA	NA
337	Setup for Pipe Laying inside jacking Pit J1A	6 days	24 Nov '21	30 Nov '21	HK Working Day	336	338	0%	NA	NA
338	DN1200 MS Pipe Laying inside jacking pipe (~60m) (3 days per 4m)	45 days	1 Dec '21	25 Jan '22	HK Working Day	337	339	0%	NA	NA
339	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	26 Jan '22	28 Jan '22	HK Working Day	338	340	0%	NA	NA
340	Grouting Works (30 meter/day)	3 days	29 Jan '22	4 Feb '22	HK Working Day	339	342	0%	NA	NA
341	Open Trench between Pit K and J1A	118 days	5 Feb '22	30 Jun '22	HK Working Day		642	0%	NA	NA



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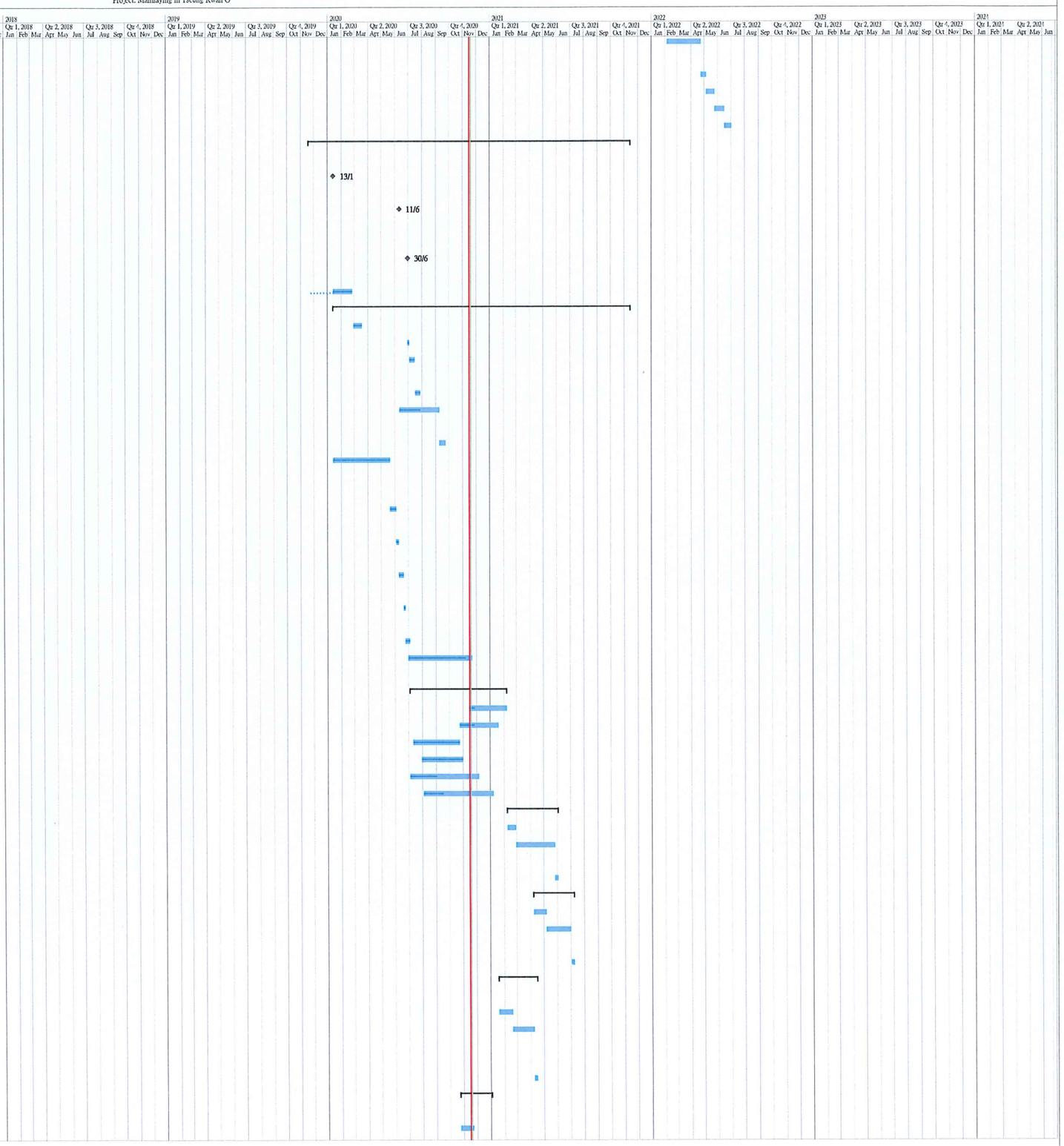
Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
342	Excavation and ELS Installation from Pit K to Pit J1A (62m)	62 days	5 Feb '22	22 Apr '22	HK Working Day	340	343	0%	NA	NA
343	Pipe Laying From Pit K to Pit J1A	9 days	23 Apr '22	4 May '22	HK Working Day	342	344	0%	NA	NA
344	Construction of Thrust Block from Pit K to Pit J1A	15 days	5 May '22	23 May '22	HK Working Day	343	345	0%	NA	NA
345	Backfill Trench and Remove ELS	18 days	24 May '22	14 Jun '22	HK Working Day	344	346	0%	NA	NA
346	Reinstatement of Plant and Shrubs in Roundabout	14 days	15 Jun '22	30 Jun '22	HK Working Day	345		0%	NA	NA
347	**Trenchless Work from Po Yap Road Roundabout to KMB Depot (Pit K to Pit P)**	590 days	18 Nov '19	13 Nov '21	HK Working Day		642	37%	18 Nov '19	NA
348	Issue CE No. 28 - Realignment of Water Mains along Po Yap Road and Po Hong Road	0 days	13 Jan '20	13 Jan '20	Calendar Day		351,359	100%	13 Jan '20	13 Jan '20
349	Issue CE No. 50 - Realignment of Watermain at the Junction of Wan Po Road and Po Yap Road and the Junction of Po Hong Road and Po Shun Road.	0 days	11 Jun '20	11 Jun '20	Calendar Day			100%	11 Jun '20	11 Jun '20
350	Issue CE No. 28A - Affected Trees along Cycle Track next to Hong Kong Velodrome and Tseung Kwan O Sport Ground	0 days	30 Jun '20	30 Jun '20	Calendar Day		365	100%	30 Jun '20	30 Jun '20
351	Tender and Subletting for CE No. 28	99 days	18 Nov '19	24 Feb '20	Calendar Day	348		100%	18 Nov '19	24 Feb '20
352	**Trenchless Works (Pit K to Pit O)**	545 days	13 Jan '20	13 Nov '21	HK Working Day			34%	13 Jan '20	NA
353	Inspection Pit Excavation at Pit K	16 days	28 Feb '20	17 Mar '20	HK Working Day			100%	28 Feb '20	17 Mar '20
354	Inspection Pit Excavation at Pit P	3 days	29 Jun '20	2 Jul '20	HK Working Day		355	100%	29 Jun '20	2 Jul '20
355	Review and change the pipe jacking from Pit P to Pit R	12 days	3 Jul '20	14 Jul '20	Calendar Day	354		100%	3 Jul '20	14 Jul '20
356	Forming temporary Vehicle Access for Pit P	10 days	16 Jul '20	27 Jul '20	HK Working Day		372	100%	16 Jul '20	27 Jul '20
357	MTR's Approval for Trenchless Works from Pit L to Pit K	75 days	11 Jun '20	8 Sep '20	HK Working Day		358	50%	11 Jun '20	NA
358	TTA Implement for Po Yap Load Roundabout	14 days	9 Sep '20	22 Sep '20	Calendar Day	357	367	0%	NA	NA
359	TTA preparation, SLG meetings, obtain RA and TPRP Approval for Temporary Vehicular Access at HK Velodrome	128 days	13 Jan '20	19 May '20	Calendar Day	348	360	100%	13 Jan '20	19 May '20
360	Coordination with LCSD and Notification to District Councillors	14 days	20 May '20	2 Jun '20	Calendar Day	359	361	100%	20 May '20	2 Jun '20
361	Form Temporary Vehicle Access at TKO Sport Ground	5 days	1 Jun '20	8 Jun '20	HK Working Day	360	362	100%	1 Jun '20	8 Jun '20
362	Tree Transplanting Working & Tree Removal Works at TKO Sport Ground (CE No. 28)	10 days	9 Jun '20	19 Jun '20	HK Working Day	361	363	100%	9 Jun '20	19 Jun '20
363	Tree Pruning Working for driving Sheetpile at Pit M, Pit N & Pit O	3 days	20 Jun '20	23 Jun '20	HK Working Day	362	364	100%	20 Jun '20	23 Jun '20
364	Mobilization of Sheet-piles and Driving Machines	7 days	24 Jun '20	3 Jul '20	HK Working Day	363	371,369	100%	24 Jun '20	3 Jul '20
365	Tree Survey along Cycle Track; TPRP Approval; Tree Removal Works along Cycle Tracks (Ce No. 28A)	120 days	30 Jun '20	20 Nov '20	HK Working Day	350		90%	30 Jun '20	NA
366	**Construction of Jacking Pit & Receiving Pit**	181 days	4 Jul '20	6 Feb '21	HK Working Day			52%	4 Jul '20	NA
367	Receiving Pit K	70 days	14 Nov '20	6 Feb '21	HK Working Day	358	374	15%	14 Nov '20	NA
368	Jacking Pit L	70 days	24 Oct '20	18 Jan '21	HK Working Day	369	374,382	39%	24 Oct '20	NA
369	Jacking Pit M	88 days	11 Jul '20	23 Oct '20	HK Working Day	364	368,386,3	100%	11 Jul '20	23 Oct '20
370	Receiving Pit N	77 days	30 Jul '20	30 Oct '20	HK Working Day		386FS-14 d	100%	30 Jul '20	30 Oct '20
371	Jacking / Receiving Pit O + additional Grouting	130 days	4 Jul '20	5 Dec '20	HK Working Day	364	378,390	40%	4 Jul '20	NA
372	Jacking Pit P + additional Grouting	130 days	3 Aug '20	7 Jan '21	HK Working Day	356	378	30%	3 Aug '20	NA
373	**Hand Shield Jacking (Pit K to Pit L)**	90 days	8 Feb '21	2 Jun '21	HK Working Day		394	0%	NA	NA
374	Establishment at Pit L	14 days	8 Feb '21	26 Feb '21	HK Working Day	367,368	375	0%	NA	NA
375	Segment @400mm Sleeve Pipe (Pit L to Pit K)(~ 56m) in Soil (0.8m/day)	70 days	27 Feb '21	26 May '21	HK Working Day	374	376	0%	NA	NA
376	Remove setup including thrust wall at Pit L	6 days	27 May '21	2 Jun '21	HK Working Day	375		0%	NA	NA
377	**TBM Pipe Jacking (Pit P to Pit O)**	75 days	8 Apr '21	8 Jul '21	HK Working Day		424,443	0%	NA	NA
378	Establishment at Pit P	24 days	8 Apr '21	6 May '21	HK Working Day	372,371,389	379	0%	NA	NA
379	DN1600 Precast Concrete Sleeve Pipe (Pit P - Pit O) (200m) in Soil (4.5m/day)	45 days	7 May '21	30 Jun '21	HK Working Day	378	380	0%	NA	NA
380	Remove setup including thrust wall at Pit P	6 days	2 Jul '21	8 Jul '21	HK Working Day	379		0%	NA	NA
381	**TBM Pipe Jacking (Pit M to Pit L) (5 Days a week, 4 trip per days)**	68 days	19 Jan '21	15 Apr '21	HK Working Day		400	0%	NA	NA
382	Establishment at Pit M	24 days	19 Jan '21	18 Feb '21	HK Working Day	385,368,369	383	0%	NA	NA
383	DN1600 Precast Concrete Sleeve Pipe (Pit M - Pit L) (CH.GA0+09 to CH.GA1+80) in Soil (171m; 4.5m/day)	38 days	19 Feb '21	8 Apr '21	HK Working Day	382	384	0%	NA	NA
384	Remove setup including thrust wall at Pit M	6 days	9 Apr '21	15 Apr '21	HK Working Day	383		0%	NA	NA
385	**TBM Pipe Jacking (Pit M to Pit N) (5 Days a week, 4 trip per days)**	57 days	24 Oct '20	2 Jan '21	HK Working Day		382,407,3	0%	NA	NA
386	Establishment at Pit M	24 days	24 Oct '20	21 Nov '20	HK Working Day	369,370FS-14 da	387	0%	NA	NA



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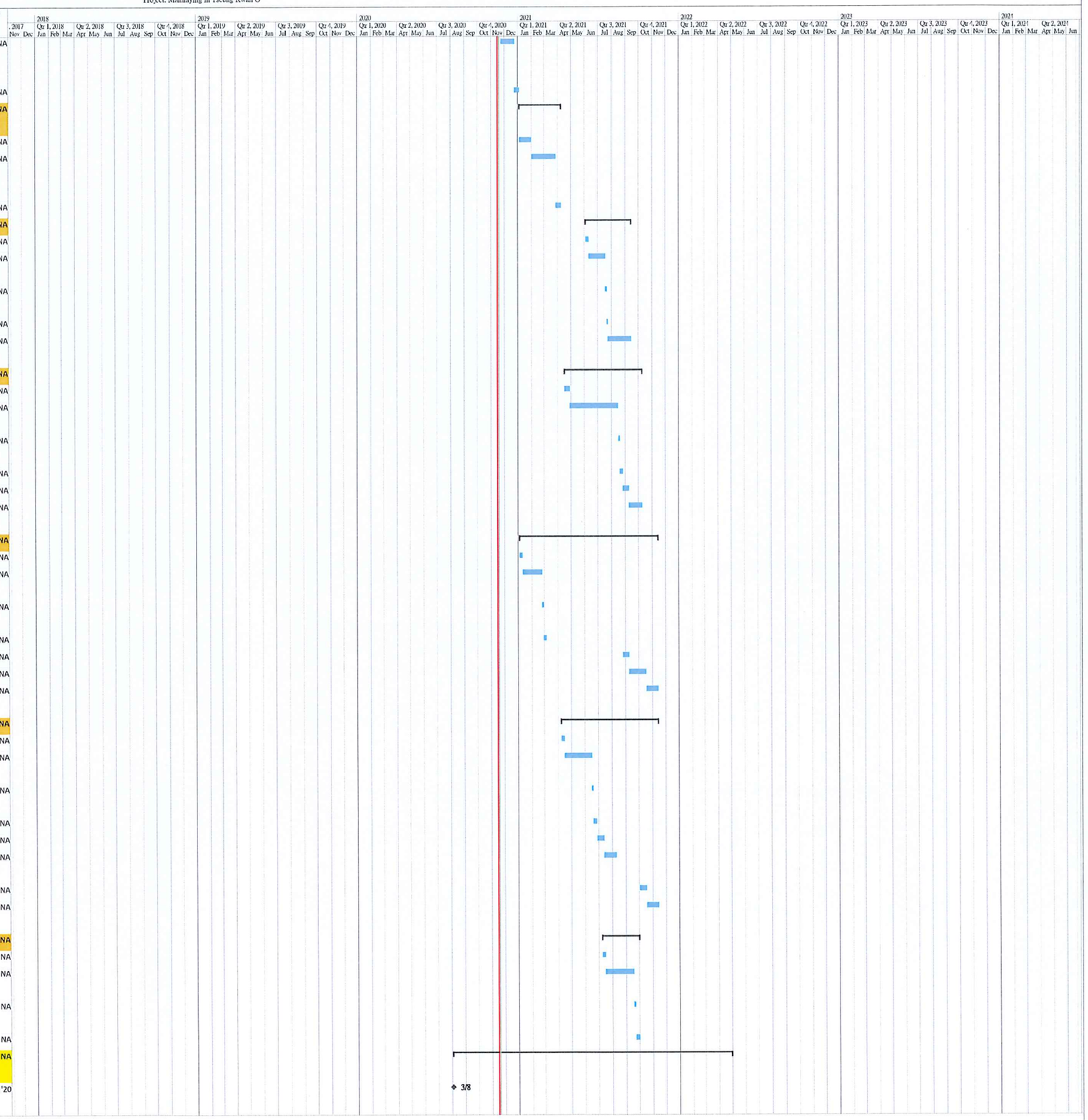
Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
387	DN1600 Precast Concrete Sleeve Pipe (Pit M - Pit N) (CH.GA1+86 to CH.GA3+20) in Soil (134m; 5m/day)	27 days	23 Nov '20	23 Dec '20	HK Working Day	386	388	0%	NA	NA
388	Remove setup including thrust wall at Pit M	6 days	24 Dec '20	2 Jan '21	HK Working Day	387		0%	NA	NA
389	**TBM Pipe Jacking (Pit O to Pit N) (5 Days a week, 4 trip per days)**	**74 days**	**4 Jan '21**	**7 Apr '21**	**HK Working Day**		**415,378**	**0%**	**NA**	**NA**
390	Establishment at Pit O	24 days	4 Jan '21	30 Jan '21	HK Working Day	370,371,385	391	0%	NA	NA
391	DN1600 Precast Concrete Sleeve Pipe (Pit O - Pit N) (CH.GA3+13 to CH.GA5+08) in Soil (195m; 4.5m/day)	44 days	1 Feb '21	26 Mar '21	HK Working Day	390	392	0%	NA	NA
392	Remove setup including thrust wall at Pit M	6 days	27 Mar '21	7 Apr '21	HK Working Day	391		0%	NA	NA
393	**DN1200 Pipelaying (Pit K to Pit L)**	**86 days**	**3 Jun '21**	**13 Sep '21**	**HK Working Day**			**0%**	**NA**	**NA**
394	Setup for Pipe Laying inside jacking Pit K	6 days	3 Jun '21	9 Jun '21	HK Working Day	373	395	0%	NA	NA
395	DN1200 MS Pipe Laying inside jacking pipe (56m) (2 days per 4m) (Only Internal Coating)	30 days	10 Jun '21	16 Jul '21	HK Working Day	394	396	0%	NA	NA
396	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	17 Jul '21	20 Jul '21	HK Working Day	395	397	0%	NA	NA
397	Grouting Works (30 meter/day)	2 days	21 Jul '21	22 Jul '21	HK Working Day	396	398	0%	NA	NA
398	Construction of DN900 Valve Chamber and DN150 By-pass Pipe & Valves Near Pit K	45 days	23 Jul '21	13 Sep '21	HK Working Day	397		0%	NA	NA
399	**DN1200 Pipelaying (Pit M to Pit L)**	**145 days**	**16 Apr '21**	**8 Oct '21**	**HK Working Day**			**0%**	**NA**	**NA**
400	Setup for Pipe Laying inside jacking Pit M	10 days	16 Apr '21	27 Apr '21	HK Working Day	381	401	0%	NA	NA
401	DN1200 MS Pipe Laying inside jacking pipe (171m) (2 days per 4m)(Only Internal Coating)	90 days	28 Apr '21	14 Aug '21	HK Working Day	400	402	0%	NA	NA
402	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	16 Aug '21	18 Aug '21	HK Working Day	401	403	0%	NA	NA
403	Grouting Works (30 meter/day)	6 days	19 Aug '21	25 Aug '21	HK Working Day	402	404,411	0%	NA	NA
404	Pipe Connection Inside Pit L	12 days	26 Aug '21	8 Sep '21	HK Working Day	403	405	0%	NA	NA
405	Remove ELS including extracting sheet piles at Pit L; Reinstatement of Cycle Track and planter	24 days	9 Sep '21	8 Oct '21	HK Working Day	404		0%	NA	NA
406	**DN1200 Pipelaying (Pit M to Pit N)**	**256 days**	**4 Jan '21**	**13 Nov '21**	**HK Working Day**			**0%**	**NA**	**NA**
407	Setup for Pipe Laying inside jacking Pit N	6 days	4 Jan '21	9 Jan '21	HK Working Day	385	408	0%	NA	NA
408	DN1200 MS Pipe Laying inside jacking pipe (134m) (2 days per 8m)(Only Internal Coating)	35 days	11 Jan '21	23 Feb '21	HK Working Day	407	409	0%	NA	NA
409	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	24 Feb '21	26 Feb '21	HK Working Day	408	410	0%	NA	NA
410	Grouting Works (30 meter/day)	5 days	27 Feb '21	4 Mar '21	HK Working Day	409	411,419	0%	NA	NA
411	Pipe Connection Inside Pit M	12 days	26 Aug '21	8 Sep '21	HK Working Day	403,410	412	0%	NA	NA
412	Construction of IT Chamber at Pit M	30 days	9 Sep '21	16 Oct '21	HK Working Day	411	413	0%	NA	NA
413	Remove ELS including extracting sheet piles at Pit M & Pit N; Reinstatement of Cycle Track and planter	24 days	18 Oct '21	13 Nov '21	HK Working Day	412		0%	NA	NA
414	**DN1200 Pipelaying (Pit O to Pit N)**	**182 days**	**8 Apr '21**	**13 Nov '21**	**HK Working Day**			**0%**	**NA**	**NA**
415	Setup for Pipe Laying inside jacking Pit N	6 days	8 Apr '21	14 Apr '21	HK Working Day	389	416	0%	NA	NA
416	DN1200 MS Pipe Laying inside jacking pipe (195m) (2 days per 8m)(Only Internal Coating)	50 days	15 Apr '21	15 Jun '21	HK Working Day	415	417	0%	NA	NA
417	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	16 Jun '21	18 Jun '21	HK Working Day	416	418	0%	NA	NA
418	Grouting Works (30 meter/day)	7 days	19 Jun '21	26 Jun '21	HK Working Day	417	419,421	0%	NA	NA
419	Pipe Connection Inside Pit N	12 days	28 Jun '21	12 Jul '21	HK Working Day	410,418	420	0%	NA	NA
420	Remove ELS including extracting sheet piles at Pit N; Reinstatement of Cycle Track and planter	24 days	13 Jul '21	9 Aug '21	HK Working Day	419		0%	NA	NA
421	Pipe Connection in side Pit O	12 days	2 Oct '21	16 Oct '21	HK Working Day	427,418	422	0%	NA	NA
422	Remove ELS including extracting sheet piles at Pit O; Reinstatement of Cycle Track and planter	24 days	18 Oct '21	13 Nov '21	HK Working Day	421		0%	NA	NA
423	**DN1200 Pipelaying (Pit O to Pit P)**	**71 days**	**9 Jul '21**	**30 Sep '21**	**HK Working Day**			**0%**	**NA**	**NA**
424	Setup for Pipe Laying inside jacking Pit O	6 days	9 Jul '21	15 Jul '21	HK Working Day	377	425	0%	NA	NA
425	DN1200 MS Pipe Laying inside jacking pipe (200m) (2 days per 8m)(Only Internal Coating)	55 days	16 Jul '21	17 Sep '21	HK Working Day	424	426	0%	NA	NA
426	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	18 Sep '21	21 Sep '21	HK Working Day	425	427	0%	NA	NA
427	Grouting Works (30 meter/day)	7 days	23 Sep '21	30 Sep '21	HK Working Day	426	421	0%	NA	NA
428	**Trenchless Work from KMB Depot to Po Hong Road (Pit P to Pit R)**	**515 days**	**3 Aug '20**	**29 Apr '22**	**HK Working Day**		**642**	**25%**	**3 Aug '20**	**NA**
429	Issue CE No. 51 - Realignment of Water Main in Tsui Lam Section	0 days	3 Aug '20	3 Aug '20	Calendar Day	436,431,5		100%	3 Aug '20	3 Aug '20



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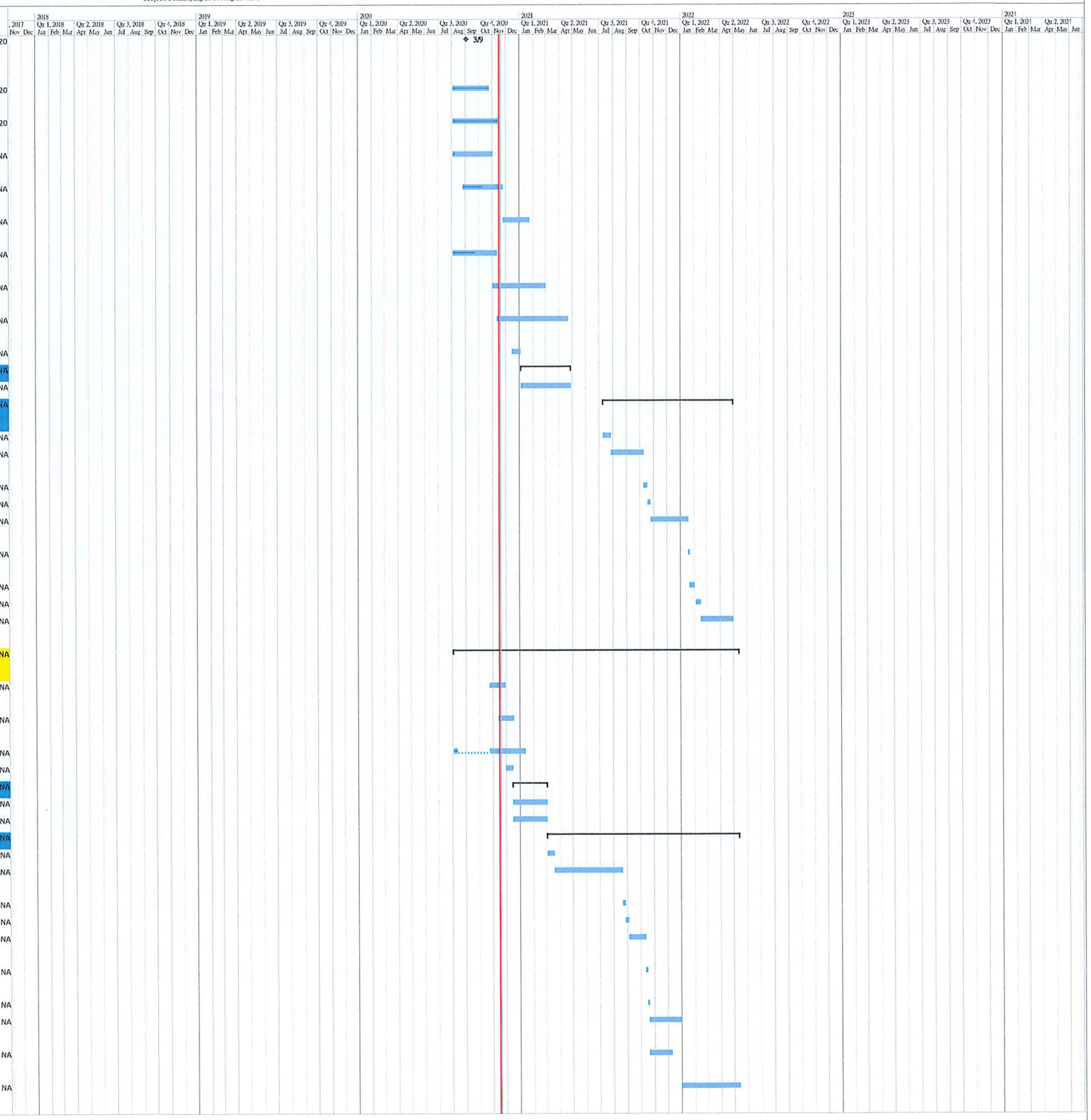
Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
430	Issue WSD Letter Ref.: (4) in WSD/M/7503/13/WSD/16/M15/300/51 for aditional works to CE No. 51	0 days	3 Sep '20	3 Sep '20	Calendar Day		558	100%	3 Sep '20	3 Sep '20
431	Tendering Process, Tender Award for CE No. 51 (Batch No, 1)	82 days	3 Aug '20	23 Oct '20	Calendar Day	429	438,453,4!	100%	3 Aug '20	23 Oct '20
432	Tendering Process, Tender Award for CE No. 51 (Batch No. 2)	102 days	3 Aug '20	12 Nov '20	Calendar Day	429	454	100%	3 Aug '20	12 Nov '20
433	Tendering Process, Tender Award for CE No. 51 (Batch No. 3))	90 days	3 Aug '20	31 Oct '20	Calendar Day	429	437,556	5%	3 Aug '20	NA
434	Tendering Process, Tender Award for CE No. 51 (Location A Mini-pile Works)	90 days	26 Aug '20	23 Nov '20	Calendar Day		435	50%	26 Aug '20	NA
435	Tendering Process, Tender Award for CE No. 51 (Location B Mini-pile Works)	60 days	24 Nov '20	22 Jan '21	Calendar Day	434		0%	NA	NA
436	TTA preparation, SLG meetings, obtain RA and implement Advanced Works	100 days	3 Aug '20	10 Nov '20	Calendar Day	429	438	50%	3 Aug '20	NA
437	Material Submission, Procurement of top coat of aliphatic polyurethance for exposed pipes	120 days	1 Nov '20	28 Feb '21	Calendar Day	433		0%	NA	NA
438	Forming New Vehicle Access at Po Hung Road for Construction of Pit R & Pit S and Trenchless Works	128 days	11 Nov '20	20 Apr '21	HK Working Day	436,431		0%	NA	NA
439	Inspection Pit Excavation at Pit R	14 days	15 Dec '20	2 Jan '21	HK Working Day		441	0%	NA	NA
440	Construction of Receiving Pit R	90 days	4 Jan '21	26 Apr '21	HK Working Day			0%	NA	NA
441	Construction of Receiving Pit R	90 days	4 Jan '21	26 Apr '21	HK Working Day	439	443	0%	NA	NA
442	TBM Pipe Jacking (Pit P to Pit R) accrossing KMB Depot & Po Hung Road	240 days	9 Jul '21	29 Apr '22	HK Working Day			0%	NA	NA
443	Establishment at Pit P	15 days	9 Jul '21	26 Jul '21	HK Working Day	441,377	444	0%	NA	NA
444	DN1600 Precast Concrete Sleeve Pipe (Pit P - Pit R) (say 248m) in Soil (4m/day)	62 days	27 Jul '21	8 Oct '21	HK Working Day	443	445	0%	NA	NA
445	Remove setup including thrust wall at Pit P	6 days	9 Oct '21	16 Oct '21	HK Working Day	444	446	0%	NA	NA
446	Setup for Pipe Laying inside jacking Pit Q	6 days	18 Oct '21	23 Oct '21	HK Working Day	445	447	0%	NA	NA
447	DN1200 MS Pipe Laying inside jacking pipe (248m) (2 days per 8m)(Only Internal Coating)	70 days	25 Oct '21	17 Jan '22	HK Working Day	446	448	0%	NA	NA
448	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	18 Jan '22	20 Jan '22	HK Working Day	447	449	0%	NA	NA
449	Grouting Works (30 meter/day)	9 days	21 Jan '22	31 Jan '22	HK Working Day	448	450	0%	NA	NA
450	Pipe connection inside Pit P	9 days	4 Feb '22	14 Feb '22	HK Working Day	449	451	0%	NA	NA
451	Construction of Combined Inspection and Washout Chamber Type II at Pit P	60 days	15 Feb '22	29 Apr '22	HK Working Day	450		0%	NA	NA
452	Open Trench from Pit R to Pit S & Trenchless Works from Pit S to Pit T	524 days	3 Aug '20	12 May '22	HK Working Day		642	1%	3 Aug '20	NA
453	Batch No 1 - Temporary Works Design and Preliminary Works	30 days	24 Oct '20	28 Nov '20	HK Working Day	431	456,473	0%	NA	NA
454	Batch No 2 - Temporary Works Design and Preliminary Works	30 days	13 Nov '20	17 Dec '20	HK Working Day	432	474,479,4!	0%	NA	NA
455	Material Procurement for the issued CE	90 days	3 Aug '20	12 Jan '21	Calendar Day	431		10%	3 Aug '20	NA
456	Inspection Pit Excavation at Pit S & Pit T	14 days	30 Nov '20	15 Dec '20	HK Working Day	453	458,459,4	0%	NA	NA
457	Construction of Jacking Pits	60 days	16 Dec '20	2 Mar '21	HK Working Day			0%	NA	NA
458	Pit S at CH.HA0+30	60 days	16 Dec '20	2 Mar '21	HK Working Day	456	461	0%	NA	NA
459	Pit T at CH.HA0+80	60 days	16 Dec '20	2 Mar '21	HK Working Day	456	461	0%	NA	NA
460	Hand shield Pipe Jacking (Pit S to Pit T)	351 days	3 Mar '21	12 May '22	HK Working Day			0%	NA	NA
461	Establishment at Pit S	14 days	3 Mar '21	18 Mar '21	HK Working Day	458,459	462	0%	NA	NA
462	Mild Steel Sleeve Pipe in Mix of Soil & Rock (0.2m / day; two teams)	125 days	19 Mar '21	20 Aug '21	HK Working Day	461	463	0%	NA	NA
463	Remove Setup including Thrust Wall at Pit S	6 days	21 Aug '21	27 Aug '21	HK Working Day	462	464	0%	NA	NA
464	Setup for Pipe Laying inside Jacking Pit S	6 days	28 Aug '21	3 Sep '21	HK Working Day	463	465	0%	NA	NA
465	DN1200 MS Pipe Laying inside Jacking Pipe (2 days per 4m pipe)(Only Internal Coating)	30 days	4 Sep '21	11 Oct '21	HK Working Day	464	466	0%	NA	NA
466	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	12 Oct '21	15 Oct '21	HK Working Day	465	467	0%	NA	NA
467	Grouting Works (30m per day)	2 days	16 Oct '21	18 Oct '21	HK Working Day	466	468,469	0%	NA	NA
468	Construction of Combined Inspection and Washout Chamber Type I at Pit S	60 days	19 Oct '21	29 Dec '21	HK Working Day	467	470	0%	NA	NA
469	Install Inspection Tree at Pit T and Construction of Chamber	45 days	19 Oct '21	9 Dec '21	HK Working Day	467		0%	NA	NA
470	Open Cut, between Pit R and Pit S with inspection Tee and Washout Chamber at Pit R	105 days	30 Dec '21	12 May '22	HK Working Day	468		0%	NA	NA



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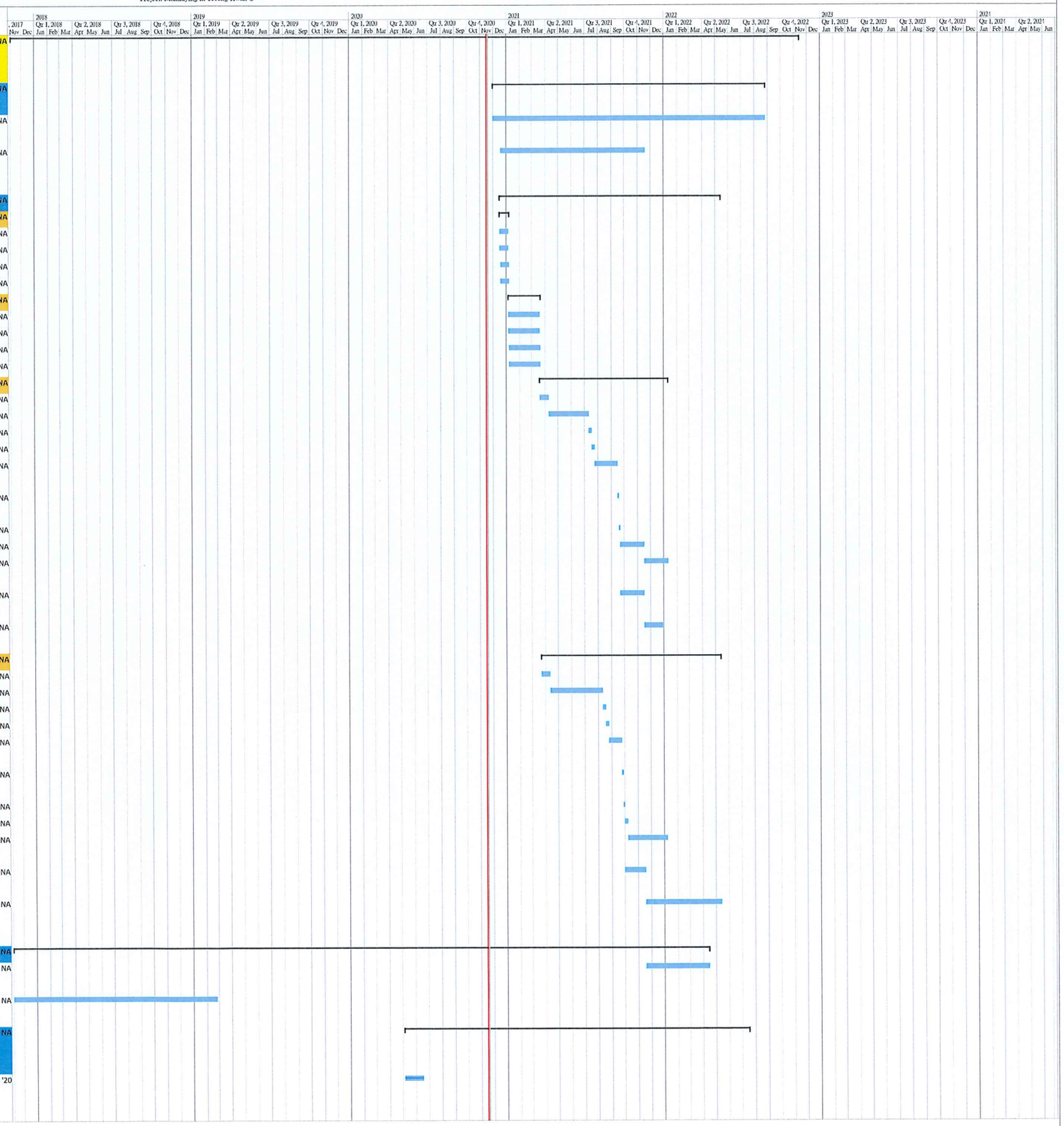
Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
471	**Open Cut Excavation, Pipe Laying and Reinstatement at Abandoned Road / Mau Wu Tsai Village / Po Lam Road North**	**1486 days**	**7 Nov '17**	**12 Nov '22**	**HK Working Day**			**6%**	**7 Nov '17**	**NA**
472	**Open Trench Pipelaying at Abandoned Road & Mau Wu Tsai Village**	**513 days**	**30 Nov '20**	**25 Aug '22**	**HK Working Day**		**642**	**0%**	**NA**	**NA**
473	CH.HA0+80 to HA3+45 (Depth < 2.5m, each TTA 30m length) (Option C)	513 days	30 Nov '20	25 Aug '22	HK Working Day	453		0%	NA	NA
474	CH.HA3+75 to HA5+55 (Depth < 2.5m, each TTA 24-30m length) (Option G) with Construction of DAV Chamber	270 days	18 Dec '20	17 Nov '21	HK Working Day	454	511	0%	NA	NA
475	**Trenchless Work at Mau Wu Tsai Village**	**412 days**	**16 Dec '20**	**13 May '22**	**HK Working Day**		**642**	**0%**	**NA**	**NA**
476	**Inspection Pit Excavation**	**16 days**	**16 Dec '20**	**6 Jan '21**	**HK Working Day**			**0%**	**NA**	**NA**
477	Inspection Pit Excavation at Pit U	14 days	16 Dec '20	4 Jan '21	HK Working Day	456		0%	NA	NA
478	Inspection Pit Excavation at Pit V	14 days	16 Dec '20	4 Jan '21	HK Working Day	456	482,483	0%	NA	NA
479	Inspection Pit Excavation at Pit W	14 days	18 Dec '20	6 Jan '21	HK Working Day	454	484	0%	NA	NA
480	Inspection Pit Excavation at Pit X	14 days	18 Dec '20	6 Jan '21	HK Working Day	454	485	0%	NA	NA
481	**Construction of Jacking / Receiving Pits**	**62 days**	**5 Jan '21**	**20 Mar '21**	**HK Working Day**			**0%**	**NA**	**NA**
482	Jacking Pit U	60 days	5 Jan '21	18 Mar '21	HK Working Day	478	487	0%	NA	NA
483	Receiving Pit V	60 days	5 Jan '21	18 Mar '21	HK Working Day	478	487	0%	NA	NA
484	Jacking Pit W	60 days	7 Jan '21	20 Mar '21	HK Working Day	479	499	0%	NA	NA
485	Receiving Pit X	60 days	7 Jan '21	20 Mar '21	HK Working Day	480	499	0%	NA	NA
486	**Hand Shield Pipe Jacking from Pit U to Pit V (~30m)**	**241 days**	**19 Mar '21**	**10 Jan '22**	**HK Working Day**			**0%**	**NA**	**NA**
487	Establishment at Pit U	14 days	19 Mar '21	8 Apr '21	HK Working Day	483,482	488	0%	NA	NA
488	Mild Steel Sleeve Pipe in Mix of Soil (0.4m / day)	75 days	9 Apr '21	9 Jul '21	HK Working Day	487	489	0%	NA	NA
489	Remove Setup including Thrust Wall at Pit U	6 days	10 Jul '21	16 Jul '21	HK Working Day	488	490	0%	NA	NA
490	Setup for Pipe Laying inside Jacking Pit U	6 days	17 Jul '21	23 Jul '21	HK Working Day	489	491	0%	NA	NA
491	DN1200 MS Pipe Laying inside Jacking Pipe (3 days per 2m)	45 days	24 Jul '21	14 Sep '21	HK Working Day	490	492	0%	NA	NA
492	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	15 Sep '21	17 Sep '21	HK Working Day	491	493	0%	NA	NA
493	Grouting Works (30m per day)	2 days	18 Sep '21	20 Sep '21	HK Working Day	492	494,496	0%	NA	NA
494	Construction of Washout Chamber at Pit U	45 days	21 Sep '21	15 Nov '21	HK Working Day	493	495	0%	NA	NA
495	Open Cut, connecting CH. HA3+45 to DN1200 pipe end at Pit U with Inspection Tee at Pit U	45 days	16 Nov '21	10 Jan '22	HK Working Day	494		0%	NA	NA
496	Install inspection Tree at Pit V and Construction of chamber	45 days	21 Sep '21	15 Nov '21	HK Working Day	493	497	0%	NA	NA
497	Open Cut, connecting CH. HA3+75 to DN1200 pipe end at Pit V	35 days	16 Nov '21	28 Dec '21	HK Working Day	496		0%	NA	NA
498	**Hand Shield Pipe Jacking from Pit W to Pit X (~85m)**	**336 days**	**22 Mar '21**	**13 May '22**	**HK Working Day**			**0%**	**NA**	**NA**
499	Establishment at Pit W	14 days	22 Mar '21	10 Apr '21	HK Working Day	485,484	500	0%	NA	NA
500	Mild Steel Sleeve Pipe in Mix of Soil (0.4m / day)	100 days	12 Apr '21	10 Aug '21	HK Working Day	499	501	0%	NA	NA
501	Remove Setup including Thrust Wall at Pit U	6 days	11 Aug '21	17 Aug '21	HK Working Day	500	502	0%	NA	NA
502	Setup for Pipe Laying inside Jacking Pit U	6 days	18 Aug '21	24 Aug '21	HK Working Day	501	503	0%	NA	NA
503	DN900 MS Pipe Laying inside Jacking Pipe (2 days per 4m)(Only Internal Coating)	25 days	25 Aug '21	23 Sep '21	HK Working Day	502	504	0%	NA	NA
504	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	24 Sep '21	27 Sep '21	HK Working Day	503	505	0%	NA	NA
505	Grouting Works (30m per day)	2 days	28 Sep '21	29 Sep '21	HK Working Day	504	506,508	0%	NA	NA
506	Install inspection tee at Pit W	6 days	30 Sep '21	7 Oct '21	HK Working Day	505	507	0%	NA	NA
507	Open Cut, connecting CH. HA5+55 to DN900 pipe end at Pit W	75 days	8 Oct '21	7 Jan '22	HK Working Day	506		0%	NA	NA
508	Install inspection tee at Pit X & Construction of Chamber	40 days	30 Sep '21	17 Nov '21	HK Working Day	505	509	0%	NA	NA
509	Open Cut, connecting CH. HA6+63 to DN1200 pipe end at Pit X with DN900 Valve Chamber & DAV Chamber	140 days	18 Nov '21	13 May '22	HK Working Day	508		0%	NA	NA
510	**Open Trench Pipe Laying at Po Lam Road North**	**1314 days**	**7 Nov '17**	**14 Apr '22**	**HK Working Day**		**643**	**0%**	**NA**	**NA**
511	CH.HA6+63 to HA7+46 (Depth < 2.5m, each TTA 30m length) (Option G)	120 days	18 Nov '21	14 Apr '22	HK Working Day	474,512		0%	NA	NA
512	CH.HC0+00 to HC3+17 (Depth < 2.5m, each TTA max. 20m length) (Option G)	384 days	7 Nov '17	23 Feb '19	HK Working Day		511	0%	NA	NA
513	**Water Main Structure and Associated Pipe Support across the Natural Stream Course (CH. HB0+00 ~ CH.HB0+94)**	**653 days**	**5 May '20**	**16 Jul '22**	**HK Working Day**		**643**	**19%**	**5 May '20**	**NA**
514	Design Submission (CE No. 55) for Water Main Structure and Associated Pipe Support across the Natural Stream Course	37 days	5 May '20	16 Jun '20	HK Working Day		515	100%	5 May '20	16 Jun '20



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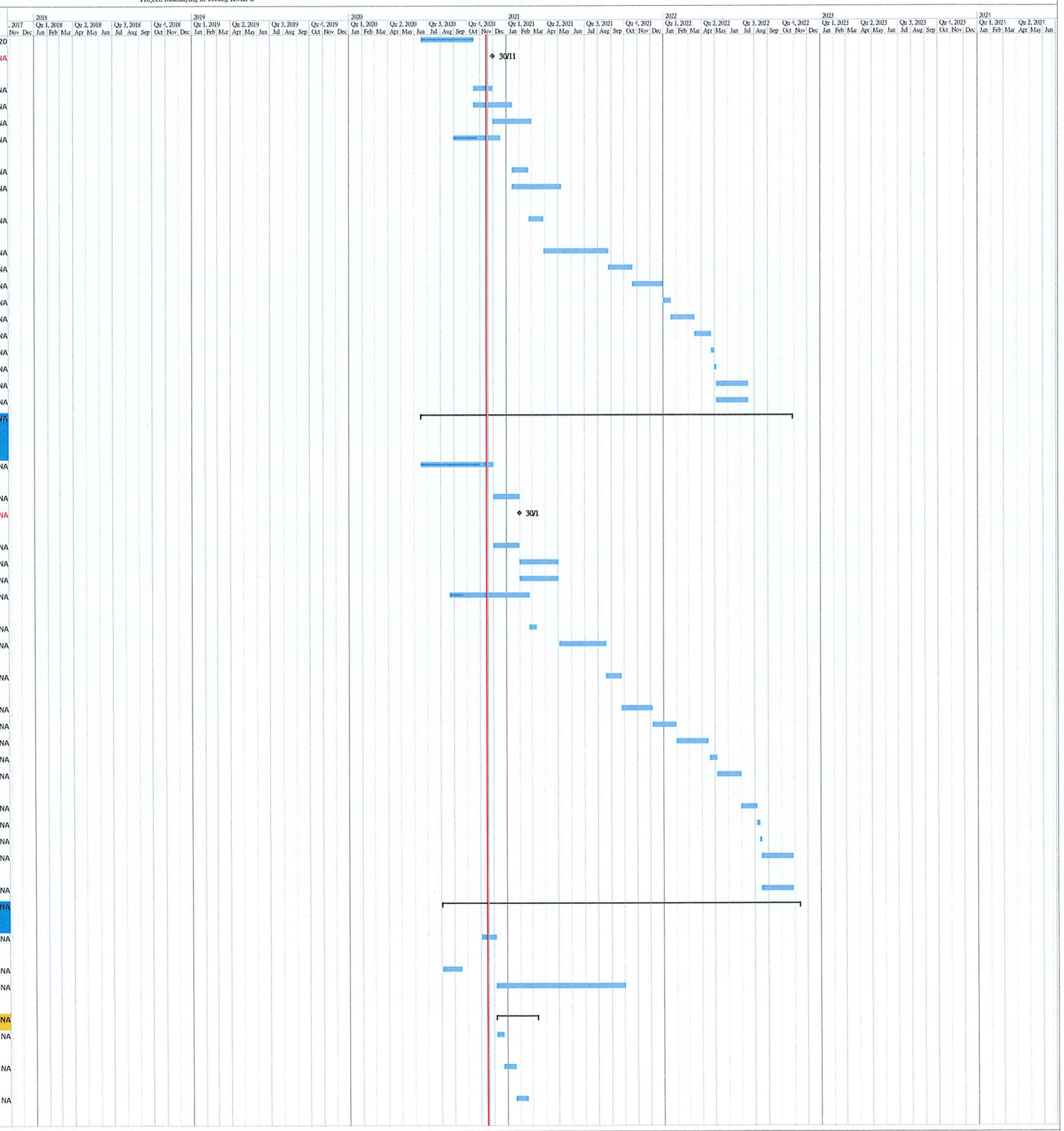
Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
515	WSD & GEO Review and Approve	121 days	17 Jun '20	15 Oct '20	Calendar Day	514	517,518	100%	17 Jun '20	15 Oct '20
516	Issue CE No. xx - Mini-pile Suppoty and Pipework across the Natural Stream Course	0 days	30 Nov '20	30 Nov '20	Calendar Day		519	0%	NA	NA
517	TTA preparation, SLG meetings, obtain RA	45 days	16 Oct '20	29 Nov '20	Calendar Day	515		0%	NA	NA
518	Tender and Subletting	90 days	16 Oct '20	13 Jan '21	Calendar Day	515	521,522	0%	NA	NA
519	Material procurement for the issued CE	90 days	30 Nov '20	27 Feb '21	Calendar Day	516	524	0%	NA	NA
520	Tree survey, TPRP approval and site clearance works	90 days	31 Aug '20	16 Dec '20	HK Working Day			50%	31 Aug '20	NA
521	Advanced Works	30 days	14 Jan '21	20 Feb '21	HK Working Day	518	523	0%	NA	NA
522	Design and Construction Working Platform on Slope for Piling Works	90 days	14 Jan '21	7 May '21	HK Working Day	518		0%	NA	NA
523	Pre-drilling works & confirmation of rock head and depth of mini-pile	30 days	22 Feb '21	27 Mar '21	HK Working Day	521	524	0%	NA	NA
524	Mini-pile Construction (2 Workfront)	120 days	29 Mar '21	24 Aug '21	HK Working Day	519,523	525	0%	NA	NA
525	Loading Test (One Tensile & One Compression)	45 days	25 Aug '21	19 Oct '21	HK Working Day	524	526	0%	NA	NA
526	Construction Pile Caps and Piers	60 days	20 Oct '21	30 Dec '21	HK Working Day	525	527	0%	NA	NA
527	Temporary Working Platform for Pipe Installation	14 days	31 Dec '21	17 Jan '22	HK Working Day	526	528	0%	NA	NA
528	Pipe Installation / Welding / Testing / Painting (~115m	45 days	18 Jan '22	14 Mar '22	HK Working Day	527	529	0%	NA	NA
529	Concrete Hunching	30 days	15 Mar '22	22 Apr '22	HK Working Day	528	530	0%	NA	NA
530	Apply top coating of aliphatic polyurethane on site	6 days	23 Apr '22	29 Apr '22	HK Working Day	529	531	0%	NA	NA
531	Remove Temporary Working Platform	3 days	30 Apr '22	4 May '22	HK Working Day	530	532,533	0%	NA	NA
532	Open Cut, Connection to CH.HA7+50	60 days	5 May '22	16 Jul '22	HK Working Day	531		0%	NA	NA
533	Open Cut, Connection to CH.HC0+00	60 days	5 May '22	16 Jul '22	HK Working Day	531		0%	NA	NA
534	Water Main Structure and Associated Pipe Support from Po Lam Road to Tsui Lam Road (CH. HD0+00 ~ CH. HD1+01)	702 days	16 Jun '20	27 Oct '22	HK Working Day		643	13%	16 Jun '20	NA
535	Design Submmission (CE No. 62) for Water Main Structure and Associated at Tsui Lam (Location B)	139 days	16 Jun '20	30 Nov '20	HK Working Day		536,538	81%	16 Jun '20	NA
536	WSD & GEO Review and Approve	61 days	1 Dec '20	30 Jan '21	Calendar Day	535	537,539	0%	NA	NA
537	Expected CE No. XX - Mini-pile support and pipework at Tsui Lam (Location B)	0 days	30 Jan '21	30 Jan '21	Calendar Day	536	540	0%	NA	NA
538	TTA preparation, SLG meetings, obtain RA	60 days	1 Dec '20	29 Jan '21	Calendar Day	535		0%	NA	NA
539	Tender and Subletting	90 days	31 Jan '21	30 Apr '21	Calendar Day	536	543	0%	NA	NA
540	Material procurement for the issued CE	90 days	31 Jan '21	30 Apr '21	Calendar Day	537		0%	NA	NA
541	Tree survey, TPRP approval and Tree Removal Works	150 days	21 Aug '20	22 Feb '21	HK Working Day		542	18%	21 Aug '20	NA
542	Tree Removal Works & Site Clearance	14 days	23 Feb '21	10 Mar '21	HK Working Day	541		0%	NA	NA
543	Design and Construction Working Platform on Slope for Piling Works	90 days	3 May '21	18 Aug '21	HK Working Day	539	544	0%	NA	NA
544	Pre-drilling works & confirmation of rock head and depth of mini-pile	30 days	19 Aug '21	23 Sep '21	HK Working Day	543	545	0%	NA	NA
545	Mini-pile Construction (2 Workfront)	60 days	24 Sep '21	4 Dec '21	HK Working Day	544	546	0%	NA	NA
546	Loading Test (One Tensile & One Compression)	45 days	6 Dec '21	29 Jan '22	HK Working Day	545	547	0%	NA	NA
547	Construction Pile Caps and Piers	60 days	31 Jan '22	14 Apr '22	HK Working Day	546	548	0%	NA	NA
548	Temporary Working Platform for Pipe Installation	14 days	19 Apr '22	5 May '22	HK Working Day	547	549	0%	NA	NA
549	Pipe Installation / Welding / Testing / Painting (~115m)	45 days	6 May '22	29 Jun '22	HK Working Day	548	550	0%	NA	NA
550	Concrete Hunching	30 days	30 Jun '22	4 Aug '22	HK Working Day	549	551	0%	NA	NA
551	Apply top coating of aliphatic polyurethane on site	6 days	5 Aug '22	11 Aug '22	HK Working Day	550	552	0%	NA	NA
552	Remove Temporary Working Platform	3 days	12 Aug '22	15 Aug '22	HK Working Day	551	553,554	0%	NA	NA
553	Open Cut, Connection to CH.HC3+17 with DAV Chamber	60 days	16 Aug '22	27 Oct '22	HK Working Day	552		0%	NA	NA
554	Open Cut, Connection to CH.HE0+15	60 days	16 Aug '22	27 Oct '22	HK Working Day	552		0%	NA	NA
555	From Tsui Lam Road to TKO Freshwater PSR (CH. HE.0+00 ~ CH. HE2+00) & (CH.J0+00 CH.J0+57)	677 days	3 Aug '20	12 Nov '22	HK Working Day		643	0%	NA	NA
556	Batch No 3 - Temporary Works Design and Preliminary Works	30 days	2 Nov '20	5 Dec '20	HK Working Day	433	558,560	0%	NA	NA
557	TTA preparation, SLG meetings, obtain RA	45 days	3 Aug '20	16 Sep '20	Calendar Day	429		0%	NA	NA
558	Material procurement (DN800 MS PIPE & Butterfly Valve) for the issued CE	300 days	6 Dec '20	1 Oct '21	Calendar Day	430,556		0%	NA	NA
559	Inspection Pit Excavation	77 days	7 Dec '20	12 Mar '21	None			0%	NA	NA
560	Inspection Pit Excavation at both side footpath of Tsui Lam Road	14 days	7 Dec '20	22 Dec '20	HK Working Day	556	565,561	0%	NA	NA
561	Inspection Pit Excavation for DN800 Connection at CH.HE2+06	21 days	23 Dec '20	19 Jan '21	HK Working Day	560	562	0%	NA	NA
562	Inspection Pit Excavation for DN800 EMF & BV at CH.HE1+90	21 days	20 Jan '21	16 Feb '21	HK Working Day	561	563,568	0%	NA	NA



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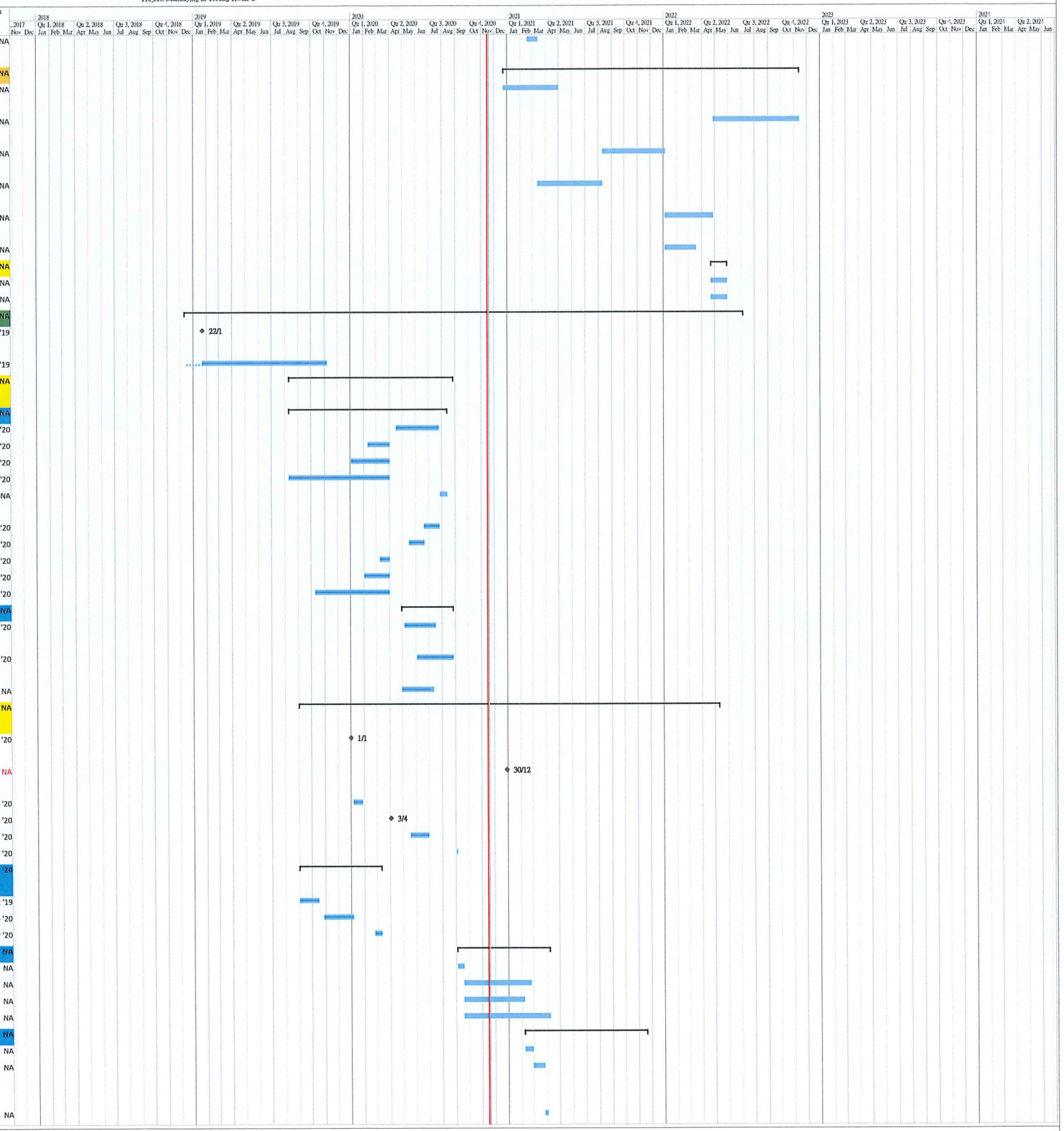
Project: Mainlaying in Tseung Kwan O

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
563	Inspection Pit Excavation for DN800 EMF & BV at CH.HE1+70	21 days	17 Feb '21	12 Mar '21	HK Working Day	562	568	0%	NA	NA
564	Excavation, Pipelaying & Reinstatement	558 days	23 Dec '20	12 Nov '22	None			0%	NA	NA
565	Open Cut across Tsui Lam Road (CH. HE0+00 to 0+15) (Two Stages)	100 days	23 Dec '20	29 Apr '21	HK Working Day	560		0%	NA	NA
566	Open Cut, CH. HE0+15 ~ CH.HE1+55) with DAV Chamber	165 days	27 Apr '22	12 Nov '22	HK Working Day	569		0%	NA	NA
567	Open Cut, DN800 (CH.HE1+55 ~ CH.HE1+80) with DN800 EMF & BV	120 days	10 Aug '21	3 Jan '22	HK Working Day	568	570,655,5	0%	NA	NA
568	Open Cut, DN800 (CH.HE1+80 ~ CH.HE2+00) with DN800 EMF & BV	120 days	13 Mar '21	9 Aug '21	HK Working Day	562,563	567,655,5	0%	NA	NA
569	Construction of flowmeter kiosks and GI cable ducts	90 days	4 Jan '22	26 Apr '22	HK Working Day	568,567	566	0%	NA	NA
570	Pipelaying, DN800 (CH. J0+00 ~ J0+057)	60 days	4 Jan '22	17 Mar '22	HK Working Day	567	655	0%	NA	NA
571	Final Connection to TKO Fresh Water Service Reservoir	30 days	22 Apr '22	28 May '22	HK Working Day			0%	NA	NA
572	Final Connection of DN800 (CH.HE2+00 ~ HE.2_06)	30 days	22 Apr '22	28 May '22	HK Working Day	654		0%	NA	NA
573	Final Connection of DN800 (CH.J0+57 ~ Reservoir)	30 days	22 Apr '22	28 May '22	HK Working Day	654		0%	NA	NA
574	Mainlaying in Tseung Kwan O Area 137 (Portion H)	1051 days	11 Dec '18	4 Jul '22	HK Working Day			59%	11 Dec '18	NA
575	Issue Date of CE07 -Water Supply to TKO Desalination Plant at Portion H (NS250 HDPE Pipe)	0 days	22 Jan '19	22 Jan '19	Calendar Day		576	100%	22 Jan '19	22 Jan '19
576	Material Procurement and Delivery in Batches	330 days	11 Dec '18	5 Nov '19	Calendar Day	575		100%	11 Dec '18	5 Nov '19
577	Ope Cut Excavation, Pipe Laying and Reinstatement at TKO Area 137	311 days	10 Aug '19	26 Aug '20	HK Working Day			98%	10 Aug '19	NA
578	DN1200 MS PIPE + NS250 HDPE PIPE - Open Cut	298 days	10 Aug '19	12 Aug '20	HK Working Day			98%	10 Aug '19	NA
579	CH. CT1+51 - 265 DN1200 MS Pipe OC	82 days	16 Apr '20	24 Jul '20	None			100%	16 Apr '20	24 Jul '20
580	CH. CT0+51 - 1+51 DN1200 MS Pipe OC	44 days	10 Feb '20	31 Mar '20	HK Working Day			100%	10 Feb '20	31 Mar '20
581	CH. CT0+00 - 0+51 DN1200 MS Pipe OC	74 days	2 Jan '20	31 Mar '20	HK Working Day			100%	2 Jan '20	31 Mar '20
582	CH. CA0+00 - 4+00 DN1200 MS Pipe OC	192 days	10 Aug '19	31 Mar '20	HK Working Day	5		100%	10 Aug '19	31 Mar '20
583	CH. KT2+80 - 3+60 NS250 HDPE Pipe OC with additional Tees and fire Hydrant	14 days	28 Jul '20	12 Aug '20	HK Working Day			0%	NA	NA
584	CH. KT2+23 - 2+80 NS250 HDPE Pipe OC	29 days	20 Jun '20	25 Jul '20	HK Working Day			100%	20 Jun '20	25 Jul '20
585	CH. KT1+51 - 2+23 NS250 HDPE Pipe OC	31 days	16 May '20	20 Jun '20	HK Working Day			100%	16 May '20	20 Jun '20
586	CH. KT0+51 - 1+51 NS250 HDPE Pipe OC	19 days	10 Mar '20	31 Mar '20	HK Working Day			100%	10 Mar '20	31 Mar '20
587	CH. KT0+00 - 0+51 NS250 HDPE Pipe OC	50 days	2 Feb '20	31 Mar '20	HK Working Day			100%	2 Feb '20	31 Mar '20
588	CH. KA0+00 - 4+00 NS250 HDPE Pipe OC	143 days	10 Oct '19	31 Mar '20	HK Working Day			100%	10 Oct '19	31 Mar '20
589	Construction of Chambers	99 days	29 Apr '20	26 Aug '20	HK Working Day			97%	29 Apr '20	NA
590	Combined DAV & IT Chamber for DN1200 MS pipe at CH. CT2+47	60 days	5 May '20	15 Jul '20	HK Working Day			100%	5 May '20	15 Jul '20
591	Combined Washout Pump Pit for DN1200 MS pipe and NS250 HDPE pipe at CH.CT2+43	71 days	3 Jun '20	26 Aug '20	HK Working Day			100%	3 Jun '20	26 Aug '20
592	DN900 Valve Chamber with by-pass pipes at CH.CA4+;	60 days	29 Apr '20	11 Jul '20	HK Working Day			90%	29 Apr '20	NA
593	Trenchless Works (DN1200 MS PIPE + NS250 HDPE PIPE) at TKO Area 137	793 days	2 Sep '19	10 May '22	HK Working Day		638,659	16%	2 Sep '19	NA
594	Issue CE No. 17 - Realignment of Water Main by Trenchless Method in TKO Area 137	0 days	1 Jan '20	1 Jan '20	Calendar Day			100%	1 Jan '20	1 Jan '20
595	Expected Issue CE No. 57 - Realignment of Water Main by Trenchless Method in SENTX	0 days	30 Dec '20	30 Dec '20	Calendar Day		599	0%	NA	NA
596	Tendering & Approval	21 days	6 Jan '20	26 Jan '20	Calendar Day			100%	6 Jan '20	26 Jan '20
597	WSD instructed to retender	0 days	3 Apr '20	3 Apr '20	Calendar Day		598	100%	3 Apr '20	3 Apr '20
598	Retendering, Review & Approval	43 days	18 May '20	29 Jun '20	Calendar Day	597	599	100%	18 May '20	29 Jun '20
599	Issue LOA	1 day	3 Sep '20	3 Sep '20	Calendar Day	598,595	605	100%	3 Sep '20	3 Sep '20
600	Trial Pit Excavation for Trenchless Works at TKO Area 137	156 days	2 Sep '19	11 Mar '20	HK Working Day			100%	2 Sep '19	11 Mar '20
601	Pit 137A	35 days	2 Sep '19	15 Oct '19	HK Working Day			100%	2 Sep '19	15 Oct '19
602	Pit 137B	57 days	28 Oct '19	4 Jan '20	HK Working Day			100%	28 Oct '19	4 Jan '20
603	Pit 137C	14 days	25 Feb '20	11 Mar '20	HK Working Day			100%	25 Feb '20	11 Mar '20
604	Construction of jacking / Receiving Pits	172 days	4 Sep '20	7 Apr '21	HK Working Day			0%	NA	NA
605	Mobilization and Setup & Preliminary Works	15 days	4 Sep '20	18 Sep '20	Calendar Day	599	606,607,6	0%	NA	NA
606	Receiving Pit 137A (Renopipe)	125 days	19 Sep '20	22 Feb '21	HK Working Day	605		0%	NA	NA
607	Jacking / Receiving Pit 137B (Renopipe)	115 days	19 Sep '20	6 Feb '21	HK Working Day	605	610	0%	NA	NA
608	Jacking Pit 137C (renopipe)	159 days	19 Sep '20	7 Apr '21	HK Working Day	605	622	0%	NA	NA
609	TBM Pipe Jacking From Pit 137B to Pit 137A	231 days	8 Feb '21	19 Nov '21	HK Working Day		73	0%	NA	NA
610	Establishment at Pit 137B	14 days	8 Feb '21	26 Feb '21	HK Working Day	607	611	0%	NA	NA
611	OD1920 Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) (CH.CC0+10 to CH.CC.1+24) in Soil (114m; 5m/day)	23 days	27 Feb '21	25 Mar '21	HK Working Day	610	612	0%	NA	NA
612	Remove setup at Pit 137B	6 days	26 Mar '21	1 Apr '21	HK Working Day	611	613,622	0%	NA	NA



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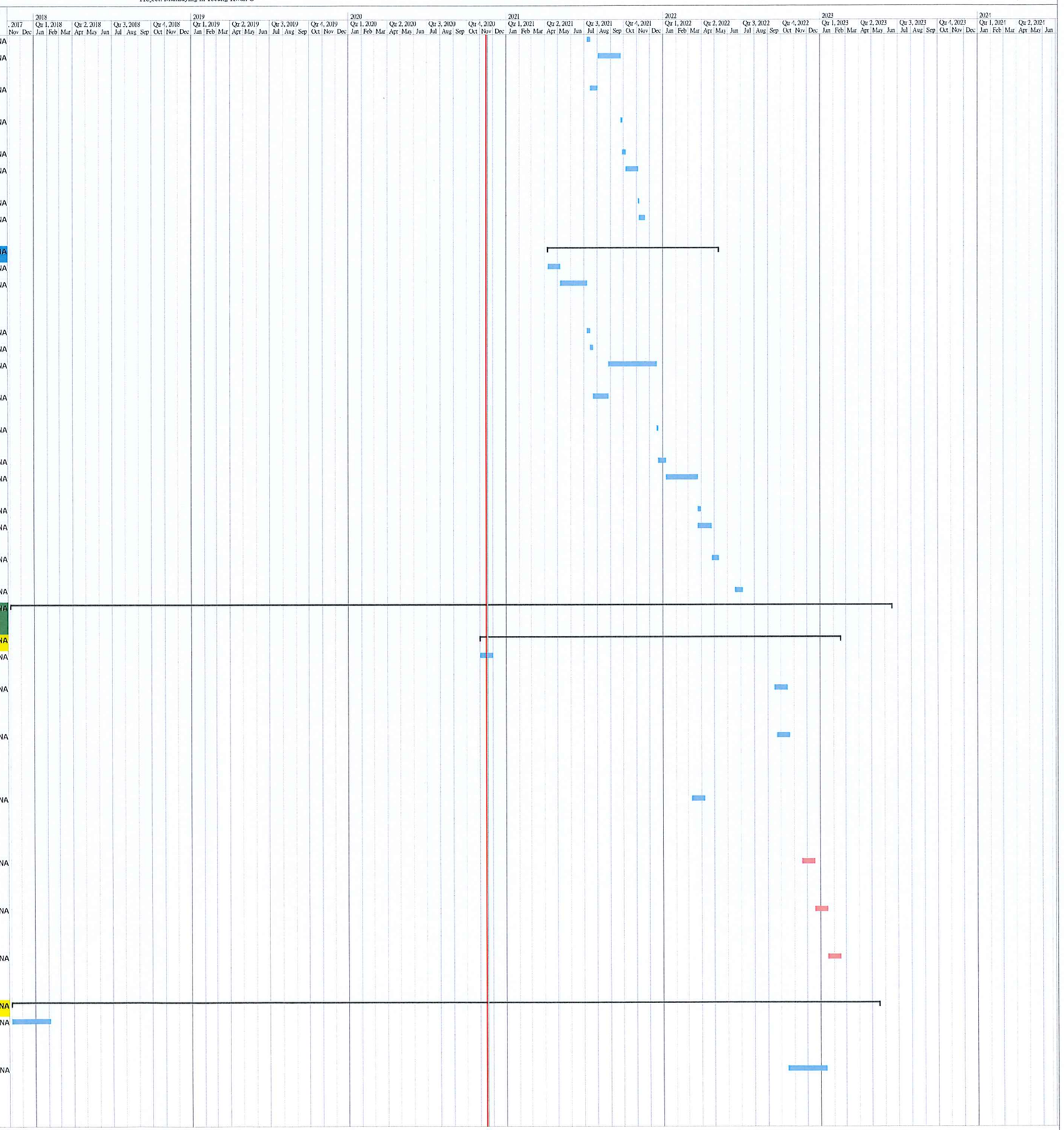
Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Critical, Critical Split, Progress, Manual Progress

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
613	Setup for Pipe Laying inside jacking Pits B	6 days	8 Jul '21	14 Jul '21	HK Working Day	612,623	615	0%	NA	NA
614	DN1200 MS Pipe Laying inside jacking pipe (114m) (8m per 3 day)	45 days	2 Aug '21	23 Sep '21	HK Working Day	615	616	0%	NA	NA
615	NS250 HDPE Pipe Laying inside jacking pipe (114m) (8m per day)	15 days	15 Jul '21	31 Jul '21	HK Working Day	613	614	0%	NA	NA
616	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	24 Sep '21	27 Sep '21	HK Working Day	614	617	0%	NA	NA
617	Grouting Works (20 meter/day)	6 days	28 Sep '21	5 Oct '21	HK Working Day	616	618	0%	NA	NA
618	Pipe Laying (HB, BVB, Short Pipe), Thrust Block & backfilling inside Pit 137A	24 days	6 Oct '21	3 Nov '21	HK Working Day	617	619	0%	NA	NA
619	Remove ELS and Extract Sheetpile at Pit 137A	2 days	4 Nov '21	5 Nov '21	HK Working Day	618	620	0%	NA	NA
620	Pipe Laying (DN1200 MS Pipe & NS250 HDPE Pipe) From Pit 137A to CH.CC1+38 & KC1+38	12 days	6 Nov '21	19 Nov '21	HK Working Day	619		0%	NA	NA
621	TBM Pipe Jacking From Pit 137C to Pit 137B	322 days	8 Apr '21	10 May '22	HK Working Day			0%	NA	NA
622	Establishment at Pit 137C	24 days	8 Apr '21	6 May '21	HK Working Day	612,608	623	0%	NA	NA
623	OD1920 Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137C - Pit 137B) (CH.CB0+00 to CH.CB.2+46) in Soil (246m; 5m/day)	50 days	7 May '21	7 Jul '21	HK Working Day	622	624,613	0%	NA	NA
624	Remove setup including thrust wall at Pit 137C	6 days	8 Jul '21	14 Jul '21	HK Working Day	623	625	0%	NA	NA
625	Setup for Pipe Laying inside jacking Pit C	6 days	15 Jul '21	21 Jul '21	HK Working Day	624	627	0%	NA	NA
626	DN1200 MS Pipe Laying inside jacking pipe (246m) (3 days per 8m)	93 days	27 Aug '21	16 Dec '21	HK Working Day	627	628	0%	NA	NA
627	NS250 HDPE Pipe Laying inside jacking pipe (246m) (8m per day)	31 days	22 Jul '21	26 Aug '21	HK Working Day	625	626	0%	NA	NA
628	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	17 Dec '21	20 Dec '21	HK Working Day	626	629	0%	NA	NA
629	Grouting Works (20 meter/day)	13 days	21 Dec '21	7 Jan '22	HK Working Day	628	630	0%	NA	NA
630	Construction of Combined Inspection and Washout Chamber (Type III) at Pit 137C	60 days	8 Jan '22	22 Mar '22	HK Working Day	629	632,631	0%	NA	NA
631	Pipe Connection Inside Pit 137C	6 days	23 Mar '22	29 Mar '22	HK Working Day	630		0%	NA	NA
632	Pipe Laying (HB, BVB, Short Pipe), Thrust Block & backfilling inside Pit 137C	24 days	23 Mar '22	23 Apr '22	HK Working Day	630	633	0%	NA	NA
633	Remove ELS and Remove ELS and Extract Sheetpile at Pit 137C	12 days	25 Apr '22	10 May '22	HK Working Day	632		0%	NA	NA
634	Final Connection of NS250 HDPE Pipe to Existing at Wan Po	14 days	17 Jun '22	4 Jul '22	HK Working Day	662		0%	NA	NA
635	DN1200 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, Sterilization and Water Sampling	2048 days	7 Nov '17	16 Jun '23	Calendar Day			0%	NA	NA
636	Static Pressure Test	838 days	1 Nov '20	16 Feb '23	Calendar Day			0%	NA	NA
637	DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at CH.CA4+24 to CH.CT.2+65	30 days	1 Nov '20	30 Nov '20	Calendar Day			0%	NA	NA
638	DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at CH.CA4+24 to DN900 Valve Chamber at Wan Po Road (CH. A12+50)	30 days	16 Sep '22	15 Oct '22	Calendar Day	71,593	646	0%	NA	NA
639	DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at Wan Po Road (CH. A12+50) to DN900 Valve Chamber at TKO Landfill Stage I Area A (CH. FB1+66)	30 days	22 Sep '22	21 Oct '22	Calendar Day	132,234	647	0%	NA	NA
640	DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at TKO Landfill Stage I Area A (CH. FB1+66) to DN900 Valve Chamber at TKO Landfill Stage I Area B (CH. FC 13+26)	30 days	9 Mar '22	7 Apr '22	Calendar Day	230,298	648	0%	NA	NA
641	DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at TKO Landfill Stage I Area B (CH. FC13+26) to DN900 Valve Chamber at CH. FD3+43	30 days	19 Nov '22	18 Dec '22	Calendar Day	289	642,649	0%	NA	NA
642	DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at CH.FD 3+43 to DN900 Valve Chamber at Mau Wu Tsai (CH. HA6+45)	30 days	19 Dec '22	17 Jan '23	Calendar Day	341,347,428,452	650,643	0%	NA	NA
643	DN1200 MS Pipe - Static Pressure Test From DN900 Valve at Mau Wu Tsai (CH.HA6+45) to DN800 EMF & BV Chamber at TKO F.W.S.R.(CH. HE1+70)	30 days	18 Jan '23	16 Feb '23	Calendar Day	510,513,534,555	651	0%	NA	NA
644	Pipeline Cleaning and CCTV Inspection	2018 days	7 Nov '17	17 May '23	Calendar Day		653FF+30	0%	NA	NA
645	DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at CH.CA4+24 to CH.CT.2+65	90 days	7 Nov '17	4 Feb '18	Calendar Day			0%	NA	NA
646	DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at CH.CA4+24 to DN900 Valve Chamber at Wan Po Road (CH. A12+50)	90 days	16 Oct '22	13 Jan '23	Calendar Day	638		0%	NA	NA



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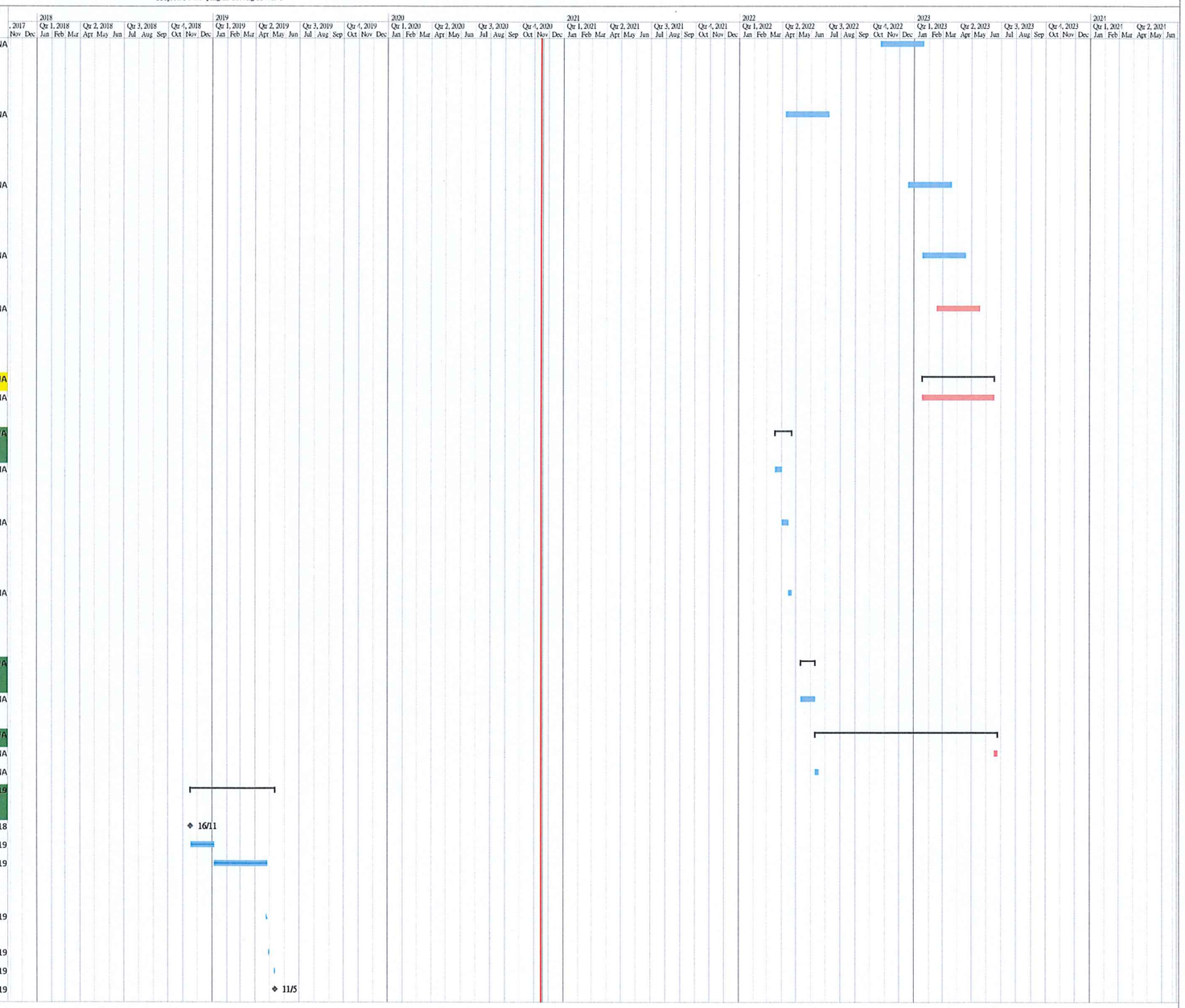
Task · Split · Milestone · Summary · Project Summary · Inactive Task · Inactive Milestone · Inactive Summary · Manual Task · Duration-only · Manual Summary Rollup · Manual Summary · Start-only · Finish-only · External Tasks · External Milestone · Deadline · Critical · Critical Split · Progress · Manual Progress

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish
647	DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at Wan Po Road (CH. A12+50) to DN900 Valve Chamber at TKO Landfill Stage I Area A (CH. FB1+66)	90 days	22 Oct '22	19 Jan '23	Calendar Day	639		0%	NA	NA
648	DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at TKO Landfill Stage I Area A (CH. FB1+66) to DN900 Valve Chamber at TKO Landfill Stage I Area B (CH. FC 13+26)	90 days	8 Apr '22	6 Jul '22	Calendar Day	640		0%	NA	NA
649	DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at TKO Landfill Stage I Area B (CH. FC13+26) to DN900 Valve Chamber at CH.FD3+43	90 days	19 Dec '22	18 Mar '23	Calendar Day	641		0%	NA	NA
650	DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at CH.FD3+43 to DN900 Valve Chamber at Mau Wu Tsai (CH. HA6+45)	90 days	18 Jan '23	17 Apr '23	Calendar Day	642		0%	NA	NA
651	DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve at Mau Wu Tsai (CH.HA6+45) to DN800 EMF & BV Chamber at TKO F.W.S.R.(CH. HE1+70)	90 days	17 Feb '23	17 May '23	Calendar Day	643		0%	NA	NA
652	Sterilization and Water Sampling	150 days	18 Jan '23	16 Jun '23	Calendar Day			0%	NA	NA
653	DN1200 MS Pipe - Portion I & Portion H (Total Water = 9700 cu.m)	150 days	18 Jan '23	16 Jun '23	Calendar Day	644FF+30 days	661	0%	NA	NA
654	DN800 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, Sterilization and Water Sampling	35 days	18 Mar '22	21 Apr '22	Calendar Day		572,573	0%	NA	NA
655	DN800 MS Pipe - Static Pressure Test From DN800 EMF & BV Chamber at TKO F.W.S.R.(CH. HE1+70) to CH. J0+57 and to DN800 EMF & BV Chamber (CH. HE1+90)	14 days	18 Mar '22	31 Mar '22	Calendar Day	567,568,570	656	0%	NA	NA
656	DN800 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN800 EMF & BV Chamber at TKO F.W.S.R.(CH. HE1+70) to CH. J0+57 and to DN800 EMF & BV Chamber (CH. HE1+90)	14 days	1 Apr '22	14 Apr '22	Calendar Day	655	657	0%	NA	NA
657	DN800 MS Pipe - Sterilization and Water Sampling From DN800 EMF & BV Chamber at TKO F.W.S.R.(CH. HE1+70) to CH. J0+57 and to DN800 EMF & BV Chamber (CH.HE1+90)	7 days	15 Apr '22	21 Apr '22	Calendar Day	656		0%	NA	NA
658	NS250 HDPE Pipe Static Pressure, Pipeling Cleaning, CCTV Inspection, Sterilization and Water Sampling	30 days	11 May '22	9 Jun '22	Calendar Day			0%	NA	NA
659	NS250 HDPE Pipe - Static Pressure Test - Portion H (Area 137)	30 days	11 May '22	9 Jun '22	Calendar Day	593	662	0%	NA	NA
660	Handover Portion I and Portion H to WSD Region	379 days	10 Jun '22	23 Jun '23	Calendar Day			0%	NA	NA
661	DN1200 MS Pipe - Portion I & Portion H (Area 137)	7 days	17 Jun '23	23 Jun '23	Calendar Day	653		0%	NA	NA
662	NS250 HDPE Pipe - Portion H (Area 137)	7 days	10 Jun '22	16 Jun '22	Calendar Day	659	634	0%	NA	NA
663	Water Supply to Tseung Kwan O Desalination Plant at Fill Bank of Tseung Kwan O Area 137 (Portion J)	141 days	16 Nov '18	11 May '19	HK Working Day			100%	16 Nov '18	11 May '19
664	Issue of CE No. 02	0 days	16 Nov '18	16 Nov '18	HK Working Day		665	100%	16 Nov '18	16 Nov '18
665	Procurement of Major Material	48 days	17 Nov '18	3 Jan '19	Calendar Day	664	666	100%	17 Nov '18	3 Jan '19
666	Installation of NS250 HDPE Pipe from A to B in accordance with the Drawing No. 13/WSD/16/SK13 to SK15 and W20203/4A	89 days	4 Jan '19	25 Apr '19	HK Working Day	665		100%	4 Jan '19	25 Apr '19
667	Sterilization and Flushing NS250 HDPE Pipe (From T0+00 to T23+64)	4 days	24 Apr '19	28 Apr '19	HK Working Day		668	100%	24 Apr '19	28 Apr '19
668	Take Water Sampling	1 day	29 Apr '19	29 Apr '19	HK Working Day	667	669	100%	29 Apr '19	29 Apr '19
669	Backfill at T23+64 after completion of Water Sampling Test	1 day	11 May '19	11 May '19	HK Working Day	668	670FF	100%	11 May '19	11 May '19
670	Handover Portion J to WSD Region	0 days	11 May '19	11 May '19	HK Working Day	669FF		100%	11 May '19	11 May '19



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Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Critical | Critical Split | Progress | Manual Progress

Appendix B

Overview of Mainlaying in Tseung Kwan O

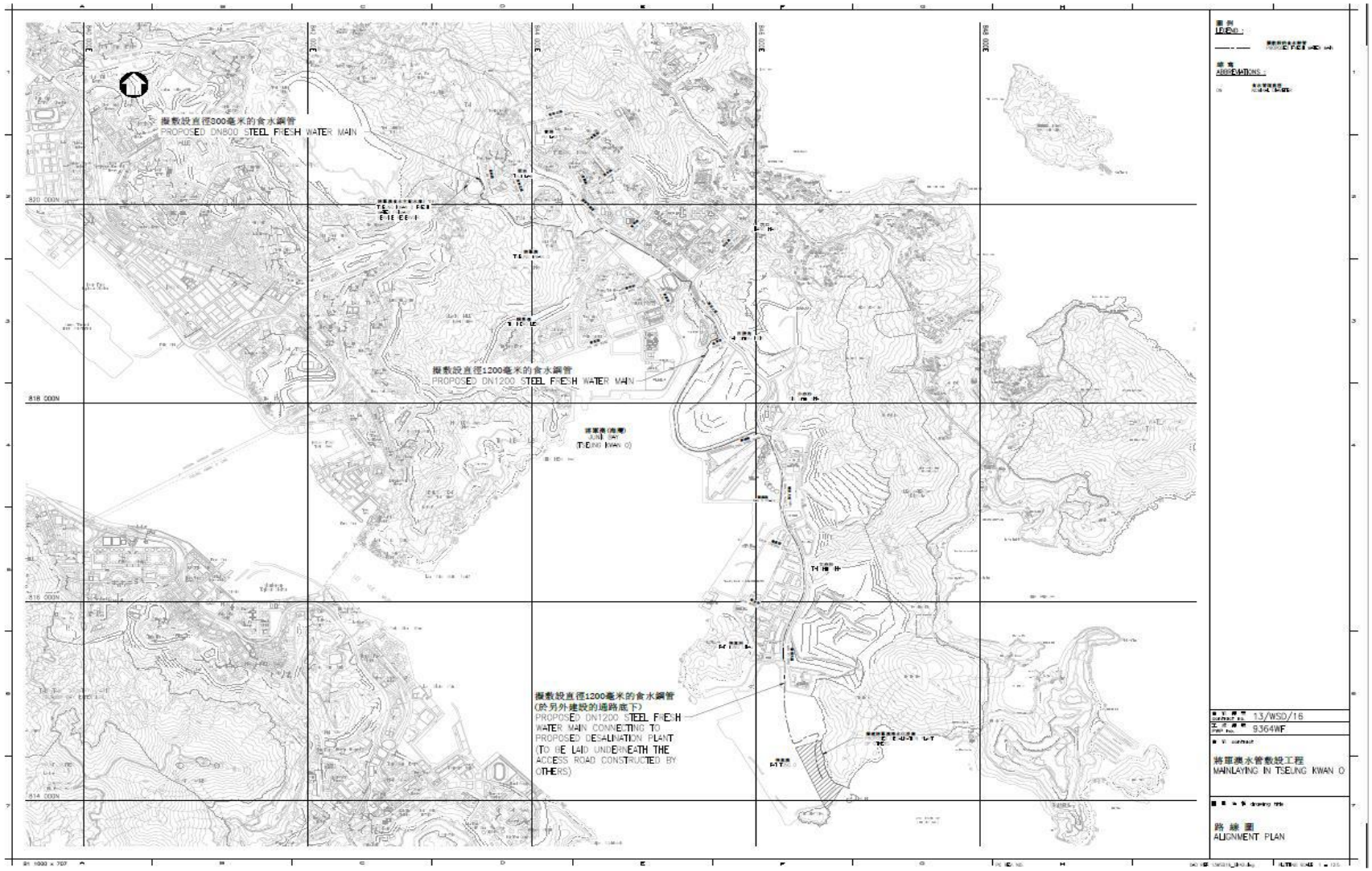

Figure B1. Overview of Mainlaying in TKO

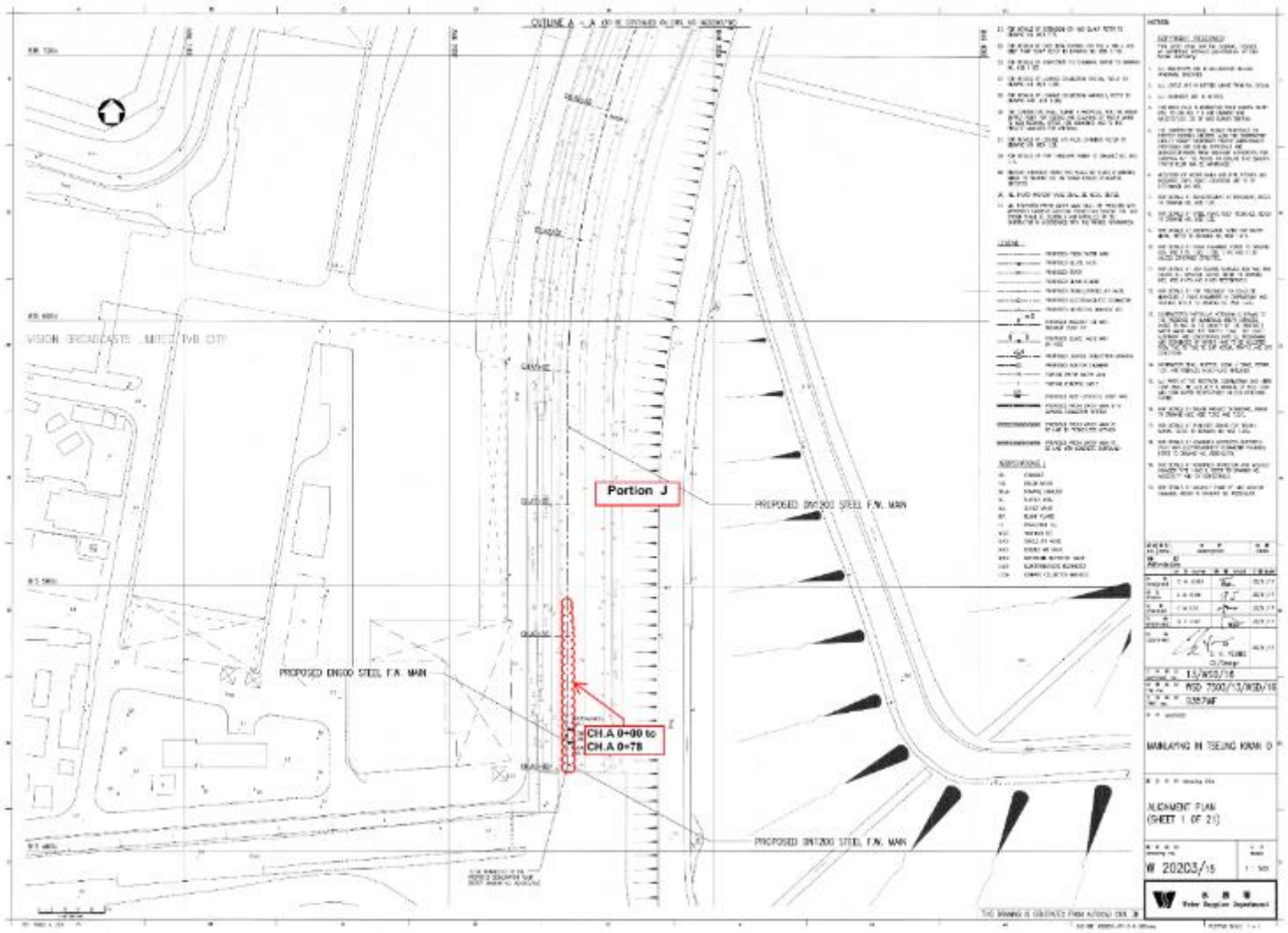

Figure B2. Location Plan for Portion J - CH.A 0+00 to CH.A 0+78

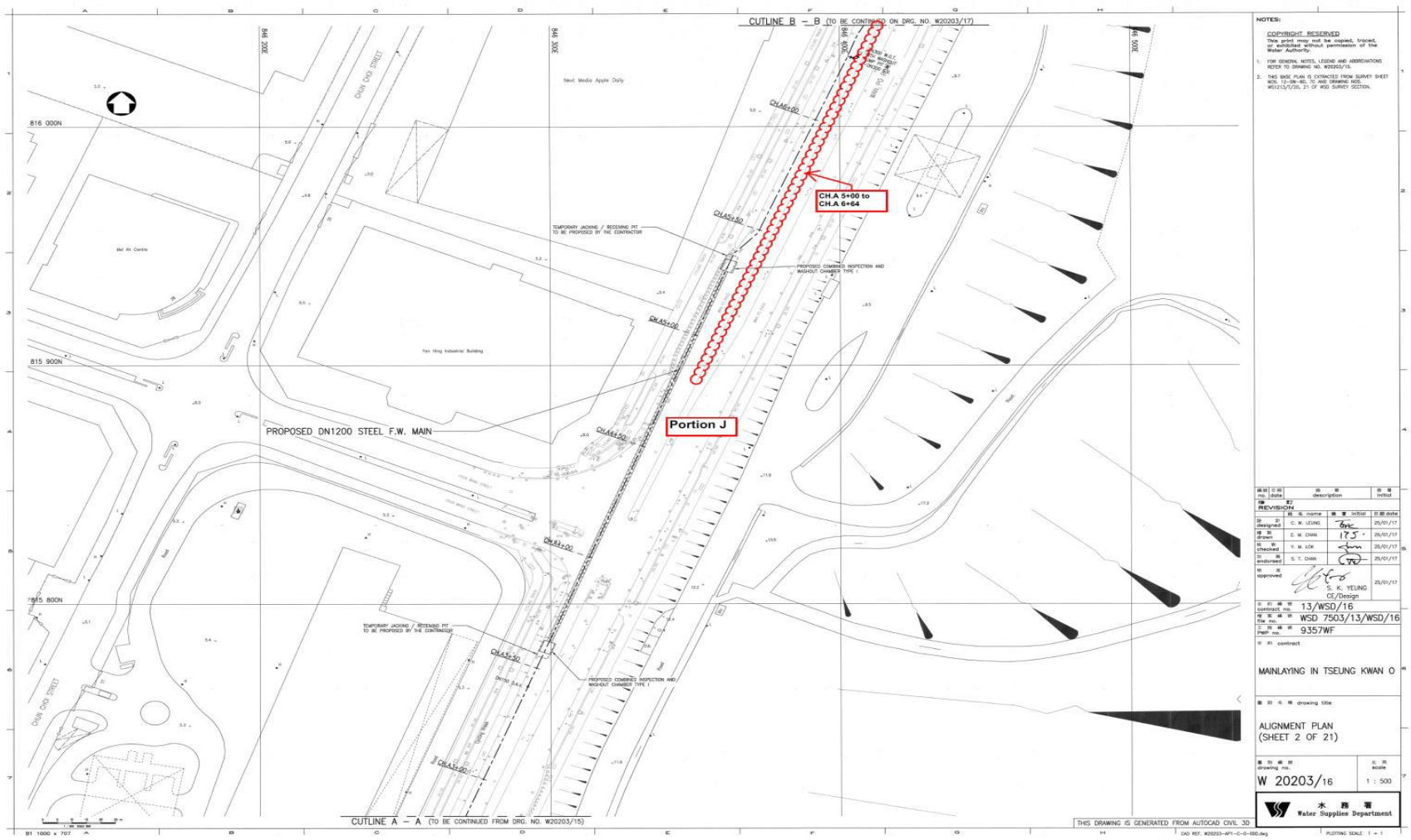

Figure B3a. Location Plan for Portion J - CH.A 5+00 to CH.A 6+64

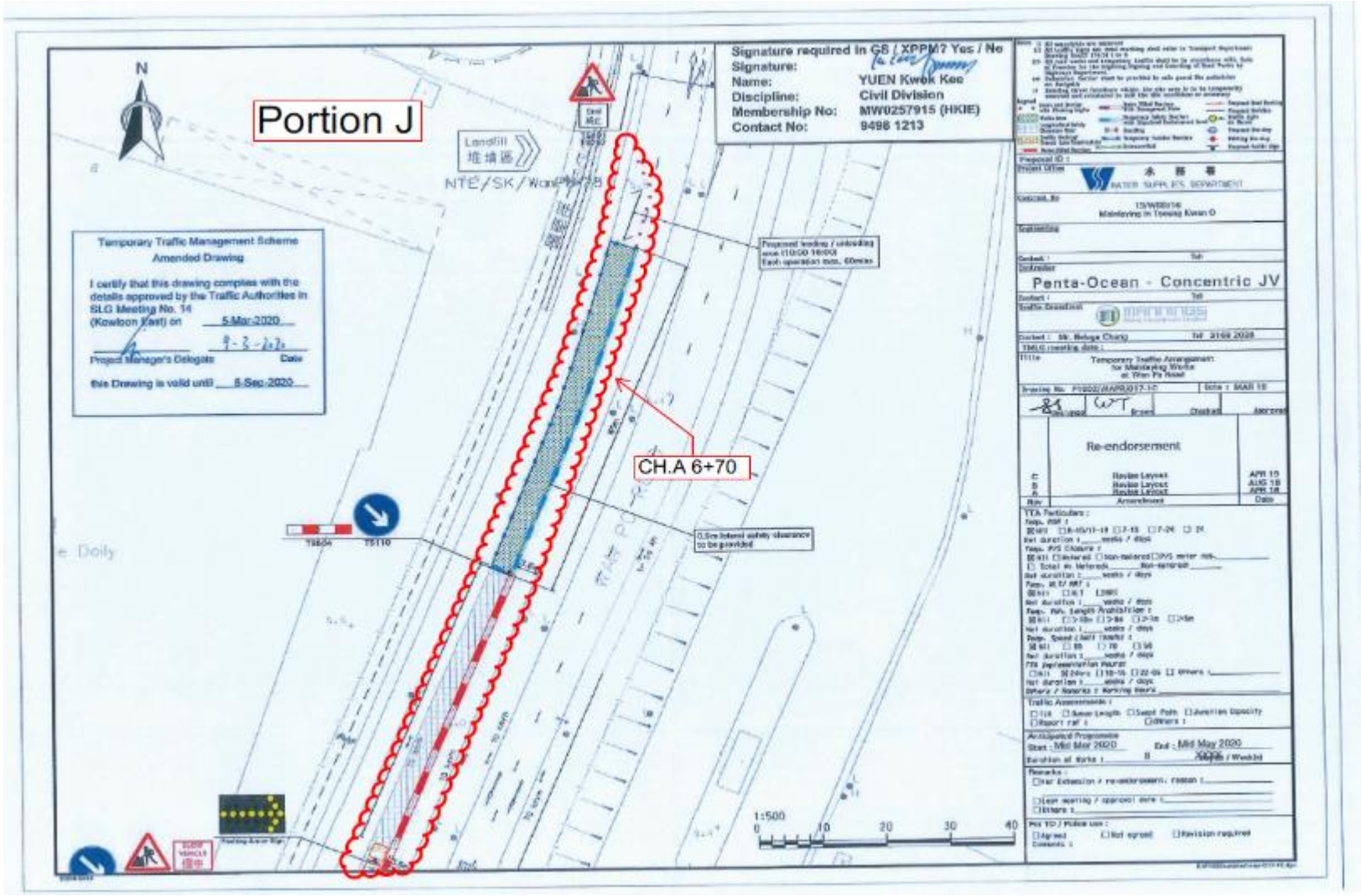

Figure B3b(i). Location Plan for Portion J - CH.A 6+70

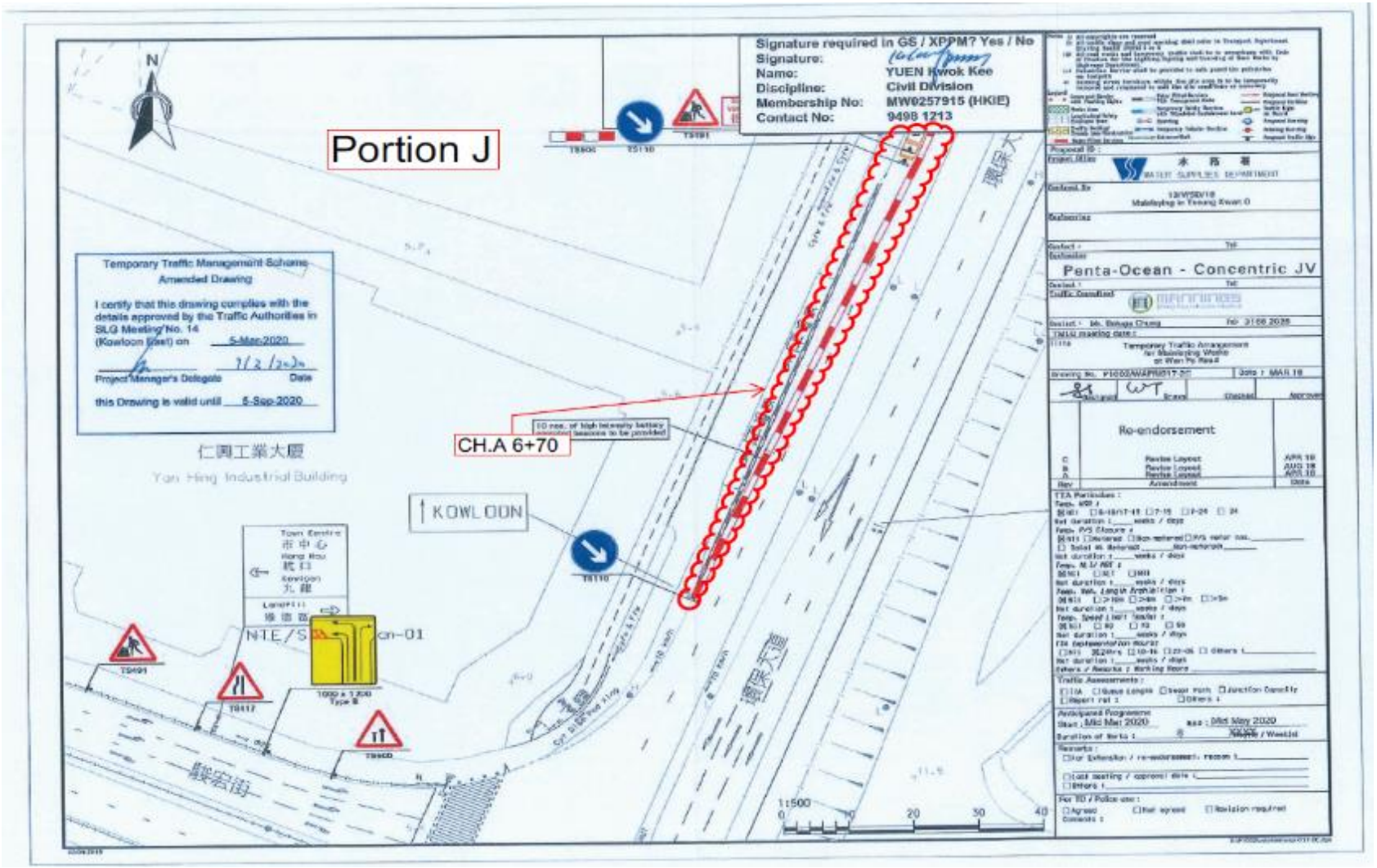

Figure B3b(ii). Location Plan for Portion J - CH.A 6+70

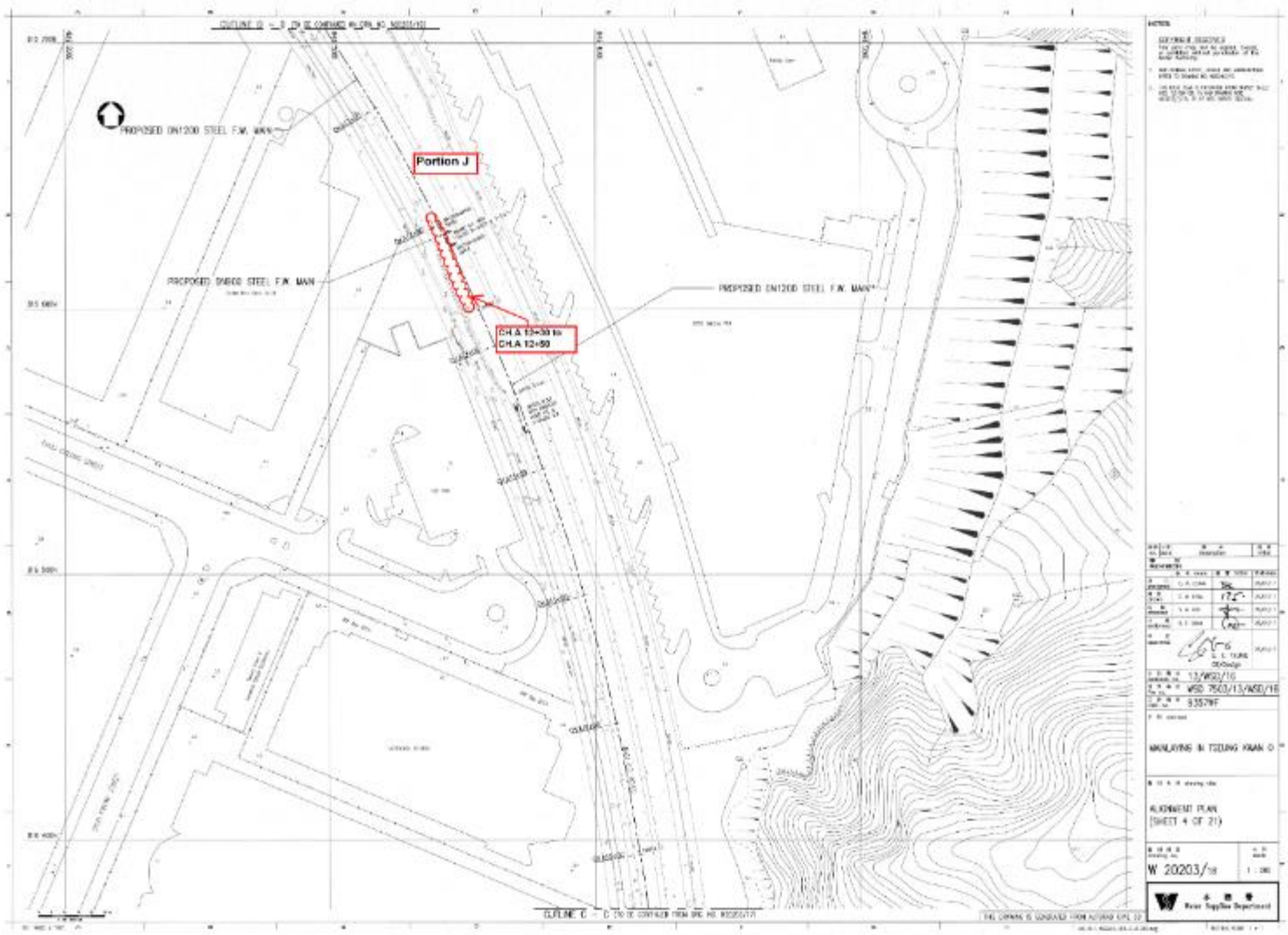

Figure B4. Location Plan for Portion J - CH.A 12+30 to CH.A 12+50

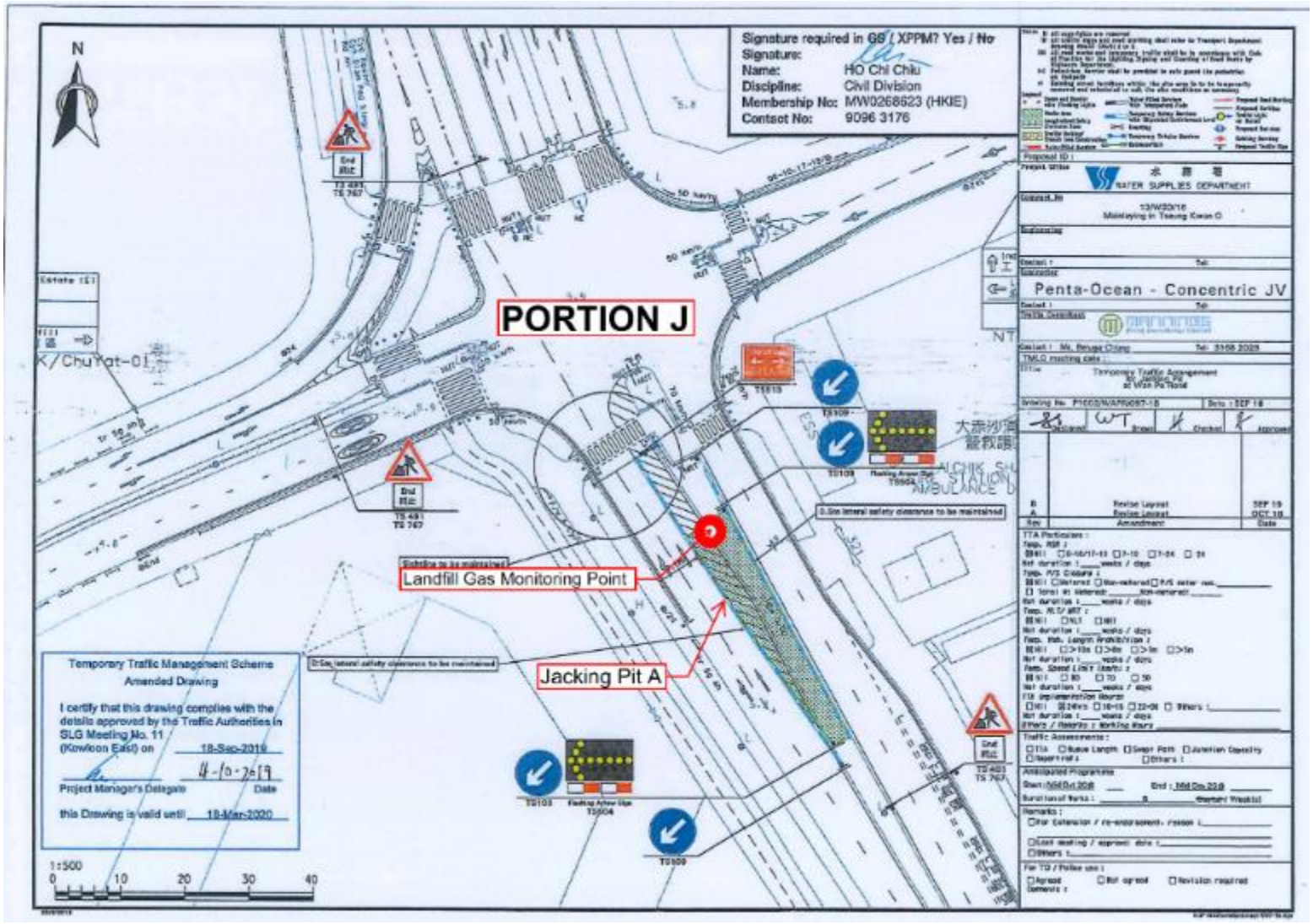

Figure B5. Location Plan for Portion J – CH. A13+50 to CH.A 14+00 (Pit A)

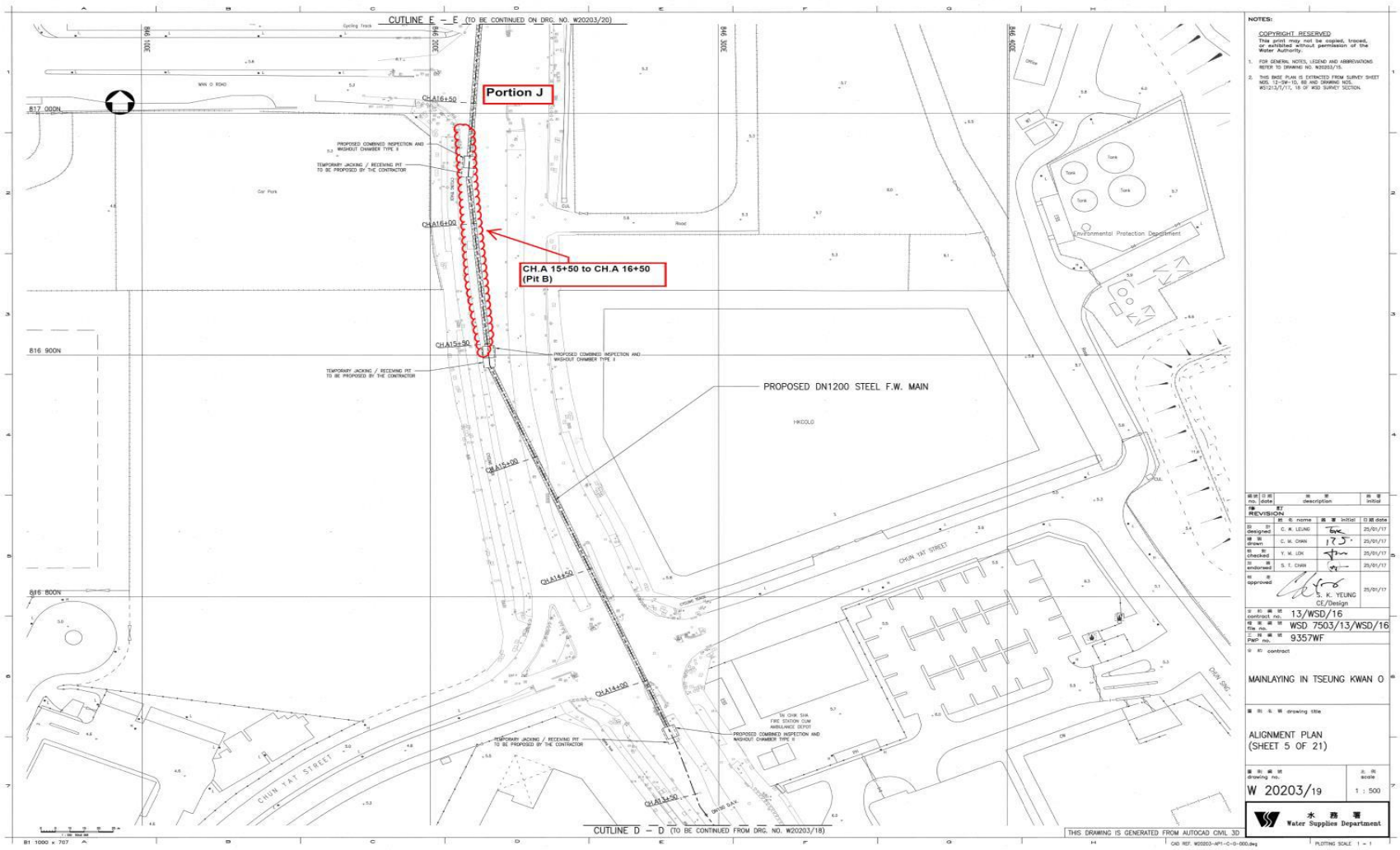

Figure B6. Location Plan for Portion J – CH. A15+50 to CH.A 16+50 (Pit B)

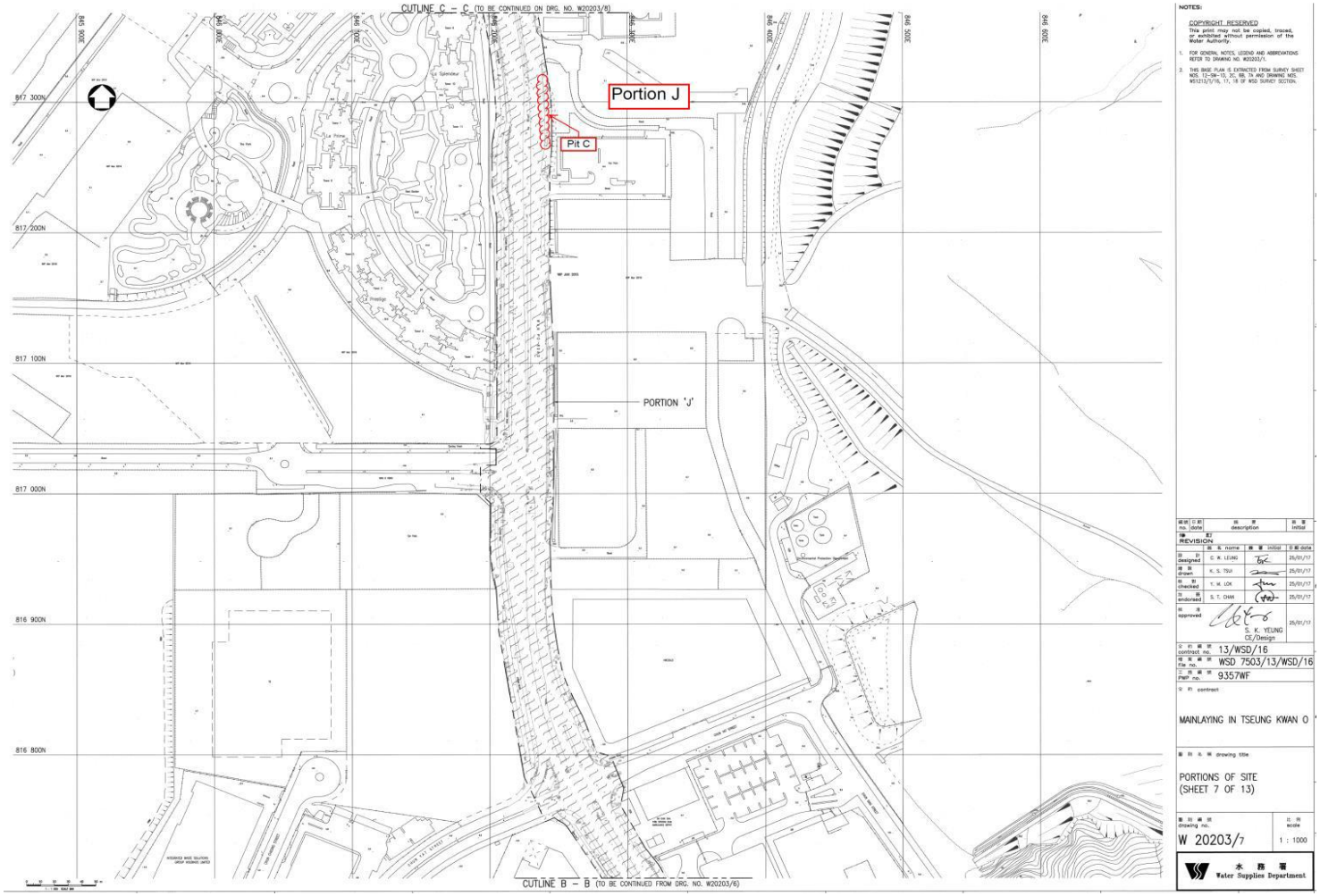

Figure B7. Location Plan for Portion J – CH.A 19+15 to CH.A 19+50 (Pit C)

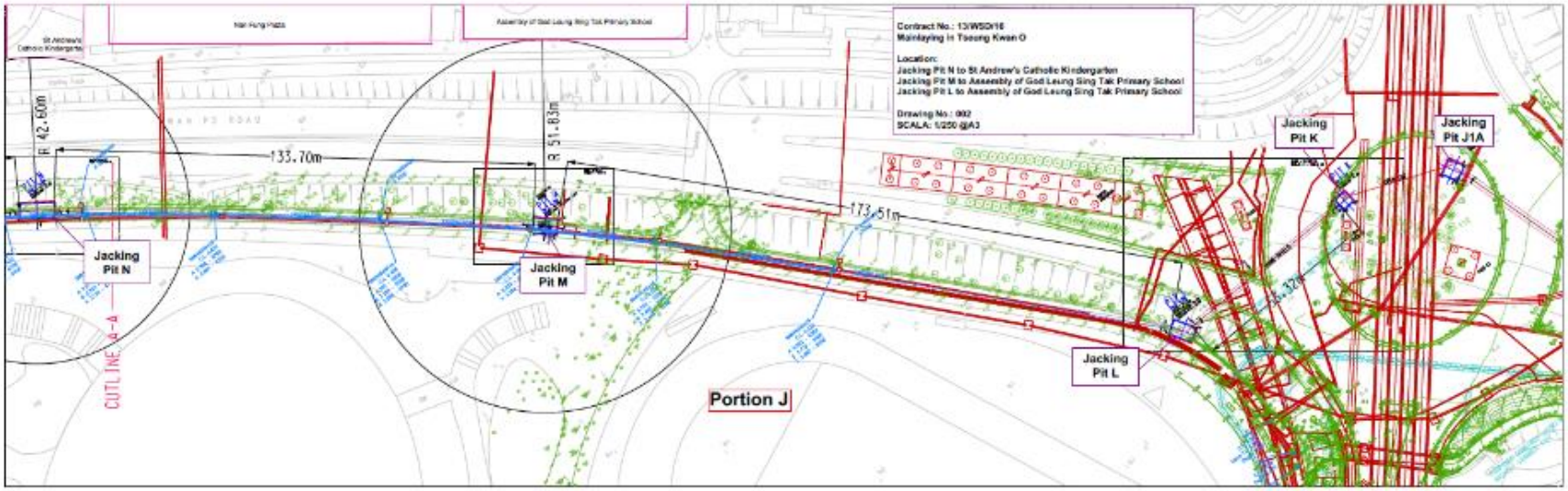

Figure B8a. Location Plan for Portion J – Pit L-M-N, K, J1A

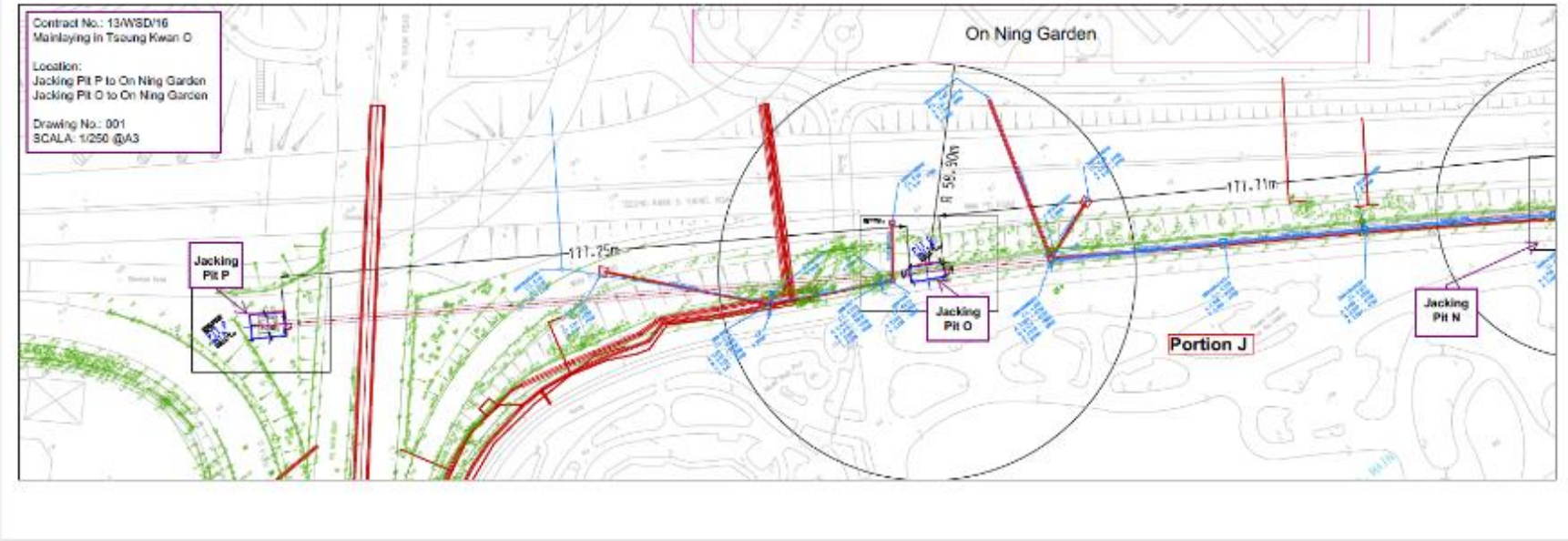

Figure B8b. Location Plan for Portion J – Pit N-O-P

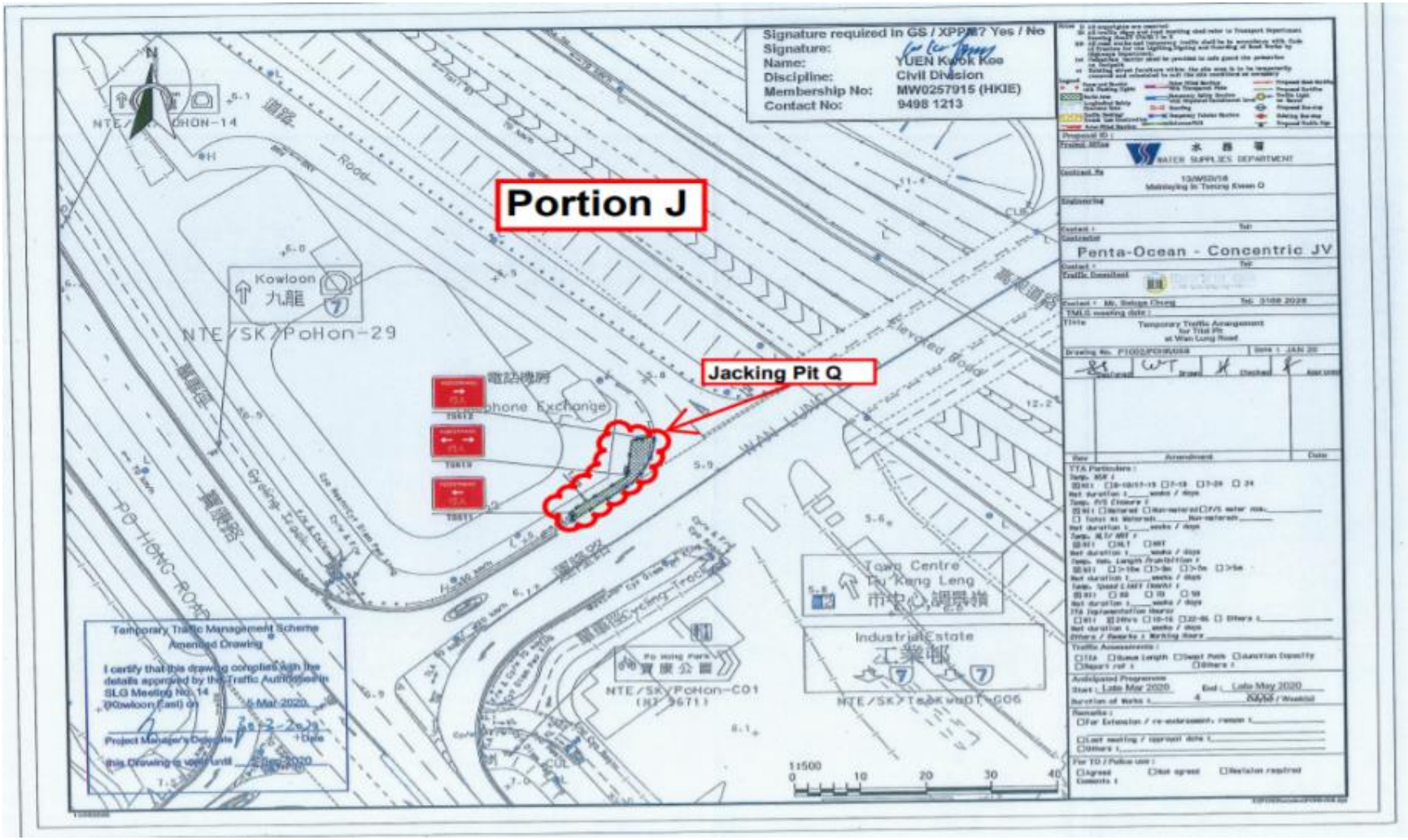

Figure B8c. Location Plan for Portion J – Pit Q

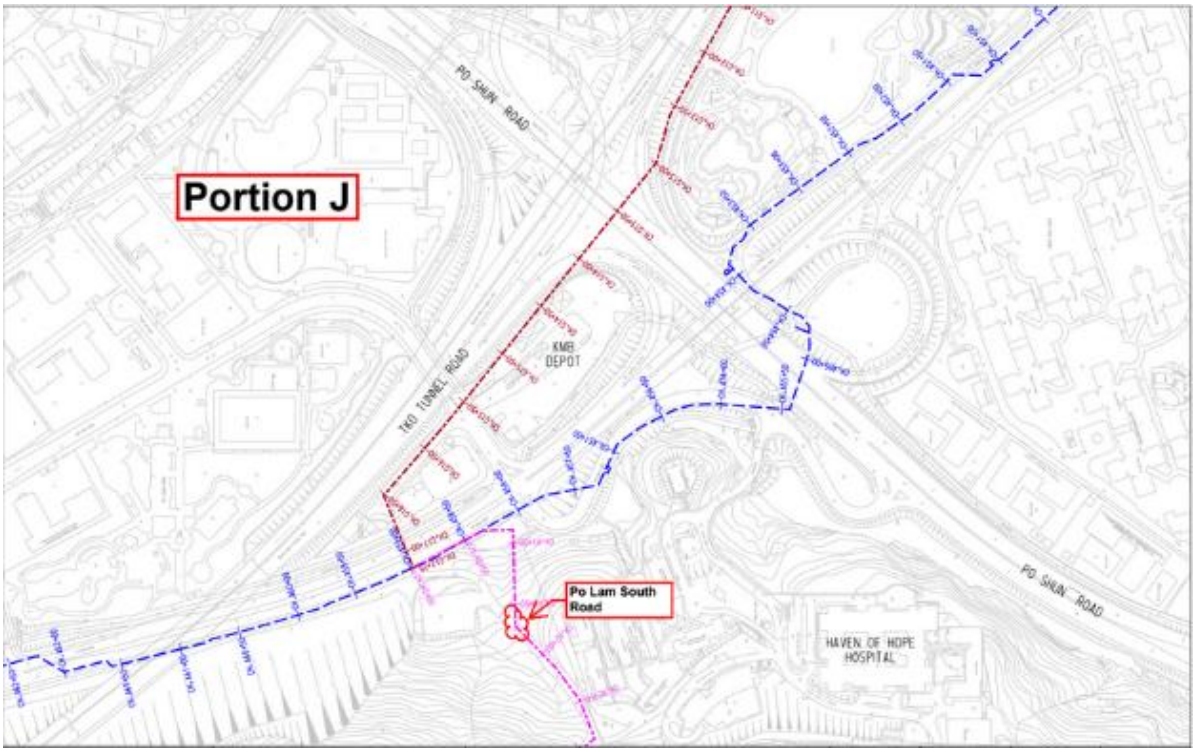

Figure B9a. Location Plan for Mau Wu Tsai 1

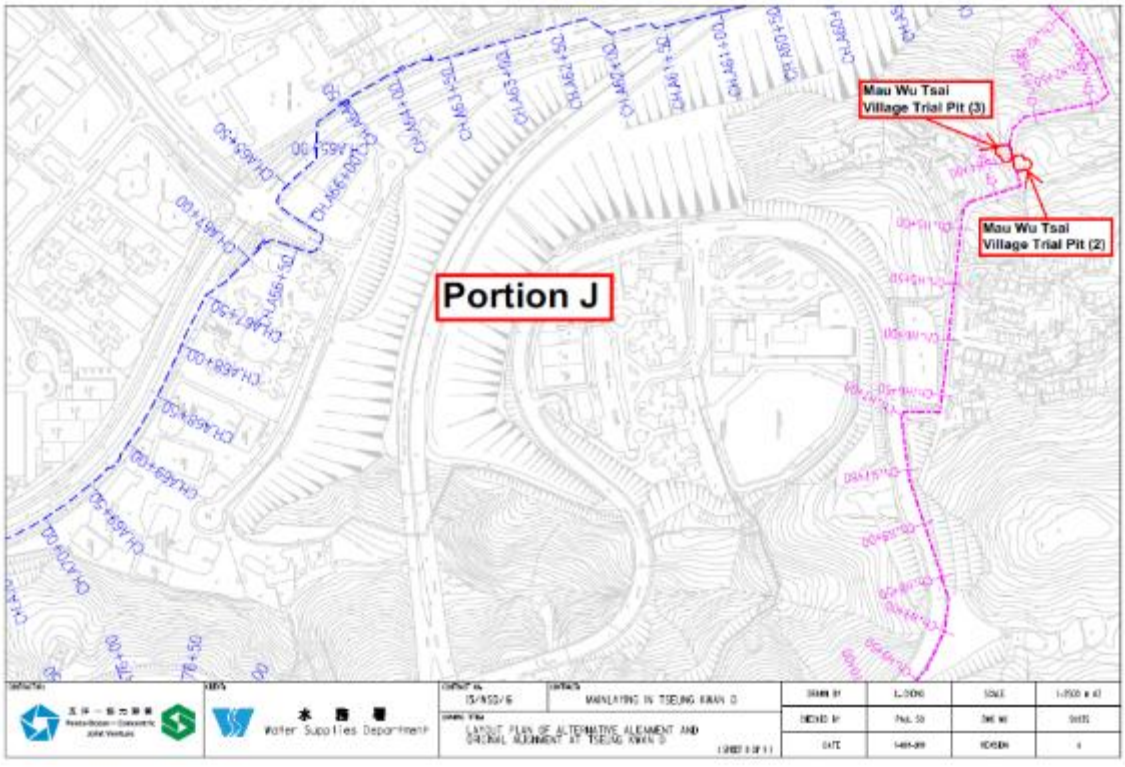

Figure B9b. Location Plan for Mau Wu Tsai 2 & 3

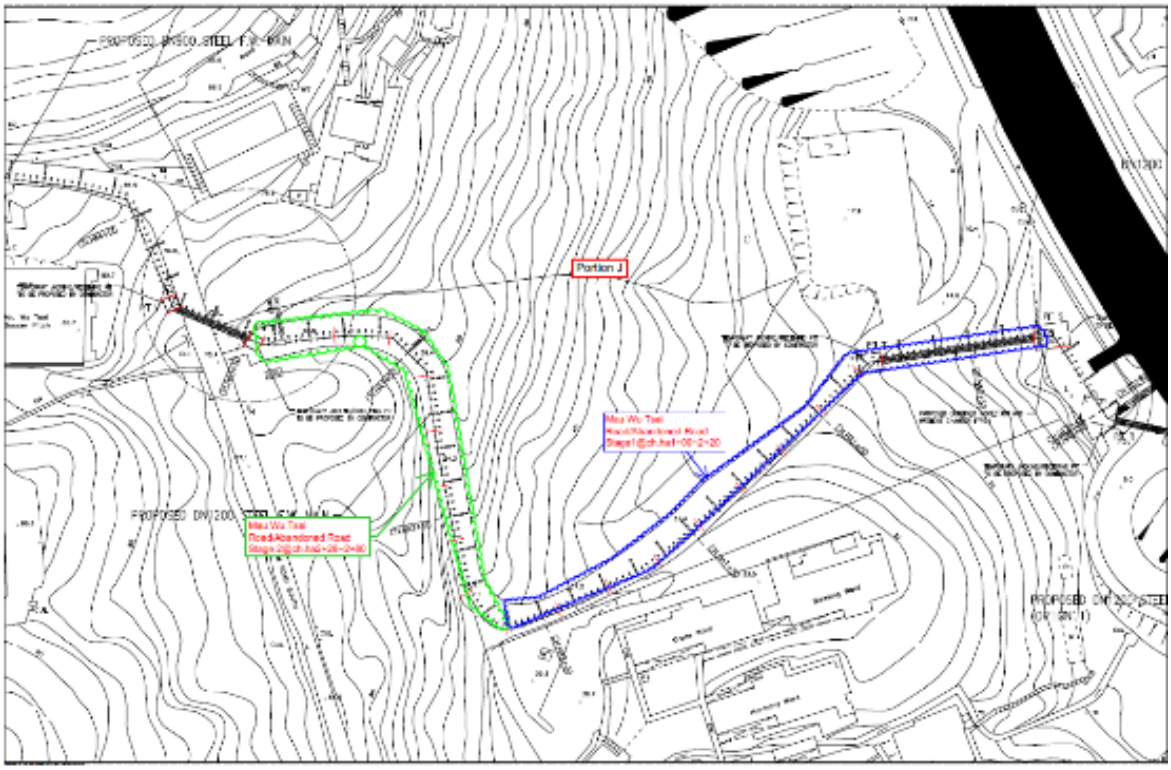

Figure B9c. Abandoned Mau Wu Tsai Road

Figure B10. Location Plan for Jacking Pit F

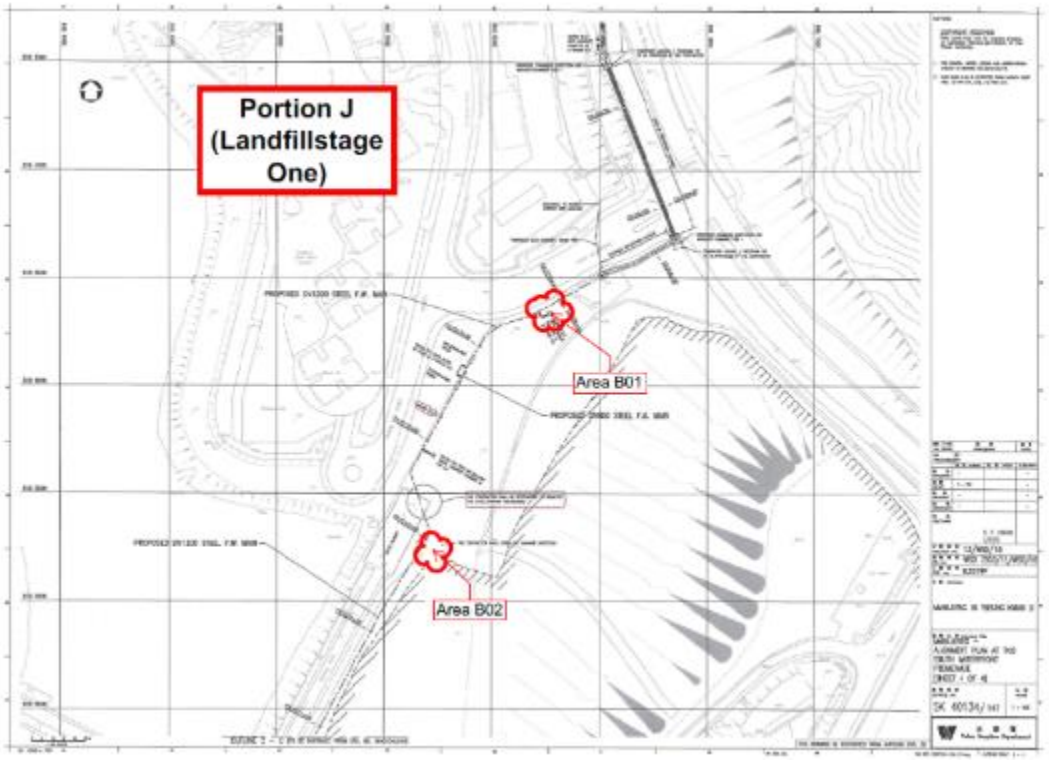

Figure B11a. Location Plan – Landfill Stage 1 (Area B01-B02)

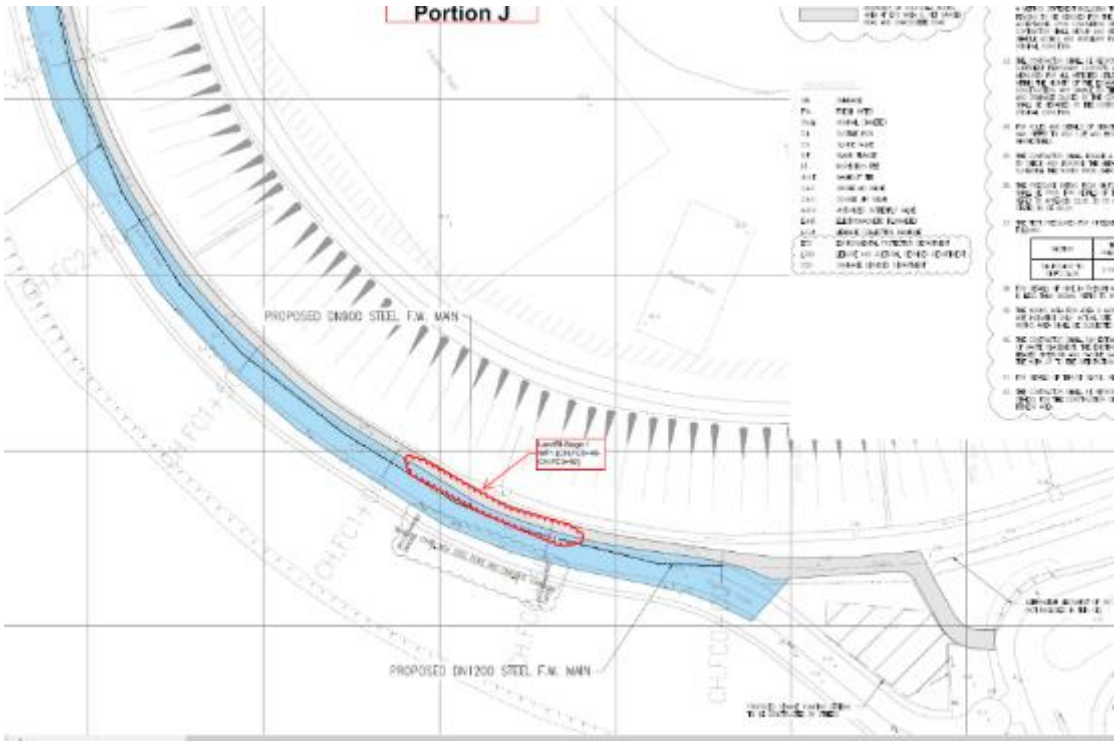

Figure B11b. Location Plan – Landfill Stage 1 (Area FC0+42 -FC0+92)

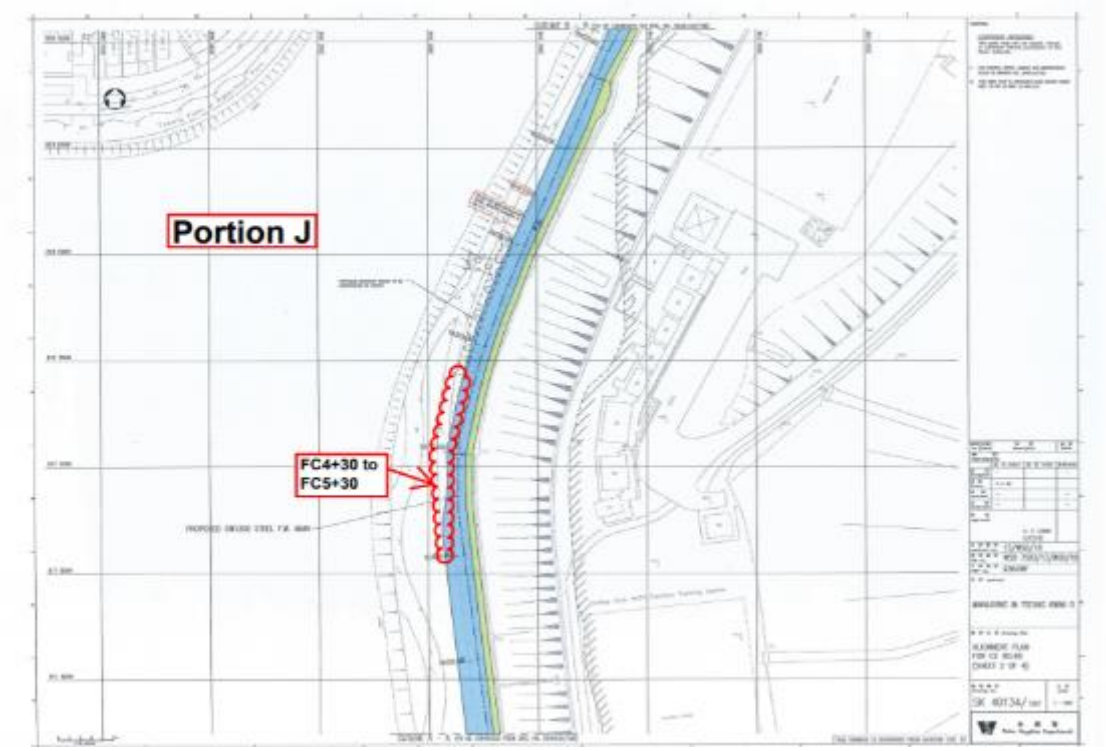

Figure B11c. Location Plan – Landfill Stage 1 (Area FC4+30 -FC5+30)

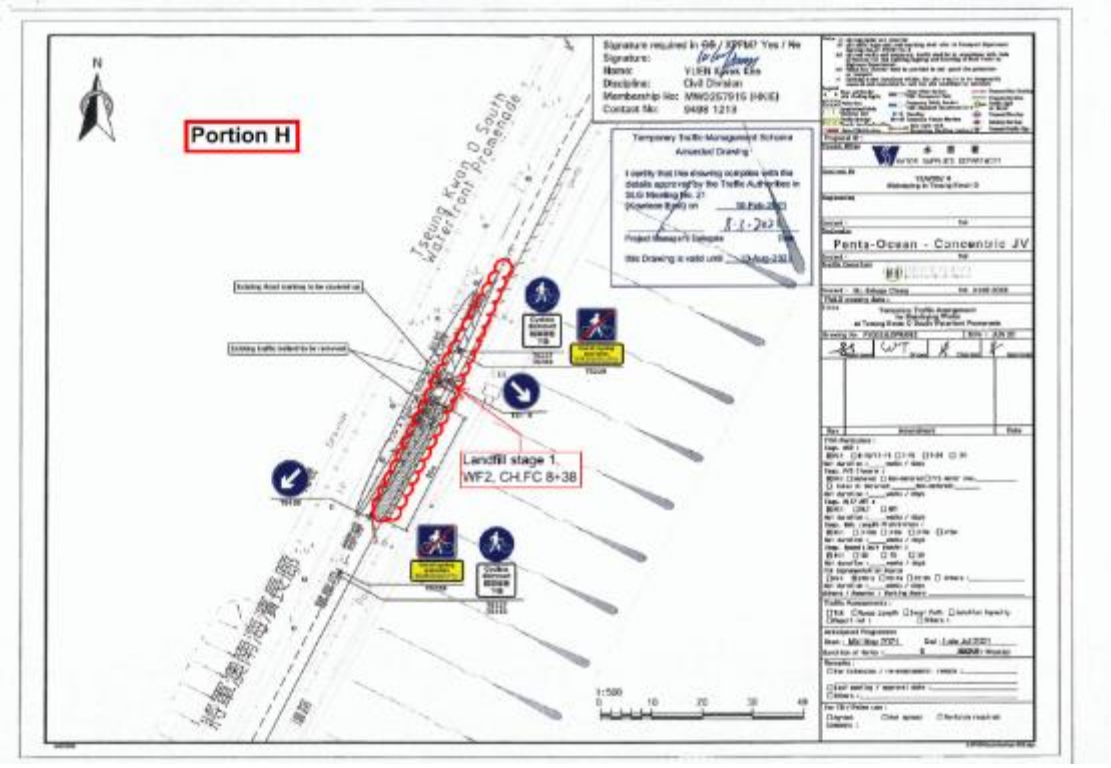

Figure B11d. Location Plan – Landfill Stage 1 (Area FC8+38)

Figure B12. Monitoring Location – Po Lam South Road

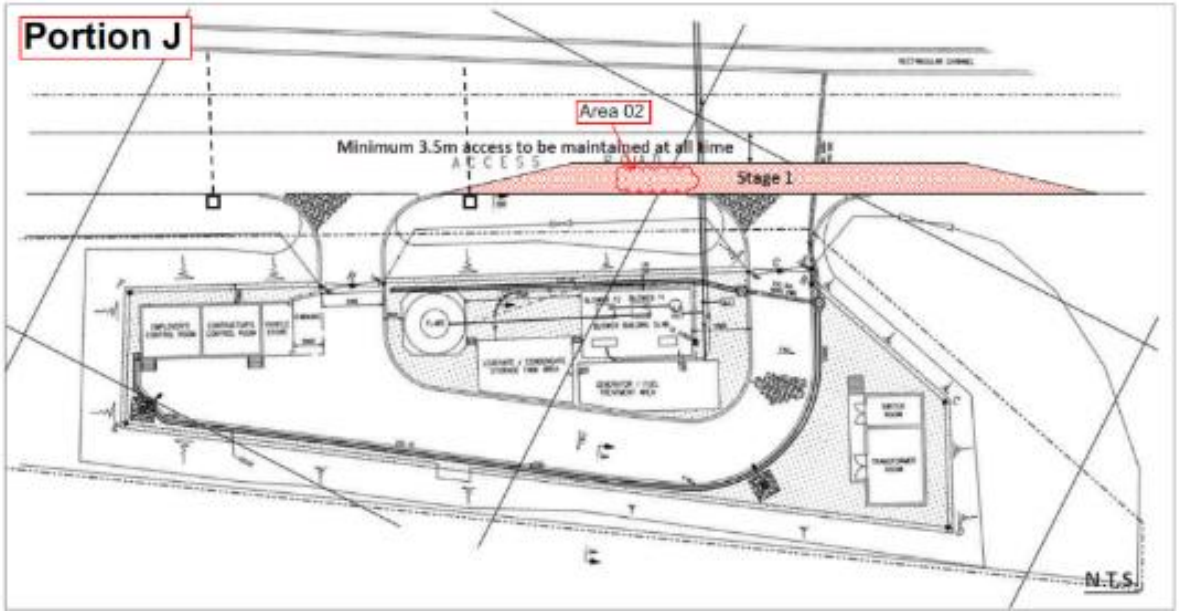

Figure B13. Monitoring Location – Area A02

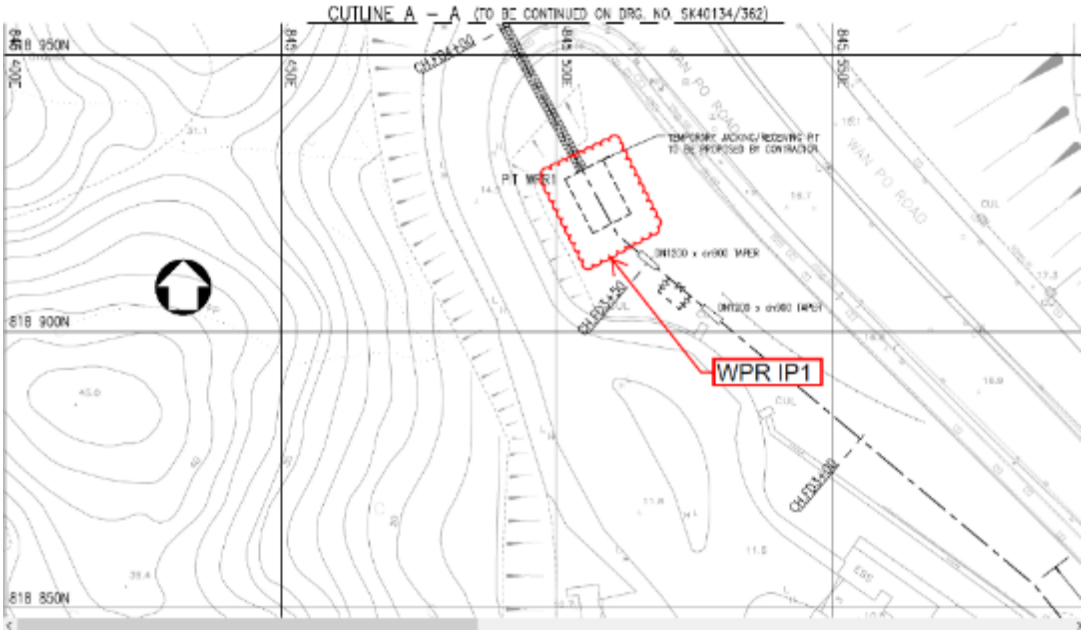

Figure B14. Location Plan for WPR IP1

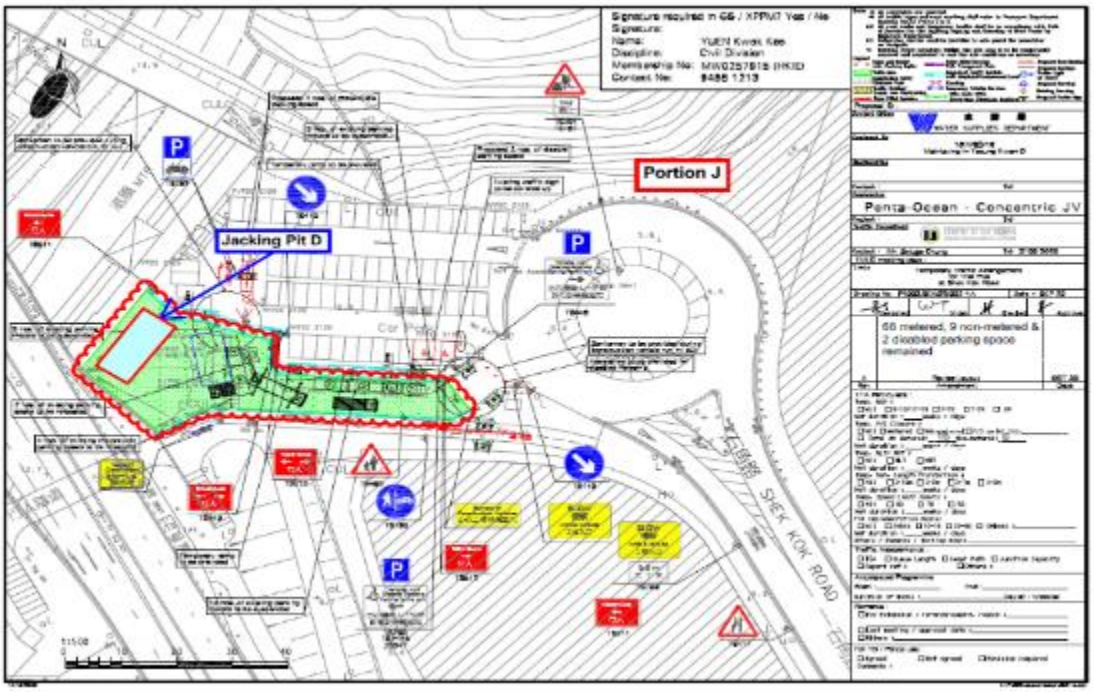

Figure B15. Location Plan for Jacking Pit D

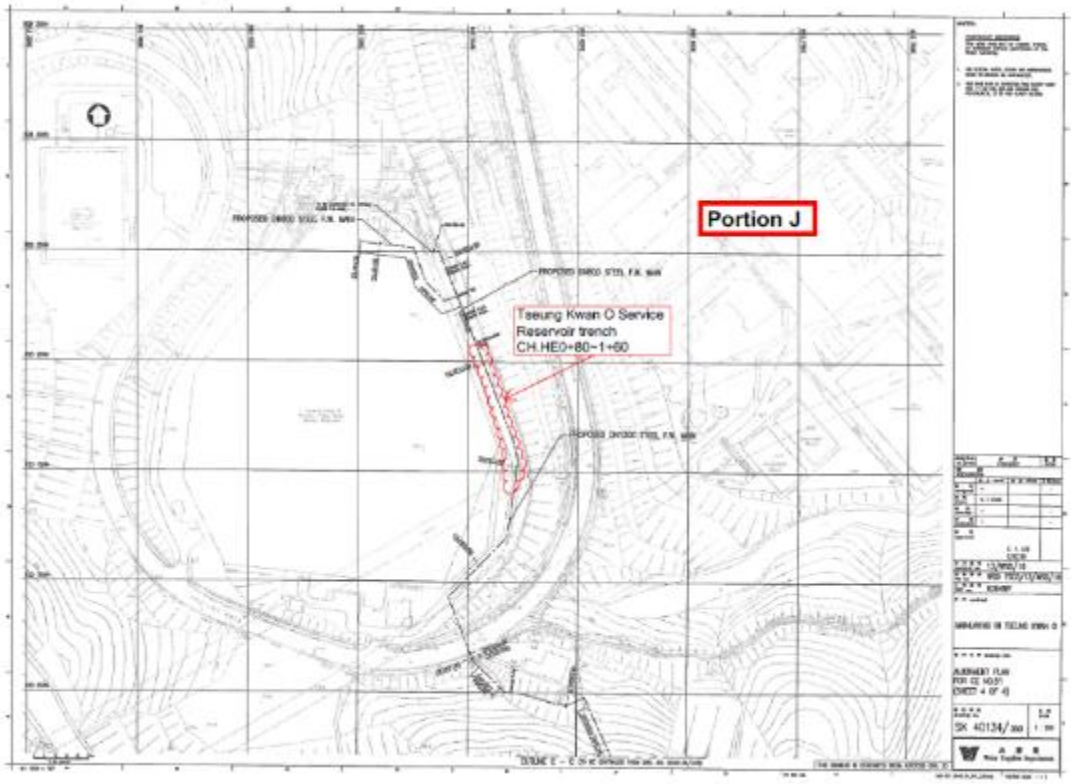

Figure B16. Location Plan for CH.HE0+80-1+60

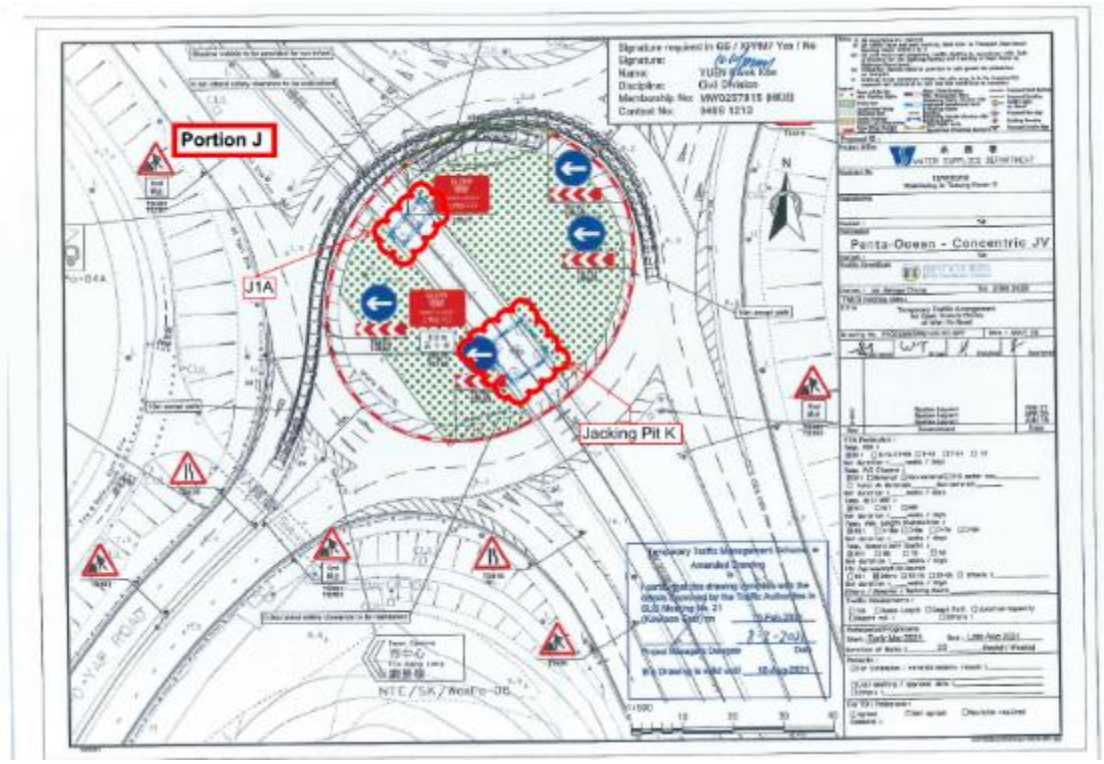

Figure B17. Location Plan for Pit K

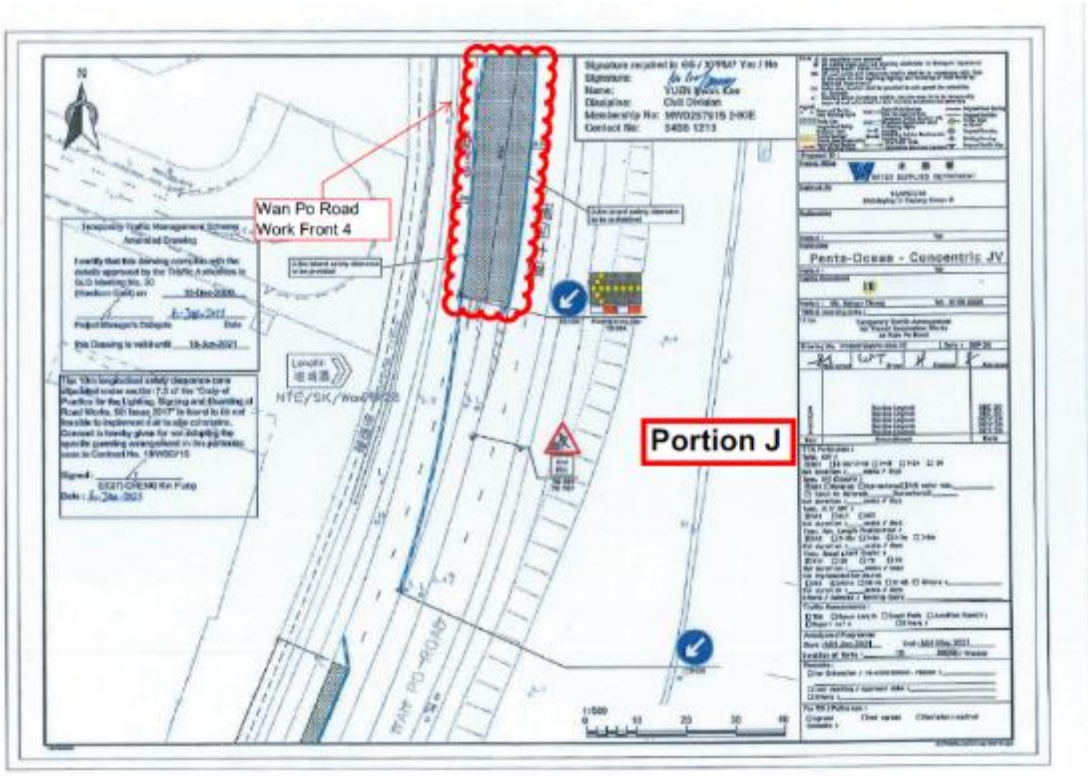

Figure B18a. Location Plan for Wan Po Road 4

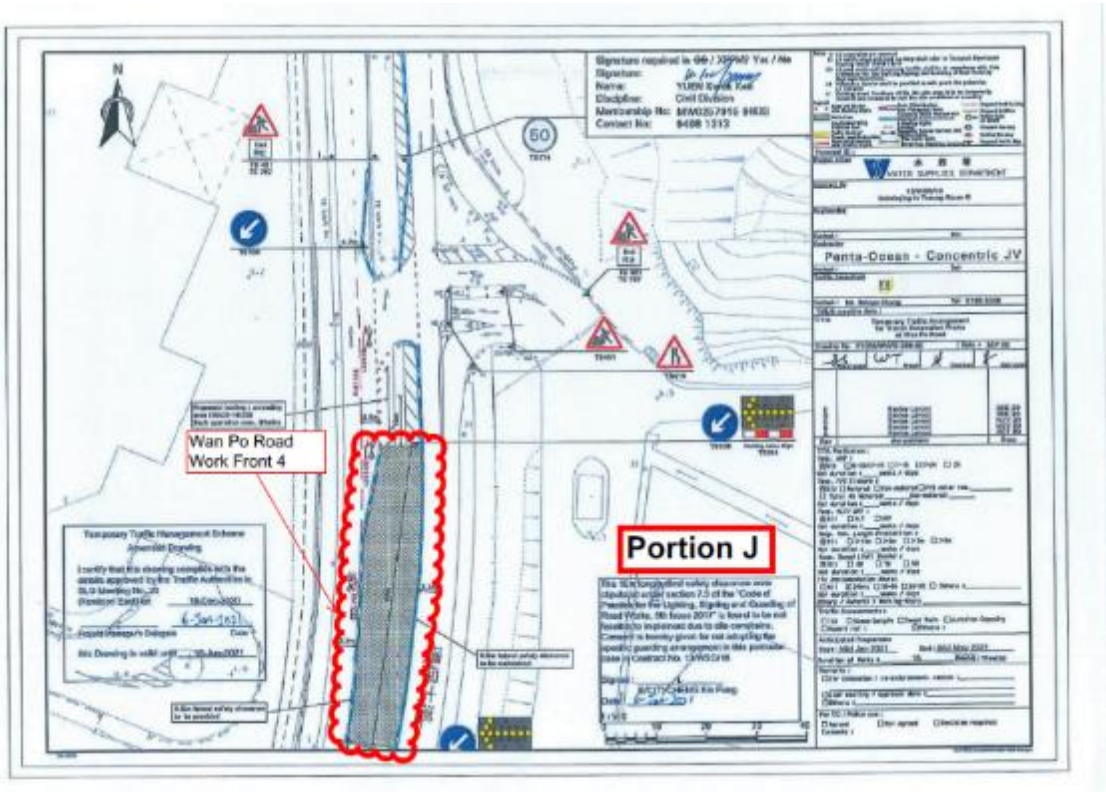

Figure B18b. Location Plan for Wan Po Road 4

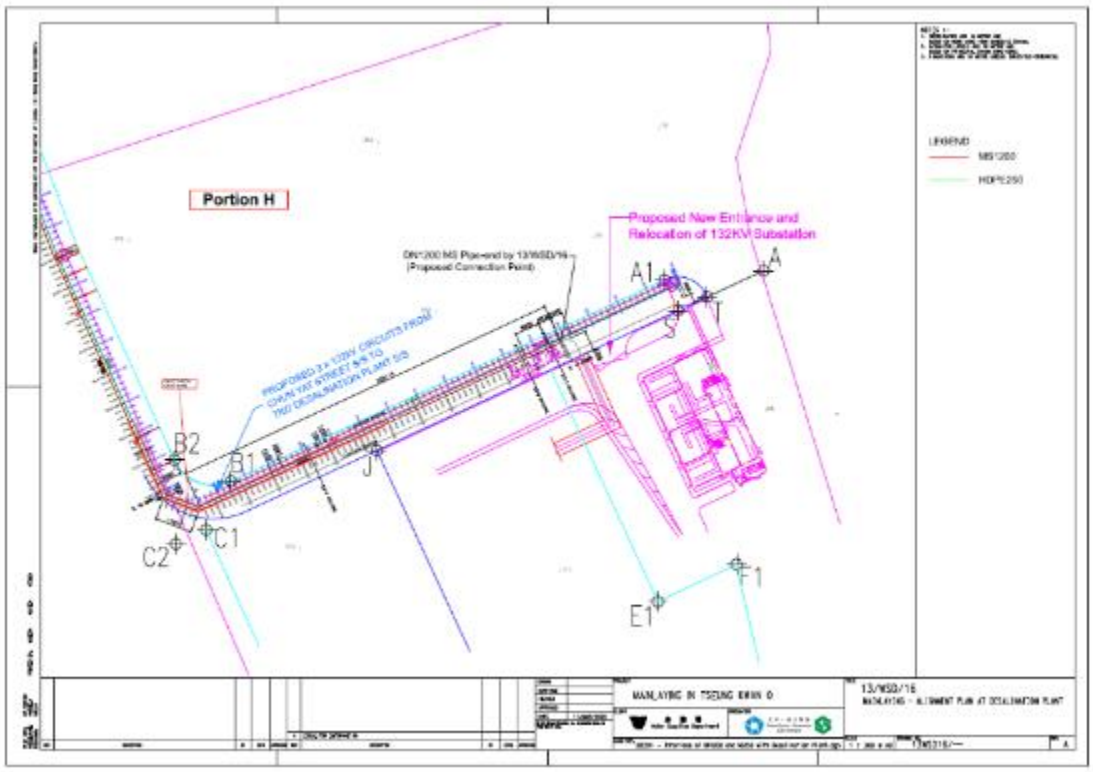

Figure B19a. Location Plan for CH.CT 0+07 – 2+58

Figure B19b. Location Plan for CH.CT 2+58 – 2+66

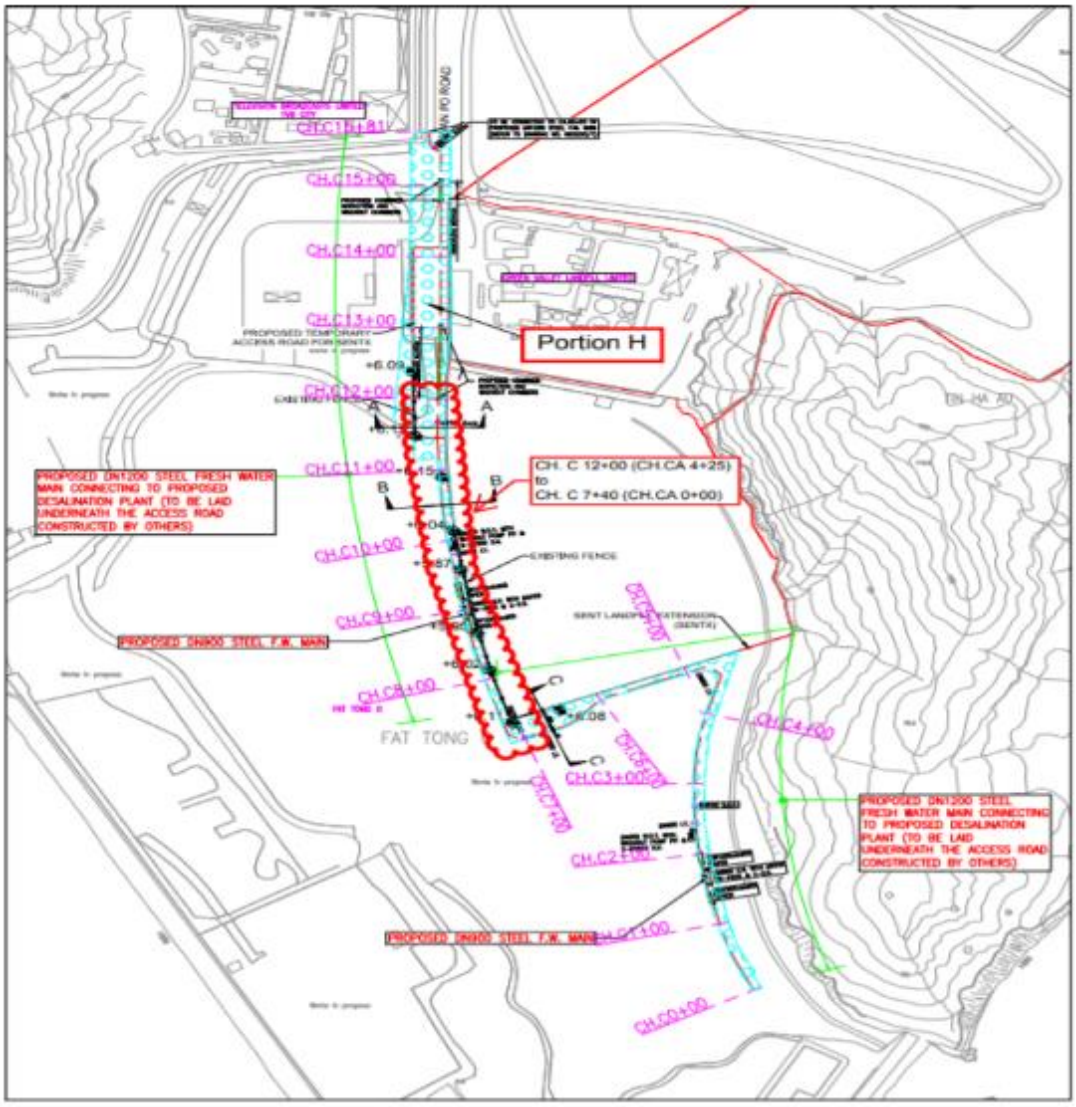

Figure B20. Location Plan for Portion H– CH.C 7+40~CH.C 12+00 (CH.CA 0+00 ~ CH.CA4+25)

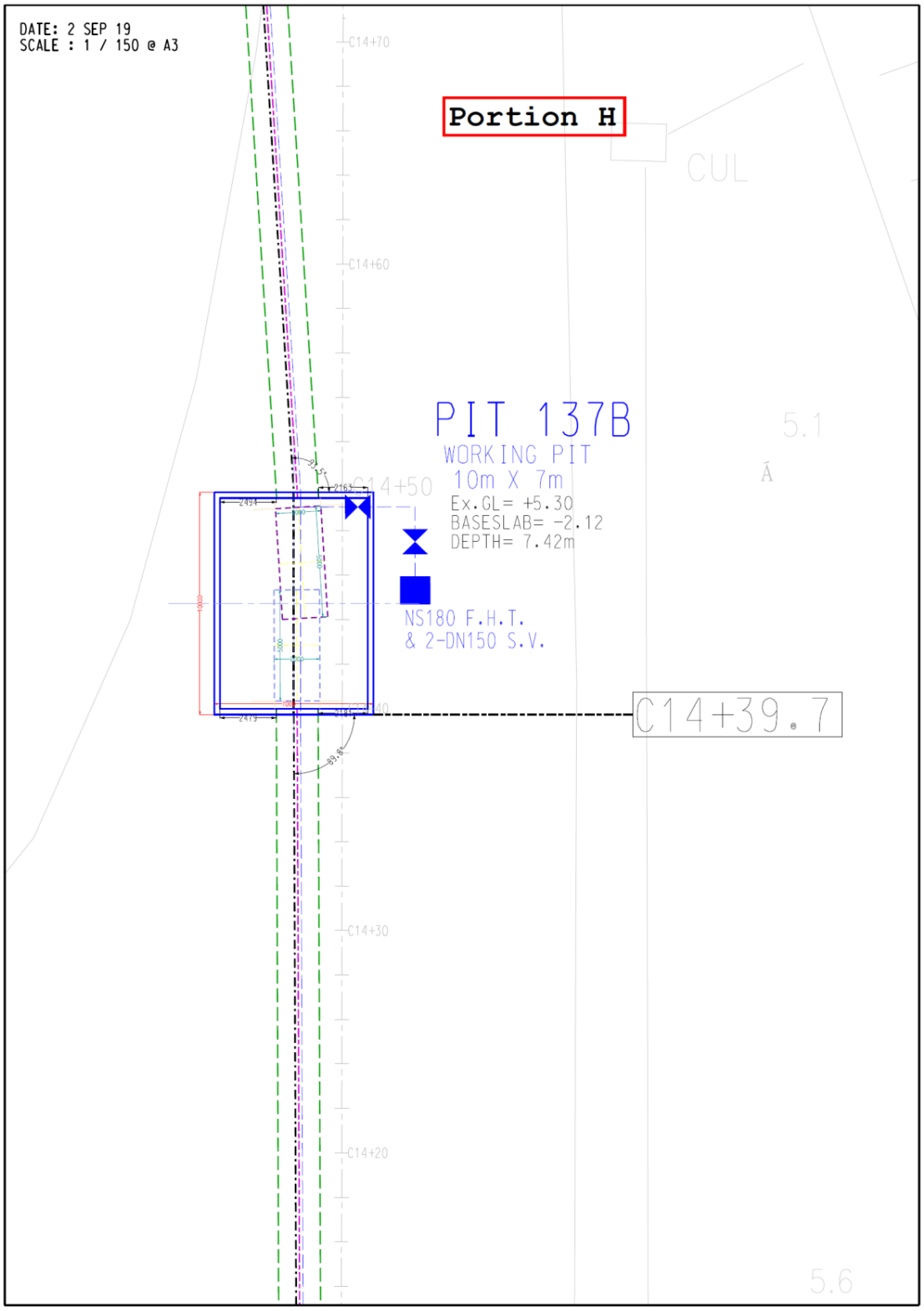

Figure B21a. Location Plan for Portion H– Pit 137B

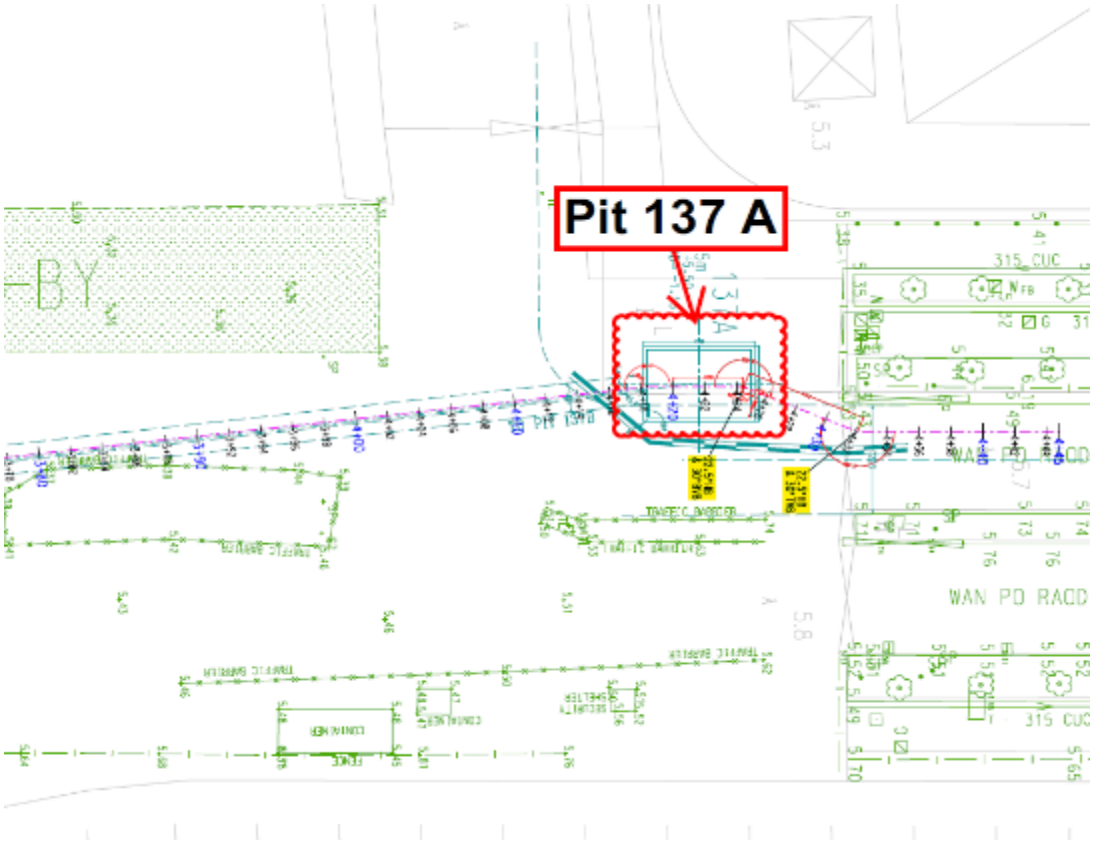

Figure B21b. Location Plan for Portion H– Pit 137A

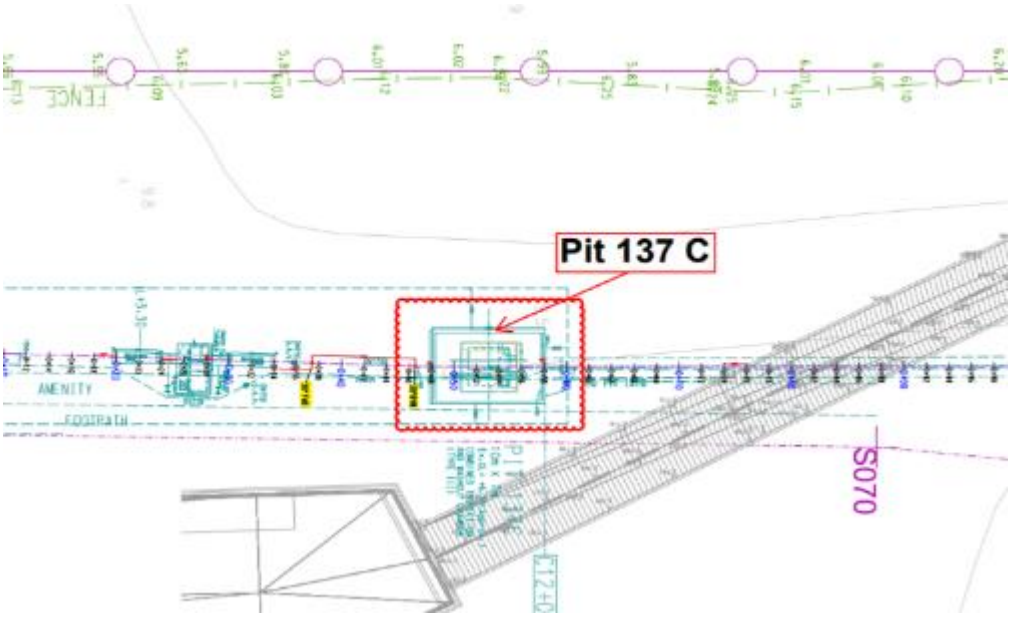

Figure B21c. Location Plan for Portion H– Pit 137C

Appendix C

Summary of Implementation Status of Environmental Mitigation

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
Air Quality								
S4.8.1	Impervious dust screen or sheeting will be provided to enclose scaffolding from the ground floor level of building for construction of superstructure of the new buildings.	Land site/ During Construction	Contractor(s)		✓		N/A	Air Pollution Control (Construction Dust)
S4.8.1	Impervious sheet will be provided for skip hoist for material transport.	Land site/ During Construction, particularly dry season	Contractor(s)		✓		N/A	
S4.8.1	The area where dusty work takes place should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after dusty activities as far as practicable.	Land site/ During Construction	Contractor(s)		✓		Reminder issued.	
S4.8.1	All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	Dropping heights for excavated materials should be controlled to a practical height to minimize the fugitive dust arising from unloading.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	During transportation by truck, materials should not be loaded to a level higher than the side and tail boards, and should be dampened or covered before transport.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	Wheel washing device should be provided at the exits of the work sites. Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty material from its body and wheels as far as practicable.	Land site/ During Construction	Contractor(s)		✓		N/A	
S4.8.1	Road sections between vehicle-wash areas and vehicular entrance will be paved.	Land site/ During Construction	Contractor(s)		✓		N/A	
S4.8.1	Hoarding of not less than 2.4m high from ground level will be provided along the length of the Project Site boundary.	Land site/ During construction	Contractor(s)	✓	✓		N/A	

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
S4.8.1	Haul roads will be kept clear of dusty materials and will be sprayed with water so as to maintain the entire road surface wet at all times.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets or sprayed with water to maintain the entire surface wet all the time.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Land site/ During construction	Contractor(s)		✓		Reminder issued.	
S4.8.1	All exposed areas will be kept wet always to minimise dust emission.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Ultra-low-sulphur diesel (ULSD) will be used for all construction plant on-site, as defined as diesel fuel containing not more than 0.005% sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No 19/2005 on Environmental Management on Construction Sites.	Land site/ During construction/ During Operation	Contractor(s)		✓	✓	Implemented	Environment, Transport and Works Bureau Technical Circular (ETWB- TC(W)) No 19/2005 on Environmental Management on Construction Sites
S4.8.1	The engine of the construction equipment during idling will be switched off.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Concrete batching plant will be required on site. control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented. The control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented.	Land site/ During construction	Contractor(s)		✓		N/A	Guidance Note on a Best
S4.8.1	Regular maintenance of construction equipment deployed on-site will be conducted to prevent black smoke emission.	Land site/ During construction	Contractor(s)		✓		Implemented	

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
S4.10	To ensure proper implementation of the recommended dust mitigation measures and good construction site practices during the construction phase, environmental site audits on weekly basis is recommended throughout the construction period.	Land site/ During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	

Note: D – Design stage C – Construction O – Operation

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
Noise								
S5.7	Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Mobile plant, if any, will be sited as far away from NSRs as possible.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Plants known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Use of Quite Powered Mechanical Equipment (QPME).	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Movable noise barriers of 3m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m^{-2} and have no openings or gaps.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Construction activities (e.g. excavation/shoring, reinstatement (asphalt), and pipe jacking) will be planned and carried out in sequence, such that items of PME proposed for these activities will not be operated simultaneously.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works
S5.7	PMEs will not be used at the works areas near educational	Noise control / During	Contractor(s)		✓		Implemented	A Practical Guide for the

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
	institutions with residual impact (ie the "influence area" within a radius of 40m) during school hours in order to reduce impact to the educational institutions.	construction						Reduction of Noise from Construction Works
S5.7	Noise enclosures or acoustic sheds would be used to cover stationary PME such as generators. Portable/Movable noise enclosure made of material with superficial surface density of at least 7 kg m^{-2} may be used for screening the noise from operation of the saw/groover, concrete.	Noise control/ Pre-construction/ During construction	Contractor(s)	✓	✓		N/A	
S5.9	Sawcutting pavement, breaking up of pavement, excavation /shoring, pipe laying, backfilling, reinstatement (concrete) and pipe jacking shall be scheduled outside the examination period.	Noise control/ Pre-construction/ During construction	Contractor(s)	✓	✓		Implemented	
S5.9	In view the duration of noise exceedance at Creative Secondary School, PLK Laws Foundation College, TKO Kei Tak Primary School and School of Continuing and Professional Studies-CUHK is limited to 8 weeks, the construction work in the influence areas near the four schools shall be scheduled during long school holidays (eg summer holiday, Easter holiday or Christmas holiday, etc) as far as practicable. Scheduling the construction work for the four schools.	Noise control/ Pre-construction/ During construction	Contractor(s)	✓	✓		Implemented	
S5.10	A noise monitoring programme shall be implemented for the construction phase.	Designated monitoring stations as defined in EM&A Manual/During construction phase	Environmental Team (ET)		✓		Implemented	
S5.10	The effectiveness of on-site control measures could also be evaluated through the regular site audits.	All facilities/ During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	-

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
Water Quality								
S6.9	Dredged marine sediment will be disposed of in a gazetted marine disposal area in accordance with marine dumping permit conditions of the Dumping at Sea Ordinance (DASO).	Marine Dredging/ During construction	Contractor(s)		✓		N/A	Dumping at Sea Ordinance (DASO)
S6.9	Disposal vessels will be fitted with tight bottom seals in order to prevent leakage of material during transport.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	Barges will be filled to a level, which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	After dredging, any excess materials will be cleaned from decks and exposed fittings before the vessel is moved from the dredging area.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	All vessels should be well maintained and inspected before use to limit any potential discharges to the marine environment.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	All vessels must have a clean ballast system.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	No discharge of sewage/grey wastewater should be allowed. Waste water from potentially contaminated area on working vessels should be minimized and collected. These kinds of wastewater should be brought back to port and discharged at appropriate collection and treatment system.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	No soil waste is allowed to be disposed overboard.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
S6.9	Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Land site & drainage/ During construction	Contractor(s)		✓		Observation and reminder issued. Rectified after observation.	ProPECC PN 1/94 TM Standard under the WPCO
S6.9	Earthworks to form the final surfaces will be followed up with surface protection and drainage works to prevent erosion caused by rainstorms.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9	Appropriate surface drainage will be designed and provided where necessary.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9	The precautions to be taken at any time of year when rainstorms are likely together with the actions to be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94.	Land site & drainage/ During construction	Contractor(s)		✓		Observation issued. Rectified after observation.	ProPECC PN 1/94
S6.9	Oil interceptors will be provided in the drainage system where necessary and regularly emptied to prevent the release of oil and grease into the storm water drainage system after accidental spillages.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-
S6.9	Temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge, if any, will be adequately designed for the controlled release of storm flows.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-
S6.9	The temporary diverted drainage, if any, will be reinstated to the original condition when the construction work has finished or when the temporary diversion is no longer required.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
S6.9	Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9 and S6.12	The sterilization water should be dechlorinated with total residual chlorine (TRC) level below 1 mg/L before discharge to public sewer. In situ testing of TRC should also be conducted for the discharge of chlorinated water for pipeline disinfection to ensure sufficient dechlorination before discharge to public sewer.	Sterilization of water mains prior to commissioning	Contractor(s)		✓	✓	N/A	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters
S6.9	The cleaning and flushing water should also be treated and desilted to the relevant discharge requirement stipulated in TM-DSS before discharging.	Sterilization of water mains prior to commissioning	Contractor(s)		✓	✓	N/A	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters
S6.9	Site drainage should be well maintained and good construction practices should be observed to ensure that oil, fuels, solvents and other chemicals are managed, stored and handled properly and do not enter the nearby water streams.	Land site & drainage/ During construction/ During operation	Contractor(s)		✓	✓	Observation and reminder issued. Rectified after observation.	-
S6.12	Regular site inspections will be carried out in order to confirm that regulatory requirements are being met and that contractors are implementing the standard site practice and mitigation measures as proposed to reduce potential impacts to water quality.	During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Observation and reminder issued. Rectified after observation.	-

Note: D – Design stage C – Construction O – Operation

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
Waste Management								
S8.5	Nomination of approved personnel to be responsible for standard site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	Contract mobilization/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Training of site personnel in proper waste management and chemical handling procedures. Training will be provided to workers on the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling at the beginning of the construction works.	Contract mobilization/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Provision of sufficient waste disposal points and regular collection for disposal.	All area/ During construction/ During operation	Contractor(s)		✓	✓	Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	Appropriate measures to reduce windblown litter and dust transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	All area/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A waste management plan (WMP) as stated in the "*ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites"* for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established and implemented during the construction phase as part of the Environmental Management Plan (EMP). The Contractor will be required to prepare the EMP and submits it to the Architect/ Engineer under the Contract for approval prior to implementation.	All area/ During construction	Contractor(s)		✓		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre at Tsing Yi.	All area/ During construction	Contractor(s)		✓		N/A.	Chapters 2 & 3 Code of Practice on the Packaging, Labelling & Storage of Chemical Wastes published under the Waste Disposal Ordinance (Cap 354), Section 35

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
S8.5	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	Land site/ During construction	Contractor(s)		✓		Reminder issued	Waste Disposal Ordinance (Cap 354)
S8.5	A recording system for the amount of wastes generated/ recycled and disposal sites. The trip- ticket system will be included as one of the contractual requirements and implemented by the contractor(s).	Land site/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of material and their proper disposal.	Land site/ During construction/ During operation	Contractor(s)		✓		Implemented	WBTC 32/92, The Use of Tropical Hard Wood on Construction Site
S8.5	Encourage collection of aluminium cans and waste paper by individual collectors during construction with separate labelled bins provided to segregate these wastes from other general refuse by the workforce.	Land site/ During construction	Contractor(s)		✓		Implemented	ETWB TCW No. 33/2002, Management of Construction and Demolition Material Including Rock
S8.5	Any unused chemicals and those with remaining functional capacity will be recycled as far as possible.	Land site/ During construction	Contractor(s)		✓		N/A	-
S8.5	Use of reusable non-timber formwork to reduce the amount of C&D materials.	All areas/ During construction	Contractor(s)		✓		N/A	WBTC 32/92, The Use of Tropical Hard Wood on Construction Site
S8.5	Prior to disposal of construction waste, wood, steel and other metals will be separated to the extent practical, for re-use and/or recycling to reduce the quantity of waste to be disposed of to landfill.	All areas/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	Proper storage and site practices to reduce the potential for damage or contamination of construction materials.	All areas/ During construction	Contractor(s)		✓		Reminder issued	-
S8.5	Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste.	All areas/ During construction	Contractor(s)		✓		Implemented	-
S8.5	A Sediment Quality Report (SQR) for sampling and chemical testing of the sediment will be prepared and submitted to the EPD for approval. The approved detailed sampling and chemical testing will be carried out prior to the commencement of the dredging activities to confirm the sediment disposal method.	Marine works/ During construction	Contractor(s)		✓		N/A	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
S8.5	The management of dredged/ excavated sediment management requirement from *ETWB TC(W) No. 34/2002* will be incorporated in the Specification of the Contract Documents.	Marine works/ During construction	WSD/ Contractor(s)		✓		Implemented	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)
S8.5	The contractor will open a billing account with EPD in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation for the payment of disposal charges.	Contract mobilisation/ During construction	Contractor(s)		✓		Implemented	Cap 354N Waste Disposal (Charges for Disposal of Construction Waste) Regulation
S8.5	A trip-ticket system will be established in accordance with DEVB TC(W) No. 6/2010 to monitor the reuse of surplus excavated materials off-site and disposal of construction waste and general refuse at transfer facilities/ landfills, and to control fly-tipping.	Contract mobilisation/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	The project proponent will also conduct regular inspection of the waste management measures implemented on site as described in the Waste Management Plan.	All area/ During construction	Contractor(s)/Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	A recording system (similar to summary table as shown in Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005) for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005
S8.5	Inert C&D materials (public fill) will be reused within the Project as far as practicable.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Public fill and construction waste shall be segregated and stored in different containers or skips to facilitate reuse or recycling of materials and their proper disposal.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	To reduce the potential dust and water quality impacts of site formation works, C&D materials will be wetted as quickly as possible to the extent practice after filling.	All area/ During construction	Contractor(s)		✓		Implemented	Air Pollution Control (Construction Dust) Regulation (Cap 311R); WPCO (Cap 358)

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
S8.5	Open stockpiles of excavated/ fill materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	Land site/ During Construction, particularly dry season	Contractor(s)		✓		Implemented	Air Pollution Control (Construction Dust) Regulation (Cap 311R)
S8.5	Chemical waste container shall be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Chemical waste container shall have a capacity of less than 450 L unless the specifications have been approved by the EPD.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	A label in English and Chinese shall be displayed on the chemical container in accordance with instructions prescribed in Schedule 2 of the Regulations.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be enclosed on at least 3 sides.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall have adequate ventilation.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging,

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
								Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary).	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be arranged so that incompatible materials are appropriately separated.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	General refuse will be stored in enclosed bins or compaction units separately from construction and chemical wastes.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Reminder issued	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Adequate number of waste containers will be provided to avoid over-spillage of waste.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	DEVB TC(W) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A reputable waste collector will be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimise odour, pest and litter impacts.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-
S8.5	Recycling bins will be provided at strategic locations within the Site to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the Site. Materials recovered will be sold for recycling.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-
S8.5	To avoid any odour and litter impact, accurate number of portable toilets will be provided for workers on-site.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	The burning of refuse on construction sites is prohibited by law.	All area/ During construction	Contractor(s)		✓		Implemented	Air Pollution Control Ordinance (Cap 311)

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
S8.7	To facilitate monitoring and control over the contractors' performance on waste management, a waste inspection and audit programme will be implemented throughout the construction phase.	All facilities/ During construction	ET/ IEC		✓		Implemented	-

Note: D – Design stage C – Construction O – Operation

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
	Ecology							
S9.7	For slope mitigation works within the Clear Water Bay Country Park, to avoid tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels can be adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical. A detailed specification describing the exact locations of the flexible barrier foundation plates, soil nails and rock dowels will be prepared to illustrate how the setback distance from existing trees would be implemented for tree avoidance.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7	Pruning of tree canopies along the alignment of the flexible barriers shall be limited to a minimum.	Slope mitigation works area/ During construction	Contractor(s)		✓		Implemented	
S9.7	The alignment of flexible barriers shall be optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable. All individuals of *Marsdenia lachnostoma* within the slope mitigation areas shall be retained *in- situ*, by positioning the alignment of flexible barrier at a minimum 1.5m in a radius away from these individuals.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7 and 9.10	At the detailed design stage prior to the commencement of the slope mitigation works, a vegetation survey shall be carried out at the slope mitigation areas within the Clear Water Bay Country Park to assess the condition and identify the location of each individual of *Marsdenia lachnostoma* and other flora species of conservation interest that may be directly affected by the construction works.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7	Temporary fencing will be installed to fence off the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction. A sign identifying the site shall be attached to the fence and flagging tape shall be attached to the individuals to visualize their locations.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7 and S9.10	A specification for fencing and demarcating individuals of *Marsdenai lachnostoma* (or other flora species of conservation interest, if found) adjacent to the proposed	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
	alignment of the flexible barriers will be prepared to protect the species.							
S9.7	Induction training shall also be provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	The resident site supervisory staff will closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	Erect fences along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Regularly check the work site boundaries to ensure that they are not breached and that damage does not occur to surrounding areas.	All area/ During construction	Contractor(s)/ Environmental Team (ET)		✓		Implemented	-
S9.7	Avoid any damage and disturbance, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Reinstate temporarily affected areas, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting. The tree/shrub species will be chosen with reference to those in the surrounding area.	All area/ During construction	Contractor(s)		✓		N/A	-
S9.7	Affected habitats within the Clear Water Bay Country Bay shall be reinstated by hydro-seeding and planting of climbers and native shrub seedlings where practical upon completion of the slope mitigation works.	All area/ During construction	Contractor(s)		✓		N/A	-

Note: D – Design stage C – Construction O – Operation

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
	Landscape & Visual							
S11.10 & 11.11	The construction area and area allowed for temporary structures, such as the contractor's office, will be minimized to a practical minimum. (MM1)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
S11.10 & 11.11	At the detailed design stage, the design team will seek to minimize the landscape footprint of the Project and above ground facilities, while satisfying all other requirements. (MM2)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
S11.10 & 11.11	Design principles will be adopted to take into account the surrounding area, particularly Clear Water Bay Country Park behind and the nearby waterfront, with due consideration given to: - green roofs where practical (ie without equipment on the roof); - roadside planting; - aesthetic treatment of all structures; - vertical greening; - screen planting along application site; and - landscape enhancement with amenity planting where practical including planting along the edge (site boundary) fence with native shrubs where feasible to reduce their visual impact and blend them into the surrounding landscape.(MM3)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
S11.10 & 11.11	All trees within the Project Site or the potential slope mitigation works area will be carefully protected during construction according to DEVB TCW No. 10/2013 – Tree Preservation (MM4)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Observation and reminder issued. Rectified after observation.	ETWB TCW No. 3/2006 - Tree Preservation.
S11.10 & 11.11	No tree within the Country Park will be felled. Trees within the Site unavoidably affected by the works will be transplanted where necessary and practical. For trees that need to be felled, compensatory planting will be provided to the satisfaction of relevant Government departments. A compensatory tree planting proposal including locations of tree compensation will be submitted to seek relevant government department's	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	DEVB TC(W) No. 10/2013

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
	approval, in accordance with DEVB TC(W) No. 10/2013. (MM5)							
S11.10 & 11.11	Any slope mitigation works necessary to address natural terrain hazards, will be minimized to minimize any potential environmental impact to the Country Park e.g. soil nailing and rock stabilization will aim to avoid existing trees e.g. should any restoration of vegetation be necessary, the best planting matrix with native species will be established, with the aim of resembling the existing vegetation. (MM6)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	N/A	
S11.10 & 11.11	Dredging works for the installation of intake structures and outfall diffusers should be minimized to avoid or reduce any potential environmental impacts to as low as reasonably practicable (ALARP). The intake and outfall structures (e.g. intake openings and diffuser heads) will be prefabricated and transferred to site for installation. (MM7)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	N/A	
S11.10 & 11.11	All night-time lighting will be reduced to a practical minimum both in terms of number of level and will be hooded and directional. (MM8) units and lux level and will be hooded and directional. (MM8)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-

Note: D – Design stage C – Construction O – Operation

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
	Landfill Gas Hazard							
S12.7	During all works, safety procedures should be implemented to minimise the risks of fires and explosions, asphyxiation of workers and toxicity effects resulting from contact with contaminated soil and groundwater.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	-
S12.7	During trenching and excavation as well as creation of confined spaces at near to or below ground level, precautions should be clearly laid down and rigidly Gas detection equipment and appropriate breathing apparatus should be available and used when entering confined spaces or trenches deeper than 1 metre.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	The Contractor should make the workers are aware of potential hazards of working in confined spaces (any chamber, manhole or culvert which is large enough to permit access to personnel). Such work in confined spaces is controlled by the Factories and Industrial Undertakings (Confined Spaces) Regulations of the Factories and Industrial Undertakings Ordinance. Following the Safety Guide to Working in Confined Spaces ensures compliance with the above regulations.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Safety officers, specifically trained with regard to landfill gas and leachate related hazards and the appropriate actions to take in adverse circumstances, should be present on the site throughout the works, in particular, when works are undertaken below grade.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	All personnel who work on site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Monitoring for landfill gas should be undertaken in all excavations, manholes, chambers (particularly during pipe jacking) and any confined spaces through the use of an intrinsically safe portable instrument, appropriately calibrated and capable of measuring the concentrations of methane. carbon dioxide and oxygen.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Monitoring frequency and areas to be monitored should be specified prior to commencement of groundwork, either by the Safety Officer, or by an appropriately qualified person. All measurements should be recorded and	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
	documented.							
S12.7	Proceed drilling with adequate care and precautions against the potential hazards which may be encountered.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Prior to the commencement of the site works, the drilling contractor should devise a 'method-of- working' statement covering all normal and emergency procedures (including but not limited to number of operatives, experience and special skills of operatives, normal method of operations, emergency procedures, supervisors' responsibilities, storage and use of safety equipment, safety procedures and signs, barriers and guarding). The site supervisor and all operatives must be familiar with this statement.	All area/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Where below ground service entries are necessary to the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II), the entry point should be sealed to prevent gas entry. In addition, any below grade cable trenches entering the Incoming Switchgear Room and 132 kV Substation can become the pathway for landfill gas and hence grilled metal covers should be used.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	N/A	
S12.7	It is recommended regular landfill gas monitoring should be carried out at the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II). The monitoring frequency will be monthly for the first year of operation. If the monitoring results show no sign of landfill gas migration, reduce the monitoring frequency to once every six months.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	N/A	
S12.7	The manholes and utility pits within the Project Site and along the fresh water mains. Each manhole/ utility pit should be monitored with two measurements (at mid depth and base). Each measurement should be monitored for a minimum of 10 minutes. A steady reading and peak reading should be recorded at each manhole/ utility pit and for each measurement. The need for venting the manhole/ utility pit and further monitoring will be reviewed after the initial monitoring.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
S12.7	All construction, operation and maintenance personnel working on-site as well as visitors should be made aware of the hazards of landfill gas and its possible presence on-site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on landfill gas hazards and the designs and procedural means by which these hazards are being minimized on-site.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	

Note: D – Design stage C – Construction O – Operation

Appendix D

Impact Monitoring Schedule of the Reporting Month

Feb-22						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4 Noise Impact Monitoring	5
6	7	8	9 Noise Impact Monitoring	10	11	12
13	14	15	16	17	18 Noise Impact Monitoring	19
20	21	22	23	24 Noise Impact Monitoring	25	26
27	28					

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

Appendix E

Noise Monitoring Equipment Calibration Certificate

Certificate of Calibration

for

Description:	***Sound Level Meter***
Manufacturer:	***SVANTEK***
Type No.:	***971 (Serial No.: 96062)***
Microphone:	***ACO 7052 E (Serial No.:78090)***
Preamplifier:	***SVANTEK SV 18 (Serial No.:103808)***

Submitted by:

Customer:	*Acuity Sustainability Consulting Limited*
Address:	*Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T.*

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

☑ **Within (31.5 Hz to 4k Hz)**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 2 July 2021

Date of calibration: 5 July 2021

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 5 July 2021

Certificate No.: APJ21-029-CC001

ACOUSTICS AND AIR TESTING LABORATORY CO LTD (A+A) *L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature:	24.2 **°C**
Air Pressure:	1004 **hPa**
Relative Humidity:	60.8 **%**

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV200041	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
20-140	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
20-140	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
20-140	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

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Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
20-140	dB SPL	Fast	94	31.5	94.1	±2.0
				63	94.1	±1.5
				125	94.1	±1.5
				250	94.1	±1.4
				500	94.1	±1.4
				1000	94.0	Ref
				2000	93.8	±1.6
				4000	93.3	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
20-140	dBA SPL	Fast	94	31.5	54.9	-39.4 ±2.0
				63	68.0	-26.2 ±1.5
				125	78.0	-16.1 ±1.5
				250	85.4	-8.6 ±1.4
				500	90.8	-3.2 ±1.4
				1000	94.0	Ref
				2000	95.0	+1.2 ±1.6
				4000	94.3	+1.0 ±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
20-140	dBC SPL	Fast	94	31.5	91.1	-3.0 ±2.0
				63	93.3	-0.8 ±1.5
				125	93.9	-0.2 ±1.5
				250	94.1	-0.0 ±1.4
				500	94.1	-0.0 ±1.4
				1000	94.0	Ref
				2000	93.6	-0.2 ±1.6
				4000	92.5	-0.8 ±1.6

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

5. *Calibration Results Applied*

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.15
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

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

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

MAXLAB

CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	7-Aug-2021	**Certificate Number**	MLCN212053S

Customer Information

Company Name	Acuity Sustainability Consulting Limited
Address	Unit C, 11/F., Ford Glory Plaza, Nos. 37-39 Wing Hing Street, Cheung Sha Wan, Kowloon, HK

Equipment-under-Test (EUT)

Description	Acoustic Calibrator
Manufacturer	Pulsar
Model Number	105
Serial Number	63705
Equipment Number	--

Calibration Particular

Date of Calibration	7-Aug-2021		
Calibration Equipment	4231(MLTE008) / AV200063 / 23-Jun-23 1357(MLTE190) / MLEC21/05/02 / 26-May-22		
Calibration Procedure	MLCG00, MLCG15		
Calibration Conditions	Laboratory	Temperature	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	EUT	Stabilizing Time	Over 3 hours
		Warm-up Time	Not applicable
		Power Supply	Internal battery
Calibration Results	Calibration data were detailed in the continuation pages. All calibration results were within EUT specification.		

Approved By & Date

K.O. Lo 7-Aug-2021

Statements

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the EUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
* MaxLab Calibration Centre Limited shall not be liable for any loss or damage resulting from the use of the EUT.
* The copy of this Certificate is owned by MaxLab Calibration Centre Limited. No part of this Certificate may be reproduced without the prior written approval of MaxLab Calibration Centre Limited.

萬儀校正中心有限公司
MaxLab Calibration Centre Limited
香港新界葵涌華星街 16-18 號保盈工業大廈 9 樓 B 室
Unit B, 9/F., Boldwin Industrial Bldg., 16-18 Wah Sing Street, Kwai Chung, N.T., Hong Kong Tel: (852) 2116 1380 Fax: (852) 2264 6480 Email: info@maxlab.com.hk

MAXLAB

Certificate No. MLCN212053S

Calibration Data				
EUT Setting	**Standard Reading**	**EUT Error from Setting**	**Calibration Uncertainty**	**EUT Specification**
94 dB	93.9 dB	-0.1 dB	0.20 dB	± 0.2 dB

- END -

Calibrated By : Keneth
Date : 7-Aug-21

Checked By : K.O. Lo
Date : 7-Aug-21

萬儀校正中心有限公司
MaxLab Calibration Centre Limited
香港新界葵涌華星街 16-18 號保盈工業大廈 9 樓 B 室
Unit B, 9/F., Boldwin Industrial Bldg., 16-18 Wah Sing Street, Kwai Chung, N.T., Hong Kong Tel: (852) 2116 1380 Fax: (852) 2264 6480 Email: info@maxlab.com.hk

Kestrel®

Kestrel Weather Meters

Model Numbers 1000-3500

Certificate of Conformity

This instrument was produced under rigorous factory production control and documented standard procedures. It was individually inspected and leak tested and the functioning of the display, backlight, buttons and firmware was verified. The accuracy of each of its primary measurements was individually calibrated and/or validated against standards traceable to the National Institute of Standards and Technology ("NIST") or other calibrated standards in accordance with the documented standard test methods detailed below. This instrument is warrantied to perform in compliance with the published specifications for the specific measurements and features of its model number including specified typical drift since its date of manufacture. *(See Kestrel Limited Warranty for full warranty terms.)*

Standards Used in Testing

Wind Speed:

The Kestrel Weather & Environmental Meter impeller installed in this unit was individually tested in a subsonic wind tunnel operating at approximately 300 fpm (1.5 m/s) and 1200 fpm (6.1 m/s) monitored by a Gill Instruments Model 1350 ultrasonic time-of-flight anemometer. The Gill 1350 is calibrated regularly and is traceable to NIST with a maximum combined uncertainty of ±1.04% within the airspeed range 711.4 to 3930 fpm (3.61 to 19.96 m/s), and ±1.66% within the airspeed range 170 to 711.4 fpm (0.86 to 3.61 m/s).

Temperature:

Temperature response is verified in comparison with an Ametek DTI-050 Digital Temperature Indicator and STS Reference Sensor. The DTI-050 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ± 0.04C.

Relative Humidity:

Relative humidity is verified in comparison with an Edgetech HT120 Humidity Transmitter. The HT120 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ±1.0%RH.

Barometric Pressure:

Pressure response is verified against a Vaisala PTB210A Digital Barometer. The Vaisala Barometer is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ± 0.3hPa.

Approved By:

Michael Naughton
Chief Product Officer, Nielsen-Kellerman

Product Specifications for Kestrel Weather Meters, Model Numbers 1000-3500

SENSORS

SENSOR	ACCURACY (+/-)	RESOLUTION	SPECIFICATION RANGE	NOTES
Wind Speed |Air Speed	Larger of 3% of reading, least significant digit or 20 ft/min	0.1 m/s 1 ft/min 0.1 km/h 0.1 mph 0.1 knots 1 B	0.6 to 40.0 m/s 118 to 7,874 ft/min 2.2 to 144.0 km/h 1.3 to 89.5 mph 1.2 to 77.8 knots 0 to 12 B	1 inch|25 mm diameter impeller with precision axle and low-friction Zytel® bearings. Startup speed stated as lower limit, readings may be taken down to 0.4 m/s |79 ft min|1.5 km/h |.9 mph |.8 kt after impeller startup. Off-axis accuracy -1% @ 5º off axis; -2% @ 10º; -3% @ 15º. Calibration drift < 1% after 100 hours use at 16 MPH |7 m/s. Replacement impeller (NK PN-0801) field installs without tools (US Patent 5,783,753). Wind speed calibration and testing should be done with triangle on impeller located at the top front face of the Kestrel. Measuring wind speeds above 60 m/s / 134.2 mph can damage the impeller.
Ambient Temperature	0.9 °F 0.5 °C	0.1 °F 0.1 °C	-20.0 to 158.0 °F -29.0 to 70.0 °C	Airflow of 2.2 mph|1 m/s or greater provides fastest response and reduction of insolation effect. For greatest accuracy, avoid direct sunlight on the temperature sensor and prolonged sunlight exposure to the unit in low airflow conditions. Calibration drift is negligible for the life of the product. For further details, see Display & Battery Operational Temperature Limits.
Relative Humidity	3%RH	0.1 %RH	5 to 95% 25°C non-condensing	To achieve stated accuracy, unit must be permitted to equilibrate to external temperature when exposed to large, rapid temperature changes and be kept out of direct sunlight. Calibration drift is typically less than ±0.25% per year.
Pressure	1.5 hPa|mbar 0.044 inHg 0.022 PSI	0.1 hPa|mbar 0.01 inHg 0.01 PSI	25°C/77°F 750-1100 hPa|mbar 22.15-32.48 inHg 10.88-15.95 PSI	Monolithic silicon piezo-resistive pressure sensor with second-order temperature correction. Between 1100–1600 mbar, unit will operate with reduced accuracy. Sensor may not operate above 1600 mbar and can be damaged above 6,000 mbar or below 10 mbar. Calibration drift is negligible for the life of the product.

CALCULATED MEASUREMENTS

MEASUREMENT	ACCURACY (+/-)	RESOLUTION	SENSORS EMPLOYED
Altitude	typical: 23.6 ft/7.2 m from 750 to 1100 mBar max: 48.2 ft/14.7 m from 300 to 750 mBar	1 ft 1 m	Pressure, User Input (Reference Pressure)
Barometric Pressure	0.07 inHg 2.4 hPa|mbar 0.03 PSI	0.01 inHg 0.1 hPa|mbar 0.01 PSI	Pressure, User Input (Reference Altitude)
Delta T	3.2 °F 1.8 °C	0.1 °F 0.1 °C	Temperature, Relative Humidity, Pressure
Dew Point	3.4 °F 1.9 °C 15-95% RH. Refer to Range for Temperature Sensor	0.1 °F 0.1 °C	Temperature, Relative Humidity
Heat Index	7.1°F 4.0°C	0.1 °F 0.1 °C	Temperature, Relative Humidity
Wet Bulb Temperature - Psychrometric	3.2 °F 1.8 °C	0.1 °F 0.1 °C	Temperature, Relative Humidity, Pressure
Wind Chill	1.6 °F 0.9 °C	0.1 °F 0.1 °C	Wind Speed, Temperature

ADDITIONAL PRODUCT INFO

Display	Reflective LCD
Backlight	Standard or dim red (NV models only) backlight. Manual activation with auto-off.
Response Time & Display Update	Display updates every 1 second. After exposure to large environmental changes, all sensors require an equilibration period to reach stated accuracy. Measurements employing RH may require longer periods particularly after prolonged exposure to very high or very low humidity.
Auto Shutdown	After 45 minutes with no key presses.
Clock	Real Time Hour:Minute Display
Certifications	CE certified, RoHS and WEEE compliant. Individually tested to NIST-traceable standards.
Origin	Designed and manufactured in the USA from US and imported components. Complies with Regional Value Content and Tariff Code Transformation requirements for NAFTA Preference Criterion B.
Bluetooth® Data Connect	Wireless range up to 100ft. Employs Kestrel Link protocol for data transmission with Kestrel Link Ballistics App. (iOS/Android)
Battery	Requires one CR2032 battery, included. Up to 300 hours of use, reduced by backlight or Bluetooth use.
Shock Resistance	MIL-STD-810g, Transit Shock, Method 516.7 Procedure IV; unit only; impact may damage replaceable impeller.
Sealing	Waterproof (IP67 and NEMA-6)
Display & Battery Operational Temperature Limits	14° F to 131° F | -10 °C to 55 °C Measurements may be taken beyond the limits of the operational temperature range of the display and batteries by maintaining the unit within the operational range and then exposing it to the more extreme environment for the minimum time necessary to take reading.
Storage Temperature	-22.0 °F to 140.0 °F | -30.0 °C to 60.0 °C.
Size & Weight	4.8 x 1.9 x 1.1 in | 12.2 x 4.8 x 2.8 cm, 3.6 oz | 102 g (Including slip-on cover).

*Note: Accuracy calculated as uncertainty of the measurement derived from statistical analysis considering the combined effects from primary sensor specifications, circuit conversions, and all other sources of error using a coverage factor of k=2, or two standard deviations (2Σ)

**Note: For Kestrel 1000, 2000, 2500, 3000, 3500 series these specifications are valid for units with a serial number higher than 2262687. If your product has a lower serial number, please reference the K4000 specifications 329011.

Appendix F

Event/Action Plan for Noise Exceedance

Event and Action Plan for Construction Noise Monitoring

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
Action Level	1. Carry out investigation to identify the source and cause of the complaint/ exceedance(s) 2. Notify IEC, ER, and Contractor and report the results of investigation to the Contractor, ER and the IEC 3. Discuss with the Contractor and IEC for remedial measures required 4. If the complaint is related to the Project, conduct additional monitoring for checking mitigation effectiveness and report the findings and results to the IEC, ER and the Contractor	1. Review the analyzed 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 Exceedance in writing 2. Require Contractor to propose remedial measures for the analysed noise problem 3. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals, if required, to the IEC and ER 2. Implement noise mitigation proposals.
Limit Level	1. Notify IEC, ER, EPD and Contractor 2. Identify the source(s) of impact by reviewing all the relevant monitoring data and the corresponding construction activities. Exceedances should also be confirmed by immediate verification in the field as far as practical. 3. Repeat measurement to confirm findings 4. Increase monitoring frequency 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. inform IEC, ER and EPD the cause & 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 Contractor's remedial actions to assure their effectiveness and advise the ER &ET accordingly 3.Supervise the implementation of the remedial measures	1. Confirm receipt of notification of exceedance in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analyzed noise problem 4. Ensure remedial measures are properly implemented 5. If exceedance continuous, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is aborted	1. Take immediate action to avoid further exceedance 2. Identify practicable measures to minimize the noise impact. Submit proposals for remedial actions to ER within three working days of notification 3. Implement the agreed proposals 4. Resubmit proposal if problem still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated

Appendix G

Noise Monitoring Data

Table G 1 Summary of Noise Monitoring Result

Date	Time	Weather	$L_{eq-5min}$, dB(A)						$L_{eq-30min}$, dB(A)	$L_{1030mins}$, dB(A)	$L_{9030mins}$ dB(A)	Limit Level, dB(A)*	Noise Meter
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)					
04/02/2022	15:40 - 16:10	Fine	63.9	65.5	66.1	66.5	68.7	67.0	66.5	70.0	58.8	70.0	Svantek 971
09/02/2022	10:50 - 11:20	Fine	67.7	62.0	68.5	66.9	67.3	67.5	67.1	71.3	59.3	70.0	Svantek 971
18/02/2022	10:58 - 11:28	Cloudy	68.2	67.5	69.7	67.5	67.9	69.4	68.5	71.9	60.3	70.0	Svantek 971
24/02/2022	11:33 - 12:03	Fine	64.6	65.5	69.9	68.1	68.2	66.1	67.4	71.6	58.6	70.0	Svantek 971

Remarks:
*No examinations were scheduled for NSR4 Creative Secondary School in the reporting month. Academic School Calendar can be found in **Appendix O**.

Appendix H

Waste Flow Table

Appendix F - Monthly Summary Waste Flow Table for 1 February 2022 to 28 February 2022

APPENDIX 25.2 to GS

Name of Department: ~~ArchSD/CEDD/DSD/EMSD/HyD/~~WSD Contract No.: 13/WSD/16

Monthly Summary Waste Flow Table for 1 February 2022 to 28 February 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan 21	2.342	0.145	--	--	2.014	0.328	--	0.065	--	--	0.006
Feb 21	2.184	0.240	--	--	1.855	0.329	--	0.058	--	--	0.001
Mar 21			--	--			--		--	--	
Apr 21				--			--		--	--	
May 21				--			--		--	--	
Jun 21				--			--				
Sub-total	4.526	0.385	--	--	3.869	0.657	--	0.123	--	--	0.007
Jul 21				--			--		--	--	
Aug 21				--			--		--	--	
Sep 21				--			--		--	--	
Oct 21				--			--		--	--	
Nov 21				--			--		--		
Dec 21				--			--		--		
Total	4.526	0.385	--	--	3.869	0.657	--	0.123	--	--	0.007

Notes:

(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.

(3) Broken concrete for recycling into aggregate.

(4) Sources and types of Imported Fill in the reporting period

(i) K. Wah Quarry Company Limited i. Soil: 221.7 m^3 (443.4 tonnes / 9 cars)

ii. Subase: 107.66 m^3 (215.32 tonnes / 4 cars)

(5) Total quantity Generated only refers to the actual Quantitates of inert C&D materials generated monthly excluding those that will be recycled (Hard rock & large broken concrete, reused in contract and reused in another contract). Imported fill will not be included in total quantity generated as those C&D materials are not generated from this project.

Appendix I

Landfill Gas Monitoring Equipment Calibration Certificate

路達國際有限公司
ROTTER INTERNATIONAL LIMITED
香港新界葵涌葵昌路58-70號永祥工業大廈10樓B室
Unit B, 10/F., Wing Cheung Industrial Building, 58-70 Kwai Cheong Road, Kwai Chung, New Territories, HK
Tel: (852) 2751 7770 Fax: (852) 2756 2051 E-mail: rotter@rotter.com.hk

Calibration Report - Gas Detector

PGM-2500 (QRAE III) --- LEL/O2/CO/H2S

UNIT INFORMATION :

Customer:	Penta Ocean Construction Co Ltd	Serial # :	M02A001708	Model :	QRAE III
		Firmware :	V2.12	Sensor :	LEL/O2/CO/H2S
		Cal date :	28-Jul-2021	Inspected:	Teddy

SENSOR DATA :

	LEL sensor (ME)	O2 sensor	CO sensor (Tox1)	H2S sensor (Tox2)
Calibration dates:	28-Jul-2021	28-Jul-2021	28-Jul-2021	28-Jul-2021
After Calibration levels	50%	17.90%	50 ppm	10.1 ppm
Alarm levels (Low):	10.00%	19.50%	35 ppm	10 ppm
Alarm levels (High):	20.00%	23.50%	200 ppm	20 ppm
TWA Level :	--	--	35 ppm	10 ppm
STEL Level :	--	--	100 ppm	15 ppm

Status:

Pump Speed	Low	Back Light	Manual
Clock	Yes	Measure	Average

LEL Gas Selection

LEL Calibration Gas	Methane	LEL measurement Gas	Methane
LEL Custom Gas	LEL_custom_gas	LEL Custom Factor	1.0

Gas types used : 4-Gas Mix: (18% O2, 50ppm CO, 10ppm H2S, 50% LEL CH4, BAL N2) **Gas lot #1412983 Cyl# 15**

*** **Fresh Air Calibration** is highly recommended to proceed prior for measurement each time.

Replaced Parts:

Notes:
The unit was calibrated and checked under good working condition

**Next calibration due on or before 27 July 2022

Serviced by Teddy Wong
Rotter International Ltd

Honeywell Protection Through Detection

1349 Moffett Park Drive,
Sunnyvale, CA 94089 USA
Main: 408-952-8200

www.raesystems.com

Calibration and Test Certificate

Product Name: MultiRAE Lite
Model Number: PGM-6208
Serial Number: M01C031772
Calibration/Inspection Date: 6/4/2021

Calibration Gases:

#	Gas	Concentration	Balance	Lot#
1	Hydrogen Sulfide(H_2S)	10ppm	Nitrogen(N_2)	20210508
2	Carbon Monoxide(CO)	50ppm		
3	Oxygen(O_2)	18%		
4	Methane(CH_4)	50%LEL		
5	Sulfur Dioxide(SO_2)	5ppm	Nitrogen(N_2)	20210114
6	Carbon Dioxide(CO_2)	5000ppm	Nitrogen(N_2)	20201203

Test Results:

#	Sensor	Span	UOM
1	LEL	51	%LEL
2	SO_2	5.2	ppm
3	COSH (H2S / CO)	10.1 / 51	ppm
4	Pb O_2	17.8	%
5	CO_2	4900	ppm

This instrument has been calibrated using valid calibration gases and instrument manual operation procedures. Test and calibration data is on file with the manufacturer, RAE Systems.

Approved By: Tuan Hang
86-05-51832593

ISO 9001 CERTIFIED

Calibration Certificate

GDJ7

Cert. Ref. No.: BW/XT/4TH/16428 Date: 2021 06 08 EXP: 08/06/2022

Customer: Victory Trenchless Engineering Co., Ltd.
Lot 1477B,
77 Ping Che,
Fanling, N.T.

Purchase Order No.: P-17-0488

Date 2017 11 09 INVOICE NO: AP

Email: emily@vtechk.com

Attn: Ms Emily Fung Tel: 3525 8826 Fax: 3525 1088 Mobile Phone

User Details:

Gas Detector Model: XT-XWHM-Y-OR Serial No.: MA217-022158 Pump S/N: 56310

Calibration Record:

Inpection before calibration	Visual inspection	Functional Test
Basic Unit - Case, Clip & Display etc.	OK	OK
Battery and charge etc.	OK	OK
Motorized Pump	OK	OK
Other items		

Type of Sensor	Expiry Date
Oxygen Sensor	
CO & H2S Sensor	
Combustible(LEL) Sensor	

Type of calibration	Date of calibration	H2S (ppm)	CO (ppm)	O2 (%)	LEL (%)
4th Calibration	2021 06 08	25	100	18	50
Result of Calibration		OK	OK	OK	OK

Calibration Cost: (As per attached invoice) F.O.C

Calibration remarks: Oxygen sensor replaced by new one
Warranty : Oxygen Sensor 1 years warranty

Next calibration date of this instrument will be : 2022 06 08

IMPORTANT NOTES TO BW GAS DETECTOR USERS

USERS MUST READ THE OPERATOR'S MANUAL THOROUGHLY BEFORE OPERATING THIS EQUIPMENT AND FOLLOW THEIR OWN SAFETY SUPERVISOR'S INSTRUCTION TO WORK.

All gas detection instrumentation on the market requires periodic calibration to accurately measure gas. Calibration is only as accurate as the test gas used. BW Technologies quality test gases are made to the highest accuracy and trace-ability to N.I.S.T. Standards.

Calibrated By: Sara Tse

Service Hotline: 2592 2120 Ms. Tse - Service Dept.

Asia Pacific Industrial Safety Equipment
Unit B, 1/F., Hing Yip Centre, 31 Hing Yip Street,
Kwun Tong, Kowloon, Hong Kong
Tel:2592 2100 Fax: 3165 8960

Asia Technologies
亞洲科技

Appendix J

Landfill Gas Monitoring Data

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	~~4~~ 4/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	〃	1345	Fine / Rain	O	O	O	20.9		4.3
	〃	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	〃	0845	Fine / ~~Rain~~	O	O	O	20.9	13/1009	4
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	15/1010	4
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	16/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		4/2/2022
Laboratory Staff:	NG Chung Long. Sam POON		4/2/2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	5/12/2022	0845	Fine / ~~Rain~~	O	O	O	20.9	14/1010	4
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	15/1011	4
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	16/1011	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		5/12/2022.
Laboratory Staff:	Sam NG Chung Lung POCVJV		5/12/2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	7/12/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	〃	1345	Fine / Rain	O	O	O	20.9		4.3
	〃	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	〃	0845	~~Fine~~ / Rain	O	O	O	20.9	15/1009	4
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	16/1010	4
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	16/1010.	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		7/12/2022.
Laboratory Staff:	Sam Poon		
Checked by:	Ng Chung Long		7/12/2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	7-2-2021	08:11	Rain / Fine	0	0	0	20.9	21 / 999	9
		13:18	Fine	0	0	0	20.9	22 / 999	9
		16:21	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
								/	
								/	
								/	
Pit D	7-7-2021	08:30	Fine	0	0	0	20.9	22 / 999	9
		13:38	Fine	0	0	0	20.9	22 / 999	9
		16:50	Fine	0	0	0	20.9	21 / 999	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		7-2-2021
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		7-2-2021

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	8/12/2022	0845	Fine / ~~Rain~~	O	O	O	20.9	16/1011	4
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	17/1011	4
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	17/1011	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		8/12/2022
Laboratory Staff:	Sam NG Chung Long POVCJV		8/12/2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	8-2-2022	08:07	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:14	Fine	0	0	0	20.9	22 / 998	9
		16:29	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
								/	
								/	
								/	
pit D	8-2-2022	08:26	Fine	0	0	0	20.9	21 / 999	9
		13:31	Fine	0	0	0	20.9	22 / 999	9
		16:44	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		8-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		8-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	9/12/2022	0830	Fine / ~~Rain~~	O	O	O	20.9	15/1011	5.5
	〃	1330	Fine / ~~Rain~~	O	O	O	20.9	16/1012	5.5
	〃	1700	Fine / ~~Rain~~	O	O	O	20.9	16/1012.	5.5
Area B	〃	0845	Fine / ~~Rain~~	O	O	O	20.9	16/1011	2.5
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	17/1012	2.5
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	17/1012.	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		9/12/2022.
Laboratory Staff:	Sam NG Chung Long POCJV		9/12/2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	9/12/2022	0845	Fine / ~~Rain~~	O	O	O	20.9	16/1010.	4
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	17/1010.	4
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	17/1011	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		9/12/2022.
Laboratory Staff:	Sam (POCTV)		
Checked by:	NG Chung Long.		9/12/2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	9-2-2022	08:07	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:02	Fine	0	0	0	20.9	22 / 999	9
		16:39	Fine	0	0	0	20.9	21 / 998	9
								/	
								/	
								/	
								/	
								/	
pit D	9-2-2022	08:31	Fine	0	0	0	20.9	22 / 999	9
		13:41	Fine	0	0	0	20.9	22 / 997	9
		17:00	Fine	0	0	0	20.9	22 / 998	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	Chan Wai Chi	9-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		9-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	10/2/2022	0845	Fine / ~~Rain~~	O	O	O	20.9	17/1011	4
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	18/1010	4
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	18/1011	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		10/2/2022.
Laboratory Staff:	Sam NG Chung Long, PeaTV		10.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	10-2-2022	08:04	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:04	FINE	0	0	0	20.9	22 / 999	9
		16:31	FINE	0	0	0	20.9	21 / 998	9
								/	
								/	
								/	
								/	
								/	
pit D	10-2-2022	08:25	FINE	0	0	0	20.9	22 / 999	9
		13:29	FINE	0	0	0	20.9	22 / 999	9
		16:02	FINE	0	0	0	20.9	22 / 999	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	Chan Wai Chi	10-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV	RSO	10-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	11/2/2022	0845	Fine / ~~Rain~~	O	O	O	20.9	17/1011	4
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	20/1009	4
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	19/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		11/2/2022
Laboratory Staff:	Sam		
Checked by:	NG Chung Long - POCJV		11/2/2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	11/2/2022	0830	Fine / ~~Rain~~	O	O	O	20.9	17/1011	5.5
	〃	1330	Fine / ~~Rain~~	O	O	O	20.9	18/1012	5.5
	〃	1700	Fine / ~~Rain~~	O	O	O	20.9	18/1011	5.5
Area B	〃	0845	Fine / ~~Rain~~	O	O	O	20.9	18/1011	2.5
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	19/1012	2.5
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	18/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		11/2/2022
Laboratory Staff:	Sam NG Chung Long PCCJV		11/2/2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	10/2/2022	0830	Fine / ~~Rain~~	O	O	O	20.9	16/1010	5.5
	〃	1330	Fine / ~~Rain~~	O	O	O	20.9	17/1011	5.5
	〃	1700	Fine / ~~Rain~~	O	O	O	20.9	17/1011	5.5
Area B	〃	0845	Fine / ~~Rain~~	O	O	O	20.9	17/1008	2.5
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	17/1010	2.5
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	16/1010	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		10/2/2022
Laboratory Staff:	Sam Ng Chung Long, PCCJU		10/2/2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	11-2-2022	08:33	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:08	Fine	0	0	0	20.9	22 / 999	9
		16:07	Fine	0	0	0	20.9	21 / 999	9
								/	
								/	
								/	
								/	
								/	
Pit D	11-2-2022	09:10	Fine	0	0	0	20.9	21 / 999	9
		13:41	Fine	0	0	0	20.9	22 / 999	9
		17:08	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	chan wai chi	11 - 2 - 2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		11 - 2 - 2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	12/12/2022.	0845	Fine / ~~Rain~~	O	O	O	20.9	17/1010.	4
		1345	Fine / ~~Rain~~	O	O	O	20.9	18/1009	4
		1645	Fine / ~~Rain~~	O	O	O	20.9	18/1008	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		12/12/2022
Laboratory Staff:	Sam NG Ching Long POC#IV		
Checked by:			12-12-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	12/2/2022	0830	Fine / ~~Rain~~	O	O	O	20.9	18/1011	5.5
	〃	1330	Fine / ~~Rain~~	O	O	O	20.9	19/1012	5.5
	〃	1700	Fine / ~~Rain~~	O	O	O	20.9	19/1012.	5.5
Area B	〃	0845	Fine / ~~Rain~~	O	O	O	20.9	17/1009.	2.5
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	18/1010.	2.5
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	18/1010.	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		12/2/2022.
Laboratory Staff:	Sam NG Chung Long		12-2-2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	12-2-2022	08:33	Rain / Fine	0	0	0	20.9	22/ 999	9
		13:41	Fine	0	0	0	20.9	22/ 999	9
		16:33	Fine	0	0	0	20.9	21/ 999	9
								/	
								/	
								/	
								/	
								/	
Pit D	12-2-2022	08:10	Fine	0	0	0	20.9	21/ 998	9
		13:20	Fine	0	0	0	20.9	22/ 997	9
		17:01	Fine	0	0	0	20.9	22/ 999	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		12-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		12-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	14/2/2022	0845	Fine / Rain	O	O	O	20.9	17/1010	4
	〃	1345	Fine / Rain	O	O	O	20.9	18/1009	4
	〃	1645	Fine / Rain	O	O	O	20.9	18/1009	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		14/2/2022
Laboratory Staff:	Sam NG Chung Long POCJV		14.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	14/2/2022	0830	Fine / Rain	O	O	O	20.9	17/1011	5.5
	〃	1330	Fine / Rain	O	O	O	20.9	18/1012	5.5
	〃	1700	Fine / Rain	O	O	O	20.9	18/1012	5.5
Area B	〃	0845	Fine / Rain	O	O	O	20.9	17/1011	2.5
	〃	1345	Fine / Rain	O	O	O	20.9	18/1012	2.5
	〃	1645	Fine / Rain	O	O	O	20.9	18/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		14/2/2022
Laboratory Staff:	Sam NG Chung Lang		14.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	14-2-2022	08:17	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:01	Fine	0	0	0	20.9	23 / 998	9
		16:43	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
H	14-2-2022	08:22	Fine	0	0	0	20.9	22 / 999	8
		13:11	Fine	0	0	0	20.9	23 / 998	8
		16:50	Fine	0	0	0	20.9	22 / 999	8
								/	
D	14.2-2022	08:33	Fine	0	0	0	20.9	21 / 999	9
		13:28	Fine	0	0	0	20.9	22 / 998	9
		17:04	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		14 - 2 - 2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		14 - 2 - 2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	15/2/2022	0830	Fine / Rain	O	O	O	20.9	18/1009	5.5
	"	1330	Fine / Rain	O	O	O	20.9	19/1011	5.5
	"	1700	Fine / Rain	O	O	O	20.9	19/1011	5.5
Area B	"	0845	Fine / Rain	O	O	O	20.9	18/1004	2.5
	"	1345	Fine / Rain	O	O	O	20.9	19/1011	2.5
	"	1645	Fine / Rain	O	O	O	20.9	19/1011	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		15/2/2022
Laboratory Staff:	Sam Ng Chung Long		15.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	15/2/2022	0845	Fine / Rain	O	O	O	20.9	17/1010	4
	"	1345	Fine / Rain	O	O	O	20.9	18/1009	4
	"	1645	Fine / Rain	O	O	O	20.9	18/1009	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		15/2/2022
Laboratory Staff:	SAM. NG Chung Long POCJV		
Checked by:			15/2/2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	15-2-2022	09:17	Rain / Fine	0	0	0	20.9	22/ 999	9
		13:04	Fine	0	0	0	20.9	22/ 999	9
		16:33	Fine	0	0	0	20.9	22/ 999	9
								/	
A	15-2-2022	09:21	Fine	0	0	0	20.9	21/ 999	8
		13:10	Fine	0	0	0	20.9	22/ 999	8
		16:39	Fine	0	0	0	20.9	22/ 999	8
								/	
D	15-2-2022	09:32	Fine	0	0	0	20.9	21/ 999	9
		13:28	Fine	0	0	0	20.9	22/ 999	9
		16:52	Fine	0	0	0	20.9	22/ 999	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	Chan Wai Chi	15 - 2 - 2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		15 - 2 - 2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	16/2/2022	0830	Fine / Rain	O	O	O	20.9	17/1009	5.5
	〃	1330	Fine / Rain	O	O	O	20.9	18/1012	5.5
	〃	1700	Fine / Rain	O	O	O	20.9	18/1012	5.5
Area B	〃	0845	Fine / Rain	O	O	O	20.9	17/1009	2.5
	〃	1345	Fine / Rain	O	O	O	20.9	18/1012	2.5
	〃	1645	Fine / Rain	O	O	O	20.9	18/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		16/2/2022
Laboratory Staff:	San NG Chung Long		16.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	16/2/2022	0845	Fine / Rain	O	O	O	20.9	16/2011	4
		1345	Fine / Rain	O	O	O	20.9	17/1011	4
		1645	Fine / Rain	O	O	O	20.9	17/1011	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		16/2/2022
Laboratory Staff:	Sam Ng Chong Long POCJV		16. 2. 2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	16-2-2022	08:17	Rain / Fine	0	0	0	20.9	22/999	9
		13:22	Fine	0	0	0	20.9	23/999	9
		16:21	Fine	0	0	0	20.9	22/998	9
								/	
A	16-2-2022	08:21	Fine	0	0	0	20.9	22/999	8
	16	13:29	Fine	0	0	0	20.9	23/999	8
		16:28	Fine	0	0	0	20.9	22/999	8
								/	
D	16-2-2022	08:34	Fine	0	0	0	20.9	22/999	9
		13:44	Fine	0	0	0	20.9	21/999	9
		16:48	Fine	0	0	0	20.9	22/999	9
								/	
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		16-2-2021
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		16-2-2021

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	17/2/2022	0830	Fine / Rain	O	O	O	20.9	16/1011	5.5
	〃	1330	Fine / Rain	O	O	O	20.9	17/1012	5.5
	〃	1700	Fine / Rain	O	O	O	20.9	17/1012	5.5
Area B	〃	0845	Fine / Rain	O	O	O	20.9	16/1011	2.5
	〃	1345	Fine / Rain	O	O	O	20.9	17/1012	2.5
	〃	1645	Fine / Rain	O	O	O	20.9	17/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		17/2/2022
Laboratory Staff:	Sam NG Chung Long POC JV		17.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3		0845	Fine / Rain	O	O	O	20.9		4.3
		1345	Fine / Rain	O	O	O	20.9		4.3
		1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	17/2/2022	0845	Fine / Rain	O	O	O	20.9	16/1011	4
		1345	Fine / Rain	O	O	O	20.9	17/1011	4
		1645	Fine / Rain	O	O	O	20.9	17/1011	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		17/2/2022
Laboratory Staff:	San		
Checked by:	Ng Chung Long PoCJV		17.2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	17-2-2022	09:07	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:11	Fine	0	0	0	20.9	22 / 999	9
		16:24	Fine	0	0	0	20.9	22 / 999	9
								/	
A	17.2-2022	09:16	Fine	0	0	0	20.9	22 / 999	8
		13:21	Fine	0	0	0	20.9	22 / 999	8
		16:30	Fine	0	0	0	20.9	22 / 999	8
								/	
								/	
DH	17-2-2022	09:34	Fine	0	0	0	20.9	22 / 999	9
		13:44	Fine	0	0	0	20.9	22 / 999	9
		17:20	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	Chan Wai Chi	17 - 2 - 2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		17 - 2 - 2021

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	18/2/2022	0830	Fine / Rain	O	O	O	20.9	14/1011	5.5
	"	1330	Fine / Rain	O	O	O	20.9	15/1012	5.5
	"	1700	Fine / Rain	O	O	O	20.9	15/1012	5.5
Area B	"	0845	Fine / Rain	O	O	O	20.9	14/1011	2.5
	"	1345	Fine / Rain	O	O	O	20.9	15/1012	2.5
	"	1645	Fine / Rain	O	O	O	20.9	15/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		18/2/2022
Laboratory Staff:	Sam NG Chung Long POCTV		18.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	18/7/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	"	1345	Fine / Rain	O	O	O	20.9		4.3
	"	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	"	0845	Fine / Rain	O	O	O	20.9	15/1004	4
	"	1345	Fine / Rain	O	O	O	20.9	16/1010	4
	"	1645	Fine / Rain	O	O	O	20.9	16/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		18/7/2022
Laboratory Staff:	Sam		
Checked by:	NG Chong Long. POCJV		18.7.2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	18-2-2022	08:07	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:06	Fine	0	0	0	20.9	22 / 999	9
		16:33	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
H	18-2-2022	08:13	Fine	0	0	0	20.9	22 / 999	8
		13:19	Fine	0	0	0	20.9	22 / 999	8
		16:48	Fine	0	0	0	20.9	22 / 999	8
								/	
								/	
D	18-2-2022	08:33	Fine	0	0	0	20.9	22 / 999	9
		13:40	Fine	0	0	0	20.9	23 / 999	9
		17:06	Fine	0	0	0	20.9	22 / 999	9
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	chan wai chi	18-2-2021
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		18-2-2021

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	19/2/2022	0830	Fine / Rain	O	O	O	20.9	14/1011	5.5
	"	1330	Fine / Rain	O	O	O	20.9	15/1012	5.5
	"	1700	Fine / Rain	O	O	O	20.9	15/1012	5.5
Area B	"	0845	Fine / Rain	O	O	O	20.9	14/1011	2.5
	"	1345	Fine / Rain	O	O	O	20.9	15/1012	2.5
	"	1645	Fine / Rain	O	O	O	20.9	15/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		19/2/2022
Laboratory Staff:	Sam NG Chung Long		19.2.2022
Checked by:	POCJV		

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	19/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	〃	1345	Fine / Rain	O	O	O	20.9		4.3
	〃	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	〃	0845	Fine / Rain	O	O	O	20.9	15/1029	4
	〃	1345	Fine / Rain	O	O	O	20.9	16/1010	4
	〃	1645	Fine / Rain	O	O	O	20.9	16/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		19/2/2022
Laboratory Staff:	Sam		
Checked by:	NG Chung Long, POCJV		19.2.2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	19-2-2021	08:07	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:05	Fine	0	0	0	20.9	21 / 999	9
		16:33	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
								/	
A	19-2-2021	08:14	Fine	0	0	0	20.9	21 / 999	8
		13:17	Fine	0	0	0	20.9	22 / 999	8
		16:41	Fine	0	0	0	20.9	22 / 999	8
								/	
								/	
D	19-2-2021	08:35	Fine	0	0	0	20.9	22 / 999	9
		13:44	Fine	0	0	0	20.9	22 / 999	9
		17:08	Fine	0	0	0	20.9	21 / 999	9

	Name & Designation		Signature	Date
Field Operator:	Chan Wai Chi	[Wellcon] CP		19-2-2021
Laboratory Staff:				
Checked by:	翟偉傑 Chak Wai Kit	POCJV		19-2-2021

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	21/2/2022	0830	Fine / Rain	O	O	O	20.9	12/1011	5.5
	〃	1330	Fine / Rain	O	O	O	20.9	13/1012	5.5
	〃	1700	Fine / Rain	O	O	O	20.9	13/1012	5.5
Area B	〃	0845	Fine / Rain	O	O	O	20.9	12/1011	2.5
	〃	1345	Fine / Rain	O	O	O	20.9	13/1012	2.5
	〃	1645	Fine / Rain	O	O	O	20.9	13/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		21/2/2022
Laboratory Staff:	Sam Ng Chung Long POCJV		21.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	21/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	〃	1345	Fine / Rain	O	O	O	20.9		4.3
	〃	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	〃	0845	Fine / Rain	O	O	O	20.9	13/1009	4
	〃	1345	Fine / Rain	O	O	O	20.9	14/1010	4
	〃	1645	Fine / Rain	O	O	O	20.9	14/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		21/2/2022
Laboratory Staff:	Sam Ng Chung Long, PocJV		21.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	21-2-2022	09:14	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:07	Fine	0	0	0	20.9	22 / 999	9
		16:42	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
A	21-2-2022	09:20	Fine	0	0	0	20.9	22 / 999	9
		13:16	Fine	0	0	0	20.9	22 / 998	8
		16:51	Fine	0	0	0	20.9	21 / 999	8
								/	
								/	
C	21-2-2022	09:50	Fine	0	0	0	20.9	22 / 999	9
		13:33	Fine	0	0	0	20.9	22 / 999	9
		17:08	Fine	0	0	0	20.9	22 / 997	9
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	Chan Wai Chi	21-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		21-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	22/2/2022	0830	Fine / Rain	O	O	O	20.9	10/1011	5.5
	"	1330	Fine / Rain	O	O	O	20.9	11/1012	5.5
	"	1700	Fine / Rain	O	O	O	20.9	11/1012	5.5
Area B	"	0845	Fine / Rain	O	O	O	20.9	10/1011	2.5
	"	1345	Fine / Rain	O	O	O	20.9	11/1012	2.5
	"	1645	Fine / Rain	O	O	O	20.9	11/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		22/2/2022
Laboratory Staff:	Sam NG Chung Long PDCJV		22/2/2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	22/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	〃	1345	Fine / Rain	O	O	O	20.9		4.3
	〃	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	〃	0845	Fine / Rain	O	O	O	20.9	1009	4
	〃	1345	Fine / Rain	O	O	O	20.9	1010	4
	〃	1645	Fine / Rain	O	O	O	20.9	1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		22/2/2022
Laboratory Staff:	Sam NG Chung Long, POCJV		22.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	22-2-2022	08:14	Rain / Fine					/	
		13:22	Fine	0	0	0	20.9	23 / 999	9
		16:33	Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	21 / 999	9
								/	
								/	
A	22-2-2022	08:22	Fine	0	0	0	20.9	23 / 999	8
		13:40	Fine	0	0	0	20.9	22 / 998	8
		16:49	Fine	0	0	0	20.9	21 / 999	8
								/	
								/	
C	22-2-2022	08:39	Fine	0	0	0	20.9	21 / 999	9
	2	13:58	Fine	0	0	0	20.9	22 / 999	9
		17:20	Fine	0	0	0	20.9	22 / 999	9

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon] CP	Chan wai chi	22-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		22-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	23-2-2022	08:05	Rain / Fine	0	0	0	20.9	22 / 999	9
		13:06	Fine	0	0	0	20.9	22 / 998	9
		16:21	Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
								/	
A	23-2-2022	08:11	Fine	0	0	0	20.9	21 / 998	8
		13:11	Fine	0	0	0	20.9	22 / 999	8
		16:33	Fine	0	0	0	20.91	21 / 998	8
								/	
								/	
ED	23-2-2022	08:33	Fine	0	0	0	20.9	22 / 999	9
		13:42	Fine	0	0	0	20.9	22 / 999	9
		17:00	Fine	0	0	0	20.91	23 / 999	9

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP	Chan wai chi	23-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		23-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	23/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	"	1345	Fine / Rain	O	O	O	20.9		4.3
	"	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	"	0845	Fine / Rain	O	O	O	20.9	17/1009	4
	"	1345	Fine / Rain	O	O	O	20.9	14/1010	4
	"	1645	Fine / Rain	O	O	O	20.9	14/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		23/2/2022
Laboratory Staff:	Sam		
Checked by:	NG Chung Long, Poc JV		23.2.2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	23/2/2022	0830	Fine / Rain	O	O	O	20.9	12/1011	5.5
	〃	1330	Fine / Rain	O	O	O	20.9	13/1012	5.5
	〃	1700	Fine / Rain	O	O	O	20.9	13/1012	5.5
Area B	〃	0845	Fine / Rain	O	O	O	20.9	12/1011	2.5
	〃	1345	Fine / Rain	O	O	O	20.9	13/1012	2.5
	〃	1645	Fine / Rain	O	O	O	20.9	13/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		23/2/2022
Laboratory Staff:	San NG Chung Long POCJV		23.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	24/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	"	1345	Fine / Rain	O	O	O	20.9		4.3
	"	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	"	0845	Fine / Rain	O	O	O	20.9	13/1009	4
	"	1345	Fine / Rain	O	O	O	20.9	14/1010	4
	"	1645	Fine / Rain	O	O	O	20.9	14/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		24/2/2022
Laboratory Staff:	Sam		
Checked by:	NG Chung Long PeCJV		24. 2. 2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	24/12/2022	0830	Fine / Rain	O	O	O	20.9	13/1011	5.5
	〃	1330	Fine / Rain	O	O	O	20.9	14/1012	5.5
	〃	1700	Fine / Rain	O	O	O	20.9	14/1012	5.5
Area B	〃	0845	Fine / Rain	O	O	O	20.9	13/1011	2.5
	〃	1345	Fine / Rain	O	O	O	20.9	14/1012	2.5
	〃	1645	Fine / Rain	O	O	O	20.9	14/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		24/12/2022
Laboratory Staff:	San NG Chung Long		24.12.2022
Checked by:	pp a TV		

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	24-2-2022		Rain / Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
A	24-2-2022		Fine	0	0	0	20.9	21 / 998	9
			Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
D	24-2-2022		Fine	0	0	0	20.9	21 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		24-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 POCJV		24-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	25-2-2022		Rain / Fine	0	0	0	20.9	21 / 998	9
			Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
A	25-2-2022		Fine	0	0	0	20.9	22 / 999	8
			Fine	0	0	0	20.9	22 / 998	8
			Fine	0	0	0	20.9	21 / 999	8
								/	
								/	
D	25-2-2022		Fine	0	0	0	20.9	21 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		25-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POC/V		25-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	25/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	"	1345	Fine / Rain	O	O	O	20.9		4.3
	"	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	"	0845	Fine / Rain	O	O	O	20.9	13/1009	4
	"	1345	Fine / Rain	O	O	O	20.9	14/1010	4
	"	1645	Fine / Rain	O	O	O	20.9	14/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		25/2/2022
Laboratory Staff:	Sam Ng Chung Long, POCJV		25. 2. 2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	25/2/2022	0830	Fine / Rain	O	O	O	20.9	12/1011	5.5
	〃	1330	Fine / Rain	O	O	O	20.9	13/1012	5.5
	〃	1700	Fine / Rain	O	O	O	20.9	13/1012	5.5
Area B	〃	0845	Fine / Rain	O	O	O	20.9	12/1011	2.5
	〃	1345	Fine / Rain	O	O	O	20.9	13/1012	2.5
	〃	1645	Fine / Rain	O	O	O	20.9	13/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		25/2/2022
Laboratory Staff:	Sam NG Chung Long PocJV		25.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	26/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	〃	1345	Fine / Rain	O	O	O	20.9		4.3
	〃	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	〃	0845	Fine / Rain	O	O	O	20.9	14 / 1009	4
	〃	1345	Fine / Rain	O	O	O	20.9	15 / 1010	4
	〃	1645	Fine / Rain	O	O	O	20.9	15 / 1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		26/2/2022
Laboratory Staff:	Sam NG Chung Long, PoCJV		26.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	26/2/2022	0830	Fine / Rain	O	O	O	20.9	13/1011	5.5
	"	1330	Fine / Rain	O	O	O	20.9	14/1012	5.5
	"	1700	Fine / Rain	O	O	O	20.9	14/1012	5.5
Area B	"	0845	Fine / Rain	O	O	O	20.9	13/1011	2.5
	"	1345	Fine / Rain	O	O	O	20.9	14/1012	2.5
	"	1645	Fine / Rain	O	O	O	20.9	14/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		26/2/2022
Laboratory Staff:	San NG Chun Long, POCW		28-2-2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	26-2-2022		Rain / Fine	0	0	0	20.9	21 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
								/	
								/	
A	26-2-2022		Fine	0	0	0	20.9	21 / 999	8
			Fine	0	0	0	20.9	22 / 999	8
			Fine	0	0	0	20.9	22 / 999	8
								/	
								/	
D	26-2-2022		Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
			Fine	0	0	0	20.9	22 / 999	9
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		26-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POC/JV		26-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring –Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sampling equipment used:	Dates calibrated
H1013500PN	25/11/2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	28-2-2022	08:15	Rain / Fine	0	0	0	20.9	22/ 999	9
		13:04	Fine	0	0	0	20.9	22/ 999	9
		17:11	Fine	0	0	0	20.9	22/ 999	9
								/	
								/	
A	28.2.2022	08:22	Fine	0	0	0	20.9	22/ 995	8
		13:17	Fine	0	0	0	20.9	22/ 999	8
		16:44	Fine	0	0	0	20.9	22/ 991	8
								/	
								/	
D	28.2.2022	08:41	Fine	0	0	0	20.9	21/ 995	9
		13:44	Fine	0	0	0	20.9	22/ 995	9
		16:30	Fine	0	0	0	20.9	22/ 992	9
								/	

	Name & Designation	Signature	Date
Field Operator:	Chan Wai Chi [Wellcon) CP		28-2-2022
Laboratory Staff:			
Checked by:	翟偉傑 Chak Wai Kit POCJV		28-2-2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	28/2/2022	0830	Fine / ~~Rain~~	O	O	O	20.9	13/1011	5.5
	〃	1330	Fine / ~~Rain~~	O	O	O	20.9	14/1012	5.5
	〃	1700	Fine / ~~Rain~~	O	O	O	20.9	14/1012	5.5
Area B	〃	0845	Fine / ~~Rain~~	O	O	O	20.9	13/1011	2.5
	〃	1345	Fine / ~~Rain~~	O	O	O	20.9	14/1012	2.5
	〃	1645	Fine / ~~Rain~~	O	O	O	20.9	14/1012	2.5

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])	[signature]	28/2/2022
Laboratory Staff:	[signature]	[signature]	
Checked by:	Ng Chung Long POCJV		28.2.2022

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O
Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	28/2/2022	0845	Fine / Rain	O	O	O	20.9		4.3
	〃	1345	Fine / Rain	O	O	O	20.9		4.3
	〃	1645	Fine / Rain	O	O	O	20.9		4.3
WPRTTA 4	〃	0845	Fine / Rain	O	O	O	20.9	14/1009	4
	〃	1345	Fine / Rain	O	O	O	20.9	15/1010	4
	〃	1645	Fine / Rain	O	O	O	20.9	15/1010	4

	Name & Designation	Signature	Date
Field Operator:	Jock Lee (Competent Person [CO-310218])		28/2/2022
Laboratory Staff:	Sam NG Cheng Long POC JV		28.2.2022
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	4/2/2022.	8:30		
		13:30		
		15:30		
Area B	4/2/2022	8:45		
		13:45		
		15:45		
137 Pit C	4/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	4/2/2022	9:00		
		14:00		
		16:00		
137 Pit A	4/2/2022	9:20		
		14:20		
		16:20		
WPR WF3	4/2/2022	9:45	0.041	
		14:45	0.0414	
		16:45	0.0417	

	Name & Designation	Signature	Date
Field Operator:			4/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	4/2/2022	9:30	0.042	
		14:30	0.0414	
		16:30	0.0416	
Pit B	4/2/2022	10:00		
		15:00		
		17:00		
Pit D	4/2/2022	10:15		
		15:15		
		17:15		

	Name & Designation	Signature	Date
Field Operator:			4/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	5/2/2022	9:30	0.0413	
		14:30	0.0419	
		16:30	0.0417	
Pit B	5/2/2022	10:00		
		15:00		
		17:00		
Pit D	5/2/2022	10:15		
		15:15		
		17:15		

	Name & Designation	Signature	Date
Field Operator:			5/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	7/2/2022	9:30	0.0419	
		14:30	0.0411	
		16:30	0.0412	
Pit B	7/2/2022	10:00	0.0418	
		15:00	0.0417	
		17:00	0.0415	
Pit D	7/2/2022	10:15	0.0412	
		15:15	0.0413	
		17:15	0.042	

	Name & Designation	Signature	Date
Field Operator:			7/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	8/2/2022	9:30	0.042	
		14:30	0.041	
		16:30	0.0412	
Pit B	8/2/2022	10:00	0.0417	
		15:00	0.0419	
		17:00	0.0419	
Pit D	8/2/2022	10:15	0.0416	
		15:15	0.041	
		17:15	0.041	

Name & Designation	Signature	Date
Field Operator:		8/2/2022
Laboratory Staff:		
Checked by:		

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	9/2/2022	8:30	0.0412	
		13:30	0.0417	
		15:30	0.0411	
Area B	9/2/2022	8:45	0.0419	
		13:45	0.0414	
		15:45	0.042	
137 Pit C	9/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	9/2/2022	9:00		
		14:00		
		16:00		
137 Pit A	9/2/2022	9:20		
		14:20		
		16:20		
WPR WF3	9/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			9/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	9/2/2022	9:30	0.0419	
		14:30	0.041	
		16:30	0.0413	
Pit B	9/2/2022	10:00	0.0412	
		15:00	0.0411	
		17:00	0.0411	
Pit D	9/2/2022	10:15	0.0413	
		15:15	0.0418	
		17:15	0.0417	

Name & Designation	Signature	Date
Field Operator:		9/2/2022
Laboratory Staff:		
Checked by:		

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	10/2/2022	9:30	0.0414	
		14:30	0.041	
		16:30	0.0417	
Pit B	10/2/2022	10:00	0.0418	
		15:00	0.0412	
		17:00	0.0414	
Pit D	10/2/2022	10:15	0.0411	
		15:15	0.0415	
		17:15	0.0412	

	Name & Designation	Signature	Date
Field Operator:			10/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	10/2/2022	8:30	0.0414	
		13:30	0.0411	
		15:30	0.0416	
Area B	10/2/2022	8:45	0.0415	
		13:45	0.0416	
		15:45	0.0413	
137 Pit C	10/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	10/2/2022	9:00		
		14:00		
		16:00		
137 Pit A	10/2/2022	9:20		
		14:20		
		16:20		
WPR WF3	10/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			10/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	11/2/2022	8:30	0.0419	
		13:30	0.0415	
		15:30	0.0417	
Area B	11/2/2022	8:45	0.0411	
		13:45	0.0416	
		15:45	0.0416	
137 Pit C	11/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	11/2/2022	9:00		
		14:00		
		16:00		
137 Pit A	11/2/2022	9:20		
		14:20		
		16:20		
WPR WF3	11/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			11/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	11/2/2022	9:30	0.0416	
		14:30	0.0415	
		16:30	0.0413	
Pit B	11/2/2022	10:00	0.042	
		15:00	0.0411	
		17:00	0.042	
Pit D	11/2/2022	10:15	0.0418	
		15:15	0.0415	
		17:15	0.041	

	Name & Designation	Signature	Date
Field Operator:			11/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	12/2/2022	8:30	0.0419	
		13:30	0.0414	
		15:30	0.0415	
Area B	12/2/2022	8:45	0.0414	
		13:45	0.0412	
		15:45	0.0413	
137 Pit C	12/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	12/2/2022	9:00		
		14:00		
		16:00		
137 Pit A	12/2/2022	9:20		
		14:20		
		16:20		
WPR WF3	12/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			12/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	12/2/2022	9:30	0.0413	
		14:30	0.042	
		16:30	0.042	
Pit B	12/2/2022	10:00	0.0419	
		15:00	0.0419	
		17:00	0.0419	
Pit D	12/2/2022	10:15	0.041	
		15:15	0.0417	
		17:15	0.0418	

	Name & Designation	Signature	Date
Field Operator:			12/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	14/2/2022	8:30	0.0412	
		13:30	0.0419	
		15:30	0.042	
Area B	14/2/2022	8:45	0.0414	
		13:45	0.0414	
		15:45	0.0411	
137 Pit C	14/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	14/2/2022	9:00		
		14:00		
		16:00		
Pit A	14/2/2022	9:20	0.041	
		14:20	0.0413	
		16:20	0.041	
WPR WF3	14/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			14/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	14/2/2022	9:30	0.0413	
		14:30	0.0417	
		16:30	0.0411	
Pit B	14/2/2022	10:00	0.042	
		15:00	0.0415	
		17:00	0.0411	
Pit D	14/2/2022	10:15	0.0418	
		15:15	0.0419	
		17:15	0.042	

	Name & Designation	Signature	Date
Field Operator:			14/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	15/2/2022	8:30	0.0415	
		13:30	0.0411	
		15:30	0.0416	
Area B	15/2/2022	8:45	0.0413	
		13:45	0.0415	
		15:45	0.042	
137 Pit C	15/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	15/2/2022	9:00		
		14:00		
		16:00		
Pit A	15/2/2022	9:20	0.0419	
		14:20	0.0411	
		16:20	0.0418	
WPR WF3	15/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			15/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	15/2/2022	9:30	0.0419	
		14:30	0.0416	
		16:30	0.0417	
Pit B	15/2/2022	10:00	0.041	
		15:00	0.041	
		17:00	0.0412	
Pit D	15/2/2022	10:15	0.042	
		15:15	0.041	
		17:15	0.0411	

	Name & Designation	Signature	Date
Field Operator:			15/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	16/2/2022	8:30	0.0412	
		13:30	0.0411	
		15:30	0.0414	
Area B	16/2/2022	8:45	0.042	
		13:45	0.041	
		15:45	0.0413	
137 Pit C	16/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	16/2/2022	9:00		
		14:00		
		16:00		
Pit A	16/2/2022	9:20	0.0416	
		14:20	0.0412	
		16:20	0.0416	
WPR WF3	16/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			16/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	16/2/2022	9:30	0.0418	
		14:30	0.0417	
		16:30	0.0412	
Pit B	16/2/2022	10:00	0.0415	
		15:00	0.0419	
		17:00	0.0414	
Pit D	16/2/2022	10:15	0.0411	
		15:15	0.0416	
		17:15	0.0416	

	Name & Designation	Signature	Date
Field Operator:			16/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	17/2/2022	8:30	0.0414	
		13:30	0.0412	
		15:30	0.041	
Area B	17/2/2022	8:45	0.0415	
		13:45	0.0415	
		15:45	0.0411	
137 Pit C	17/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	17/2/2022	9:00		
		14:00		
		16:00		
Pit A	17/2/2022	9:20	0.0417	
		14:20	0.0415	
		16:20	0.0418	
WPR WF3	17/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			17/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	17/2/2022	9:30	0.041	
		14:30	0.0412	
		16:30	0.0417	
Pit B	17/2/2022	10:00	0.0411	
		15:00	0.0412	
		17:00	0.0417	
Pit D	17/2/2022	10:15	0.0418	
		15:15	0.041	
		17:15	0.0413	

	Name & Designation	Signature	Date
Field Operator:			17/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	18/2/2022	8:30	0.041	
		13:30	0.0419	
		15:30	0.041	
Area B	18/2/2022	8:45	0.0418	
		13:45	0.0415	
		15:45	0.0413	
137 Pit C	18/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	18/2/2022	9:00		
		14:00		
		16:00		
Pit A	18/2/2022	9:20	0.0415	
		14:20	0.0413	
		16:20	0.0416	
WPR WF3	18/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			18/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	18/2/2022	9:30	0.0415	
		14:30	0.0411	
		16:30	0.042	
Pit B	18/2/2022	10:00	0.0414	
		15:00	0.0418	
		17:00	0.0414	
Pit D	18/2/2022	10:15	0.0419	
		15:15	0.0418	
		17:15	0.042	

	Name & Designation	Signature	Date
Field Operator:			18/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	19/2/2022	8:30	0.041	
		13:30	0.0418	
		15:30	0.0417	
Area B	19/2/2022	8:45	0.0415	
		13:45	0.0413	
		15:45	0.0417	
137 Pit C	19/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	19/2/2022	9:00		
		14:00		
		16:00		
Pit A	19/2/2022	9:20	0.0412	
		14:20	0.0411	
		16:20	0.0413	
WPR WF3	19/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			19/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	19/2/2022	9:30	0.0414	
		14:30	0.0415	
		16:30	0.042	
Pit B	19/2/2022	10:00	0.0417	
		15:00	0.042	
		17:00	0.0411	
Pit D	19/2/2022	10:15	0.041	
		15:15	0.0413	
		17:15	0.0414	

	Name & Designation	Signature	Date
Field Operator:			19/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	21/2/2022	8:30	0.0414	
		13:30	0.0419	
		15:30	0.0411	
Area B	21/2/2022	8:45	0.0417	
		13:45	0.0414	
		15:45	0.0411	
137 Pit C	21/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	21/2/2022	9:00		
		14:00		
		16:00		
Pit A	21/2/2022	9:20	0.0419	
		14:20	0.0414	
		16:20	0.0417	
WPR WF3	21/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			21/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	21/2/2022	9:30	0.0414	
		14:30	0.0418	
		16:30	0.0417	
Pit B	21/2/2022	10:00	0.0411	
		15:00	0.0417	
		17:00	0.0419	
Pit D	21/2/2022	10:15	0.0416	
		15:15	0.0417	
		17:15	0.0414	

	Name & Designation	Signature	Date
Field Operator:			21/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	22/2/2022	8:30	0.0412	
		13:30	0.0416	
		15:30	0.041	
Area B	22/2/2022	8:45	0.0412	
		13:45	0.0415	
		15:45	0.0417	
137 Pit C	22/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	22/2/2022	9:00		
		14:00		
		16:00		
Pit A	22/2/2022	9:20	0.0411	
		14:20	0.0413	
		16:20	0.0411	
WPR WF3	22/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			22/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	22/2/2022	9:30	0.041	
		14:30	0.0413	
		16:30	0.0417	
Pit B	22/2/2022	10:00	0.042	
		15:00	0.042	
		17:00	0.0411	
Pit D	22/2/2022	10:15	0.0413	
		15:15	0.0419	
		17:15	0.0413	

	Name & Designation	Signature	Date
Field Operator:			22/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	23/2/2022	8:30	0.0414	
		13:30	0.0417	
		15:30	0.0414	
Area B	23/2/2022	8:45	0.041	
		13:45	0.0418	
		15:45	0.0414	
137 Pit C	23/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	23/2/2022	9:00		
		14:00		
		16:00		
Pit A	23/2/2022	9:20	0.0413	
		14:20	0.0416	
		16:20	0.0415	
WPR WF3	23/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			23/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	23/2/2022	9:30	0.0412	
		14:30	0.0419	
		16:30	0.042	
Pit B	23/2/2022	10:00	0.041	
		15:00	0.042	
		17:00	0.0419	
Pit D	23/2/2022	10:15	0.0415	
		15:15	0.042	
		17:15	0.0418	

	Name & Designation	Signature	Date
Field Operator:			23/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	24/2/2022	8:30	0.042	
		13:30	0.0419	
		15:30	0.0411	
Area B	24/2/2022	8:45	0.0419	
		13:45	0.0412	
		15:45	0.0411	
137 Pit C	24/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	24/2/2022	9:00		
		14:00		
		16:00		
Pit A	24/2/2022	9:20	0.0419	
		14:20	0.0412	
		16:20	0.0411	
WPR WF3	24/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			24/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	24/2/2022	9:30	0.0415	
		14:30	0.0411	
		16:30	0.0411	
Pit B	24/2/2022	10:00	0.0416	
		15:00	0.0411	
		17:00	0.0415	
Pit D	24/2/2022	10:15	0.0412	
		15:15	0.0419	
		17:15	0.0415	

	Name & Designation	Signature	Date
Field Operator:			24/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	25/2/2022	8:30	0.0412	
		13:30	0.0415	
		15:30	0.0416	
Area B	25/2/2022	8:45	0.0413	
		13:45	0.0419	
		15:45	0.0414	
137 Pit C	25/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	25/2/2022	9:00		
		14:00		
		16:00		
Pit A	25/2/2022	9:20	0.0419	
		14:20	0.0415	
		16:20	0.0413	
WPR WF3	25/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			25/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	25/2/2022	9:30	0.0411	
		14:30	0.0419	
		16:30	0.0412	
Pit B	25/2/2022	10:00	0.041	
		15:00	0.0412	
		17:00	0.041	
Pit D	25/2/2022	10:15	0.0418	
		15:15	0.0413	
		17:15	0.042	

	Name & Designation	Signature	Date
Field Operator:			25/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
Area A	26/2/2022	8:30	0.0417	
		13:30	0.0412	
		15:30	0.041	
Area B	26/2/2022	8:45	0.0417	
		13:45	0.0419	
		15:45	0.042	
137 Pit C	26/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	26/2/2022	9:00		
		14:00		
		16:00		
Pit A	26/2/2022	9:20	0.041	
		14:20	0.0414	
		16:20	0.0413	
WPR WF3	26/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			26/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	26/2/2022	9:30	0.0417	
		14:30	0.0412	
		16:30	0.042	
Pit B	26/2/2022	10:00	0.0419	
		15:00	0.0414	
		17:00	0.0412	
Pit D	26/2/2022	10:15	0.042	
		15:15	0.0417	
		17:15	0.0412	

	Name & Designation	Signature	Date
Field Operator:			26/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet
Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	28/2/2022	8:30	0.0417	
		13:30	0.041	
		15:30	0.0417	
Area B	28/2/2022	8:45	0.0419	
		13:45	0.0411	
		15:45	0.0416	
137 Pit C	28/2/2022	9:15		
		14:15		
		16:15		
137 Pit B	28/2/2022	9:00		
		14:00		
		16:00		
Pit A	28/2/2022	9:20	0.0413	
		14:20	0.0418	
		16:20	0.0417	
WPR WF3	28/2/2022	9:45		
		14:45		
		16:45		

	Name & Designation	Signature	Date
Field Operator:			28/2/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Remark
WRP WF4	28/2/2022	9:30	0.041	
		14:30	0.0415	
		16:30	0.0415	
Pit B	28/2/2022	10:00	0.0415	
		15:00	0.0412	
		17:00	0.041	
Pit D	28/2/2022	10:15	0.0411	
		15:15	0.042	
		17:15	0.0413	

	Name & Designation	Signature	Date
Field Operator:			28/2/2022
Laboratory Staff:			
Checked by:			

Appendix K

Complaint Log and Regulatory Compliance Proforma

Table K-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 28 February 2022	0	3	N/A

Table K-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 28 February 2022	0	0	N/A

Table K-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 28 February 2022	0	0	N/A

Appendix L

Site Inspection Proforma

Acuity Sustainability Consulting Limited
Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T.
O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 11/2/2022 **Inspected by:** ET: Howard Chan WSD: Mr. Eric Tse
Contractor: Mr. Sam Ng IEC: /
Inspection Time: 09:30 - 10:30

Weather							
Condition	☑ Sunny	☐ Fine	☐ Overcast	☐ Drizzle	☐ Rain	☐ Storm	☐ Hazy
Temperature	18 °C		**Humidity**	☐ High	☑ Moderate	☐ Low	
Wind	☑ Calm	☐ Light	☐ Breeze	☐ Strong			

		N/A	Yes	No	Photo/Remarks
0.00	**General**				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	☐	☑	☐	
0.02	Is ET Leader's log-book kept readily available for inspections?	☐	☑	☐	
1.00	**Construction Dust**				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	☐	☑	☐	
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	☑	☐	☐	
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	☑	☐	☐	
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	☑	☐	☐	
1.05	Is wheel-washing provided to all vehicles leaving the site?	☑	☐	☐	
1.06	Are road section near the site exit free from dusty material?	☐	☑	☐	
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	☑	☐	☐	
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	☑	☐	☐	
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	☑	☐	☐	
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	☑	☐	☐	
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	☑	☐	☐	
1.12	Does the operation of plants on site free form dark smoke emission?	☐	☑	☐	

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	✓			
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?		✓		
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	✓			
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	✓			
1.17	Is open burning prohibited?		✓		
2.00	**Construction Noise (Airborne)**				
2.01	Are quiet plants adopted on site?		✓		
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?		✓		
2.03	Are plants throttled down or turned off when not in use?		✓		
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	✓			
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	✓			
2.06	Are silencers, mufflers and enclosures provided to plants?	✓			
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?		✓		
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	✓			
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?		✓		
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	✓			
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?		✓		
2.12	Are all construction noise permit(s) applied for percussive piling work?	✓			
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?		✓		
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?		✓		
3.00	**Water Quality**				
3.01	Is effluent discharge license obtained for wastewater discharge from site?		✓		
3.02	Is effluent discharged according to the effluent discharge license?	✓	✓	✗	Reminder 5
3.03	Is wastewater discharge from site properly treated prior to discharge?	✓	✓	✗	Reminder 5, obs 3

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	✓		✓	~~obs 3~~ ✓
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?			✓	obs 3
3.06	Is surface runoff diverted to sedimentation facilities?			✓	obs 3
3.07	Is the drainage system properly maintained?			✓	obs 4 Reminder 4
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	✓			
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	✓			
3.10	Are temporary access roads protected by crushed gravel?	✓			
3.11	Are exposed slope surface properly protected?		✓		
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	✓			
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?		✓		
3.14	Is runoff from wheel-washing facilities avoided?	✓			
3.15	Is oil leakage or spillage prevented?		~~✓~~ ✓	✓	Reminder 3, obs 1
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?		✓		Reminder 3
3.17	Are the oil interceptors/ grease traps properly maintained?	✓			
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?			✓	~~obs 4 Reminder 3~~ ✓
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?		✓		
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?		✓		
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?		✓		
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?		✓		
3.23	Is concrete washing water properly collected and treated prior to discharge?	✓			
4.00	**Waste Management**				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?		✓		

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	☐	☑	☐	
4.03	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	☐	☑	☐	
4.05	Are trip tickets for chemical waste disposal available for inspection?	☑	☐	☐	
4.06	Is chemical waste reused and recycled on site as far as practicable?	☑	☐	☐	
4.07	Are all containers for chemical waste properly labelled?	☐	☑	☐	
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	☐	☑	☐	
4.09	Are incompatible chemical wastes stored in different areas?	☑	☐	☐	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	☐	☑	☐	
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	☐	☑	☐	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	☐	☐	☑	obs 4
4.13	Are sufficient general refuse disposal/collection points provided on site?	☐	☑	☐	Reminder 2
4.14	Is general refuse disposed of properly and regularly?	☐	☑	☐	Reminder 2
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	☑	☐	☐	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	☐	☑	☐	
4.17	Are C&D wastes sorted on site?	☐	☑	☐	
4.18	Are C&D waste disposed of properly?	☐	☑	☐	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	☑	☐	☐	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	☐	☑	☐	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	☐	☑	☑	obs 1
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	☐	☑	☐	

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
5.00	**Landscape and Visual**				
5.01	Are Is site hoarding provided?	☑	☑	☐	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	☐	☑	☐	Reminder 1
5.03	Is construction light oriented away from the sensitive receivers?	☑	☐	☐	
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	☑	☐	☐	
5.05	Are damages to trees outside site boundary due construction works avoided?	☐	☑	☐	Reminder 1
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	☑	☐	☐	
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?	☐	☑	☐	Reminder 1
5.08	Are surgery works carried out for damaged trees?	☑	☐	☐	
6.00	**Ecology**				
6.01	Is site runoff properly treated to prevent any silly runoff?	☐	☐	☐	obs 3
6.02	Are silt trap installed and well-maintained?	☑	☐	☐	
6.03	Are stockpiles properly covered to avoid generating silty runoff?	☐	☑	☐	
6.04	Are construction works restricted to works area which are clearly defined?	☐	☑	☐	
7.00	**Overall**				
7.01	Is the EM&A properly implemented in general?	☐	☑	☐	

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Pit X @ Abandoned road at Mau Wu Tsai

Observation:

1. Drip tray should be provided for chemical storage at Pit X, Abandoned road at Mau Wu Tsui.
2. ~~EP should be displayed at Pit X.~~
3. To review water mitigation measure at piling area (Abandoned road at Mau Wu Tsui)
4. Regular clear the rubbish in storm drinage to avoid blockage at Abandon road of Mau Wu Tsui

1. Proper erect tree fencing and avoid damage to trees at Pit X and Abandon road at Mau Wo Tsui
2. Housekeeping should be improved at Pit X and Abandon road at Mun Wo Tsui.
3. Contractor was reminded to check and provide stopper for drip tray to avoid oil leakage at Abandon road at Mau Wo Tsui.

Signatures:

ET Representative	Contractor's Representative	WSD's Representative	IEC's Representative
(Name: Howard Chan)	(Name: Sam Ng)	(Name: Tsz Tse)	(Name:)

4. Replace the damaged sandbags near the storm drainage at Pit X.
5. Contractor was reminded that all wastewater should be treated before discharge at Pit X.

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 17/02/2022 Inspected by: ET: Talky Leung WSD:
Contractor: IEC: NCA
Inspection Time: 13:15

Weather							
Condition	☐ Sunny	☐ Fine	☐ Overcast	☑ Drizzle	☐ Rain	☐ Storm	☐ Hazy
Temperature	16 C		**Humidity**	☑ High	☐ Moderate	☐ Low	
Wind	☐ Calm	☐ Light	☑ Breeze	☐ Strong			

		N/A	Yes	No	Photo/Remarks
0.00	**General**				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	☐	☑	☐	
0.02	Is ET Leader's log-book kept readily available for inspections?	☐	☑	☐	
1.00	**Construction Dust**				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	☐	☑	☐	
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	☑	☐	☐	no dusty construction works conducted / observed
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	☑	☐	☐	no fume / smoke emitting plant / construction activities observed.
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	☑	☐	☐	
1.05	Is wheel-washing provided to all vehicles leaving the site?	☑	☐	☐	
1.06	Are road section near the site exit free from dusty material?	☐	☑	☐	
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	☐	☑	☐	paved.
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	☑	☐	☐	no loading / transfer of dusty materials
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	☑	☐	☐	no dump truck observed.
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	☑	☐	☐	
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	☐	☑	☐	
1.12	Does the operation of plants on site free form dark smoke emission?	☑	☐	☐	no observation of construction activities conducted.

17/02

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	☑	☐	☐	
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?	☑	☐	☐	
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	☑	☐	☐	
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	☑	☐	☐	
1.17	Is open burning prohibited?	☐	☑	☐	
2.00	**Construction Noise (Airborne)**				
2.01	Are quiet plants adopted on site?	☐	☑	☐	QPME label
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?	☐	☑	☐	regular inspection
2.03	Are plants throttled down or turned off when not in use?	☐	☑	☐	
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	☑	☐	☐	No visit to work portion near to NSR.
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	☑	☐	☐	
2.06	Are silencers, mufflers and enclosures provided to plants?	☑	☐	☐	
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	☑	☐	☐	No operation of PME observed
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	☑	☐	☐	
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	☐	☑	☐	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	☑	☐	☐	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	☑	☐	☐	
2.12	Are all construction noise permit(s) applied for percussive piling work?	☑	☐	☐	
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	☐	☑	☐	
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	☐	☑	☐	
3.00	**Water Quality**				
3.01	Is effluent discharge license obtained for wastewater discharge from site?	☐	☑	☐	
3.02	Is effluent discharged according to the effluent discharge license?	☑	☐	☐	No water discharge observed.
3.03	Is wastewater discharge from site properly treated prior to discharge?	☑	☐	☐	

17/02

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	☒	☒	☐	
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?	☒	☐	☐	No more discharge
3.06	Is surface runoff diverted to sedimentation facilities?	☒	☐	☐	〃
3.07	Is the drainage system properly maintained?	☐	☐	☐	如以
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	☐	☒	☐	
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	☐	☒	☐	
3.10	Are temporary access roads protected by crushed gravel?	☒	☐	☐	
3.11	Are exposed slope surface properly protected?	☒	☐	☐	
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	☐	☒	☐	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?	☐	☒	☐	
3.14	Is runoff from wheel-washing facilities avoided?	☒	☐	☐	
3.15	Is oil leakage or spillage prevented?	☒	☐	☐	
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?	☒	☐	☐	
3.17	Are the oil interceptors/ grease traps properly maintained?	☒	☐	☐	
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?	☐	☒	☐	
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?	☐	☒	☐	
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?	☐	☒	☐	
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?	☐	☒	☐	
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?	☐	☒	☐	
3.23	Is concrete washing water properly collected and treated prior to discharge?	☒	☐	☐	
4.00	**Waste Management**				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?	☐	☒	☐	

17/02

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	☐	☑	☐	
4.03	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	☑	☐	☐	
4.05	Are trip tickets for chemical waste disposal available for inspection?	☑	☐	☐	
4.06	Is chemical waste reused and recycled on site as far as practicable?	☑	☐	☐	
4.07	Are all containers for chemical waste properly labelled?	☐	☑	☐	
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	☐	☑	☐	
4.09	Are incompatible chemical wastes stored in different areas?	☑	☐	☐	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	☐	☑	☐	
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	☐	☑	☐	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	☐	☐	☐	dosed
4.13	Are sufficient general refuse disposal/collection points provided on site?	☐	☑	☐	
4.14	Is general refuse disposed of properly and regularly?	☐	☑	☐	
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	☐	☑	☐	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	☐	☑	☐	
4.17	Are C&D wastes sorted on site?	☐	☑	☐	
4.18	Are C&D waste disposed of properly?	☐	☑	☐	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	☑	☐	☐	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	☐	☑	☐	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	☐	☑	☐	
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	☐	☑	☐	

17/02

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
5.00	**Landscape and Visual**				
5.01	Are Is site hoarding provided?	☑	☐	☐	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	☐	☑	☐	
5.03	Is construction light oriented away from the sensitive receivers?	☑	☐	☐	
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	☑	☐	☐	
5.05	Are damages to trees outside site boundary due construction works avoided?	☐	☑	☐	
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	☑	☐	☐	
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?	☐	☑	☐	
5.08	Are surgery works carried out for damaged trees?	☑	☐	☐	
6.00	**Ecology**				
6.01	Is site runoff properly treated to prevent any silly runoff?	☑	☐	☐	no water discharge
6.02	Are silt trap installed and well-maintained?	☑	☐	☐	
6.03	Are stockpiles properly covered to avoid generating silty runoff?	☐	☑	☐	
6.04	Are construction works restricted to works area which are clearly defined?	☐	☑	☐	
7.00	**Overall**				
7.01	Is the EM&A properly implemented in general?	☐	☑	☐	

17/02

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation(s)

WPR3 Gullies were observed not protected by sandbags / geo-textile on 4 sides at WPR 3.

Reminder(s)

N/A.

Signatures:

ET Representative	Contractor's Representative	WSD's Representative	IEC's Representative
			N/A
(Name:)	(Name:)	(Name:)	(Name: N/A)

17/02

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 24-2-2022 **Inspected by:** ET: Howard Chan WSD: Mr. K.F. Tsang
Contractor: Mr. San Lau IEC: Mr. Louis Kwok
Inspection Time: 09:40 - 11:00

Weather							
Condition	☑ Sunny	☐ Fine	☐ Overcast	☐ Drizzle	☐ Rain	☐ Storm	☐ Hazy
Temperature	14 °C		**Humidity**	☐ High	☑ Moderate	☐ Low	
Wind	☐ Calm	☑ Light	☐ Breeze	☐ Strong			

		N/A	Yes	No	Photo/Remarks
0.00	**General**				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	☐	☑	☐	
0.02	Is ET Leader's log-book kept readily available for inspections?	☐	☑	☐	
1.00	**Construction Dust**				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	☐	☑	☐	
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	☑	☐	☐	
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	☑	☐	☐	
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	☑	☐	☐	
1.05	Is wheel-washing provided to all vehicles leaving the site?	☑	☐	☐	
1.06	Are road section near the site exit free from dusty material?	☐	☑	☐	Reminder 1
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	☐	☑	☐	
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	☑	☐	☐	
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	☑	☐	☐	
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	☑	☐	☐	
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	☐	☑	☐	
1.12	Does the operation of plants on site free form dark smoke emission?	☑	☐	☐	

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	☐	☑	☐	
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?	☐	☑	☐	
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	☐	☑	☐	Reminder 4
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	☑	☐	☐	
1.17	Is open burning prohibited?	☐	☑	☐	
2.00	**Construction Noise (Airborne)**				
2.01	Are quiet plants adopted on site?	☐	☑	☐	
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?	☐	☑	☐	
2.03	Are plants throttled down or turned off when not in use?	☑	☐	☐	
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	☑	☐	☐	
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	☑	☐	☐	
2.06	Are silencers, mufflers and enclosures provided to plants?	☑	☐	☐	
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	☑	☐	☐	
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	☑	☐	☐	
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	☐	☑	☐	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	☑	☐	☐	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	☑	☐	☐	
2.12	Are all construction noise permit(s) applied for percussive piling work?	☑	☐	☐	
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	☐	☑	☐	
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	☐	☑	☐	
3.00	**Water Quality**				
3.01	Is effluent discharge license obtained for wastewater discharge from site?	☐	☑	☐	
3.02	Is effluent discharged according to the effluent discharge license?	☐	☐	☑	Obs 3
3.03	Is wastewater discharge from site properly treated prior to discharge?	☐	☐	☑	Obs 3

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		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	✓			
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?		✓	✓	obs 3
3.06	Is surface runoff diverted to sedimentation facilities?			✓	obs 5
3.07	Is the drainage system properly maintained?				obs 3, 5
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	✓			
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	✓			
3.10	Are temporary access roads protected by crushed gravel?	✓			
3.11	Are exposed slope surface properly protected?	✓			
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	✓			
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?		✓		
3.14	Is runoff from wheel-washing facilities avoided?		✓		
3.15	Is oil leakage or spillage prevented?				obs 1
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?				obs 1
3.17	Are the oil interceptors/ grease traps properly maintained?	✓			
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?		✓		
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?		✓		
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?		✓		
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?		✓		
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?		✓		
3.23	Is concrete washing water properly collected and treated prior to discharge?	✓			
4.00	**Waste Management**				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?		✓		

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		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	☐	☑	☐	
4.03	Is the Contractor registered as a chemical waste producer?	☐	☑	☐	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	☐	☑	☐	Reminder 3
4.05	Are trip tickets for chemical waste disposal available for inspection?	☑	☐	☐	
4.06	Is chemical waste reused and recycled on site as far as practicable?	☑	☐	☐	
4.07	Are all containers for chemical waste properly labelled?	☐	☑	☐	Reminder 2
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	☐	☑	☐	
4.09	Are incompatible chemical wastes stored in different areas?	☑	☐	☐	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	☐	☑	☐	
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	☐	☑	☐	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	☑	☐	☐	obs 4
4.13	Are sufficient general refuse disposal/collection points provided on site?	☐	☑	☐	
4.14	Is general refuse disposed of properly and regularly?	☐	☑	☐	
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	☐	☑	☐	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	☐	☑	☐	
4.17	Are C&D wastes sorted on site?	☐	☑	☐	
4.18	Are C&D waste disposed of properly?	☐	☑	☐	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	☑	☐	☐	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	☐	☑	☐	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	☐	☑	☐	
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	☐	☑	☐	

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		N/A	Yes	No	Photo/Remarks
5.00	**Landscape and Visual**				
5.01	Are Is site hoarding provided?	✓			
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?		✓		obs 2
5.03	Is construction light oriented away from the sensitive receivers?	✓			
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	✓			
5.05	Are damages to trees outside site boundary due construction works avoided?		✓		
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	✓			
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?				obs2
5.08	Are surgery works carried out for damaged trees?	✓			
6.00	**Ecology**				
6.01	Is site runoff properly treated to prevent any silly runoff?				
6.02	Are silt trap installed and well-maintained?	✓			
6.03	Are stockpiles properly covered to avoid generating silty runoff?	✓			
6.04	Are construction works restricted to works area which are clearly defined?		✓		
7.00	**Overall**				
7.01	Is the EM&A properly implemented in general?		✓		

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Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation:
1. Drip tray should be provided for chemical storage at Pit D.
2. Establish tree protection zone and avoid stockpile construction materials inside the tree protection zone at pit D.
3. Wastewater should be properly treated before discharge at pit A and ~~pit 4b~~ work front 4b.
4. To clear the stagnant water in drip tray.
5. Gully should be covered and provide sandbags around the gully to avoid surface runoff flow in to gully. (~~Pit 4b~~ work front 4b)

~~6. Mixing pool~~

Reminder:
1. Contractor was reminded to kept the public road clean and free of dust. (~~Pit 4b~~ work front 4b)
2. Chemial should be properly labelled. (~~Pit 4b~~ work front 4b)
3. Contractor was reminded to ~~sp~~ separat chemical waste from other waste. (Pit D)
4. Mixing process of bagged cement should be carried out in proper sheltered area at Pit D.

Signatures:

ET Representative	Contractor's Representative	WSD's Representative	IEC's Representative
(Name: Howard Chan)	(Name:)	(Name: Tsang Kwok Fung)	(Name: Louis Kwan)

Appendix M

Proactive Environmental Protection Proforma

Proactive Environmental Protection for the Next Reporting Month

Reporting Period	Activity	Major Environmental Impact	Environmental Mitigation Measure
1 – 31 March 2022	- Excavation of trench - Mainlaying of pipe - Backfilling of the trench - Work fronts for open trench - Work fronts for pipe jacking	Construction dust and noise generation; construction wastes; impact of water quality	- Dust suppression by regular wetting and water spraying - Reduction of noise from equipment and machinery on-site - Sorting and storage of general refuse and construction waste - Treatment of water with water treatment facilities before discharge

Appendix N

Impact Monitoring Schedule of Next Reporting Month (Tentative)

Contract No. 13/WSD/16
Mainlaying in Tseung Kwon O
Tentative Environmental Monitoring Schedule

Mar-22						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 Noise Impact Monitoring	3	4	5
6	7	8	9	10 Noise Impact Monitoring	11	12
13	14	15	16	17	18 Noise Impact Monitoring	19
20	21	22	23	24 Noise Impact Monitoring	25	26
27	28	29	30 Noise Impact Monitoring	31		

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

Appendix O

Academic Calendar(s)

CREATIVE SECONDARY SCHOOL CALENDAR 2021-2022

		Su	Mo	Tu	We	Th	Fr	Sa	
August		15	16	17	18	19	20	21	19-20 Orientation Day
		22	23	24	25	26	27	28	23/08 First School Day
		29	30	31					
September					1	2	3	4	
		5	6	7	8	9	10	11	
		12	13	14	15	16	17	18	17/9 Swimming Gala
		19	20	21	22	23	24	25	22/9 The following Day of Mid-Autumn Festival
		26	27	28	29	30			25/9 School Open Day 30/9 1st PD day
October							1	2	1/10 National Day of the People's Republic of China
		3	4	5	6	7	8	9	
		10	11	12	13	14	15	16	14/10 Chung Yeung Festival
		17	18	19	20	21	22	23	15-23/10 Term break
		24	25	26	27	28	29	30	
		31							
November			1	2	3	4	5	6	4/11 University Fair
		7	8	9	10	11	12	13	
		14	15	16	17	18	19	20	15/11 2nd PD Day, 19/11 Sports Day
		21	22	23	24	25	26	27	
		28	29	30					
December					1	2	3	4	
		5	6	7	8	9	10	11	11/12 Musical Performance
		12	13	14	15	16	17	18	17/12 Creative Christmas Festival
		19	20	21	22	23	24	25	25/12 Christmas Holiday. 20/12-3/1 Christmas & New Year Holiday
		26	27	28	29	30	31		27/12 The first weekday after Christmas Day
January								1	1/1 New Year's Day
		2	3	4	5	6	7	8	
		9	10	11	12	13	14	15	
		16	17	18	19	20	21	22	
		23	24	25	26	27	28	29	28/1 Creative Chinese Festival
		30	31						
February				1	2	3	4	5	1-3/2 Chinese Lunar New Year
		6	7	8	9	10	11	12	31/1-9/2 Chinese Lunar New Year Holiday
		13	14	15	16	17	18	19	
		20	21	22	23	24	25	26	
		27	28						
March				1	2	3	4	5	
		6	7	8	9	10	11	12	
		13	14	15	16	17	18	19	12-19/3 Creative Week
		20	21	22	23	24	25	26	
		27	28	29	30	31			
April							1	2	
		3	4	5	6	7	8	9	5/4 Ching Ming Festival
		10	11	12	13	14	15	16	15/4 Good Friday. 16/4 Holy Saturday
		17	18	19	20	21	22	23	18/4 Easter Monday.15/4-22/4 Easter Holiday.
		24	25	26	27	28	29	30	25/4-03/05 HKDSE Core subjects Exam
May		1	2	3	4	5	6	7	2/5 Labour Day
		8	9	10	11	12	13	14	9/5 Buddha's Birthday
		15	16	17	18	19	20	21	
		22	23	24	25	26	27	28	25/5 School Self-Evaluation Day.
		29	30	31					
					1	2	3	4	3/6 Tuen Ng Festival. 2/6 Graduation
June		5	6	7	8	9	10	11	
		12	13	14	15	16	17	18	
		19	20	21	22	23	24	25	
		26	27	28	29	30			30/6 Achievement Celebration
							1	2	01/07 HKSAR Establishment Day
July		3	4	5	6	7	8	9	4/7-14/8 Summer Holiday
		10	11	12	13	14	15	16	
		17	18	19	20	21	22	23	
		24	25	26	27	28	29	30	
		31							
August			1	2	3	4	5	6	
		7	8	9	10	11	12	13	12/08 New Staff Meeting
		14	15	16	17	18	19	20	16-17/08 Staff Meeting
		21	22	23	24	25	26	27	
		28	30	31					

School Holiday

Public Holiday

Staff Development Day