CONTRACT NO. SPW 12/2021

SHEK WU HUI EFFLUENT POLISHING PLANT – MAIN WORKS

UNDER FURTHER ENVIRONMENTAL PERMIT NO. FEP-02/474/2013

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

MARCH 2022

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Contract No. SPW 12/2021

Shek Wu Hui Effluent Polishing Plant – Main Work

Monthly Environmental Monitoring & Audit Report

March 2022

(April 2022)

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EXECUTIVE SUMMARY

i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – March 2022 of Shek Wu Hui Effluent Polishing Plant – Main Work under Further Environmental Permit no. FEP-02/474/2013 (Hereafter as "the Project"). This is the 7th EM&A report prepared by Environmental Team under Contract No. SPW 12/2021, presenting the environmental monitoring findings and information recorded during the period of 01 March 2022 to 31 March 2022. The cut-off date of reporting is at the end of each reporting month.

ii. In the reporting month, the principal work activities of individual contracts are conducted as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works
- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Demolition works
- Excavation
- E&M installation and T&C works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Effluent Pump Installation
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS
- SAT Procedure of Penstock and Stoplog
- Manhole and Connecting Pipes Strengthening Works (Sidestream)
- Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station
- HR and FH System Installation at Workshop No.2

- SPR System Installation at Workshop No.2
- MFA and AFA Installation at Workshop No.2
- Electrical Installation for Transformer Room at Workshop No.2

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories
- Site demonstration for replacement wheels of carriage

Air Quality Monitoring

iii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring was conducted at two monitoring station. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 day in the reporting month.

iv. No action or limit level exceedance was recorded in this reporting period.

Noise Monitoring

v. Noise monitoring was conducted at one noise monitoring station once per week in the reporting month.

vi. No action or limit level exceedance was recorded in this reporting period.

Ecological Monitoring

vii. Ecological monitoring conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration.

viii. One Action Level was triggered for ecological monitoring in the reporting month.

ix. No Limit level was triggered in the reporting month..

Site Inspections and Audit

x. The Environmental Team (ET) conducted weekly site inspections on 1, 8, 10, 15, 22 and 31 March 2022 and biweekly landscape inspection on 8 (DE/2018/03 & DE/2018/04), 10 (DC/2018/06 & DC/2018/07) and 22 March 2022. IEC attended the joint site inspection on 22 March 2022. No non-compliance was found during the site inspection while reminders on environmental measures were recommended.

Complaints, Notifications of Summons and Successful Prosecutions

xi. One environmental complaint regarding the odour nuisance was reported to EPD on 4 March 2022 and received by ET on the same day.

xii. No notification of summons and successful prosecution regarding the construction works was recorded in the reporting period.

Reporting Changes

xiii. There are no particular reporting changes.

Future Key Issues

xiv. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works
- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Demolition works
- Excavation
- E&M installation and T&C works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Erection of Tower Crane (Sidestream)
- Effluent Pump Installation
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS
- SAT Procedure of Penstock and Stoplog
- Delivery and Installation of Temporary Container LV Switch Room for UV and

Effluent Pumping Station

- HR and FH System Installation at Workshop No.2
- SPR System Installation at Workshop No.2
- MFA and AFA Installation at Workshop No.2
- Electrical Installation for Transformer Room at Workshop No.2
- Installation of CCTV at UV, EPS1 and Existing Control Room at SHW STW

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories
- Installation works of Lightning Protection System for DOU3A

1 Introduction

1.1 Scope of the Report

1.1.1. Lam Environmental Services Limited (LES) has been appointed to work as the Environmental Team (ET) under Environmental Permit (EP) No. FEP-02/474/2013 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for North East New Territories New Development Areas (Register No.: AEIAR-175/2013).

1.1.2. In accordance with Clause 3.4 stated in FEP-02/474/2013, 3 hard copies and 2 electronic copies of Monthly EM&A Report shall be submitted to the Director within 10 working days after the end of each reporting month throughout the entire construction period.

1.1.3. According to Section 9.4.1.1 of the Project EM&A Manual, the Monthly EM&A Report should be submitted within 10 working days at the end of each reporting month, with the first report due in the month after construction commences.

1.2 Structure of the Report

Section 1 ***Introduction*** – details the scope and structure of the report.

Section 2 ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

Section 3 ***Status of Regulatory Compliance*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.

Section 4 ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.

Section 5 ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.

Section 6 ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.

Section 7 **Environmental Site Audit** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any

relevant follow-up actions within the reporting period.

Section 8 ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution

Section 9 ***Conclusion***

2 Project Background

2.1 Background

2.1.1. The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) has been operating and maintaining for 30 years by the Drainage Services Department (DSD). It provides secondary level treatment to sewage collected from Sheung Shui, Fanling and adjacent areas. SWHSTW was completed in two stages and expanded progressively in the past years. In 1984, Stage I of SWHSTW was commissioned with design capacity of 60,000 cubic meters per day (m^3 /day) at Average Dry Weather Flow (ADWF). In 2001, Stage II of SWHSTW was completed with design capacity enhanced to 80,000 m^3 /day at ADWF. In 2009, the expansion of SWHSTW was completed and its design capacity was increased to 93,000m^3 /day at ADWF.

2.1.2. Further expansion of SWHSTW has been planned to be carried out in order to cope with the forecast increase in flow from Fanling North and Kwu Tong North New Development Area (NDA) and other NDAs and developments in three phases, namely Phase 1A, 1B and 2, which are later revised to Main Works Stage 1, Stage 2 and Stage 3 respectively. The EIA study report (Register No.: AEIAR-175/2013) for the NENT NDAs Study covered the assessment for the Further Expansion of SWHSTW, which is a designated project under item F.1 and F.2 of Part 1, Schedule 2 of the EIA Ordinance. The location of the project site is shown in ***Figure 2.1.***

A Further EP was applied on 18 January 2018 to assume the responsibility for constructing and operating the SWHEPP Project up to a capacity of 190,000 m^3/day. The Further EP No. FEP-02/474/2013 was issued to DSD as permit holder on 15 February 2018. Due to overlapping of scope with the Further EP currently in force, the Further EP No. FEP-01/474/2013 was subsequently surrendered on 15 August 2018.

2.2 Project Organization and Contact Personnel

2.2.1 Drainage Service Department (DSD) is the overall project controllers for the Project. For the construction phase of the Project, Engineer's Representative, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.2.2 The project organization and lines of communication with respect to environmental protection works are shown in ***Figure 2.2.*** Key personnel and contact particulars are summarized in ***Table 2.1***.

Table 2.1 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.
Drainage Services Department (DSD)	Permit Holder	Engineer	Ms. Konica Cheung	2594 7463
AECOM	Supervisor Representative	Senior Resident Engineer	Mr. Eddie Lam	3907 1131
Kwan Lee - Chun Wo Joint Venture	Contractor (DC/2018/06)	Environmental Engineer	Ms. Ruby Hui	6218 6408
		Assistant Environmental Engineer	Mr. Eric Chan	6432 2581
	Contractor (DC/2018/07)	Environmental Engineer	Ms. Tiffany Choi	9789 1027
JEC	Contractor (DE/2018/03)	Environmental Officer	Ms. Juliet Ting	6826 7319
Bestwise	Contractor (DE/2018/04)	Environmental Officer	Mr. Albus Cheung	9731 0831
Meinhardt Infrastructure and Environment Ltd.	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. W.K. Chiu	2859 5881
Lam Environmental Services Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939

2.3 Construction Activities

2.3.1 In the reporting month, the principal work activities conducted of individual contracts are as follow. The layout plans showing the locations of reported construction activities and key PME used for the works contracts are provided in ***Appendix 2.1***.

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works
- Backfilling

- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Demolition works
- Excavation
- E&M installation and T&C works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Effluent Pump Installation
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS
- SAT Procedure of Penstock and Stoplog
- Manhole and Connecting Pipes Strengthening Works (Sidestream)
- Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station
- HR and FH System Installation at Workshop No.2
- SPR System Installation at Workshop No.2
- MFA and AFA Installation at Workshop No.2
- Electrical Installation for Transformer Room at Workshop No.2

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories
- Site demonstration for replacement wheels of carriage

2.3.2 The number of key PME and their working locations are shown in ***Table 2.2***.

Table 2.2 Summary of key PME and working locations of works contracts

Works Contract	Key PME	Number	Working locations
DC/2018/06	Excavator	5	CHP, Effluent Discharge Chamber, EVA U Channel, UV1, Cable Draw Pit, Cross Road Trench, San Wan Road
	Mobile crane	2	SDB, SD
	Tower Crane	2	Near Workshop No.2 & Gate 2
	Mobile generator	1	Near Workshop No.2
DC/2018/07	Drilling rig	2	PST and Inlet
	Excavator	15	MFB, BR2, Inlet and SAS
	Generator	5	BR2 and MFB
	Air compressor	4	PST & Inlet
	Mobile Crane	2	PST & Inlet
	Drilling machine	1	MFB
DE/2018/03	Generator	2	UV No.1 and Workshop No.2
	Excavator	1	Sidestream
	Hydraulic Sheet Pile Driver Excavator	1	Sidestream
DE/2018/04	-	-	-

2.3.3 In coming reporting month, the scheduled construction activities of individual contracts are listed as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works

- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Sheetpile Installation
- Demolition works
- Excavation
- E&M installation and T&C works
- ABWF works & BS works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Erection of Tower Crane (Sidestream)
- Effluent Pump Installation
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS
- SAT Procedure of Penstock and Stoplog
- Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station
- HR and FH System Installation at Workshop No.2
- SPR System Installation at Workshop No.2
- MFA and AFA Installation at Workshop No.2
- Electrical Installation for Transformer Room at Workshop No.2
- Installation of CCTV at UV, EPS1 and Existing Control Room at SHW STW

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories
- Installation works of Lightning Protection System for DOU3A

3 Status of Regulatory Compliance

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in ***Table 3.1 to 3.4***.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/06

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	449210 (Portion A & C)	23 Sep 2019	N/A	Valid
	449211 (WM1)	23 Sep 2019	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00035431-2019 (Portion C)	27 Jul 2020	31 Jan 2025	Valid
	WT00035718-2020 (Portion A)	02 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035390	11 Oct 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-01	14 Nov 2019	N/A	Valid
Construction Noise Permit	GW-RN0078-22	01 Mar 2021	28 Aug 2022	Valid

Table 3.2 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/07

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	449210	23 Sep 2019	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00035727-2020	01 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035985	9 Dec 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-02	6 Jan 2020	N/A	Valid
Construction Noise Permit	GW-RN0078-22	01 Mar 2021	28 Aug 2022	Valid

Table 3.3 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/03

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	455843 (WA3)	6 May 2020	N/A	Valid
	457212 (WA1-B)	15 Jun 2020	N/A	Valid
	460065 (Sidestream)	16 Sep 2020	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00037220-2020	16 Mar 2021	31 Jan 2026	Valid
Billing Account for Disposal of Construction Waste	7035700	6 Nov 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-T3861-01	14 Apr 2020	N/A	Valid
Construction Noise Permit	GW-RN1008-21	28 Jan 2022	29 Jun 2022	Valid

Table 3.4 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/04

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	460181	17/09/2020	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Billing Account for Disposal of Construction Waste	703621912	02 Jan 2020	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-B2592-01	07 Jul 2020	N/A	Valid

3.1.2. Implementation status of the recommended mitigation measures during this report month is presented in ***Appendix 3.1***.

3.2 Summary of submission status under FEP-02/474/2013

3.2.1 A summary of the current status on submission under FEP-02/474/2013 is shown in ***Table 3.5***.

Table 3.5 Summary of submission status under FEP-02/474/2013

EP Condition	Submission	Status
Condition 1.12	Commencement date of construction of the Project	Notified EPD on 8 Oct 2019
Condition 2.3 & 3.1	Updated EM&A Manual	The Manual was confirmed of no further comments by EPD on 17 Jan 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No.DC/2018/06	Informed EPD on 19 Nov 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DC/2018/07	Informed EPD on 20 Dec 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/03	Informed EPD on 19 Feb 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/04	Informed EPD on 15 Feb 2020
Condition 2.4	Replacement of Environmental Team Leader	Informed EPD on 13 Sep 2021
Condition 2.4	Replacement of Independent Environmental Checker	Informed EPD on 13 Sep 2021
Condition 2.5	Location Plans for Contract No. DC/2018/06	Deposited to EPD on 19 Nov 2019
Condition 2.5	Location Plans for Contract No. DC/2018/07	Deposited to EPD on 20 Dec 2019
Condition 2.5	Location Plans for Contract No. DE/2018/03	Deposited to EPD on 15 Feb 2020
Condition 2.5	Location Plans for Contract No. DE/2018/04	Deposited to EPD on 18 Sep 2020
Condition 2.6	Submission of Landscape Plan	N/A
Condition 3.3	Baseline Monitoring Report (Ecology)	The Report was first submitted to IEC for review on 22 Nov 2019, and verified on 29 Nov 2019
Condition 3.3	Baseline Monitoring Report	The Report will be submitted to EPD at least 6 weeks before the commencement of Corresponding parts of landscape and visual mitigation measures of the Project

4 Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in ***Table 4.1*** and ***Figure 4.1***. ***Appendix 4.1*** shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Station

Monitoring Station ID	Location
NM1	Wai Loi Tsuen
NM2	Fu Tei Au
NM3	Man Kok Village

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

4.1.2. The monitoring parameters, frequency and duration of noise monitoring are summarized in ***Table 4.2***.

Table 4.2 Noise Monitoring Parameters, Frequency and Duration

Monitoring Period	Duration	Sampling Parameter	Sampling Period(1)	Frequency
Impact Monitoring	Throughout the construction phase	1 set of Leq (30 min)	between 0700-1900 hours on normal weekdays;	on a per week basis when noise generating activities are underway

Remark (1): Additional weekly impact monitoring shall be carried out during evening and night-time works if construction works are extended to include works during the hours of 1900-0700

MONITORING EQUIPMENT

4.1.3. Noise monitoring was performed using sound level meter at the designated monitoring locations. The sound level meters shall comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator shall be deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in ***Table 4.3***.

Table 4.3 Noise Monitoring Equipment

Equipment	Brand and Model	Series Number
Integrated Sound Level Meter	LxT1	0004797
Acoustic Calibrator	LD CAL200	13098

4.1.4. The calibration certificates of the noise monitoring equipment are attached in ***Appendix 4.2***.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.1.5. Monitoring Procedure

(a) Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s

(b) The monitoring station shall normally be at a point 1 m from the exterior of the sensitive receiver building facade and be at a position 1.2 m above the ground. If there is problem with access to the normal monitoring position, an alternative position may be chosen, and a correction to the measurements shall be made. For reference, a correction of +3 dB(A) shall be made to the free field measurements.

(c) The battery condition was checked to ensure the correct functioning of the meter.

(d) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

- Frequency weighting: A
- Time weighting: Fast
- Time measurement: Leq (30min) for noise monitoring

(e) Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after recalibration or repair of the equipment.

(f) The wind speed was checked with the portable wind meter before noise monitoring.

(g) At the end of the monitoring period, the Leq, L90 and L10 were recorded. In addition, site conditions and noise sources were recorded on a record sheet.

4.1.6. Maintenance and Calibration

(a) The microphone head of the sound level and calibrator would be cleaned with soft cloth regularly.

(B) The noise monitoring equipment shall be calibrated annually.

CONSTRUCTION NOISE LEVEL

4.1.7. The construction noise level refers the corrected noise level based on the calculated difference between SPL of the Measured Noise Level and the SPL of the Baseline Noise Level. In the event of the Baseline Noise Level exceeds the Measured Noise Level, no correction would be applied and the Construction Noise Level would be indicated as below baseline noise level (<BL).

EVENT AND ACTION PLAN

4.1.8. Noise Standards for Daytime Construction Activities are specified under EIAO-TM. The Action and Limit levels for construction noise are defined in ***Table 4.4*** and ***Appendix 4.1.*** Should non-compliance of the criteria occurs, action in accordance with the Event and Action Plan in ***Appendix 6.1*** shall be carried out.

Table 4.4 Action and Limit Level for Noise Monitoring

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

4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air monitoring stations for the Project are listed and shown in ***Table 4.5*** and ***Figure 4.2***.

Table 4.5 Air Monitoring Station

Monitoring Station ID	Location	Measurement
AMS1	House No. 15, Wai Loi Tsuen	1-hour TSP
AMS2	Fu Tei Au	1-hour TSP
AM1a	Site boundary of the Shek Wu Hui STW (East)	24-hour TSP
AM2a	Site boundary of the Shek Wu Hui STW (North)	24-hour TSP

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

4.2.2. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 days when the highest dust impact takes place.

4.2.3. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.2.4. 24-hour TSP Measuring Installation (HVS)

(a) 0.6 – 1.7 m3 per minute adjustable flow range

(b) Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;

(c) Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;

(d) Capable of providing a minimum exposed area of 406 cm2;

(e) Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;

(f) Equipped with a shelter to protect the filter and sampler;

(g) Incorporated with an electronic mass flow rate controller or other equivalent devices;

(h) Equipped with a flow recorder for continuous monitoring;

(i) Provided with a peaked roof inlet;

(j) Incorporated with a manometer;

(k) Able to hold and seal the filter paper to the sampler housing at horizontal position;

(l) Easily changeable filter; and

(m) Capable of operating continuously for a 24-hour period

Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. All the data should be converted into standard temperature and pressure condition.

24-hour Measuring Procedures

(a) Check the power supply to ensure the sampler works properly.
(b) Remove the filter hold down by loosening the four nuts and carefully centre a new filter, with stamped number upward, on a supporting screen.
(c) Properly align the filter on the screen so that the gasket will form an airtight seal on the outer edges of the filter.
(d) Fasten the filter hold down frame to the filter holder with swing bolts. The pressure applied should be sufficient to avoid air leakage at the edges.
(e) Close shelter lid and secure catch with the aluminum strip.
(f) Record the flow indicator reading and determine the sampler flow rate. If it is outside the acceptable range, adjust the sampler flow rate.
(g) Set the programmable timer and record the starting sampling time, weather condition and the filter identification number.
(h) At the end of sampling, the filter was transferred from the filter holder of the HVS to a filter bag and sent to the accredited laboratory for weighing. The elapsed time was also recorded

4.2.5. 1-hour Measuring Procedures

Portable dust meter will be proposed and sufficient information will be submitted to IC (E) to prove that the instrument is capable of achieving a comparable result as that of the HVS and used for 1-hour sampling

(a) Slide the power switch to turn the power on
(b) Select the period of measurement to 60mins
(c) Check and set the correct time
(d) Select the appropriate unit display for the equipment
(e) Collected the sampled data for analysis

The portable dust meter is calibrated at 2-years interval and checked with HVS yearly to determine the accuracy and validity of the results measured. The checking of portable dust meter will be carried out in order to determine the conversion factor between the portable dust meter and the standard equipment, HVS.

The calibration check is to be considered valid if the calculated correlation coefficient is >0.90.

4.2.6. Maintenance and Calibration

(a) The direct reading dust meter was calibrated at 2-years interval and checked with High Volume Sampler (HVS) yearly to determine the accuracy and validity of the results measured.

(b) Checking of direct reading dust meter will be carried out in order to determine the conversion factor between the direct reading dust meter and the standard equipment, HVS. The comparison check is to be considered valid based on correlation coefficient checked by HOKLAS laboratory

4.2.7. Laboratory measurement / analysis

(a) A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.

(b) Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24 hours and be pre-weighed before use for the sampling.

(c) After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity-controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.

4.2.8. High Volume Sampler (HVS – Model TE-5025A) completed with the appropriate sampling inlets were installed for the 24-hour TSP sampling. 1-hour TSP air quality monitoring was performed by using portable direct reading dust meters at each designated monitoring station. The brand and model of the equipment are given in ***Table 4.6***.

Table 4.6 Air Quality Monitoring Equipment

Equipment	Brand and model	Series Number
Portable direct reading dust meter	Met One BT- 645 / Met One 831	X19297 R14332 B19129 Y23153
High Volume Sampler	Tisch Total Suspended Particulate Mass Flow Controlled High Volume Air Sampler TE-5025A	HVS001 (Serial number: 0401-1105) HVS003 (Serial number: 1096-2305)
Wind Anemometer	YiGu	YGY-FSXY1

4.2.9. The calibration certificates of the air quality monitoring equipment are attached in ***Appendix 4.2***.

WIND DATA

4.2.10. Hong Wind data monitoring equipment was set up at roof floor (about 4/F) of the SWHSTW control room for logging wind speed and wind direction such that the wind sensors were clear of obstructions or turbulence caused by building. The wind data monitoring equipment was re-calibrated at least once every six months and the wind directions were divided into 16 sections of 22.5 degrees each. The wind data obtained from the on-site wind station during the reporting period is provided in ***Appendix 4.3.***

EVENT AND ACTION PLAN

4.2.11. The Action and Limit Levels for construction air quality are defined in ***Table 4.7*** and ***Appendix 4.1***. Should non-compliance of the air quality criteria occur, action in accordance with the Event and Action Plan in Appendix 6.1 shall be carried out.

Table 4.7 Action and Limit Level for Air Quality Monitoring

Parameter	**Monitoring Station**	**Action Level (**μgm^{-3})	**Limit Level (**μgm^{-3})
24-hour TSP Level	Site boundary of the Shek Wu Hui STW (East)	189	260.0
	Site boundary of the Shek Wu Hui STW (North)	187	
1-hour TSP Level	House No. 15, Wai Loi Tsuen	320	500.0
	Fu Tei Au	322	

4.3. Ecological Monitoring

4.3.8. According to the Updated EM&A Manual, weekly transect at both high and low tides shall be undertaken to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period. ***Appendix 4.1*** shows the established Action/Limit Levels for ecological monitoring works.

4.3.9. The monitoring should be conducted by the ET and supervised by a qualified ecologist who will be a member of the ET.

MONITORING LOCATIONS

4.3.10. Transect and point count surveys were proposed within the 500m boundary of Ng Tung River, Sheung Yue River and Shek Sheung River of the assessment area. Three transects and seven-point count locations during high and low tides were applied. These locations are shown in ***Figure 4.3*** and summarized in ***Table 4.8*** The photo of each transect is provided in ***Appendix 5.6***.

Table 4.8 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action
Transect T1	Along Ng Tung River	No
Point Count Location P1		
Point Count Location P2		
Transect T2		Yes
Point Count Location P3		
Point Count Location P4		
Point Count Location P5	At Shek Sheung River (Low-flow Channel)	No
Transect T3	Along Shek Sheung River & Sheung Yue River	Yes

Point Count Location P6	At Shek Sheung River	Yes
Point Count Location P7	At Intersection between Sheung Yue River and Shek Sheung River	Yes

MONITORING PARAMETERS, FREQUENCY AND DURATION

4.3.11. Monitoring surveys were conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration. The ecological monitoring schedule is shown in ***Appendix 5.1***.

MONITORING METHODOLOGY

4.3.12. Transect survey was undertaken along the concerned rivers (Ng Tung River, Sheung Yue River and Shek Sheung River) adjacent to proposed construction activities. As the sensitive receivers (large waterbirds) are easily visible and the surveyor has used auxiliary equipment such as camera(s) and binoculars (magnification 7-10x). The transect route only follows one bank of these rivers.

4.3.13. At point count locations, surveyors identified and recorded bird species which were seen or heard along the river channel. For each point count, surveyors quantitatively recorded all species seen and heard for the duration of five minutes up to the distance where birds were still detectable. All avifauna along the walk transect were recorded. Noticeable behaviours (e.g. breeding behaviours such as nesting and presence of recently fledged juveniles, roosting and feeding activities, etc.) were recorded as well.

4.3.14. Ornithological nomenclature used in report should follow *The Avifauna of Hong Kong* (*Carey et al. (2001)*, *The Birds of Hong Kong and South China (Viney et al. (2005))* and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).

4.3.15. Weather conditions, tidal information at the time of the survey and other noticeable activities occurring within or in the vicinity of the survey areas (e.g. ongoing routine drainage channel maintenance works and other human activities that could create disturbances to birds) were recorded

ANALYTICAL METHODOLOGY

4.3.16. The number and species of waterbirds utilizing the rivers fluctuate every day naturally. Therefore, the survey data were collectively analyzed on a monthly basis to increase the sample size and to reduce random error on one survey day. Since occurrence of waterbirds has distinctive seasonal pattern, the construction phase data for all waterbirds and representative waterbirds were compared with the baseline data for the respective month and season. The representatives of waterbirds are listed in ***Table 4.9***.

Table 4.9 Representative Waterbirds

Species Name	Common Name	Chinese Name
Egretta garzetta	Little Egret	小白鷺
Ardea cinerea	Grey Heron	蒼鷺
Ardeola bacchus	Chinese Pond Heron	池鷺
Phalacrocorax carbo	Great Cormorant	普通鸕鷀
Ardea alba	Great Egret	大白鷺
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺

4.3.17. When a decline in abundance of all or representative waterbird is identified, one-tailed Student t-test was adopted to statistically analyse whether the drop is significant. If the collected data for the reporting month fails to show no significant difference from that in the baseline phase at 95% confidence level, the action level will be triggered. Likewise, the limit level is set at 99% confidence level.

4.3.18. In addition, if important behaviours such as breeding, brooding, nesting and presence of recently fledged juveniles of species of conservation importance are observed, the Resident Engineer, Contractor and IEC should be notified immediately after the survey. The Contractor should review current construction programme and minimize disturbance due to construction activities

5 Monitoring Results

5.0.1 The environmental monitoring will be implemented based on the division of works areas of each designed projects. Overall layout showing work areas and monitoring stations is shown in ***Figure 2.1*** and ***Figure 4.1 – 4.3*** respectively**.**

5.0.2 The environment monitoring schedules for reporting month and coming month are presented in ***Appendix 5.1*****.**

5.1 Noise Monitoring Results

5.1.1 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in ***Appendix 5.2***.

5.1.2 No action or limit level exceedance was recorded in this reporting month.

5.2 Air Monitoring Results

5.2.1 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in ***Appendix 5.3***.

5.2.2 No action or limit level exceedance was recorded in this reporting month.

5.3 Ecology Monitoring Results

5.3.1 Details of ecological Monitoring results in the reporting month are provided in ***Appendix 5.4***.

5.3.2 One Action Level was triggered for ecological monitoring in the reporting month. No Limit Level was triggered. As the decline of the Chinese Pond Heron was considered non-project related, no remedial measure for the project is proposed. However, it is recommended that the construction site should continue keeping the good site practice to minimize disturbance caused to surrounding area. Details were shown in ***Appendix 5.4 – 5.6***.

5.3.3 Nesting and breeding behaviours were observed during the monitoring in reporting month. There was no significant impact on the nest in the month reported.

5.4 Waste Management

5.4.1 The quantities of waste for disposal in the Reporting Period are summarized in ***Table 5.1*** to ***5.4***. The Monthly Summary Waste Flow Table is shown in ***Appendix 5.7***. Whenever possible, materials were reused on-site as far as practicable.

Table 5.1 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/06

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000m^3)	0	0	0
Reused in this Contract (Inert) (in '000m^3)	0	0	0
Reused in other Projects (Inert) (in '000m^3)	0	0	0
Disposal as Public Fill (Inert) (in '000m^3)	0.549	0.398	2.051
Metals (in '000kg)	0	0	0
Paper / Cardboard Packing (in '000kg)	0	0	0
Plastics (in '000kg)	0	0	0
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000m^3)	0.068	0.094	0.364

Table 5.2 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/07

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000m^3)	0	0	0
Reused in this Contract (Inert) (in '000m^3)	0	0	0

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Reused in other Projects (Inert) (in '000m^3)	0.048	0	0.861
Disposal as Public Fill (Inert) (in '000m^3)	2.761	2.977	9.905
Metals (in '000kg)	5.71	0	21.16
Paper / Cardboard Packing (in '000kg)	0	0	0
Plastics (in '000kg)	0	0	0.004
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000m^3)	0.01	0.019	0.04

Table 5.3 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/03

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0	0	0
Reused in this Contract (Inert) (in '000kg)	0	0	0
Reused in other Projects (Inert) (in '000kg)	0	0	0
Disposal as Public Fill (Inert) (in '000kg)	83.58	0	260.29
Metals (in '000kg)	0	0	0
Paper / Cardboard Packing (in '000kg)	0.132	0	0.309

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Plastics (in '000kg)	0.003	0	0.011
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000kg)	0	3.06	5.76

Table 5.4 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/04

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0	0	0
Reused in this Contract (Inert) (in '000kg)	0	0	0
Reused in other Projects (Inert) (in '000m^3)	0	0	0
Disposal as Public Fill (Inert) (in '000m^3)	0	0	0
Metals (in '000kg)	0	0	0
Paper / Cardboard Packing (in '000kg)	0	0	0
Plastics (in '000kg)	0	0	0
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000kg)	0	0	0

6 Compliance Audit

6.1.1 The Event Action Plan for construction noise, air quality and ecological monitoring are presented in ***Appendix 6.1.***

6.1.2 The summary of exceedance is presented in ***Appendix 6.2.***

6.2 Noise Monitoring

6.2.1 No action or limit level exceedance was recorded in this reporting period.

6.3 Air Quality Monitoring

6.3.1 No action or limit level exceedance was recorded in this reporting period.

6.4 Ecological Monitoring

6.4.1 One Action Level was triggered for ecological monitoring in the reporting month.

6.4.2 No limit level was triggered in the reporting month.

6.5 Review of the Reasons for and the Implications of Non-compliance

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

6.6 Summary of action taken in the event of and follow-up on non-compliance

6.6.1 There was no particular action taken since no non-compliance was recorded in the reporting period.

7 Environmental Site Audit

7.0.1. Within this reporting month, weekly environmental site audits were conducted on 1, 8, 10, 15, 22 and 31 March 2022. Biweekly landscape site audits were conducted on 8 (DE/2018/03 & DE/2018/04), 10 (DC/2018/06 & DC/2018/07) and 22 March 2022. IEC attended the joint site inspection on 22 March 2022.

7.0.2. No non-compliance was found during the environmental site inspection while reminders on environmental measures were recommended. Results and findings of these inspections in this reporting month are listed below in ***Table 7.1 to 7.4***.

Table 7.1 Summary of Environmental Inspections of Contract No. DC/2018/06

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20220310_1	10 Mar 2022	The Contractor was requested to clear the oil spillage at Portion C.	As observed on 15 Mar 2022,the oil spillage was cleared.	Rectified
20220315_1	15 Mar 2022	The Contractor was requested to store the oil containers properly at Portion C.	As observed on 22 Feb 2022, oil spillage was cleared.	Rectified
20220215_1	22 Mar 2022	The Contractor was reminded to maintain good segregation of waste at Portion C.	As observed on 30 Mar 2022,	Rectified

Table 7.2 Summary of Environmental Inspections of Contract No. DC/2018/07

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20220301_2	1 Mar 2022	The Contractor was reminded to enhance the dust suppression measures at MFB.	As observed on 10 Mar 2022, water spraying method was adopted.	Rectified
20220322_2	22 Mar 2022	The Contractor was requested to properly clear the oil stain at MFB.	As observed on 31 Mar 2022, the oil stain was cleared.	Rectified

20220322_3	22 Mar 2022	The Contractor was requested to provide sandbags or implement other measures to protect nearby river (Shek Sheung River).	As observed on 30 Mar 2022, sandbags were provided.	Rectified

Table 7.3 Summary of Environmental Inspections of Contract No. DE/2018/03

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20220301_3	1 Mar 2022	The Contractor was requested to provide a drip tray for oil containers at Sidestream.	As observed on 10 Mar 2022, oil containers were properly stored.	Rectified
20220331_3	31 Mar 2022	The Contractor was requested to properly store the oil conainers at Sidestream.	As observed on 4 Apr 2022, oil containers were properly stored.	Rectified

Table 7.4 Summary of Environmental Inspections of Contract No. DE/2018/04

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
-	-	-	-	-

7.0.3. Dust and noise mitigation measures for construction activities is shown in ***Appendix 7.1***.

8. Complaints, Notification of Summons and Prosecution

8.0.1. One environmental complaint regarding the odour nuisance was reported to EPD on 4 March 2022 and received by ET on the same day.

8.0.2. No notification of summons and successful prosecution regarding construction works was recorded in the reporting period.

8.0.3. The details environmental complaints for the Project are summarized by complaint log in ***Appendix 8.1.***

8.0.4. Cumulative statistics on complaints and successful prosecutions are summarized in ***Table 8.1*** and ***Table 8.2*** respectively.

Table 8.1 Cumulative Statistics on Complaints in the Reporting Month

Reporting Period	No. of Complaints
Commencement works (Feb 2018) to last reporting month	3
March 2022	1
Total	**4**

Table 8.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative no. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	**-**	**0**	**0**

9. Conclusion

9.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

9.0.2. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor. Hence, the EM&A programme was considered effective and shall be maintained.

9.0.3. The scheduled construction activities and the recommended mitigation measures for the coming 3 months are listed in ***Table 9.1***. The construction programmes of individual activities are provided in ***Appendix 9.1.***

Table 9.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting 3 Months

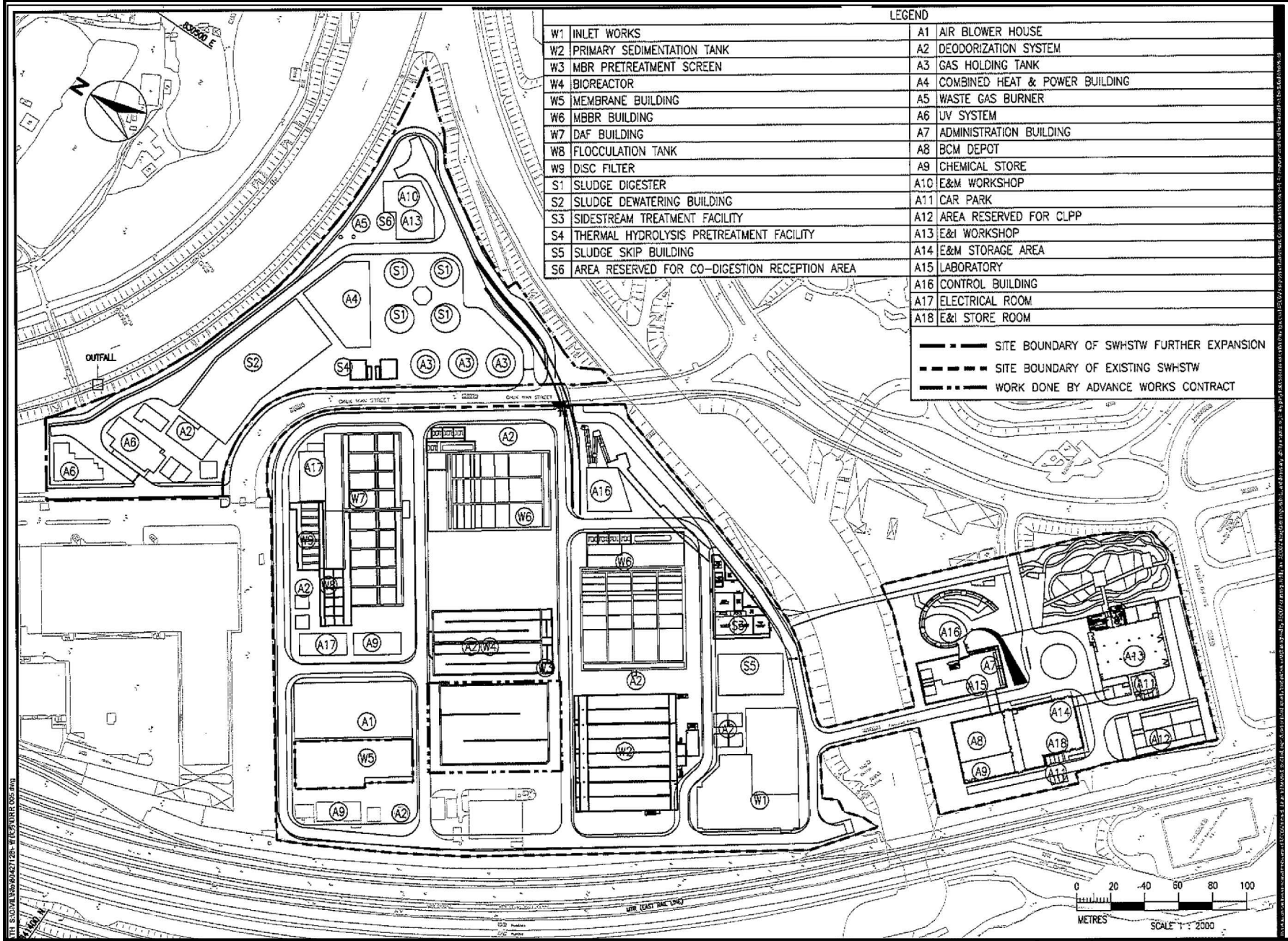
Contract No.	Key Construction Works	Recommended Mitigation Measures
DC/2018/06	• RC works • Excavation works • Sewerage and drainage works • ELS works • Backfilling • ABWF works	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers, especially screening noise during piling related activities • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal • Ensure all on-site regulated machines have displayed valid NRMM labels and the

Contract No.	Key Construction Works	Recommended Mitigation Measures
		application of ULSD as fuel for diesel-powered machinery.
DC/2018/07	• ELS works • R.C. Structure works • Pre-bored H piles • Demolition works • Excavation • E&M installation and T&C works	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers, especially screening noise during piling related activities • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal. • Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery.
DE/2018/03	• ELS (Sidestream Treatment Facilities) • Erection of Tower Crane (Sidestream) • Effluent Pump Installation • Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers, especially screening noise during piling related activities • Good site practices should be adopted to

Contract No.	Key Construction Works	Recommended Mitigation Measures
	• SAT Procedure of Penstock and Stoplog • Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station • HR and FH System Installation at Workshop No.2 • SPR System Installation at Workshop No.2 • MFA and AFA Installation at Workshop No.2 • Electrical Installation for Transformer Room at Workshop No.2 • Installation of CCTV at UV, EPS1 and Existing Control Room at SHW STW	check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal • Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery.
DE/2018/04	• Improvement Works for Temporary Primary Sludge Thickener and its accessories • Installation works of Lightning Protection System for DOU3A	• Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal.

Figure 2.1

Project Layout



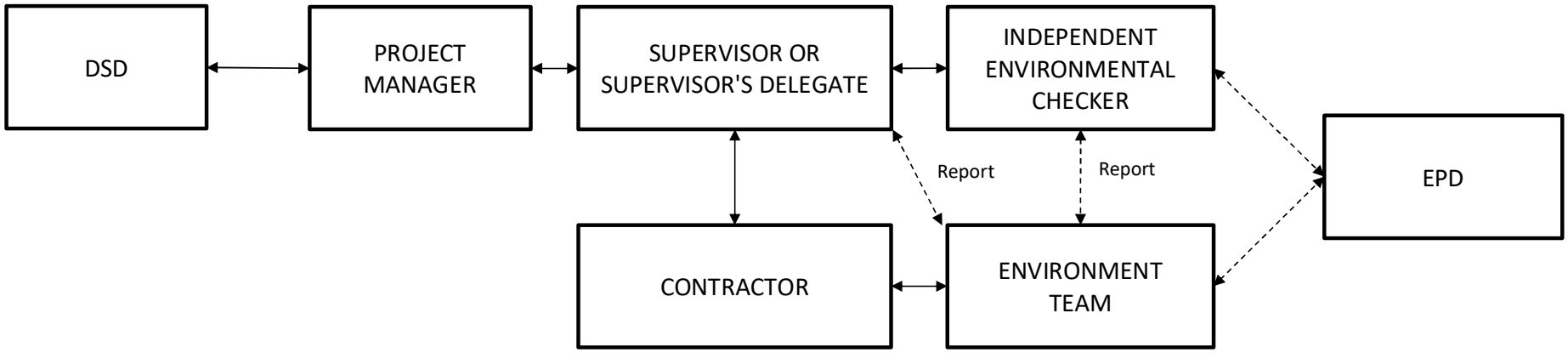
Shek Wu Hui E□luent Polishing Plant

General Site Layout O□SWHEPP

SCALE	As Shown	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO. 1.1	RE□ -

Figure 2.2

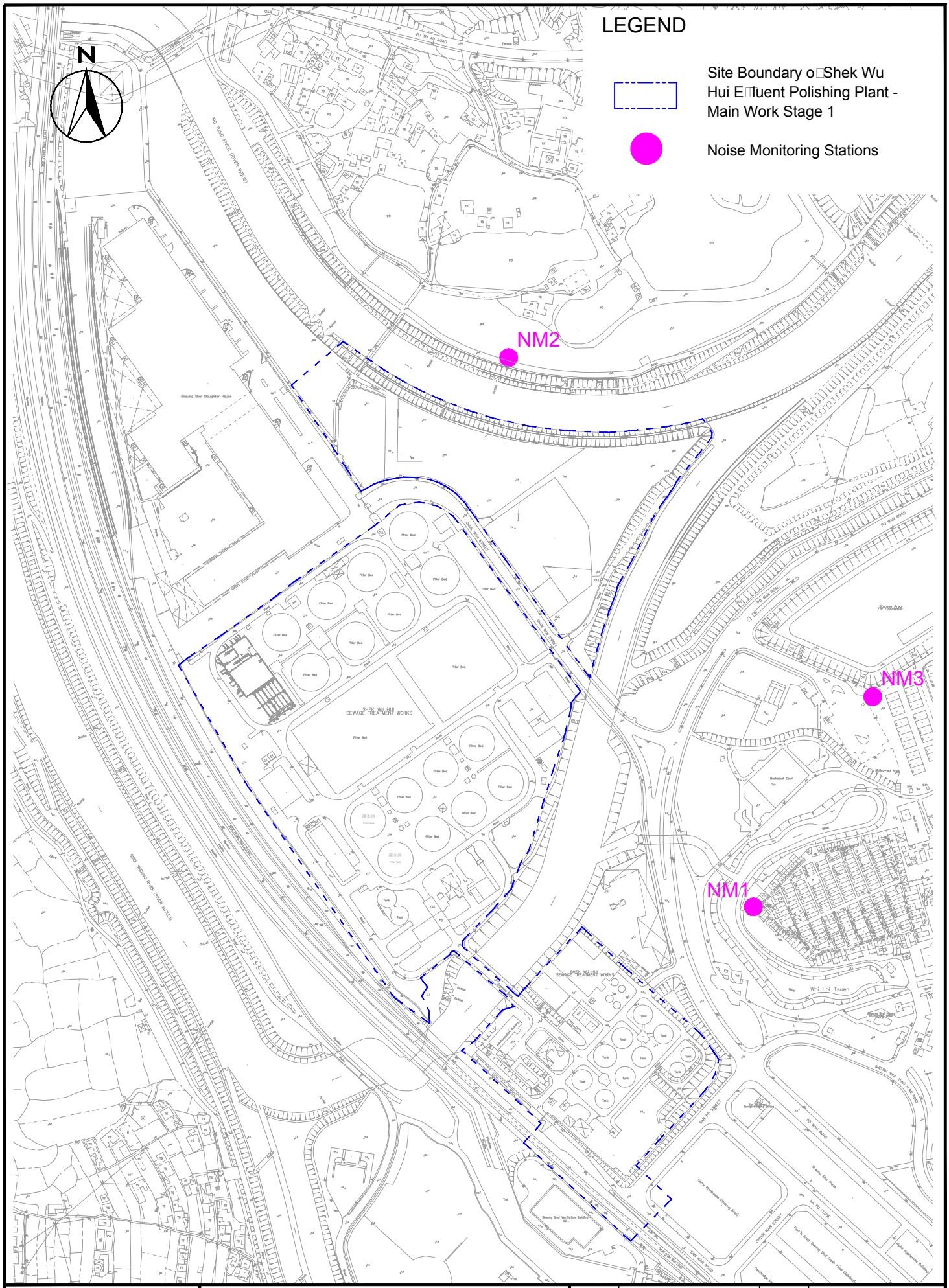
Project Organization Chart



	Shek Wu Hui Effluent Polishing Plant -	**SCALE**	N.T.S.	**DATE**	Sep 2019
		CHECK	JW	**DRAWN**	SY
	Project Organisation For Environmental Monitoring and Audit	**JOB NO.**		**FIGURE NO.**	1.2

Figure 4.1

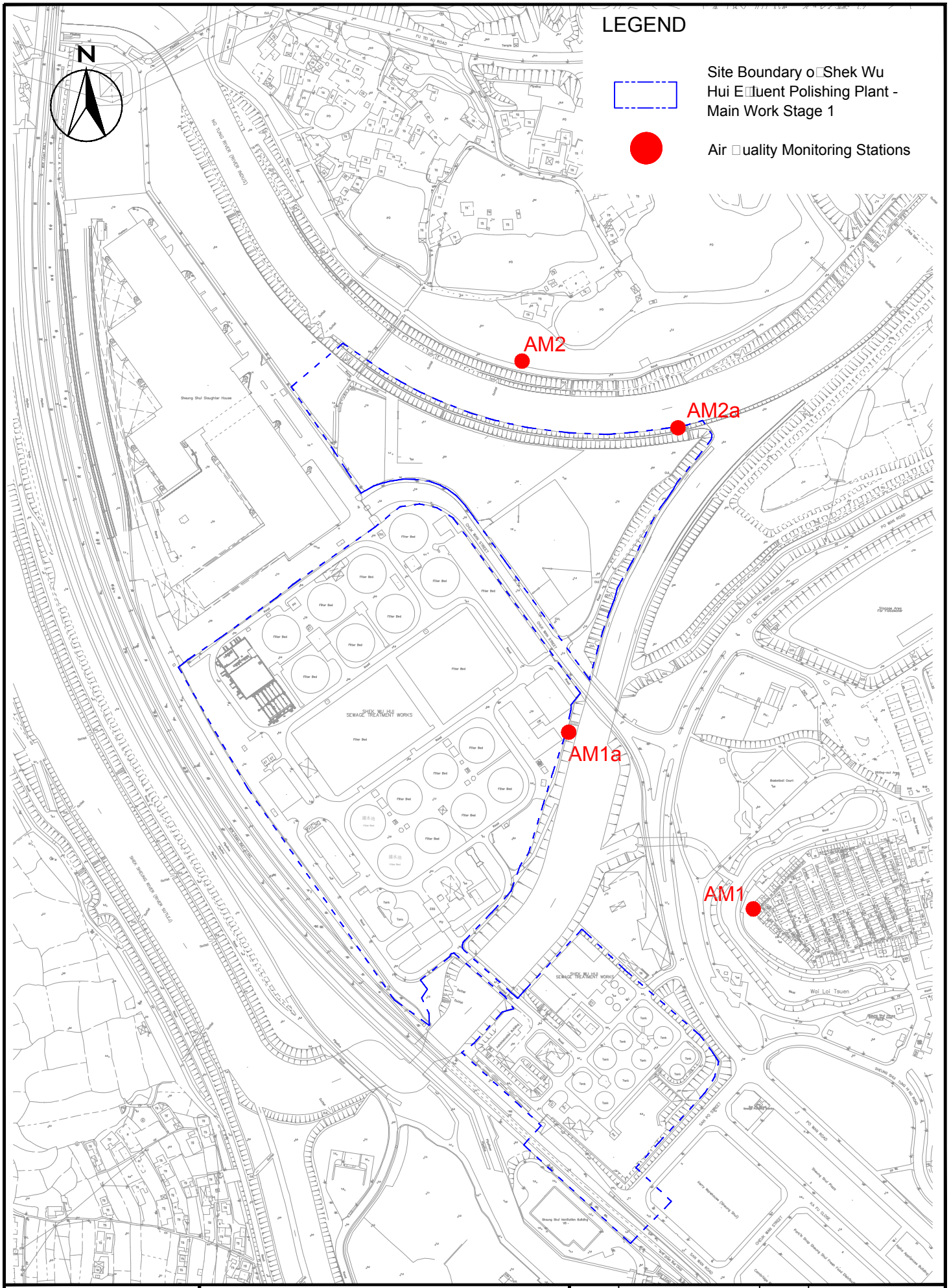
Locations of Noise Monitoring Stations



	Shek Wu Hui E luent Polishing Plant	SCALE	1:4000 A4	DATE SEP 2019
		CHECK	JM	DRAWN SY
	Location o Noise Monitoring Stations	JOB No.	MA19019	FIGURE NO. 3 RE -

Figure 4.2

Locations of Air Quality Monitoring Stations

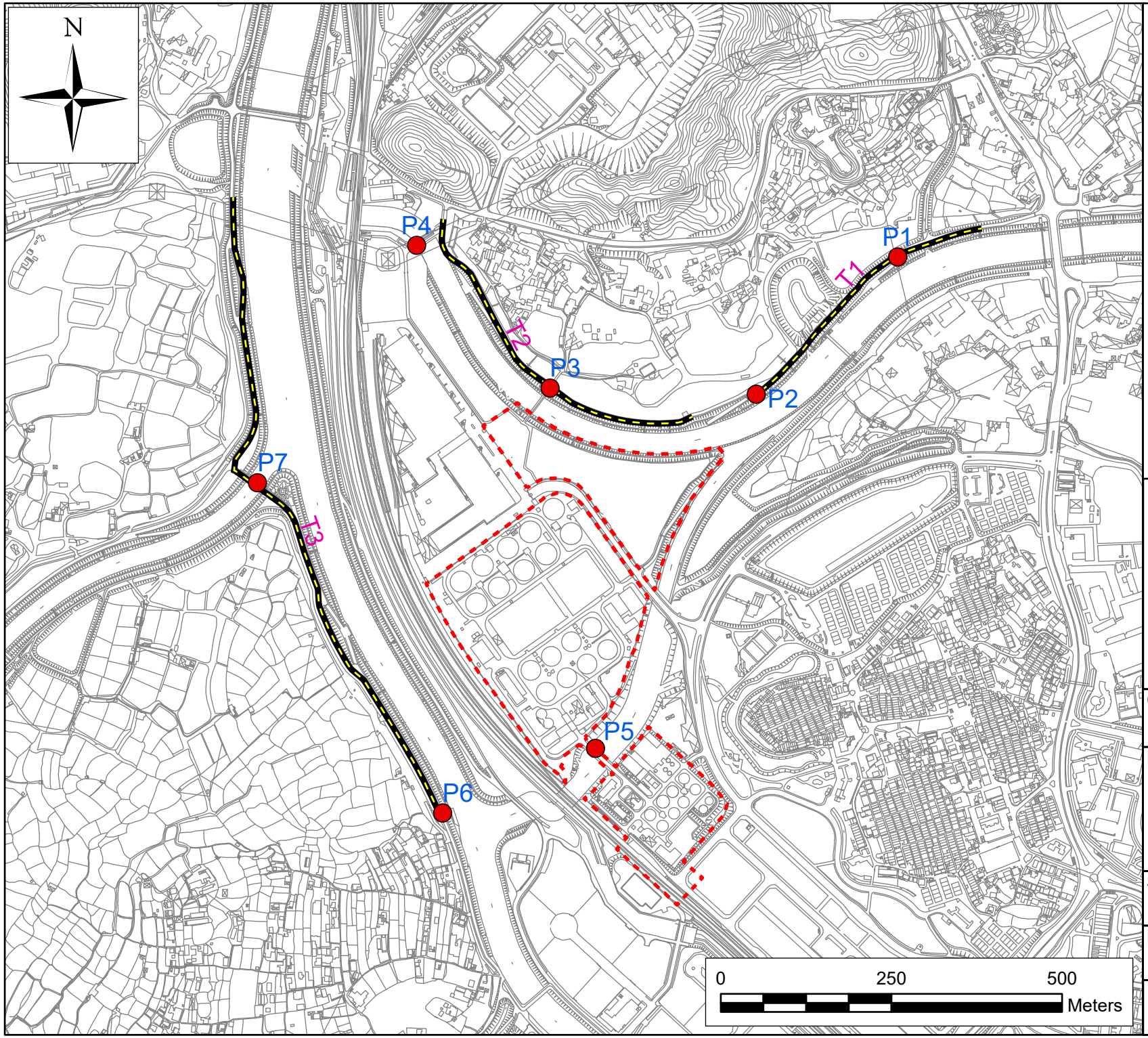


	Shek Wu Hui E□luent Polishing Plant - Location o□Air □uality Monitoring Stations	SCALE	1:400□ A4	DATE SEP 2019
		CHECK	JM	DRAWN SY
		JOB No.		FIGURE NO. 2 / RE□ -

F:/Project_drawings

Figure 4.3

Locations of Ecological Monitoring Stations



Legend

- Project Site Boundary
- Walk Transects
- Point Count Locations

PREPARED BY

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CONTRACT NO.

SPW 12/2021

PROJECT TITLE

Shek Wu Hui Effluent Polishing Plant - Main Works Survey Location for Ecological Monitoring

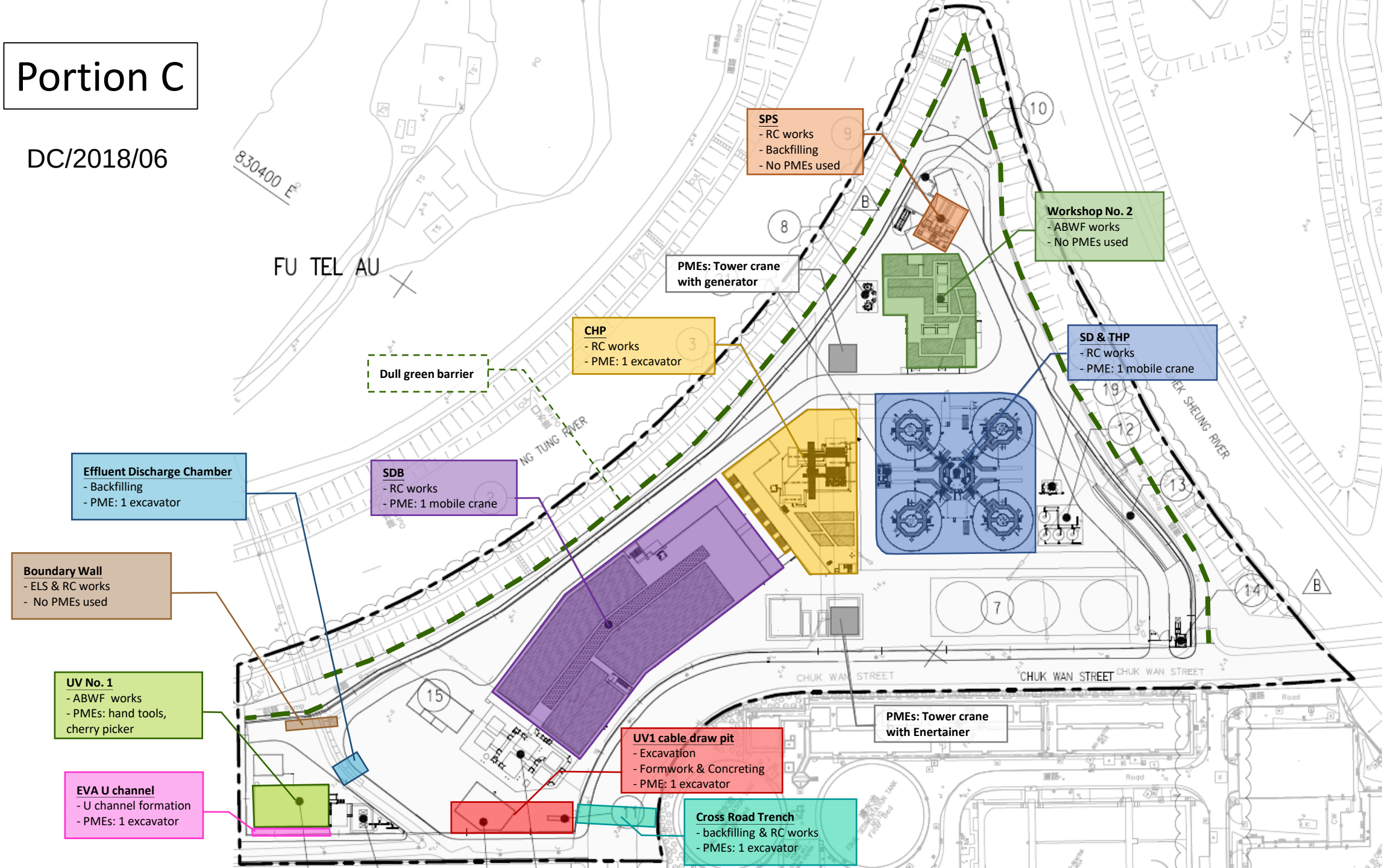
SCALE	DATE
1:7500@A4	***Sept 2021***
DRAWN BY ***AL***	CHECK BY ***MC***
FIGURE NO. ***1***	REVISION NO. ***-***

Appendix 2.1

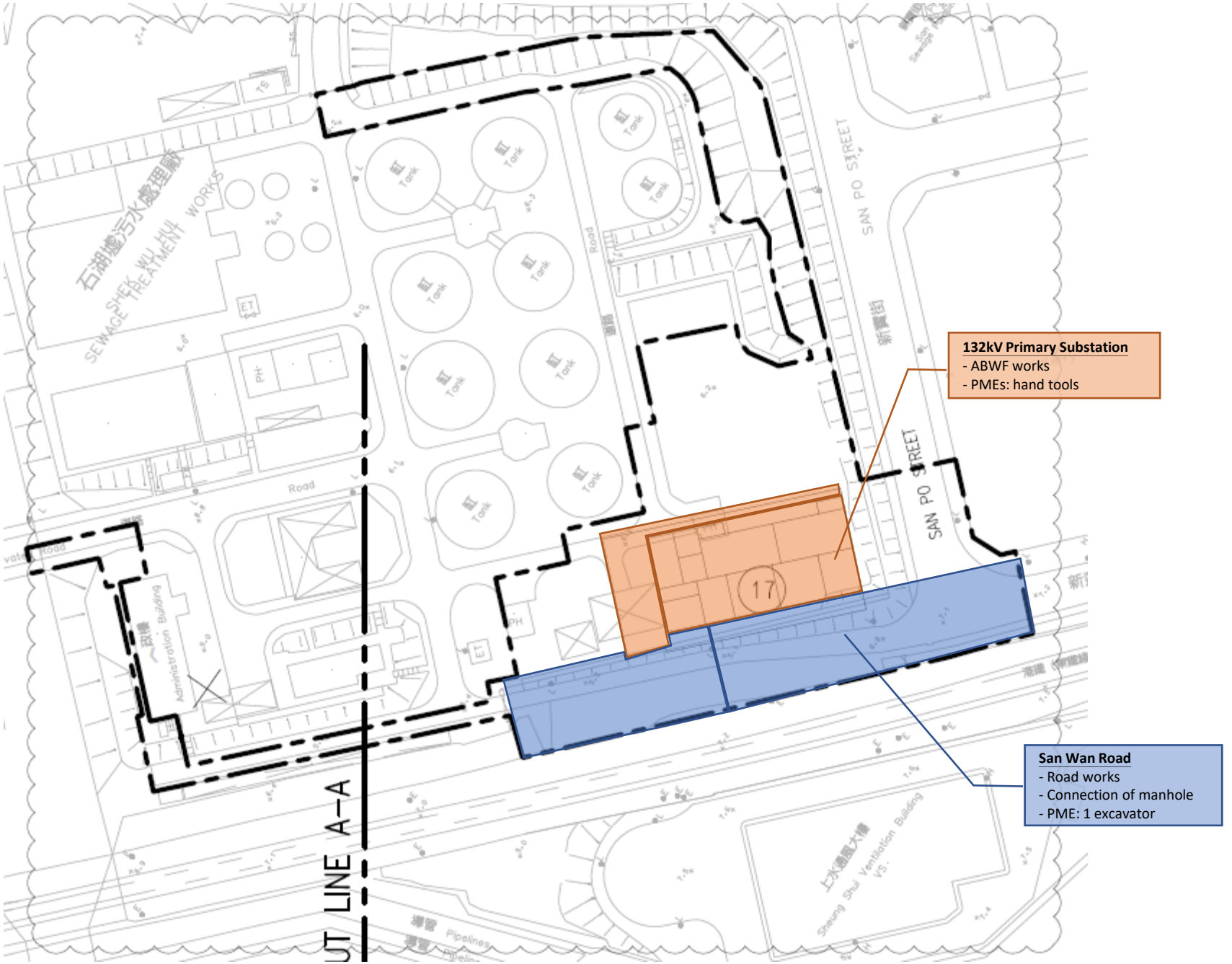
Layout plan of construction activities

Portion C

DC/2018/06



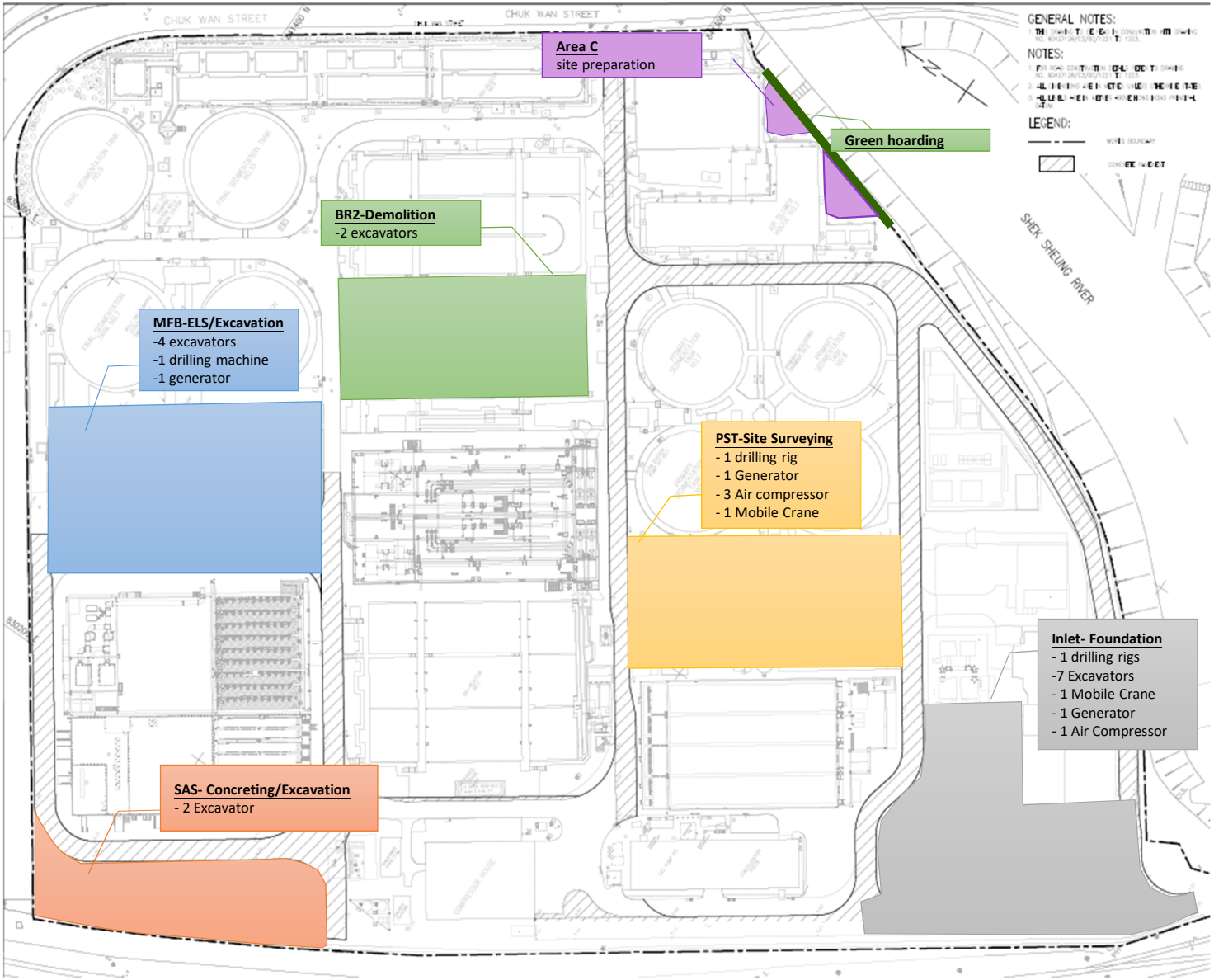
Portion A



132kV Primary Substation
- ABWF works
- PMEs: hand tools
San Wan Road
- Road works
- Connection of manhole
- PME: 1 excavator
SAN PO STREET
SAN PO STREET
17
Tank
Road
Administration Building
Sheung Shui Ventilation Building
Pipelines
UT LINE A–A

Portion B

DC/2018/07



Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM
ISO A1 594mm x 841mm

DE/2018/03

841600 N

841400 N

830400 E

830200 E

FU TEL AU

SHEUNG SHUI HEUNG

SHEUNG SHUI SLAUGHTER HOUSE

NG TUNG RIVER

SHEK SHEUNG RIVER

PO WAN ROAD

CHUK WAN STREET

MTR (EAST RAIL LINE)

Workshop No.2
HR and FH System Installation at Workshop No.2
SPR System Installation at Workshop No.2
MFA and AFA Installation at Workshop No.2
Electrical Installation for Transformer Room at Workshop No.2
PME: Generator X1

UV System No.1
Effluent Pump Installation
Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS
Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station
SAT Procedure of Penstock and Stoplog
PME: Generator X1

Solid Dull Green Barrier

Sidestream
ELS
Manhole and Connecting Pipes Strengthening Works
PME: Excavator X2

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCRION
2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATAM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATAM.
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6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY
7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

LEGEND:

	SITE BOUNDARY
1	UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1
2	SLUDGE DEWATERING BUILDING
3	COMBINED HEAT & POWER BUILDING
4	SLUDGE DIGESTER
5	WORKSHOP NO. 2
6	THERMAL HYDROLYSIS PRETREATMENT FACILITIES
7	BIOGAS HOLDING TANKS
8	WASTE GAS BURNER
9	SEWAGE PUMPING STATION
10	FERRIC CHLORIDE DOSING FACILITIES
11	WATER METER CABINET
12	H2S REMOVAL SYSTEM
13	UNDERPASS (PART)
14	GUARD HOUSE
15	TRANSFORMER AND SWITCHROOM
16	FIRE HYDRANT AND BOOSTER PUMP ROOM
18	DEODORIZATION SYSTEM NO. 11
19	DEODORIZATION SYSTEM NO. 12
20	PLANT SERVICES WATER SYSTEM
21	THP COOLERS PUMPING STATION
22	SIDESTREAM TREATMENT FACILITIES
23	SURPLUS ACTIVATED SLUDGE PUMPING STATION
24	EXISTING CONSOLIDATION HOUSE

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PROJECT 項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - SIDESTREAM TREATMENT FACILITIES AND E&M WORKS FOR SLUDGE TREATMENT FACILITIES

CLIENT 業主

渠務署 Drainage Services Department

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
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SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核
-	MAR. 19	TENDER DRAWING	TLST

STATUS 階段

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖

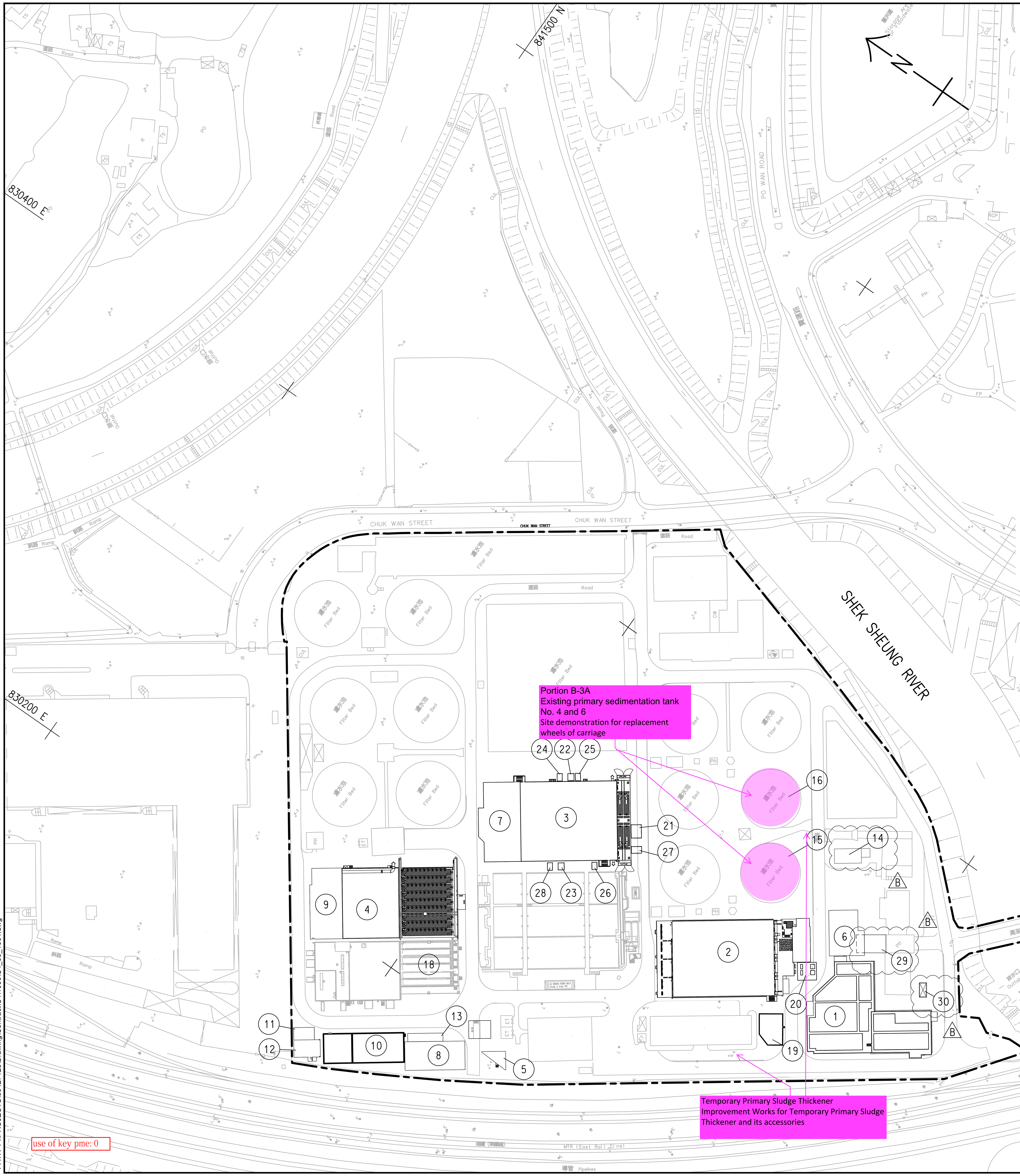
PROJECT NO. 項目編號
60427128

CONTRACT NO. 合約編號
DE/2018/03

SHEET TITLE 圖紙名稱
SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號
60427128/C2/00/1001

Plot File by: GuoX 26/03/2019
PATH: P:\PROJECTS\60427128\Drawing\Contract\C2\1000\C2_00_1001.dwg



10	CHEMICAL SYSTEM NO. 1
11	EMERGENCY GENERATOR HOUSE
12	FS AND SPRINKLER PUMPING ROOM
13	CHEMICAL SYSTEM NO. 2
14	TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
15	EXISTING PRIMARY SEDIMENTATION TANK NO.4
16	EXISTING PRIMARY SEDIMENTATION TANK NO.6
17	EXISTING SLUDGE PRESS HOUSE
18	EXISTING MBR FACILITIES BUILDING NO.1
19	STREET FIRE HYDRANT PUMP ROOM (B)
20	FLOWMETER CHAMBER NO.1
21	FLOWMETER CHAMBER NO.2
22	FLOWMETER CHAMBER NO.3
23	FLOWMETER CHAMBER NO.4
24	GATE VALVE CHAMBER NO.1
25	GATE VALVE CHAMBER NO.2
26	GATE VALVE CHAMBER NO.3
27	PLUG VALVE CHAMBER NO.1
28	PLUG VALVE CHAMBER NO.2
29	EXISTING MAIN POWER HOUSE
30	RELOCATED DEODORISATION SYSTEM (B)

NOTES:

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7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

LEGEND:

— - —	SITE BOUNDARY
1	INLET WORKS NO.1
2	PRIMARY SEDIMENTATION TANKS NO.1 – 4
3	BIOREACTOR NO. 2A & 2B
4	MEMBRANE FACILITIES BUILDING NO.2
5	TEMPORARY CHEMICAL DOSING SYSTEM
6	DEODORISATION SYSTEM NO.1
7	DEODORISATION SYSTEM NO.2A
8	DEODORISATION SYSTEM NO.3A
9	DEODORISATION SYSTEM NO.3B (B)

Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm

Plot File by: GuoX 15/08/2019
PATH P:\PROJECTS\60427128\Drawing\Contract\C4\1000\C4_00_1001.dwg

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AECOM

PROJECT 項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - E&M WORKS FOR SEWAGE TREATMENT FACILITIES

CLIENT 業主

渠務署 Drainage Services Department

CONSULTANT 工程顧問公司

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ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核
B	AUG. 19	TENDER ADDENDUM NO. 3	TLST
A	JUL. 19	TENDER ADDENDUM NO. 2	TLST
-	APR. 19	TENDER DRAWING	TLST

STATUS 階段

SCALE 比例: A1 1 : 1000
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號: 60427128
CONTRACT NO. 合約編號: DE/2018/04

SHEET TITLE 圖紙名稱: GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號: 60427128/C4/00/1001B

Appendix 3.1

Environmental Mitigation Implementation Schedule

Appendix 3.1 Environmental Mitigation Implementation Schedule

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Air Quality Monitoring							
S2.4.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:						
	• Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Air Pollution Control Ordinance (APCO) and Air Pollution Control (Construction Dust)	^
	• Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;						^
	• A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;						^
	• The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;						^
	• Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period.						^
	• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;						^
	• Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;						^
	• Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;						^
	• Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;						^
	• Any skip hoist for material transport should be totally enclosed by impervious sheeting;						^
	• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;						^
	• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;						^

	• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and						^
	• Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Noise Impact							
S3.4.1.1	Use of movable barrier, enclosure, acoustic mat and quiet plant. Use of wooden frames barrier with a small-cantilevered upper portion of superficial density not less than 14kg/m² on a skid footing with 25mm thick internal sound absorptive lining.	To minimize construction noise impact arising from the Project at the affected noise sensitive receivers (NSRs)	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, Noise Control Ordinance (NCO)	^
S3.4.1.2	Good Site Practice:						
	• Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, NCO	^
	• Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.						*
	• Mobile plant, if any, should be sited as far away from NSRs as possible.						^
	• Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.						^
	• Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.						^
	• Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Ecological Impact							
S4.2.1.1	Solid dull green noise/visual barriers of at least 2m high shall be erected and maintained between active works area and all areas of ecological importance.	Minimize noise and human disturbances during construction phase.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.2	Avoid unnecessary lighting.	Minimize mortality impacts on birds.	Design / Contractor/ Plant Operator	Work Sites	Construction and operation phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.3	Good construction site practice to minimise dust generation should be followed on all construction sites. Measures to avoid, minimise and mitigate impacts on air quality are detailed in this schedule.	Minimize dust generation from construction sites.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.4	The following measures to avoid, minimise and mitigate impact on water quality during construction phase shall be implemented						
	• Temporary sewerage and drainage to be designed and installed to collect wastewater and prevent it from entering water bodies;	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
	• Proper locations well away from nearby water bodies should be used for temporary storage of materials (i.e. equipment, filling materials, chemicals and fuel) and temporary stockpiles of construction debris and spoil, and these should be identified before commencement of works;						^
	• To prevent muddy water entering nearby water bodies, work sites close to nearby water bodies should be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures should also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work sites;						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Construction debris and spoil should be covered and/or properly disposed of as soon as possible to avoid these being washed into nearby water bodies;						^
	• Proper locations for discharge outlets of temporary wastewater treatment facilities well away from sensitive receivers should be identified;						^
	• Adequate lateral support should be erected where necessary in order to prevent soil/mud from slipping into water bodies;						^
	• Site boundaries should be clearly marked and any works beyond the boundary strictly prohibited;						^
	• Regular water monitoring and site audit should be carried out at adequate points along any watercourses where construction works are underway upstream within their catchments and also on the Ng Tung, Sheung Yue and Shek Sheung Rivers. If the monitoring and audit results show that pollution occurs, adequate measures including temporarily cessation of works should be considered;						^
	• Excavation profiles should be properly designed and executed with attention to the relevant requirements for environment, health and safety;						^
	• Where soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; Stockpiling sites should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of						^
	• contaminated soil to minimize contaminated runoff and construction materials should be properly covered and located away from nearby water bodies; and						^
	• Supply of suitable clean backfill material after excavation, if required.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated run-off, and truck bodies and tailgates should be sealed to prevent discharge during transport or during wet season;						^
	• Speed control for the trucks carrying contaminated materials should be enforced;						^
	• Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary; and						^
	• Other measures as detailed in this schedule.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Water Quality Impact							
S5.2.2.1	Construction Site Runoff Practices and measures provided in the Practice Note for Professional Persons on Construction Site Drainage, (PROPECC PN1/94) should be followed where applicable.	Control construction runoff	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
S5.2.2.2 – S5.2.2.3	Sewage from Workforce						
	• Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance;	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
	• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Waste Management							
S6.2.2.1	Good Site Practices and Waste Reduction Measures						
	• Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;	Minimize waste generation during construction	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	*
	• Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;						^
	• Provision of sufficient waste disposal points and regular collection for disposal;						^
	• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;						^
	• Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;						^
	• An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval.						^
S6.2.3.1	Waste Reduction Measures						
	• Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;	Reduce waste generation	Contractors	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Proper storage and site practices to minimize the potential for damage and contamination of construction materials;						^
	• Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;						^
	• Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and						^
	• Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S6.2.4.1	Storage, Collection and Transportation of Waste Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include:	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution;						^
	• Stockpiling area should be provided with covers and water spraying system to prevent materials from windblown or being washed away; and						^
	• Different locations should be designated to stockpile each material to enhance reuse.						^
S6.2.4.2	Storage, Collection and Transportation of Waste (con't)						
	• Remove waste in timely manner;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Employ the trucks with cover or enclosed containers for waste transportation;						^
	• Obtain relevant waste disposal permits from the appropriate authorities; and						^
	• Disposal of waste should be done at licensed waste disposal facilities						^
S6.2.5.2	C&D Materials from Site Formation						
	• Maintain temporary stockpiles and reuse excavated fill material for backfilling;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	• Carry out on-site sorting;						^
	• Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;						^
	• Adopt "selective demolition" technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; and						^
	• Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.						^
S6.2.5.3	C&D Material from Buildings Demolition and New Building Construction						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• The Contractor should recycle as much as possible of the C&DM on-site. Public fill and C&DM waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. For example, concrete and masonry can be crushed and used as fill, and steel reinforcing bar can be used by scrap steel mills. Different areas of the work sites should be designated for such segregation and storage.	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	• The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used.						^
	• Government has developed a charging policy for the disposal of waste to landfill at present. It will provide additional incentive to reduce the volume of generated waste and ensure proper segregation to allow reuse of the inert material on site when implemented.						^
	• In order to minimize the impacts of the demolition works, the generated wastes must be cleared as quickly as possible after demolition. Therefore, the demolition and clearance works should be undertaken simultaneously. To facilitate proper segregation of inert and non-inert C&D material arising from demolition works, selective demolition method should be adopted.						^
S6.2.5.4	Chemical Waste						
	• If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	^
	• Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.						*
S6.2.5.5	General Refuse						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• General refuse should be stored in enclosed bins separately from construction and chemical wastes.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation	^
	• Recycling bins should also be placed to encourage recycling.						^
	• Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean.						^
	• A reputable waste collector should be employed to remove general refuse on a daily basis.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Landscape and Visual							
S7.3.1.1	Good Site Practices Measures						
	• For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction phase		N/A
	• With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.						N/A
S7.3.2.1	MM4 - Tree Protection & Preservation • Existing trees to be retained within the Project Site should be carefully protected during construction. In particular Old and Valuable Trees (OVTs) will be preserved according to ETWB TC (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	MM5 - Tree Transplantation • Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC No. 2/2004 and DEVB TC(W) No. 7/2015 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No.2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S7.3.2.1	MM6 - Slope Landscaping						
	• Site formation should be reduced as far as possible. Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape recourses and charter. Woodland tree seedings and/or shrubs should be planted where slope gradient and site conditions allow.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure manmade slopes are as visually amenable as possible.	Designer / Contractor	Work Sites	Prior to construction, construction phase and operation phase	GEO Publication (1999) - Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011- Technical Guidelines on Landscape Treatment for Slopes	N/A
	• In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping						N/A
S7.3.2.1	MM7 - Compensatory Planting						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under DEVB TC(W) No. 7/2015.	Compensate for trees and shrubs lost due to the Project	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No. 2/2004	N/A
	• Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.						N/A
	• Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii are suggested.*						N/A
S7.3.2.1	MM9 - Vertical Greening • Planting of climbers to grow up vertical surfaces were appropriate.	Soften hard surfaces and facilities	Designer / Contractor	On appropriate structures	Prior to construction, construction phase and operation phase	ETWB TCW No.11/2004 – Cyber Manual for Greening	N/A
S7.3.2.1	MM10 - Green Roof • Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to visually sensitive receivers (VSRs) at high levels. Provide greening	Designer / Contractor	On appropriate buildings	Prior to construction, construction phase and operation phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	MM11 - Screen Planting • Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Designer / Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the structures.	Prior to construction, construction phase and operation phase	ETWB TCW No. 10/2013 and 3/2006	N/A
S7.3.2.1	MM16 - Screen Hoarding • Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment. [Chapter 13 of the EIA Report of NENT NDAs (Register No. AEIAR-175- 2013)]	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		N/A
S7.3.2.1	MM17 - Light Control • Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs.	Designer / Contractor	Work Sites and/or the Plant	Construction phase and operation phase		N/A

Remarks:
^ Implemented
* To be followed-up by Contractor
# Not Implemented
N/A Not Applicable

Appendix 4.1

Action and Limit Level

Action and Limit Levels

Air Quality Monitoring

Monitoring Station	1-hour TSP Level in μg/m³		24-hour TSP Level in μg/m³	
	Action Level	Limit Level	Action Level	Limit Level
AM1	320	500	189	260
AM2	322	500	187	260

Noise Monitoring

Monitoring Stations	Leq(30min),dB(A)	
	Action Level (dB(A))	Limit Level (dB(A))
NM1	When one documented complaint is received	75*
NM2		
NM3		

*Notes: (1) If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) used by the Noise Control Authority should be followed.

(2) The limit level shall be 70 dB(A) and 65 dB(A) for educational institute during normal teaching periods and school examination periods, respectively.

Ecological Monitoring of Waterbirds using Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Action Level	Limit Level
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that Action Level response is triggered.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level Response is triggered.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.

*Note: Whether numbers are significant depend on species and season after collection and evaluation of baseline data.

Appendix 4.2

Copies of Calibration Certificates

TISCH Environmental

RECALIBRATION DUE DATE:
August 3, 2022

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	August 3, 2021	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 750.3	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3166**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3610	3.2	2.00
2	3	4	1	0.9540	6.4	4.00
3	5	6	1	0.8460	7.9	5.00
4	7	8	1	0.8070	8.7	5.50
5	9	10	1	0.6630	12.7	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H(Ta/Pa)}$ (y-axis)
0.9930	0.7296	1.4123	0.9957	0.7316	0.8868
0.9888	1.0365	1.9973	0.9915	1.0393	1.2541
0.9868	1.1664	2.2330	0.9895	1.1696	1.4021
0.9857	1.2215	2.3420	0.9884	1.2248	1.4705
0.9804	1.4788	2.8246	0.9831	1.4828	1.7735
QSTD	**m=**	**1.88375**	**QA**	**m=**	**1.17957**
	b=	**0.03970**		**b=**	**0.02493**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

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

For subsequent flow rate calculations:

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

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

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

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

RECALIBRATION

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

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

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

Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	AM1a	**Calbration Date**	:	1-Mar-22
Equipment no.	:	HVS001	**Calbration Due Date**	:	1-May-22

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition					
Temperature, T_a	297	Kelvin	**Pressure, P_a**	1016	mmHg

Orifice Transfer Standard Information					
Equipment No.	**3166**	**Slope, m_c**	1.88375	**Intercept, bc**	0.03970
Last Calibration Date	3-Aug-21	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$			
Next Calibration Date	3-Aug-22	$= m_c \times Q_{std} + b_c$			

Calibration of TSP						
Calibration Point	**Manometer Reading H (inches of water)**			**Q_{std}** (m^3 / min.)	**Continuous Flow Recorder, W**	**IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$
	(up)	(down)	(difference)	**X-axis**	(CFM)	**Y-axis**
1	1.3	1.3	2.6	0.8375	22	22.0663
2	2.4	2.4	4.8	1.1455	34	34.1025
3	3.4	3.4	6.8	1.3674	42	42.1267
4	4.2	4.2	8.4	1.5221	51	51.1538
5	5.3	5.3	10.6	1.7125	60	60.1809

By Linear Regression of Y on X

Slope, m	=	43.4152	Intercept, b	=	-15.2516
Correlation Coefficient*	=	0.9964			
Calibration Accepted	=	Yes/~~No~~**			

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : Serial No.:0401-1105

Calibrated by	:	Patrick Yeung	**Checked by**	:	Kelly Cheung
Date	:	1-Mar-22	**Date**	:	1-Mar-22

Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	AM2a	**Calbration Date**	:	1-Mar-22
Equipment no.	:	HVS003	**Calbration Due Date**	:	1-May-22

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition					
Temperature, T_a	297	Kelvin	**Pressure, P_a**	1016	mmHg

Orifice Transfer Standard Information					
Equipment No.	**3166**	**Slope, m_c**	1.88375	**Intercept, bc**	0.03970
Last Calibration Date	3-Aug-21	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$			
Next Calibration Date	3-Aug-22	$= m_c \times Q_{std} + b_c$			

Calibration of TSP						
Calibration Point	**Manometer Reading H (inches of water)**			**Q_{std}** (m^3 / min.)	**Continuous Flow Recorder, W**	**IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$
	(up)	(down)	(difference)	**X-axis**	(CFM)	**Y-axis**
1	2.3	2.3	4.6	1.1209	24	24.0724
2	3.4	3.4	6.8	1.3674	32	32.0965
3	4.6	4.6	9.2	1.5939	42	42.1267
4	5.2	5.2	10.4	1.6960	48	48.1448
5	6.2	6.2	12.4	1.8539	54	54.1628

By Linear Regression of Y on X

Slope, m = 42.0191 Intercept, b = -24.0192

Correlation Coefficient* = 0.9963

Calibration Accepted = Yes/~~No~~**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : Serial No.: 1096-2305

Calibrated by	:	Patrick Yeung	**Checked by**	:	Kelly Cheung
Date	:	1-Mar-22	**Date**	:	1-Mar-22

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	AEROCET831
Serial Number	:	B19129
Performance Check Date	:	22-Nov-21, 3-Nov-21

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS002
Last Calibration Date	:	28-Oct-21

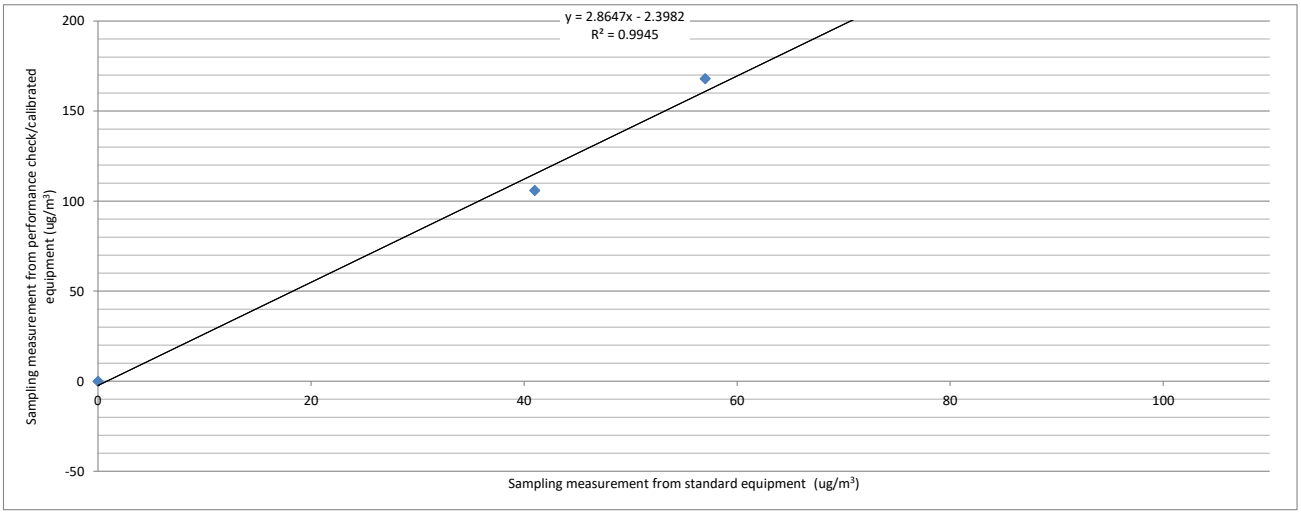
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Pressure (hPa)	Mean Temp (˚C)	Concentration in ug/m^3 (Standard equipment) (X - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (Y - Axis)
Zero Check	2/11/2021	1015	27	0	0
1	2/11/21 08:33	1016	24	41	106
2	2/11/21 10:37	1016	24	57	168
3	3/11/21 09:31	1018	22	75	212

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	0.4000
Correlation Coefficient	:	0.9973
Validity of Performance Check / Calibration Record	:	12/11/2022



Operator:	Garry Yu	Date:	12-Nov-21
Checked by:	Derek Lo	Date:	12-Nov-21

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	Metone AEROCET 831
Model Number	:	831
Serial Number	:	R14332
Performance Check Date	:	22-Mar-21

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS018
Last Calibration Date	:	08-Mar-21

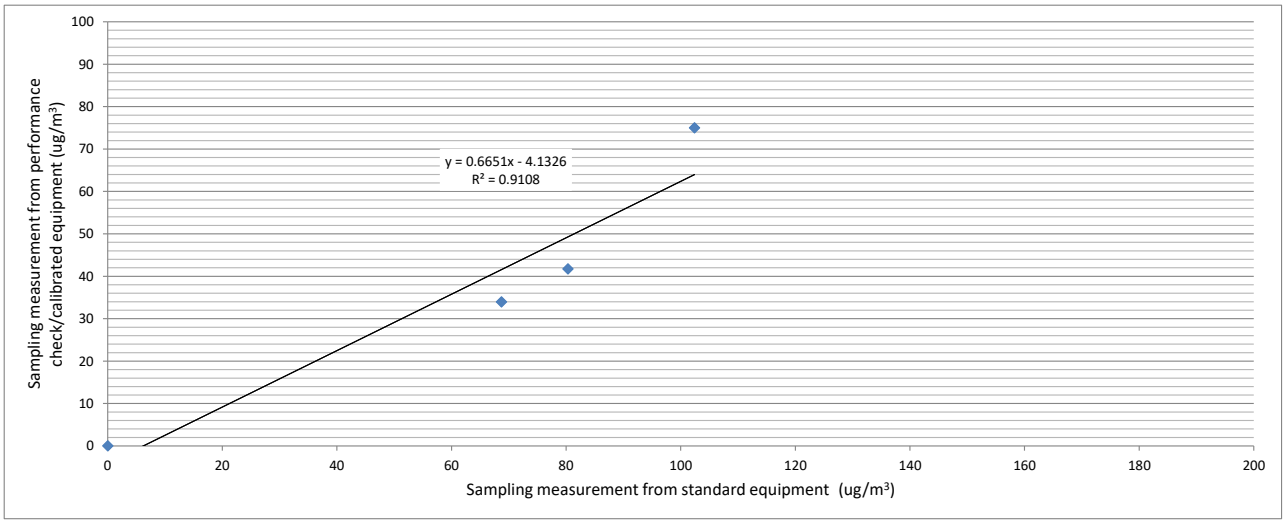
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Pressure (hPa)	Mean Temp (˚C)	Concentration in ug/m^3 (Standard equipment) (X - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (Y - Axis)
Zero Check	28/12/2020 08:00	0	0	0	0
1	22/3/2021 08:00	1015	21	102	75
2	22/3/2021 09:01	1015	21	80	42
3	22/3/2021 10:02	1015	21	69	34

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.4000
Correlation Coefficient	:	0.9544
Validity of Performance Check / Calibration Record	:	22/3/2022



Operator:	Alan Ng	Date:	22-Mar-21
Checked by:	James Chu	Date:	23-Mar-21

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	Metone AEROCET 831
Model Number	:	BT-645
Serial Number	:	X19297
Performance Check Date	:	20-Apr-21

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS000
Last Calibration Date	:	20-Apr-21

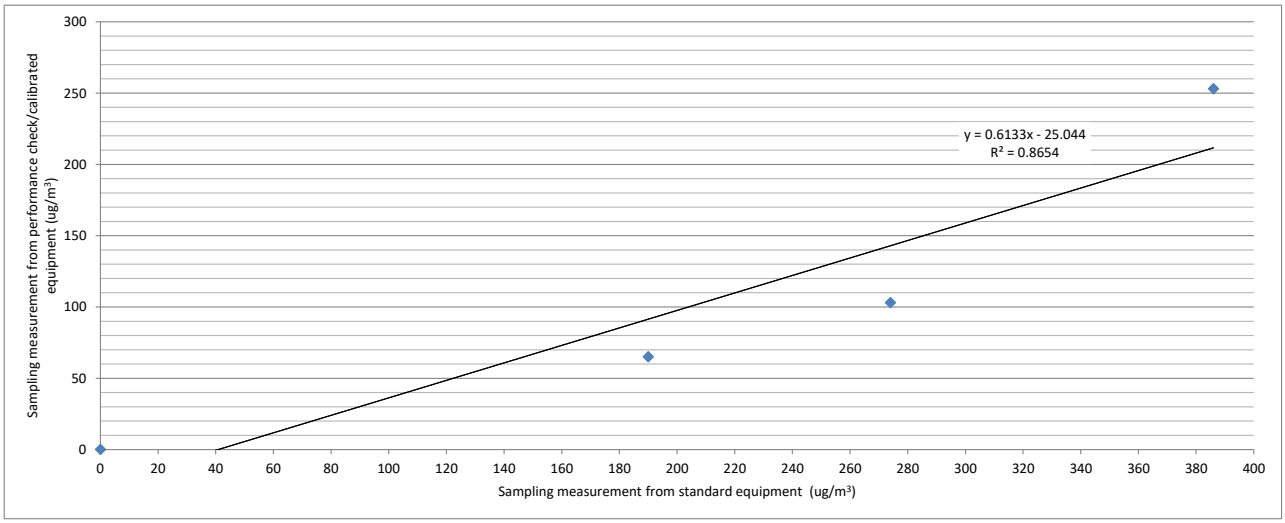
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Pressure (hPa)	Mean Temp (˚C)	Concentration in ug/m^3 (Standard equipment) (X - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (Y - Axis)
Zero Check	19/4/2021 08:00	0	0	0	0
1	20/4/2021 10:17	1013	23	190	65
2	20/4/2021 11:18	1013	23	386	253
3	20/4/2021 11:19	1013	23	274	103

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.5000
Correlation Coefficient	:	0.9303
Validity of Performance Check / Calibration Record	:	20/4/2022



Operator:	Alan Ng	Date:	20-Apr-21
Checked by:	James Chu	Date:	21-Apr-21

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	Metone AEROCET 831
Model Number	:	831
Serial Number	:	Y23153
Performance Check Date	:	30-Sep-21

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS018
Last Calibration Date	:	6-Sep-21

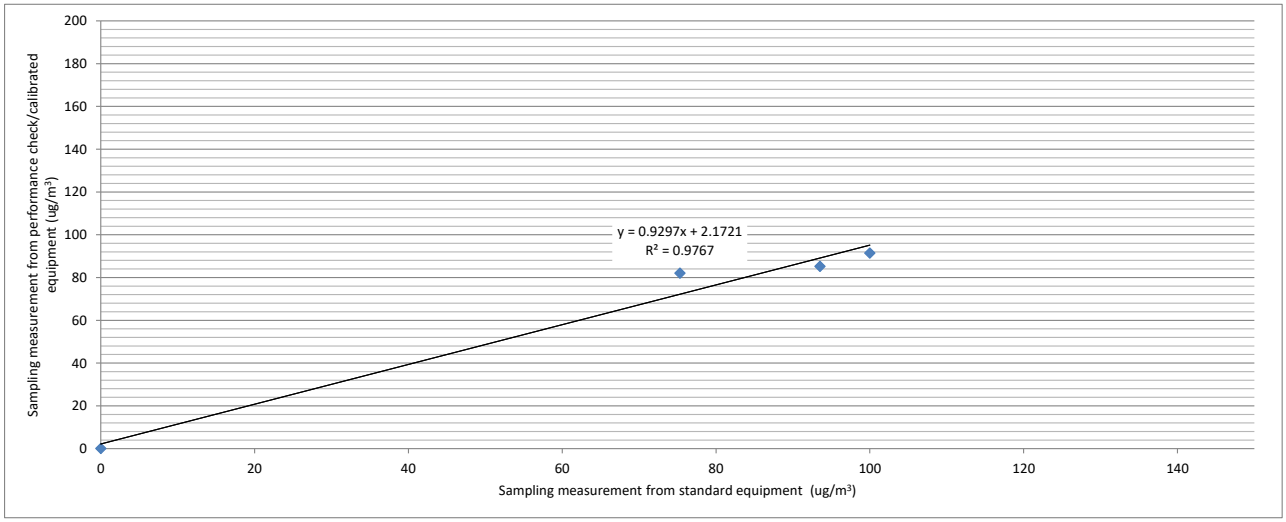
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Pressure (hPa)	Mean Temp (˚C)	Concentration in ug/m^3 (Standard equipment) (X - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (Y - Axis)
Zero Check	29/9/2021 08:00	1008	30	0	0
1	30/9/2021 09:26	1008	30	94	85
2	30/9/2021 10:27	1008	30	100	91
3	30/9/2021 11:28	1008	30	75	82

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.1000
Correlation Coefficient	:	0.9883
Validity of Performance Check / Calibration Record	:	30/9/2022



Operator:	Henry Lau	Date:	30-Sep-21
Checked by:	James Chu	Date:	1-Oct-21

綜合試驗有限公司
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Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

CERTIFICATE OF CALIBRATION

Certificate No.: 21CA0526 02-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	Microphone	Preamp
Manufacturer:	Larson Davis	PCB	PCB
Type/Model No.:	LxT1	377B02	PRMLxT1L
Serial/Equipment No.:	0004797	163704	042622
Adaptors used:	-	-	-

Item submitted by

Customer Name:	Lam Environmental Services Limited.
Address of Customer:	-
Request No.:	-
Date of receipt:	26-May-2021

Date of test: 27-May-2021

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	23-Aug-2021	CIGISMEC
Signal generator	DS 360	61227	31-Dec-2021	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	55 ± 10 %
Air pressure:	1005 ± 5 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Feng Junqi **Date:** 28-May-2021 **Company Chop:**

SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 21CA0526 02-01 **Page** 2 **of** 2

1, Electrical Tests

The electrical tests were perfomed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	0.8	2.1
	Lin	Pass	1.6	2.2
Linearity range for Leq	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100μs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor $1/10^3$ at 4kHz	Pass	0.3	
	1 ms burst duty factor $1/10^4$ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 27-May-2021

Checked by: Chan Yuk Yiu **Date:** 28-May-2021

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

SMECLab

Sound level meter	type:	LxT1	Serial No.	0004797	Date 27-May-2021
Microphone	type:	377B02	Serial No.	163704	
Preamp	type:	PRMLxT1L	Serial No.	042622	Report: 21CA0526 02-01

SELF GENERATED NOISE TEST

The noise test is performed in the most sensitive range of the SLM with the microphone replaced by an equivalent impedance.

Noise level in A weighting	10.6	dB
Noise level in C weighting	14.8	dB
Noise level in Lin	22.3	dB

LINEARITY TEST

The linearity is tested relative to the reference sound pressure level using a continuous sinusoidal signal of frequency 4 kHz. The measurement is made on the reference range for indications at 5 dB intervals starting from the 94 dB reference sound pressure level. And until within 5 dB of the upper and lower limits of the reference range, the measurements shall be made at 1 dB intervals.(SLM set to LEQ/SPL)

Reference/Expected level	Actual level		Tolerance	Deviation	
	non-integrated	integrated		non-integrated	integrated
dB	dB	dB	+/- dB	dB	dB
94.0	94.0	94.0	0.7	0.0	0.0
99.0	99.0	99.0	0.7	0.0	0.0
104.0	104.0	104.0	0.7	0.0	0.0
109.0	109.0	109.0	0.7	0.0	0.0
114.0	114.0	114.0	0.7	0.0	0.0
115.0	115.0	115.0	0.7	0.0	0.0
116.0	116.0	116.0	0.7	0.0	0.0
117.0	117.0	117.0	0.7	0.0	0.0
118.0	118.0	118.0	0.7	0.0	0.0
119.0	119.0	119.0	0.7	0.0	0.0
120.0	120.0	120.0	0.7	0.0	0.0
89.0	89.0	89.0	0.7	0.0	0.0
84.0	84.0	84.0	0.7	0.0	0.0
79.0	79.0	79.0	0.7	0.0	0.0
74.0	73.9	73.9	0.7	-0.1	-0.1
69.0	68.9	68.9	0.7	-0.1	-0.1
64.0	63.9	63.9	0.7	-0.1	-0.1
59.0	58.9	58.9	0.7	-0.1	-0.1
54.0	53.9	53.9	0.7	-0.1	-0.1
49.0	48.9	48.9	0.7	-0.1	-0.1
44.0	43.9	43.9	0.7	-0.1	-0.1
39.0	38.9	38.9	0.7	-0.1	-0.1
34.0	33.9	33.9	0.7	-0.1	-0.1
33.0	32.9	32.9	0.7	-0.1	-0.1

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SMECLab

Sound level meter type:	LxT1	Serial No.	0004797	Date	27-May-2021
Microphone type:	377B02	Serial No.	163704		
Preamp type:	PRMLxT1L	Serial No.	042622	Report:	21CA0526 02-01

32.0	31.9	31.9	0.7	-0.1	-0.1
31.0	30.9	30.9	0.7	-0.1	-0.1
30.0	29.9	29.9	0.7	-0.1	-0.1

Measurements for an indication of the reference SPL on all other ranges which include it

Other ranges	Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
20-120	94.0	94.0	0.7	0.0

Measurements on all level ranges for indications 2 dB below the upper limit and 2 dB above the lower limit

Ranges	Reference/Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
20-120	30.0	29.9	0.7	-0.1
	118.0	118.0	0.7	0.0

FREQUENCY WEIGHTING TEST

The frequency response of the weighting netwoks are tested at octave intervals over the frequency ranges 31.5 Hz to 12500 Hz. The signal level at 1000 Hz is set to give an indication of the reference SPL.

Frequency weighting A:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	54.6	54.5	1.5	1.5	-0.1
63.1	94.0	67.8	67.8	1.5	1.5	0.0
125.9	94.0	77.9	77.9	1.0	1.0	0.0
251.2	94.0	85.4	85.3	1.0	1.0	-0.1
501.2	94.0	90.8	90.7	1.0	1.0	-0.1
1995.0	94.0	95.2	95.2	1.0	1.0	0.0
3981.0	94.0	95.0	95.0	1.0	1.0	0.0
7943.0	94.0	92.9	92.9	1.5	3.0	0.0
12590.0	94.0	89.7	89.7	3.0	6.0	0.0

Frequency weighting C:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	91.0	91.0	1.5	1.5	0.0
63.1	94.0	93.2	93.1	1.5	1.5	-0.1
125.9	94.0	93.8	93.8	1.0	1.0	0.0
251.2	94.0	94.0	94.0	1.0	1.0	0.0
501.2	94.0	94.0	94.0	1.0	1.0	0.0

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SMECLab

Sound level meter type: LxT1 Serial No. 0004797 Date 27-May-2021
Microphone type: 377B02 Serial No. 163704
Preamp type: PRMLxT1L Serial No. 042622 Report: 21CA0526 02-01

1995.0	94.0	93.8	93.8	1.0	1.0	0.0
3981.0	94.0	93.2	93.2	1.0	1.0	0.0
7943.0	94.0	91.0	91.0	1.5	3.0	0.0
12590.0	94.0	87.8	87.7	3.0	6.0	-0.1

Frequency weighting Lin:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	94.0	93.9	1.5	1.5	-0.1
63.1	94.0	94.0	93.9	1.5	1.5	-0.1
125.9	94.0	94.0	94.0	1.0	1.0	0.0
251.2	94.0	94.0	94.0	1.0	1.0	0.0
501.2	94.0	94.0	94.0	1.0	1.0	0.0
1995.0	94.0	94.0	94.0	1.0	1.0	0.0
3981.0	94.0	94.0	94.0	1.0	1.0	0.0
7943.0	94.0	94.0	94.0	1.5	3.0	0.0
12590.0	94.0	94.0	94.0	3.0	6.0	0.0

TIME WEIGHTING FAST TEST

Time weighting F is tested on the reference range with a single sinusoidal burst of duration 200 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	115.0	114.9	1.0	1.0	-0.1

TIME WEIGHTING SLOW TEST

Time weighting S is tested on the reference range with a single sinusoidal burst of duration 500 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	111.9	111.8	1.0	1.0	-0.1

PEAK RESPONSE TEST

The onset time of the peak detector is tested on the reference range by comparing the response to a 100 us rectangular test pulse with the response to a 10 ms reference pulse of the same amplitude. The amplitude of the 10 ms reference pulse is such as to produce an indication 1 dB below the upper limit of the primary indicator range.

Positive polarities: (Weighting Z, set the generator signal to single, Lzpeak)

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	118.7	2.0	-0.3

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SMECLab

Sound level meter type:	LxT1	Serial No.	0004797	Date	27-May-2021
Microphone type:	377B02	Serial No.	163704		
Preamp type:	PRMLxT1L	Serial No.	042622	Report:	21CA0526 02-01

Negative polarities:

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	118.7	2.0	-0.3

RMS ACCURACY TEST

The RMS detector accuracy is tested on the reference range for a crest factor of 3.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz. (Set to INT)

	Ref. Level	Expected level	Tone burst signal	Tolerance	Deviation
Time wighting	dB	dB	indication(dB)	+/- dB	dB
Slow	114.0+6.6	114.0	113.9	0.5	-0.1

TIME WEIGHTING IMPULSE TEST

Time weighting I is tested on the reference range (Set the SLM to LAImax)
Test frequency: 2000 Hz
Amplitude: The upper limit of the primary indicator range.

Single sinusoidal burst of duration 5 ms:

Ref. Level	Single burst indication		Tolerance	Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	111.2	111.1	2.0	-0.1

Repeated at 100 Hz

Ref. Level	Repeated burst indication		Tolerance	Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	117.3	117.1	1.0	-0.2

TIME AVERAGING TEST

This test compares the SLM reading for continuous sine signals with readings obtained from a sine tone burst sequence having the same RMS level. The test level is 30 dB below the upper limit of the linearity range and repeated for Type 1 SLM with 40 dB below the upper limit of the linearity.

Frequency of tone burst: 4000 Hz
Duration of tone burst: 1 ms

Repetition Time	Level of tone burst	Expected Leq	Actual Leq	Tolerance	Deviation	Remarks
msec	dB	dB	dB	+/- dB	dB	
1000	90.0	90.0	89.9	1.0	-0.1	60s integ.
10000	80.0	80.0	79.9	1.0	-0.1	6min. integ.

PULSE RANGE AND SOUND EXPOSURE LEVEL TEST

The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec

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SMECLab

Sound level meter type:	LxT1	Serial No.	0004797	Date	27-May-2021
Microphone type:	377B02	Serial No.	163704		
Preamp type:	PRMLxT1L	Serial No.	042622	Report:	21CA0526 02-01

The integrating sound level meter set to Leq:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10	88.0	58.0	58.0	1.7	0.0

The integrating sound level meter set to SEL:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10.0	88.0	68.0	68.0	1.7	0.0

OVERLOAD INDICATION TEST

For SLM capable of operating in a non-integrating mode.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz.

Level	Level reduced by	Further reduced	Difference	Tolerance	Deviation
at overload (dB)	1 dB	3 dB	dB	dB	dB
113.4	112.4	109.4	3.0	1.0	0.0

For integrating SLM, with the instrument indicating Leq.

For integrating SLM, with the instrument indicating Leq and set to the reference range. The test signal as following:
The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec
Single burst duration: 1 msec

Rms level	Level reduced by	Expected level	Actual level	Tolerance	Deviation
at overload (dB)	1 dB	dB	dB	dB	dB
120.2	119.2	79.2	79.2	2.2	0.0

ACOUSTIC TEST

The acoustic test of the complete SLM is tested at the frequency 125 Hz and 8000 Hz using a B&K type 4226 Multifunction Acoustic Calibrator. The test is performed in A weighting.

Frequency	Expected level	Actual level	Tolerance (dB)		Deviation
Hz	dB	Measured (dB)	+	-	dB
1000	94.0	94.0	0.0	0.0	0.0
125	77.9	78.1	1.0	1.0	0.2
8000	92.9	91.2	1.5	3.0	-1.7

----------END---------

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Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

CERTIFICATE OF CALIBRATION

Certificate No.: 21CA1222 02-01 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Larson Davis
Type/Model No.:	CAL200
Serial/Equipment No.:	13098
Adaptors used:	-

Item submitted by

Curstomer:	Lam Environmental Services Ltd.
Address of Customer:	-
Request No.:	-
Date of receipt:	22-Dec-2021

Date of test: 29-Dec-2021

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	04-May-2022	SCL
Preamplifier	B&K 2673	2239857	31-May-2022	CEPREI
Measuring amplifier	B&K 2610	2346941	01-Jun-2022	CEPREI
Signal generator	DS 360	33873	27-May-2022	CEPREI
Digital multi-meter	34401A	US36087050	27-May-2022	CEPREI
Audio analyzer	8903B	GB41300350	28-May-2022	CEPREI
Universal counter	53132A	MY40003662	02-Jun-2022	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	55 ± 10 %
Air pressure:	1005 ± 5 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Feng Junqi **Date:** 03-Jan-2022 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 21CA1222 02-01 **Page:** 2 **of** 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

(Output level in dB re 20 μPa)

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	Estimated Expanded Uncertainty dB
1000	94.00	93.76	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz **STF = 0.018 dB**

Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz **Actual Frequency = 999.9 Hz**

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz **TND = 0.6%**

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Tung Chi Yip **Date:** 29-Dec-2021

Checked by: Chan Yuk Yiu **Date:** 03-Jan-2022

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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Lam Environmental Services Limited

Wind Station Performance Check Record

Type : Weather Station

Manufacturer : 武汉辰云科技有限公司

Model Number : YGY-FSXY1

Serial Number : YG 21071630T0924

Performance Check Date : 19-Mar-2022

Performance Check Results

Wind Speed Range (m/s)	Direct Reading average (V1, m/s)	Anemometer Value average (V2, m/s)	Difference (V1 - V2, m/s)
Zero Check	0.0	0	0
0 - 1	0.8	0.8	0
1 -2	1.5	1.7	-0.2
2 - 3	2.5	2.4	0.1

Wind Direction (^{o})	Direct Reading (W1, ^{o})	Compass Value (W2, ^{o})	Difference (W1 - W2, m/s)
0	0	0	0
90	90	90	0
180	180	179	1
270	270	271	-1

Test Reference:
1. Wind Speed Check - Wind speed reading checked on-site against the anemometer.
2. Wind Direction Check - Wind direction reading check against on-site the marine compass.

Conducted by: Patrick Yeung

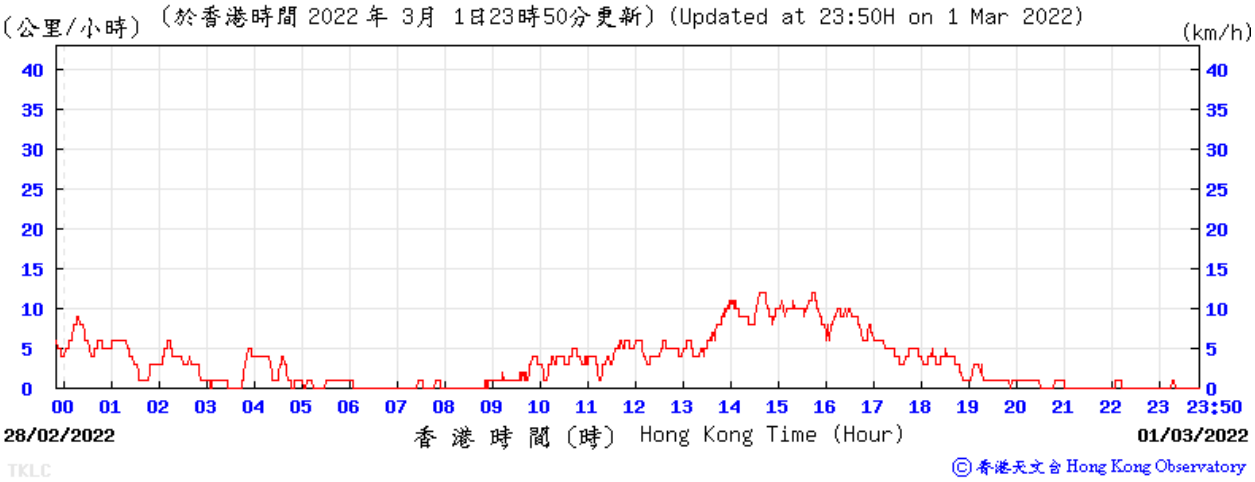
Checked by: Derek Lo

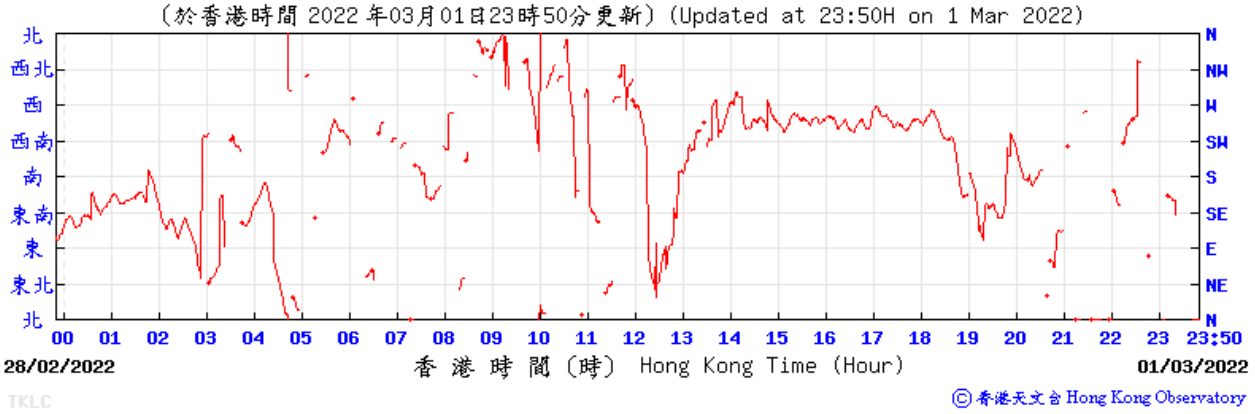
Appendix 4.3

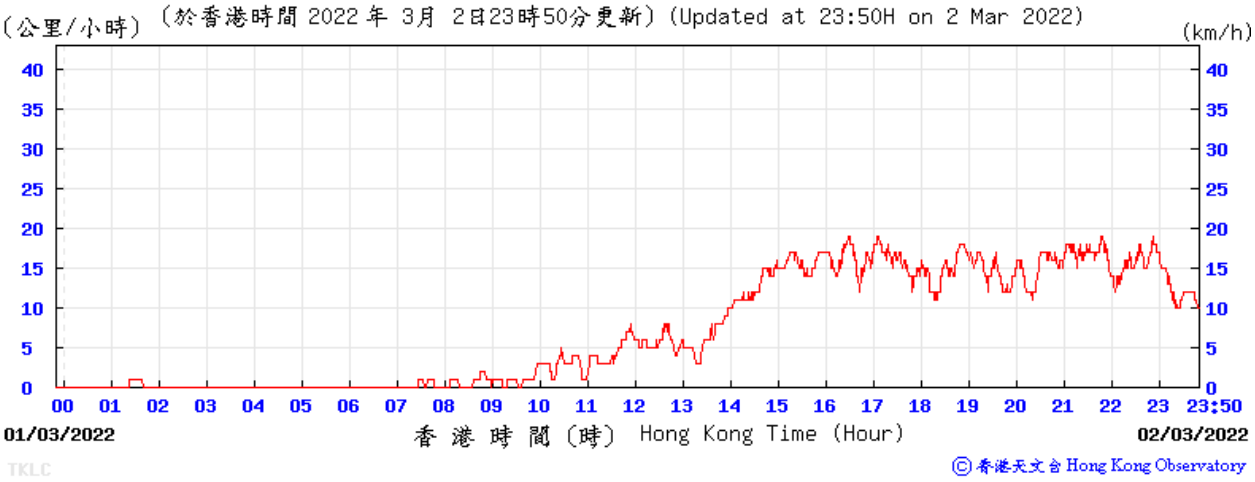
Wind Data

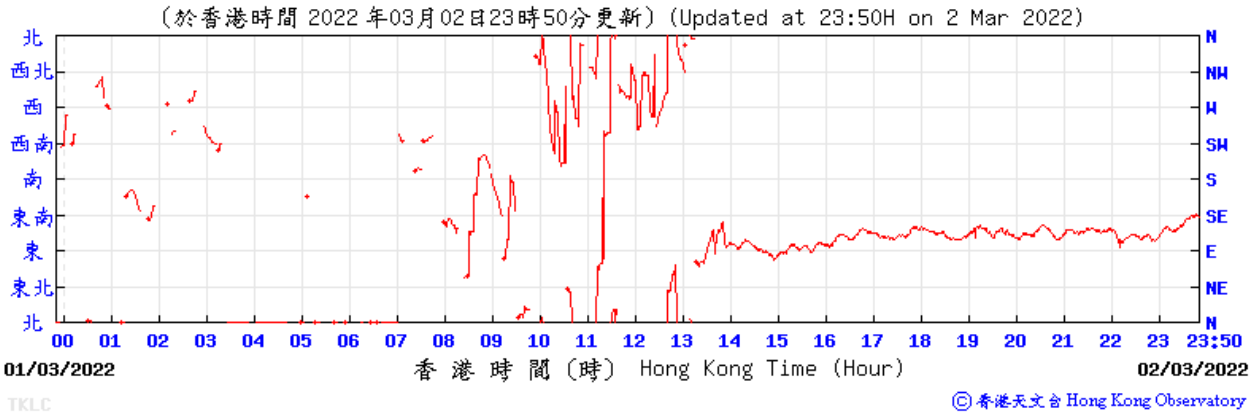
Wind data extraction from the Hong Kong Observatory (HKO)

1. Wind Speed and wind direction extracted from the HKO, Ta Kwu Ling Weather Station





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北
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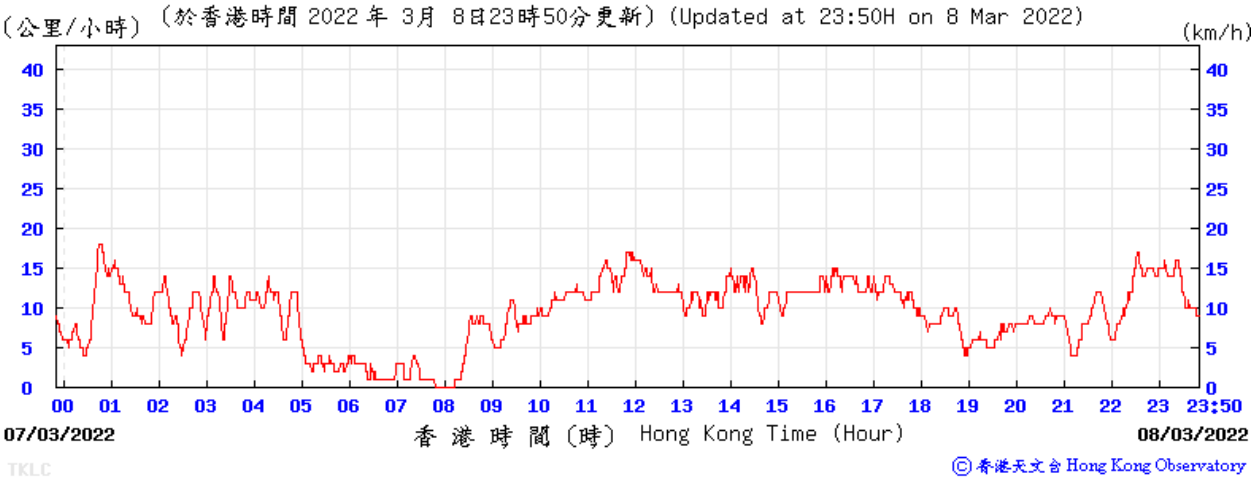
01/03/2022
香 港 時 間 (時) Hong Kong Time (Hour)
02/03/2022
TKLC
© 香港天文台 Hong Kong Observatory

香港所有氣象站 2022年03月07日 十分鐘平均風速變化圖
風速 (km/h)
25
20
15
10
5
0
2022-03-07
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
2022-0...


(公里/小時) (於香港時間 2022 年 3月 8日23時50分更新) (Updated at 23:50H on 8 Mar 2022)
(km/h)
40
35
30
25
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15
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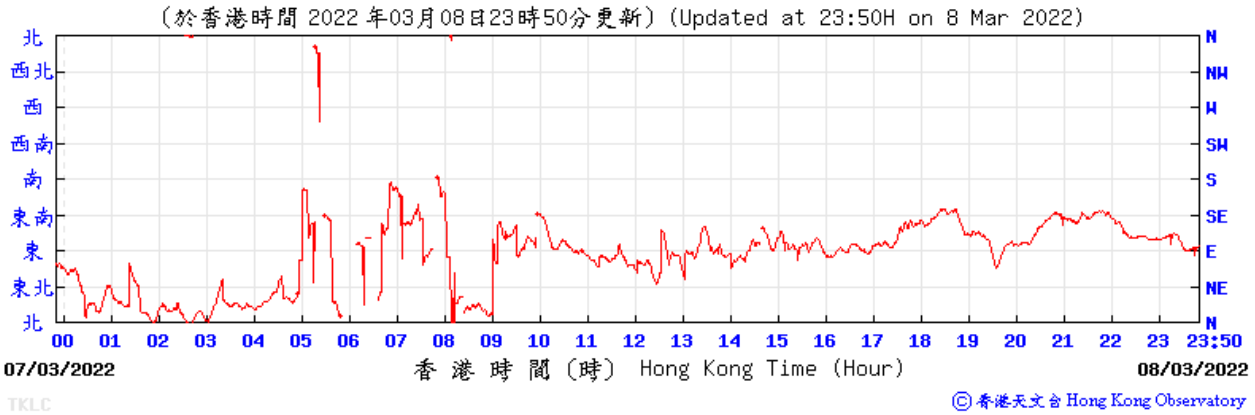
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
07/03/2022
香 港 時 間 (時) Hong Kong Time (Hour)
08/03/2022
TKLC
© 香港天文台 Hong Kong Observatory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北
西北
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NE
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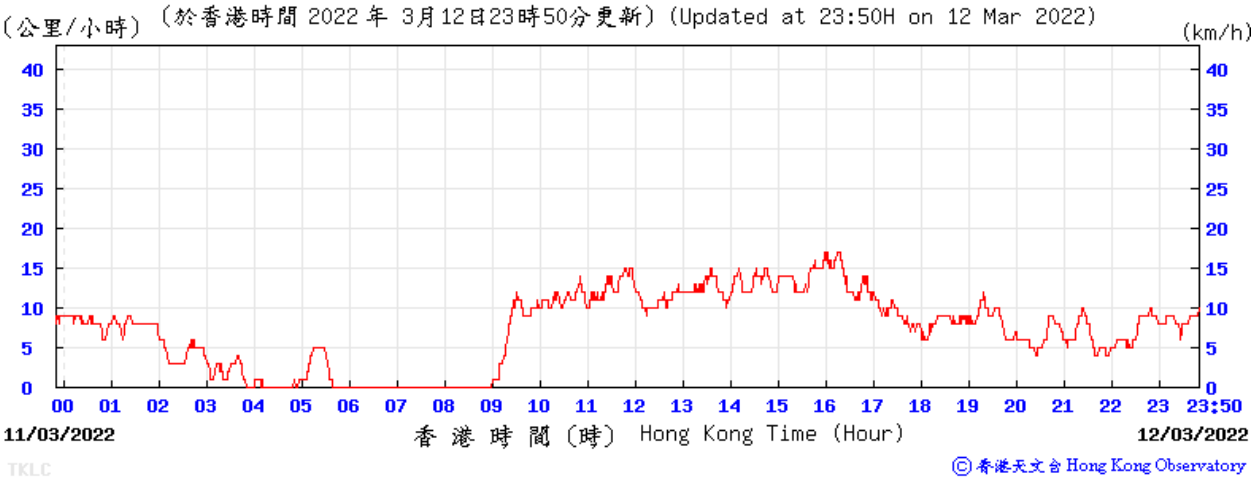
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
07/03/2022
香 港 時 間（時） Hong Kong Time (Hour)
08/03/2022
TKLC
© 香港天文台 Hong Kong Observatory


（公里/小時）
（於香港時間 2022 年 3月12日23時50分更新）(Updated at 23:50H on 12 Mar 2022)
(km/h)
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35
30
25
20
15
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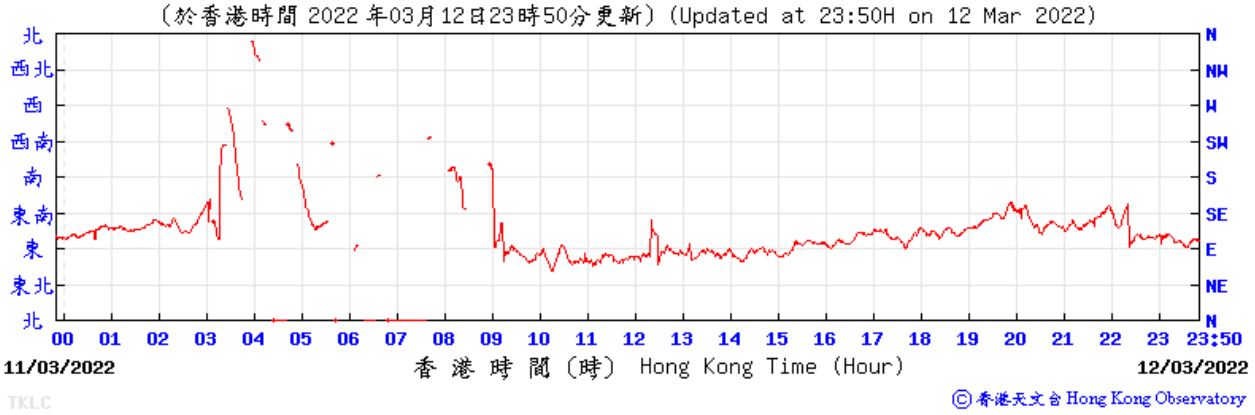
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
11/03/2022
香 港 時 間（時） Hong Kong Time (Hour)
12/03/2022
TKLC
© 香港天文台 Hong Kong Observatory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北
西北
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西南
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東北
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SE
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NE
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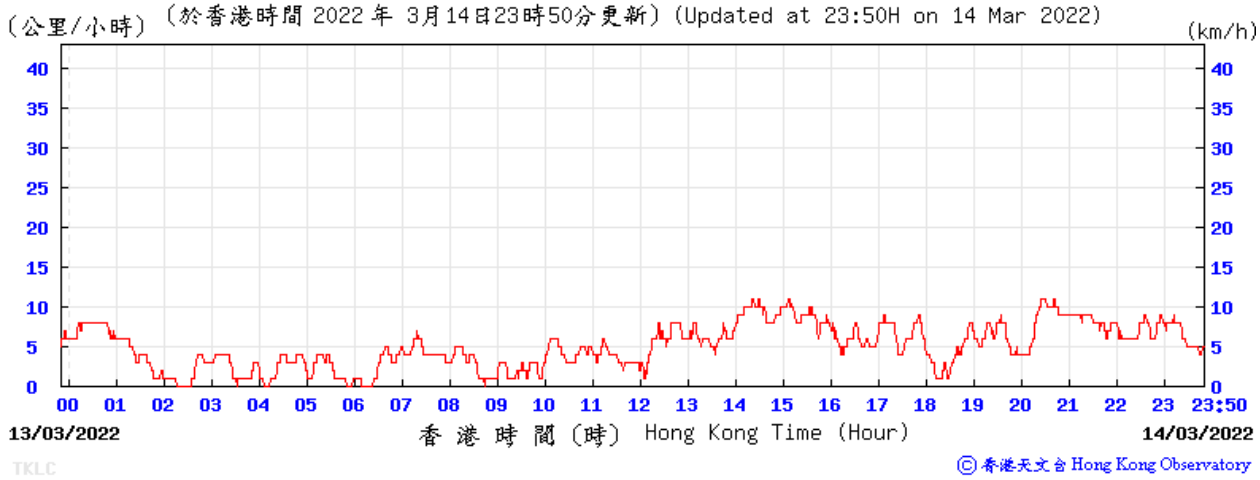
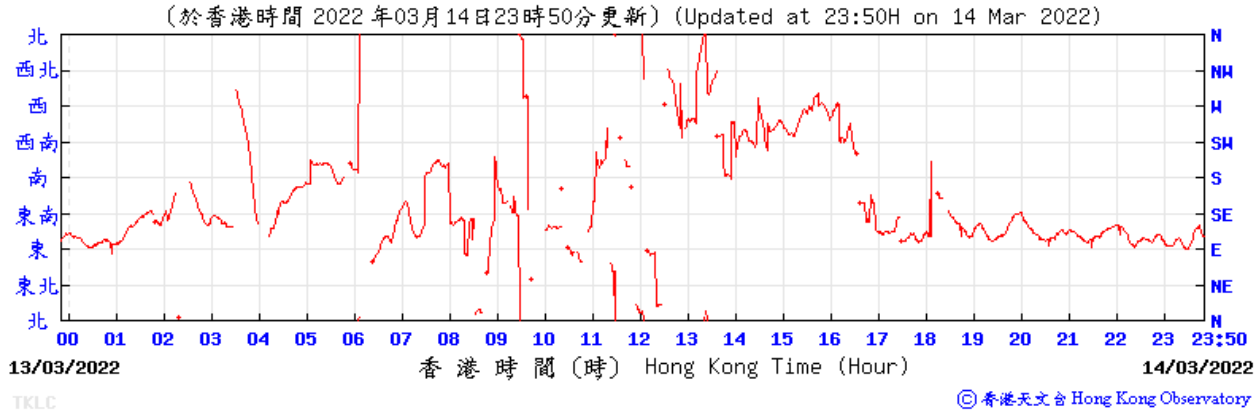
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
11/03/2022
香 港 時 間（時） Hong Kong Time (Hour)
12/03/2022
TKLC
© 香港天文台 Hong Kong Observatory


(公里/小時) (於香港時間 2022 年 3月14日23時50分更新) (Updated at 23:50H on 14 Mar 2022)
(km/h)
40
35
30
25
20
15
10
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
13/03/2022
香 港 時 間 (時) Hong Kong Time (Hour)
14/03/2022
TKLC
© 香港天文台 Hong Kong Observatory


(於香港時間 2022 年03月14日23時50分更新) (Updated at 23:50H on 14 Mar 2022)
北
西北
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西南
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東北
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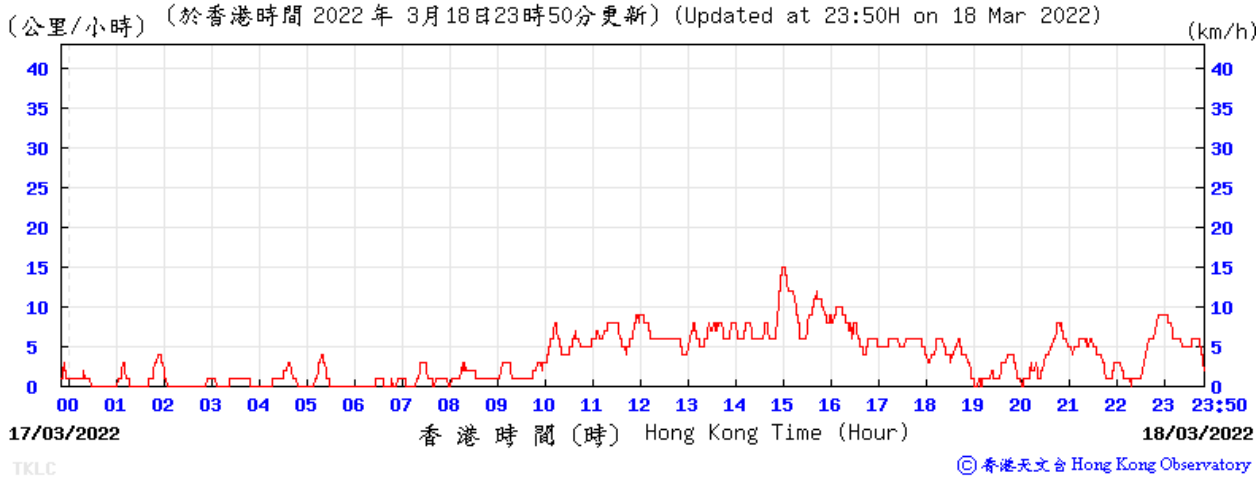
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
13/03/2022
香 港 時 間 (時) Hong Kong Time (Hour)
14/03/2022
TKLC
© 香港天文台 Hong Kong Observatory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(km/h)
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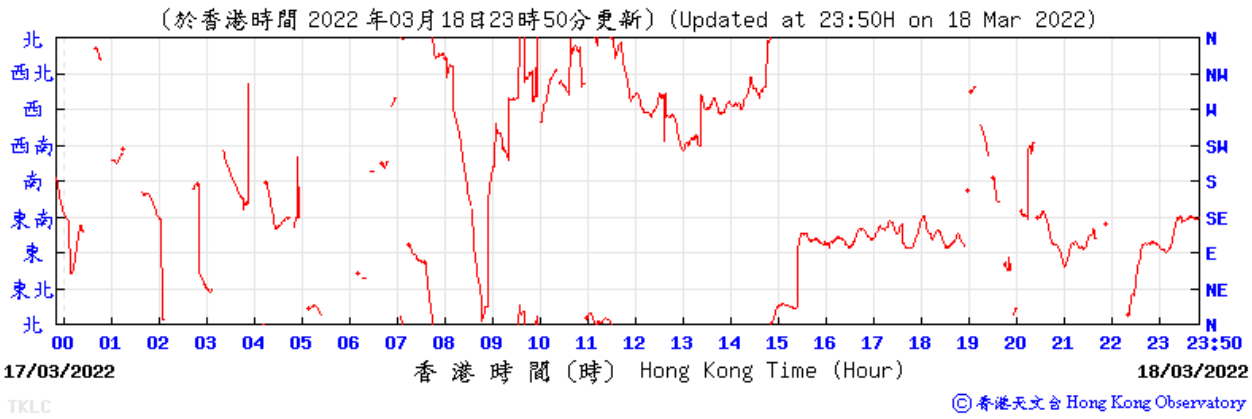
35
30
25
20
15
10
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
17/03/2022
香 港 時 間 (時) Hong Kong Time (Hour)
18/03/2022
TKLC
© 香港天文台 Hong Kong Observatory



Remarks

1. Data unavailable from 1 Mar 2022 to 18 Mar 2022 since the wind anemometer (Serial no. YGY-FSXY1) is under calibration check.
2. The wind data during this period were reference to the wind data obtained from Hong Kong Observatory, i.e. Ta Kwu Ling weather station

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
19-Mar-22	13:00	2.8	71(ENE)
	14:00	1.5	72(ENE)
	15:00	0.8	121(ESE)
	16:00	2.4	102(ESE)
	17:00	0.4	72(ENE)
	18:00	3.3	121(ESE)
	19:00	1.4	92(E)
	20:00	0.4	46(NE)
	21:00	3.8	79(E)
	22:00	1.7	135(SE)
	23:00	2.4	128(SE)
20-Mar-22	00:00	1.2	162(SSE)
	01:00	1.9	186(S)
	02:00	2.2	142(SE)
	03:00	1.8	128(SE)
	04:00	1.3	201(SSW)
	05:00	1.3	130(SE)
	06:00	1.4	129(SE)
	07:00	1.7	216(SW)
	08:00	1.8	192(SSW)
	09:00	1.4	146(SE)
	10:00	1.2	167(SSE)
	11:00	2.8	122(ESE)
	12:00	0.8	136(SE)
	13:00	1.3	157(SSE)
	14:00	1.2	121(ESE)
	15:00	1.5	208(SSW)
	16:00	1.3	216(SW)
	17:00	3.4	75(ENE)
	18:00	1.3	109(ESE)
	19:00	1.8	156(SSE)
	20:00	0.8	167(SSE)
	21:00	1.4	272(W)
	22:00	1.3	149(SSE)
	23:00	2.8	238(WSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
21-Mar-22	00:00	0.2	186(S)
	01:00	1.4	219(SW)
	02:00	2.5	204(SSW)
	03:00	2.8	201(SSW)
	04:00	2.8	200(SSW)
	05:00	2.8	156(SSE)
	06:00	1.3	200(SSW)
	07:00	3.2	214(SW)
	08:00	1.8	255(WSW)
	09:00	3.3	210(SSW)
	10:00	1.2	116(ESE)
	11:00	4.3	171(S)
	12:00	2.8	192(SSW)
	13:00	3.4	88(E)
	14:00	0.4	266(W)
	15:00	1.2	189(S)
	16:00	1.2	131(SE)
	17:00	1.3	235(SW)
	18:00	1.2	111(ESE)
	19:00	1.2	177(S)
	20:00	0.2	109(ESE)
	21:00	0.2	245(WSW)
	22:00	0.8	112(ESE)
	23:00	2.5	216(SW)
22-Mar-22	00:00	1.2	286(WNW)
	01:00	1.8	169(S)
	02:00	1.2	86(E)
	03:00	1.3	196(SSW)
	04:00	0.2	308(NW)
	05:00	1.3	188(S)
	06:00	0.4	144(SE)
	07:00	2.5	239(WSW)
	08:00	1.2	225(SW)
	09:00	3.8	273(W)
	10:00	1.4	316(NW)
	11:00	1.2	126(SE)
	12:00	1.2	166(SSE)
	13:00	3.3	203(SSW)
	14:00	2.4	101(E)
	15:00	3.8	244(WSW)
	16:00	1.8	205(SSW)
	17:00	2.2	220(SW)
	18:00	1.8	211(SSW)
	19:00	2.5	230(SW)
	20:00	1.8	297(WNW)
	21:00	2.2	266(W)
	22:00	1.2	83(E)
	23:00	0.2	257(WSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
23-Mar-22	00:00	1.2	238(WSW)
	01:00	2.2	209(SSW)
	02:00	1.2	83(E)
	03:00	0.4	161(SSE)
	04:00	1.2	86(E)
	05:00	1.3	210(SSW)
	06:00	1.2	165(SSE)
	07:00	1.2	167(SSE)
	08:00	1.2	160(SSE)
	09:00	1.3	184(S)
	10:00	1.2	334(NNW)
	11:00	1.2	182(S)
	12:00	1.2	78(ENE)
	13:00	1.8	224(SW)
	14:00	1.7	110(ESE)
	15:00	0.2	194(SSW)
	16:00	1.2	38(NE)
	17:00	0.8	134(SE)
	18:00	1.2	131(SE)
	19:00	1.8	141(SE)
	20:00	1.2	272(W)
	21:00	0.8	151(SSE)
	22:00	1.2	315(NW)
	23:00	1.8	171(S)
24-Mar-22	00:00	2.1	133(SE)
	01:00	2.2	156(SSE)
	02:00	2.6	29(NNE)
	03:00	2.6	249(WSW)
	04:00	2.1	94(E)
	05:00	1.8	187(S)
	06:00	1.7	133(SE)
	07:00	1.7	150(SSE)
	08:00	1.7	95(E)
	09:00	1.8	168(SSE)
	10:00	1.2	178(S)
	11:00	0.8	123(ESE)
	12:00	1.2	134(SE)
	13:00	3.8	283(WNW)
	14:00	1.2	173(S)
	15:00	1.8	291(WNW)
	16:00	1.7	147(SSE)
	17:00	1.8	186(S)
	18:00	1.2	141(SE)
	19:00	1.3	190(S)
	20:00	2.1	91(E)
	21:00	1.8	202(SSW)
	22:00	1.2	73(ENE)
	23:00	1.3	238(WSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
25-Mar-22	00:00	2.5	61(ENE)
	01:00	2.4	188(S)
	02:00	2.2	74(ENE)
	03:00	2.4	118(ESE)
	04:00	2.1	115(ESE)
	05:00	2.4	238(WSW)
	06:00	2.5	88(E)
	07:00	1.7	319(NW)
	08:00	1.2	288(WNW)
	09:00	0.8	132(SE)
	10:00	0.8	170(S)
	11:00	1.4	115(ESE)
	12:00	1.2	139(SE)
	13:00	2.8	178(S)
	14:00	0.4	316(NW)
	15:00	0.8	164(SSE)
	16:00	1.2	242(WSW)
	17:00	1.8	186(S)
	18:00	0.4	223(SW)
	19:00	0.2	89(E)
	20:00	1.2	45(NE)
	21:00	0.2	122(ESE)
	22:00	1.2	144(SE)
	23:00	0.2	30(NNE)
26-Mar-22	00:00	1.2	145(SE)
	01:00	0.8	207(SSW)
	02:00	0.2	185(S)
	03:00	0.8	118(ESE)
	04:00	1.2	134(SE)
	05:00	1.2	128(SE)
	06:00	1.2	107(ESE)
	07:00	1.4	199(SSW)
	08:00	1.2	214(SW)
	09:00	1.7	162(SSE)
	10:00	2.5	219(SW)
	11:00	1.3	110(ESE)
	12:00	1.3	148(SSE)
	13:00	1.1	119(ESE)
	14:00	1.3	234(SW)
	15:00	1.5	159(SSE)
	16:00	1.3	129(SE)
	17:00	1.1	167(SSE)
	18:00	2.5	223(SW)
	19:00	1.1	171(S)
	20:00	2.3	210(SSW)
	21:00	1.5	156(SSE)
	22:00	1.7	251(WSW)
	23:00	1.9	125(SE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
27-Mar-22	00:00	1.1	330(NNW)
	01:00	0.7	100(E)
	02:00	1.9	71(ENE)
	03:00	1.1	187(S)
	04:00	1.3	37(NE)
	05:00	2.1	96(E)
	06:00	1.1	84(E)
	07:00	1.1	346(NNW)
	08:00	1.1	174(S)
	09:00	1.3	151(SSE)
	10:00	1.9	46(NE)
	11:00	2.7	151(SSE)
	12:00	2.1	218(SW)
	13:00	2.3	115(ESE)
	14:00	0.5	126(SE)
	15:00	2.3	182(S)
	16:00	1.7	37(NE)
	17:00	1.5	204(SSW)
	18:00	0.9	80(E)
	19:00	1.7	118(ESE)
	20:00	1.7	136(SE)
	21:00	0.9	180(S)
	22:00	1.1	81(E)
	23:00	0.9	133(SE)
28-Mar-22	00:00	1.1	187(S)
	01:00	0.7	132(SE)
	02:00	1.7	141(SE)
	03:00	1.7	232(SW)
	04:00	1.9	161(SSE)
	05:00	3.1	117(ESE)
	06:00	3.3	192(SSW)
	07:00	4.5	137(SE)
	08:00	3.8	137(SE)
	09:00	2.8	166(SSE)
	10:00	2.8	93(E)
	11:00	2.4	125(SE)
	12:00	2.6	132(SE)
	13:00	2.3	178(S)
	14:00	2.8	52(NE)
	15:00	3.2	314(NW)
	16:00	3.3	187(S)
	17:00	2.2	283(WNW)
	18:00	2.2	148(SSE)
	19:00	4.8	351(N)
	20:00	1.9	98(E)
	21:00	2.2	234(SW)
	22:00	2.2	218(SW)
	23:00	1.8	49(NE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
29-Mar-22	00:00	1.2	68(ENE)
	01:00	0.4	195(SSW)
	02:00	1.8	183(S)
	03:00	1.4	157(SSE)
	04:00	1.2	254(WSW)
	05:00	1.4	210(SSW)
	06:00	1.2	191(S)
	07:00	0.4	241(WSW)
	08:00	1.2	50(NE)
	09:00	1.3	156(SSE)
	10:00	1.2	127(SE)
	11:00	1.2	182(S)
	12:00	1.2	125(SE)
	13:00	1.2	175(S)
	14:00	1.2	126(SE)
	15:00	1.2	188(S)
	16:00	1.2	215(SW)
	17:00	1.2	218(SW)
	18:00	0.8	200(SSW)
	19:00	0.8	266(W)
	20:00	0.4	126(SE)
	21:00	0.4	161(SSE)
	22:00	1.2	145(SE)
	23:00	1.2	192(SSW)
30-Mar-22	00:00	0.2	256(WSW)
	01:00	1.2	143(SE)
	02:00	0.8	254(WSW)
	03:00	1.2	166(SSE)
	04:00	1.8	62(ENE)
	05:00	1.3	148(SSE)
	06:00	0.4	36(NE)
	07:00	0.4	239(WSW)
	08:00	1.8	192(SSW)
	09:00	1.3	178(S)
	10:00	1.2	38(NE)
	11:00	2.8	277(W)
	12:00	1.8	76(ENE)
	13:00	2.8	156(SSE)
	14:00	1.2	137(SE)
	15:00	1.3	304(NW)
	16:00	1.2	94(E)
	17:00	0.2	200(SSW)
	18:00	0.2	97(E)
	19:00	1.4	348(NNW)
	20:00	1.2	196(SSW)
	21:00	1.8	90(E)
	22:00	1.2	26(NNE)
	23:00	1.4	157(SSE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
31-Mar-22	00:00	1.2	139(SE)
	01:00	0.8	329(NNW)
	02:00	1.2	150(SSE)
	03:00	0.4	31(NNE)
	04:00	1.8	159(SSE)
	05:00	1.3	282(WNW)
	06:00	0.4	140(SE)
	07:00	1.3	214(SW)
	08:00	1.4	177(S)
	09:00	5.8	87(E)
	10:00	1.2	213(SSW)
	11:00	1.2	196(SSW)
	12:00	1.2	151(SSE)
	13:00	2.8	185(S)
	14:00	1.2	185(S)
	15:00	0.4	220(SW)
	16:00	1.2	205(SSW)
	17:00	1.3	184(S)
	18:00	0.2	208(SSW)
	19:00	1.8	170(S)
	20:00	1.3	154(SSE)
	21:00	1.4	222(SW)
	22:00	1.2	144(SE)
	23:00	1.4	180(S)

Remarks

1. Data unavailable from 1 Mar 2022 (00:00am) to 19 Mar 2022 (12:00nn) since the wind anemometer (Serial n
YGY-FSXY1) is under calibration check. The wind data during this period were reference to
the wind data obtained from Hong Kong Observatory, i.e. Ta Kwu Ling Weather Station.

Appendix 5.1

Monitoring Schedule for Reporting Month and Next Reporting Month

Contract No. SPW 12/2021
Environmental Team (2021-2024)
for Shek Wui Effluent Polishing Plant - Main Works
Tentative Impact Monitoring Schedule
Mar 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01 Mar AQM - 24hr TSP NM	02 Mar AQM - 1hr TSP Ecological Monitoring	03 Mar	04 Mar	05 Mar
06 Mar	07 Mar AQM - 24hr TSP NM	08 Mar AQM - 1hr TSP	09 Mar	10 Mar	11 Mar Ecological Monitoring	12 Mar AQM - 24hr TSP
13 Mar	14 Mar AQM - 1hr TSP NM	15 Mar	16 Mar	17 Mar	18 Mar AQM - 24hr TSP Ecological Monitoring	19 Mar AQM - 1hr TSP
20 Mar	21 Mar	22 Mar Ecological Monitoring	23 Mar AQM - 24hr TSP	24 Mar AQM - 1hr TSP NM	25 Mar	26 Mar
27 Mar	28 Mar	29 Mar AQM - 24hr TSP	30 Mar AQM - 1hr TSP NM	31 Mar		

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.

Contract No. SPW 12/2021
Environmental Team (2021-2024)
for Shek Wui Effluent Polishing Plant - Main Works
Tentative Impact Monitoring Schedule
Apr 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					01 Apr Ecological Monitoring	02 Apr AQM - 24hr TSP
03 Apr	04 Apr AQM - 1hr TSP NM	05 Apr	06 Apr	07 Apr	08 Apr AQM - 24hr TSP Ecological Monitoring	09 Apr AQM - 1hr TSP
10 Apr	11 Apr	12 Apr	13 Apr AQM - 24hr TSP	14 Apr AQM - 1hr TSP NM Ecological Monitoring	15 Apr	16 Apr
17 Apr	18 Apr	19 Apr AQM - 24hr TSP	20 Apr AQM - 1hr TSP NM	21 Apr	22 Apr Ecological Monitoring	23 Apr
24 Apr	25 Apr AQM - 24hr TSP	26 Apr AQM - 1hr TSP NM	27 Apr	28 Apr	29 Apr AQM - 24hr TSP Ecological Monitoring	30 Apr AQM - 1hr TSP

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.

Appendix 5.2

Noise Monitoring Results and Graphical Presentations

Noise Monitoring Result

Day Time (0700 - 1900hrs on weekday)

Location: NM1 - G/F, Wai Loi Tsuen

Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30min)					
01/03/2022	9:55	Fine	0.0	60.9	62.8	50.6	63.4	61	75
07/03/2022	9:57	Fine	0.0	54.8	56.7	51.0	63.4	55	75
14/03/2022	10:54	Fine	0.0	55.0	57.6	50.5	63.4	55	75
24/03/2022	9:40	Cloudy	0.0	56.7	60.1	53.5	63.4	57	75
30/03/2022	9:52	Cloudy	0.0	55.3	58.6	52.3	63.4	55	75

Location: NM2 - G/F, Fu Tei Au

Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30-min)					
01/03/2022	9:10	Fine	0.0	59.1	61.6	54.0	58.0	53	75
07/03/2022	13:39	Fine	0.0	60.3	66.1	63.3	58.0	56	75
14/03/2022	9:59	Fine	0.0	65.1	66.5	61.8	58.0	64	75
24/03/2022	10:40	Cloudy	0.0	58.9	63.2	52.6	58.0	52	75
30/03/2022	11:00	Cloudy	0.0	59.6	64.8	54.2	58.0	0	75

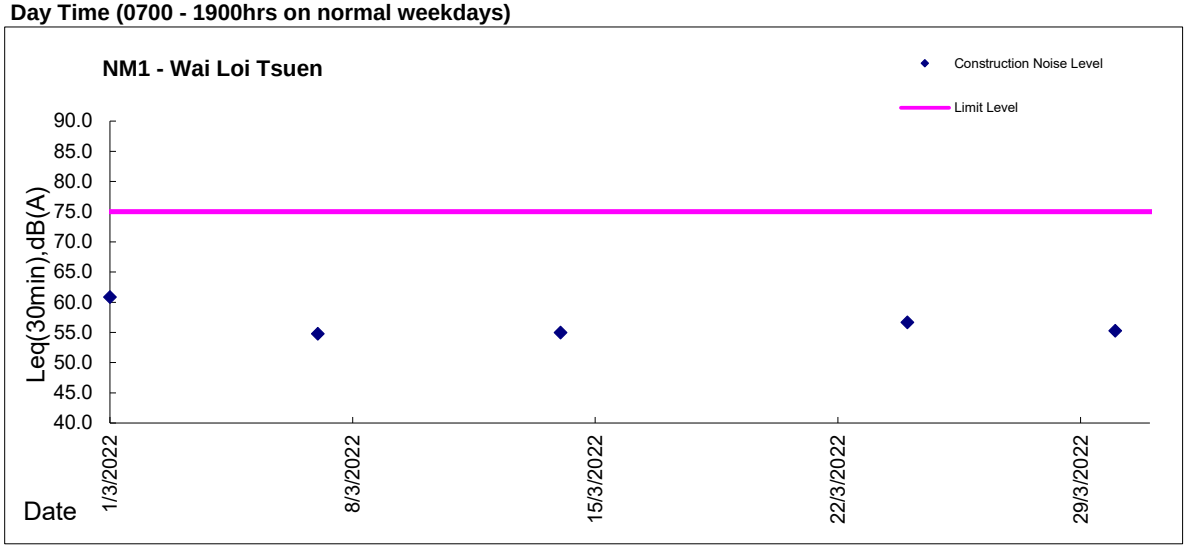
Location: NM3 - G/F, Man kok Village

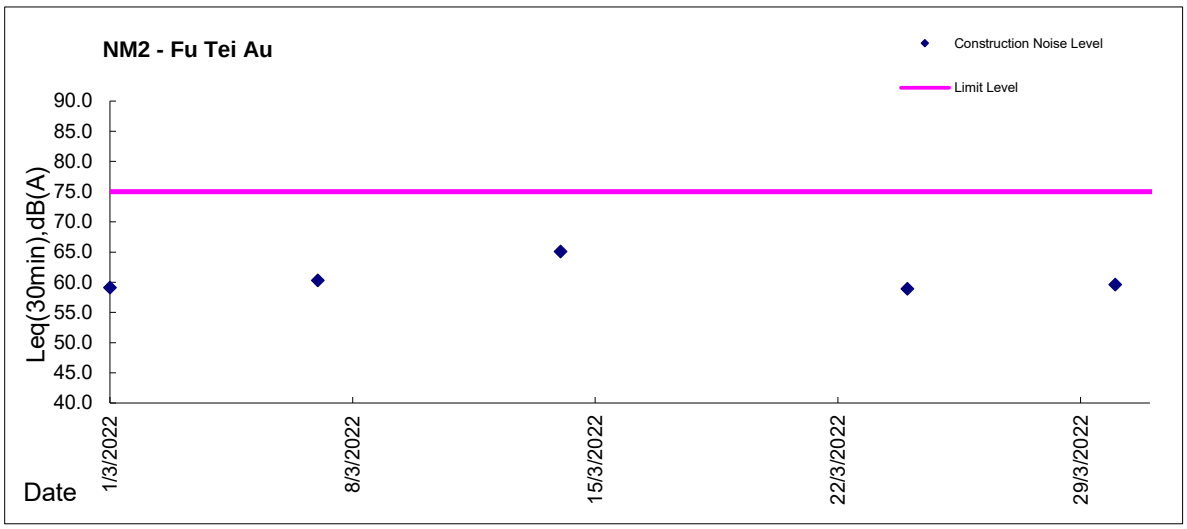
Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30min)					
01/03/2022	11:05	Fine	0.0	63.2	65.9	60.7	63.4	63	75
07/03/2022	14:21	Fine	0.0	62.6	64.9	54.3	63.4	63	75
14/03/2022	13:33	Fine	0.0	64.6	65.3	63.6	63.4	58	75
24/03/2022	8:55	Cloudy	0.0	59.4	62.5	56.2	63.4	59	75
30/03/2022	9:00	Cloudy	0.0	60.7	63.4	58.8	63.4	61	75

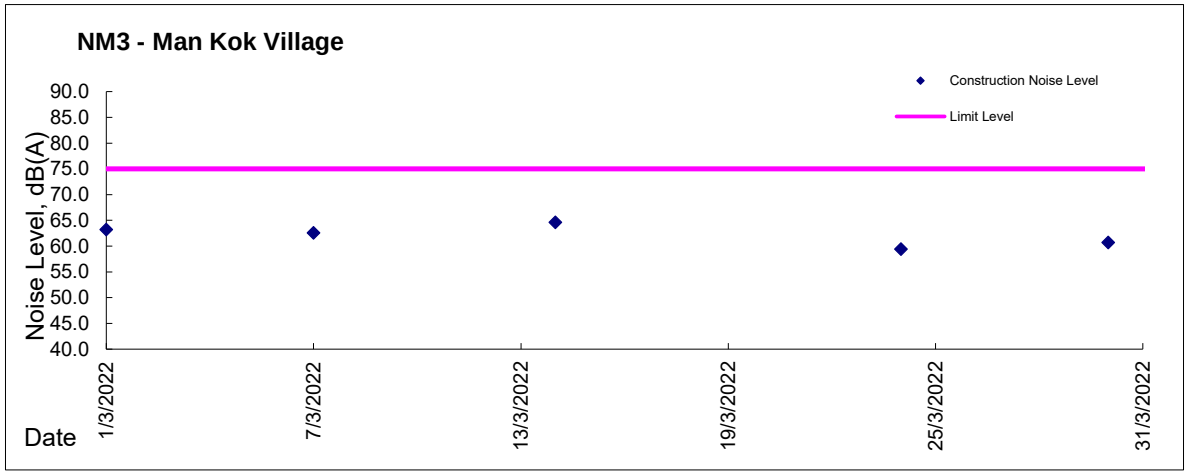
* Free field correction (Additional 3dB(A)) was made on NM1, NM2, and NM3 measurement result

Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)







Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations

Report on 1-hour TSP monitoring at AM1 - Wai Loi Tsuen
Action Level (μg/m3) - 320
Limit Level (μg/m3) - 500

Date	Weather Condition	Time	Mass Concentration (μg/m3)	Model No.	Serial No.
2-Mar-22	Fine	12:44	129	BT-645	X19297
2-Mar-22	Fine	13:45	99		
2-Mar-22	Fine	14:46	97		
8-Mar-22	Fine	13:03	36	AEROCET831	R14332
8-Mar-22	Fine	14:04	32		
8-Mar-22	Fine	15:05	48		
14-Mar-22	Fine	8:52	6		
14-Mar-22	Fine	9:53	4		
14-Mar-22	Fine	10:54	6		
19-Mar-22	Cloudy	8:07	4		
19-Mar-22	Cloudy	9:08	4		
19-Mar-22	Cloudy	10:09	4		
24-Mar-22	Cloudy	8:39	14		B19129
24-Mar-22	Cloudy	9:40	9		
24-Mar-22	Cloudy	10:41	6		
30-Mar-22	Cloudy	8:28	17		
30-Mar-22	Cloudy	9:29	14		
30-Mar-22	Cloudy	10:30	15		

Report on 1-hour TSP monitoring at AM2 - Fu Tei Au
Action Level (μg/m3) - 322
Limit Level (μg/m3) - 500

Date	Weather Condition	Time	Mass Concentration (μg/m3)	Model No.	Serial No.
2-Mar-22	Fine	13:00	39	AEROCET831	Y23153
2-Mar-22	Fine	14:00	50		
2-Mar-22	Fine	15:00	43		
8-Mar-22	Fine	13:00	39		
8-Mar-22	Fine	14:00	50		
8-Mar-22	Fine	15:00	43		
14-Mar-22	Fine	13:00	39		
14-Mar-22	Fine	14:00	50		
14-Mar-22	Fine	15:00	43		
19-Mar-22	Cloudy	8:18	188		
19-Mar-22	Cloudy	9:19	183		
19-Mar-22	Cloudy	14:24	141		
24-Mar-22	Cloudy	8:52	7		
24-Mar-22	Cloudy	9:53	10		
24-Mar-22	Cloudy	10:54	8		
30-Mar-22	Cloudy	8:45	21		
30-Mar-22	Cloudy	9:46	15		
30-Mar-22	Cloudy	10:47	10		

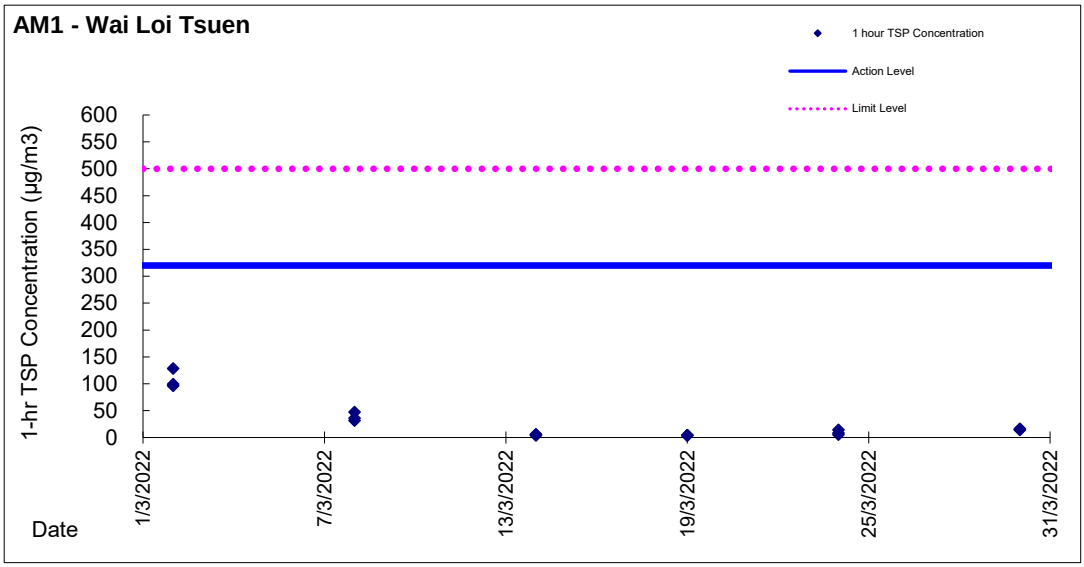
Location: AM1a - Site Boundary of the Shek Wu Hui STW (East)
Impact Monitoring Result on 24-hour TSP monitoring

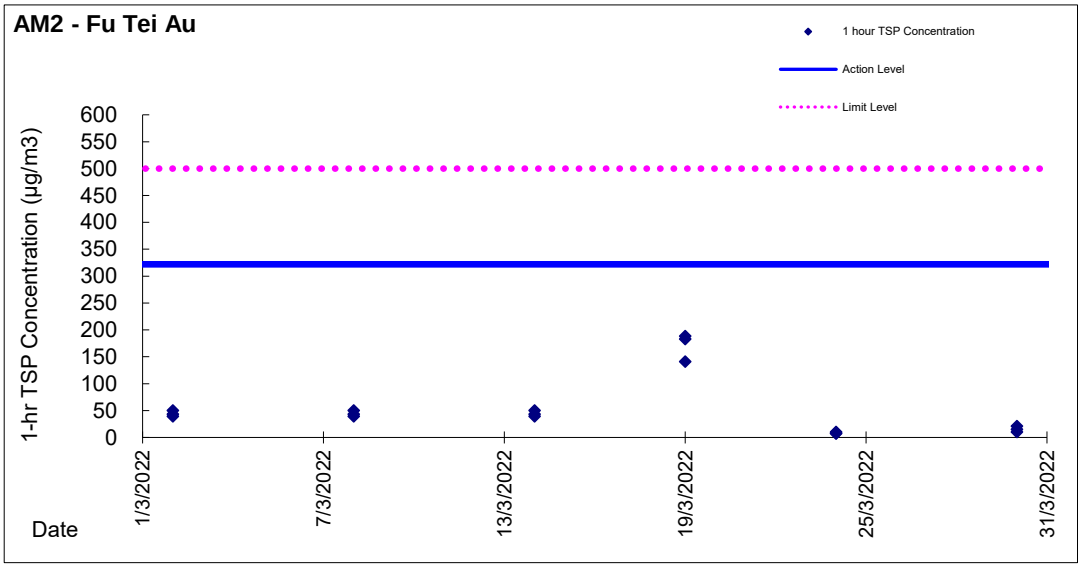
Date	Sampling Time	Weather Condition	Pressure, hPa		Temp. , °C		Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, ug/m^3	Model No.	Serial No.
			Initial	Final	Initial	Final		Initial	Final	Initial	Final		Initial, Qsi	Final, Qsf	Average				
01-Mar-22	8:00	Fine	1016.9	1017.2	22	20.7	AM2a_24hr_009897	2.7533	2.8674	17653.93	17677.93	24.00	1.25	1.25	1.25	1798	63	G3101	0401-1105
07-Mar-22	8:00	Cloudy	1017.2	1018.2	19.8	17.5	AM1a_24hr_008793	2.8170	2.8798	17677.93	17701.93	24.00	1.25	1.28	1.27	1824	34		
12-Mar-22	8:00	Fine	1013.6	1012.8	22.3	23.6	AM1a_24hr_009898	2.7536	2.8094	17701.93	17725.93	24.00	1.19	1.22	1.21	1736	32		
18-Mar-22	8:00	Fine	1008.8	1008.9	24.4	23.3	AM1a_24hr_010400	2.7682	2.9051	17725.93	17749.93	24.00	1.24	1.24	1.24	1786	77		
23-Mar-22	8:00	Cloudy	1014.7	1014.3	17.7	17.6	AM1a_24hr_010695	2.7582	2.7914	17749.93	17773.93	24.00	1.25	1.25	1.25	1805	18		
29-Mar-22	8:00	Cloudy	1017.2	1015.9	19.1	22.4	AM1a_24hr_009878	2.7418	2.8365	17773.93	17797.93	24.00	1.25	1.25	1.25	1799	53		

Location: AM2a - Site Boundary of the Shek Wu Hui STW (North)
Impact Monitoring Result on 24-hour TSP monitoring

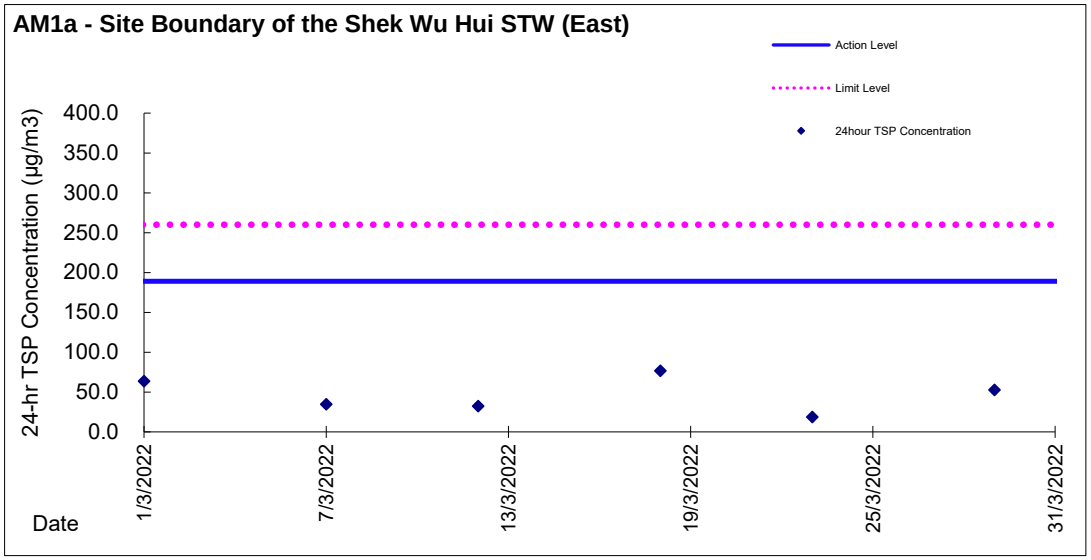
Date	Sampling Time	Weather Condition	Pressure, hPa		Temp. , °C		Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, ug/m^3	Model No.	Serial No.
			Initial	Final	Initial	Final		Initial	Final	Initial	Final		Initial, Qsi	Final, Qsf	Average				
01-Mar-22	8:00	Fine	1016.9	1017.2	22	20.7	AM2a_24hr_009896	2.742	2.8939	17653.93	17677.93	24.00	1.27	1.30	1.29	1851	82	G3101	1096-2305
07-Mar-22	8:00	Cloudy	1017.2	1018.2	19.8	17.5	AM2a_24hr_008800	2.7966	2.9321	17677.93	17701.93	24.00	1.25	1.25	1.25	1799	75		
12-Mar-22	8:00	Fine	1013.6	1012.8	22.3	23.6	AM2a_24hr_009899	2.7703	2.8859	17701.93	17725.93	24.00	1.19	1.18	1.18	1706	68		
18-Mar-22	8:00	Fine	1008.8	1008.9	24.4	23.3	AM2a_24hr_009805	2.7417	2.9063	17725.93	17749.93	24.00	1.18	1.18	1.18	1701	97		
23-Mar-22	8:00	Cloudy	1014.7	1014.3	17.7	17.6	AM2a_24hr_010700	2.7511	2.7869	17749.93	17773.93	24.00	1.14	1.14	1.14	1641	22		
29-Mar-22	8:00	Cloudy	1017.2	1015.9	19.1	22.4	AM2a_24hr_009816	2.7418	2.8365	17773.93	17797.93	24.00	1.19	1.19	1.19	1714	55		

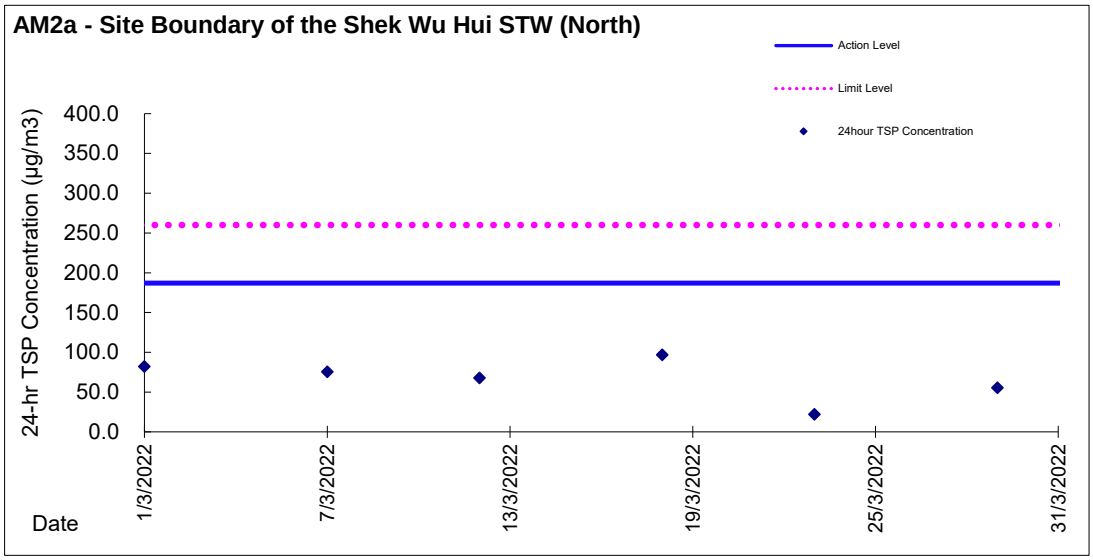
Graphic Presentation of TSP Result





Graphic Presentation of TSP Result





Appendix 5.4

Details of Ecological Monitoring Results in the Reporting Month

5.4. ECOLOGICAL MONITORING RESULTS

5.4.1. For this reporting month, the numbers of species and individuals recorded were provided in **Table 1** and the abundance of representative species were shown in **Table 2.**

Table 1 Total Bird Species and Abundance in the Reporting Month

	Number of Species	Abundance
All Avifauna	**43**	**968**
Waterbirds	**16**	**283**

Table 2 Abundance of Representative Waterbirds in the Reporting Month

Species Name	Common Name	Chinese Name	Abundance
Egretta garzetta	Little Egret	小白鷺	68
Ardea cinerea	Grey Heron	蒼鷺	47
Ardeola bacchus	Chinese Pond Heron	池鷺	21
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	25
Ardea alba	Great Egret	大白鷺	36
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	33
		Total	**230**

Analysis

5.4.2. The result of student t-tests for all waterbirds and representative waterbirds are compiled in **Table 3 and 4** respectively. Further details are provided in **Appendix 5.4b.**

Table 3 T-test Result for All Waterbirds in the Reporting Month

T-values of Data in Reporting Month			Confidence Level (Critical Value)	
			95% (-2.353)	99% (-4.541)
Abundance	Monthly	4.584	✓	✓
	Seasonal	1.429	✓	✓

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

Table 4 T-test Result for Representative Waterbirds in the Reporting Month

Common Name of Representative Waterbird	T-value	Confidence Level (Critical Value)		T-value	Confidence Level (Critical Value)		Overall
	Monthly	95%	99%	Seasonal	95%	99%	
Little Egret	1.087	✔	✔	0.435	✔	✔	✔
Grey Heron	-1.312	✔	✔	-0.445	✔	✔	✔
Chinese Pond Heron	-3.667	✘	✔	-5.000	✘	✘	Action Level
Great Cormorant	-0.776	✔	✔	-0.212	✔	✔	✔
Great Egret	1.234	✔	✔	1.234	✔	✔	✔
Eastern Cattle Egret	2.224	✔	✔	1.512	✔	✔	✔

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during wet season.

5.4.3. The t-test concluded that the abundance for Chinese Pond Heron was significantly lower than the baseline monitoring result for March and winter at 95% confidence level, 1 Action Level was triggered for ecological monitoring in the reporting month. No Limit Level was triggered.

5.4.4. Despite a drop in Chinese Pond Heron abundance, the average number of all waterbirds and abundance of other representative Waterbirds was no

significant change in reporting month compared to baseline data. It is unlikely that project activity (e.g. noise, waste water) will affect one species only. As the decline of the Chinese Pond Heron was considered non-project related, no remedial measure for the project is proposed. However, it is recommended that the construction site should continue keeping the good site practice to minimize disturbance caused to surrounding area.

5.4.5. Site observation in the reporting month shows that construction activities are similar to previous months. however, all transects (especially transect T2) are surrounded by different construction activities. Details were shown in Table 5 and relevant photos are shown in **Appendix 5.4C**.

5.4.6. An increase in human activity and heavy vehicles was observed along the T3. In addition, scaffolding has been installed at P7. Relevant photos are shown in **Appendix 5.4C**.

5.4.7. Nesting and breeding behaviours were observed during the monitoring in reporting month. There was no significant impact on the nests in the month reported.

5.4.8. The monitoring work will continue next month to evaluate any construction impact on waterbirds.

Observations

5.4.9. Waterbird behaviour observed during ecological monitoring are listed below:

- Flying
- Foraging
- Soaring
- Resting
- Breeding

5.4.10. The anthropogenic activities observed during ecological monitoring are listed in **Table 5.**

Table 5 Observations during Ecological Monitoring in the Reporting Month

Location(s)	Observations	
	Project Related	**Non-project Related**
T1 (PC1, PC2)	N/A	Human Activities such as Fishing Construction activities
T2 (PC3, PC4)	Construction activities such as Sheet-piling, generator & wielding works Scaffolding, sedimentation Tank, Excavation and crane	Human Activities such as Fishing, Landscape Planting Construction activities such as Sheet-piling, generator & wielding works Scaffolding, sedimentation Tank, Excavation and crane
PC5	Construction activities Excavation and crane	N/A
T3 (PC6, PC7)	Construction activities such as Sheet-piling	Human Activities such as Fishing Construction activities such as Excavation Sheet-piling, generator & wielding works Scaffolding

Appendix 5.5

Ecological Monitoring Results and Analysis

Summary data of the Ecological Monitoring

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Ardeola bacchus	Chinese Pond Heron	池鷺	X	21	+
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	X	33	+
Ardea cinerea	Grey Heron	蒼鷺	X	47	++
Ardea alba	Great Egret	大白鷺	X	36	++++
Egretta garzetta	Little Egret	小白鷺	X	68	+++++
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	X	25	++
Spilornis cheela	Crested Serpent Eagle	蛇鵰		0	+
Milvus migrans	Black Kite	黑鳶	X	4	+
Amaurornis phoenicurus	White-breasted Waterhen	白胸苦惡鳥	X	6	+
Himantopus himantopus	Black-winged Stilt	黑翅長腳鷸	X	11	+
Tringa nebularia	Common Greenshank	青腳鷸	X	2	N/A
Actitis hypoleucos	Common Sandpiper	磯鷸	X	15	++
Spilopelia chinensis	Spotted Dove	珠頸斑鳩		55	+++++
Centropus sinensis	Greater Coucal	褐翅鴉鵑		8	+
Eudynamys scolopaceus	Asian Koel	噪鵑		20	++
Apus nipalensis	House Swift	小白腰雨燕		0	++
Halcyon smyrnensis	White-throated Kingfisher	白胸翡翠	X	1	+
Alcedo atthis	Common Kingfisher	普通翠鳥	X	0	+
Ceryle rudis	Pied Kingfisher	斑魚狗	X	3	+
Urocissa erythroryncha	Red-billed Blue Magpie	紅嘴藍鵲		3	+
Pica pica	Eurasian Magpie	喜鵲		10	+
Corvus torquatus	Collared Crow	白頸鴉	X	2	+
Corvus macrorhynchos	Large-billed Crow	大嘴烏鴉		3	N/A
Parus cinereus	Cinereous Tit	蒼背山雀	X	9	++
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		55	+++++
Pycnonotus sinensis	Chinese Bulbul	白頭鵯		56	+++++
Pycnonotus aurigaster	Sooty-headed Bulbul	白喉紅臀鵯		1	N/A
Hirundo rustica	Barn Swallow	家燕		21	++
Phylloscopus fuscatus	Dusky Warbler	褐柳鶯		4	+
Phylloscopus inornatus	Yellow-browed Warbler	黃眉柳鶯		26	+++
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯		4	+
Prinia inornata	Plain Prinia	純色鷦鶯		18	++

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		46	++++
Garrulax perspicillatus	Masked Laughingthrush	黑臉噪鸝		3	++
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		63	+++++
Acridotheres cristatellus	Crested Myna	八哥		162	+++++
Gracupica nigricollis	Black-collared Starling	黑領椋鳥		67	+++++
Copsychus saularis	Oriental Magpie Robin	鵲鴝		3	+
Passer montanus	Eurasian Tree Sparrow	樹麻雀		4	+
Motacilla cinerea	Grey Wagtail	灰鶺鴒		0	+
Motacilla alba	White Wagtail	白鶺鴒		44	++++
Anthus godlewskii	Olive-backed Pipit	樹鷚		9	+++

Remarks:

X: Waterbird ;

Transect abundance, +: <10, ++: 11-20, +++: 21-30, ++++: 31-40, +++++: >40

According to S4.7 of the approved Baseline Monitoring Report (Ecology), "waterbirds" was defined as "waterbirds and wetland-dependent species", which was referenced to Monthly Waterbird Monitoring Biannual Reports prepared by the Hong Kong Bird Watching Society (Anon, 2020).

Also, S.13.11.3.2 of NENT NDA EIA Study requires "Monitoring of Measures to Mitigate for Impacts of the Project on Wetland-dependent Fauna using the Ng Tung, Sheung Yue and Shek Sheung Rivers". Therefore, "wetland-dependent birds" should be considered as "waterbirds". As raptors and Collared Crow are "wetland-dependent species", they should be taken into consideration in data analysis and impact assessment on waterbirds.

Waterbird Ecological Monitoring Result

Total Bird Abundance from Point Count						
Survey Information				Total Bird Abundance from Point Count		
No.	Date	Time	Tide Level	Individuals Recorded	Total	Species Recorded
1	2/3/2022	11:00	H	93	229	27
		14:30	L	136		28
2	11/3/2022	13:00	H	118	242	25

Total Bird Abundance from Point Count						
Survey Information				Total Bird Abundance from Point Count		
No.	Date	Time	Tide Level	Individuals Recorded	Total	Species Recorded
		9:00	L	124		27
3	18/3/2022	10:00	H	106	240	24
		14:30	L	134		26
4	22/3/2022	13:30	H	125	257	26
		16:30	L	132		27

Remarks: H: High Tide; L: Low Tide

Total Waterbird Abundance from Point Count					
Survey Information				Total Waterbird Abundance from Point Count	
No.	Date	Time	Tide Level	Individuals Recorded	Total
1	2/3/2022	11:00	H	26	71
		14:30	L	45	
2	11/3/2022	13:00	H	39	77
		9:00	L	38	
3	18/3/2022	10:00	H	18	56
		14:30	L	38	
4	22/3/2022	13:30	H	34	70
		16:30	L	36	
				Overall Total	**274**
				Average	**69**

Remarks: H: High Tide; L: Low Tide

T-Test Analysis for All Waterbirds

Baseline Data

Monthly Average Abundance (Mar)	48.13
Seasonal Average Abundance (Winter season)	62.15

T-Test

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

H_0: The data collected in the reporting month falls within the normal distribution when compared to the baseline monitoring data;

H_1: The data collected does not falls within the normal distribution when compared to the baseline monitoring data.

If t-test value is **smaller** than the critical value, then rejects H_0.

For the data in the reporting month, the critical values are:

Crit. Value = -2.353 (95% Confidence Level)

Crit. Value = -4.541 (99% Confidence Level)

			Confidence Level (Critical Value)	
			95%	99%
Abundance	Monthly	3.944	✓	✓
	Seasonal	1.499	✓	✓

Remarks:

✓ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✗ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

Abundance of Representative Waterbirds from Point Count										
Representative Species			Recorded Abundance						Baseline Data	
Species Name	Common Name	Chinese Name	2/3/2022	11/3/2022	18/3/2022	22/3/2022	Total	Average	Average (Mar)	Avg (Winter)
Egretta garzetta	Little Egret	小白鷺	7	14	29	18	68	17	12	15
Ardea cinerea	Grey Heron	蒼鷺	19	9	6	13	47	12	16	13
Ardeola bacchus	Chinese Pond Heron	池鷺	4	6	4	7	21	5	8	9
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	9	15	1	0	25	6	9	7
Ardea alba	Great Egret	大白鷺	17	11	2	6	36	9	5	5
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	7	11	1	14	33	8	2	4

T-test Analysis for Representative Waterbirds from Point Count

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

H_0: The data collected in the reporting month falls within the normal distribution when compared to the baseline monitoring data;

H_1: The data collected does not falls within the normal distribution when compared to the baseline monitoring data.

If t-test value is **smaller** than the critical value, then rejects H_0.

For the data in the reporting month, the critical values are:

Crit. Value = -2.353 (95% Confidence Level)

Crit. Value = -4.541 (99% Confidence Level)

Common Name of Representative Waterbird	T-value	Confidence Level (Critical Value)		T-value	Confidence Level (Critical Value)		Overall
	Monthly	95%	99%	Seasonal	95%	99%	
Little Egret	1.087	✓	✓	0.435	✓	✓	✓
Grey Heron	-1.312	✓	✓	-0.445	✓	✓	✓
Chinese Pond Heron	-3.667	X	✓	-5.000	X	X	Action Level
Great Cormorant	-0.776	✓	✓	-0.212	✓	✓	✓
Great Egret	1.234	✓	✓	1.234	✓	✓	✓
Eastern Cattle Egret	2.125	✓	✓	1.594	✓	✓	✓

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during wet season.

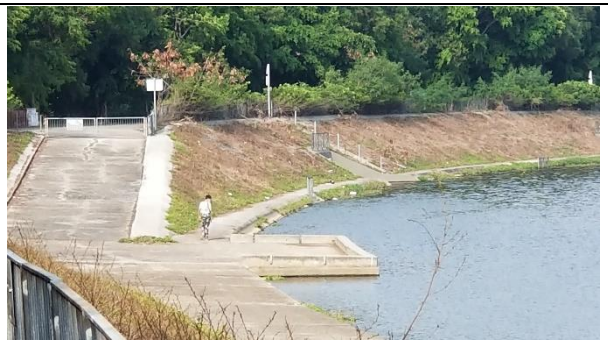
Appendix 5.6

Photo Record of Ecological Monitoring

Conditions of Rivers

Sheung Yue River – Survey Point 7 (Taken on 2 Mar 2022)	**Sheung Yue River (Taken on 11 Mar 2022)**
Shek Sheung River (Taken on 22 Mar 2022)	**Ng Tung River (Taken on 22 Mar 2022)**

Human Activities & Site Conditions

Construction Activities (Ng Tung River) **(Project-related, taken on 18 Mar 2022)**	**Construction Activities (Shek Sheung River)** **(Project-related, taken on 22 Mar 2022)**	**Construction Activities (Shek Sheung River)** **(Project-related, taken on 11 Mar 2022)**
		
Construction Activities (Sheung Yue River) **(Project-related, taken on 11 Mar 2022)**	**Human Activities (Ng Tung River)** **(Non-project-related, taken on 22 Mar 2022)**	**Human Activities (Ng Tung River)** **(Non-project-related, taken on 18 Mar 2022)**

Construction Activities (Ng Tung River) **(Non-Project-related, taken on 2 Mar 2022)**	**Construction Activities (Sheung Yue River)** **(Non-project-related, taken on 11 Mar 2022)**	**Human Activities (Sheung Yue River)** **(Non-project-related, taken on 11 Mar 2022)**
Construction Activities (Sheung Yue River) **(Non-project-related, taken on 22 Mar 2022)**	**Construction Activities (Sheung Yue River)** **(Non-project-related, taken on 22 Mar 2022)**	**Construction Activities (Sheung Yue River)** **(Non-project-related, taken on 18 mar 2022)**

Construction Activities (Ng Tung River) **(Non-project-related, taken on 2 Mar 2022)**	**Human Activities (Sheung Yue River)** **(Non-project-related, taken on 18 Mar 2022)**

Waterbird Species

Great Egret and Little Egret	**Grey Heron**	**Chinese Pond Heron**
Little Egret	**Black-winged Stilt**	

Appendix 5.7

Monthly Summary Waste Flow Table

Name of Department: DSD

Contract No. DC/2018/06

Monthly Summary Waste Flow Table for 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	1.104	0.000	0.000	0.000	1.104	0.094	0.000	0.000	0.000	0.000	0.202
Feb	0.549	0.000	0.000	0.000	0.549	0.134	0.000	0.000	0.000	0.000	0.068
Mar	0.398	0.000	0.000	0.000	0.398	0.483	0.000	0.000	0.000	0.000	0.094
Apr											
May											
Jun											
Sub-total	2.051	0.000	0.000	0.000	2.051	0.711	0.000	0.000	0.000	0.000	0.364
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	2.051	0.000	0.000	0.000	2.051	0.711	0.000	0.000	0.000	0.000	0.364

Notes:

1. Assume the density of soil fill is 2 ton/m3.
2. Assume the density of rock and broken concrete is 2.5 ton/m3.
3. Assume the density of general refuse is 0.9 ton/m3.
4. Assume density of waste oil is assued to be 0.8 kg/L.
5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
6. The slurry and bentonite are disposed at Tseung Kwun O 137.
7. The non-inert C&D wastes are disposed at NENT.

Name of Department: DSD

Contract No. DC/2018/07

Monthly Summary Waste Flow Table for 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	4.980	0.000	0.000	0.813	4.167	0.000	15.45	0.000	0.004	0.000	0.012
Feb	2.809	0.000	0.000	0.048	2.761	0.038	5.71	0.000	0.000	0.000	0.010
Mar	2.977	0.000	0.000	0.000	2.977	0.000	0.00	0.000	0.000	0.000	0.019
Apr											
May											
Jun											
Sub-total	10.766	0.000	0.000	0.861	9.905	0.038	21.16	0.000	0.004	0.000	0.040
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	10.766	0.000	0.000	0.861	9.905	0.038	21.16	0.000	0.004	0.000	0.040

Notes:

1. Assume the density of soil fill and special waste (i.e. sediment from DSD sedimentation tank) is 2 ton/m3.
2. Assume the density of rock and broken concrete is 2.5 ton/m3
3. Assume the density of general refuse is 0.9 ton/m3
4. Density of waste oil is assued to be 0.8 kg/L. Chemical waste includes waste oil.
5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38
6. The slurry and bentonite are disposed at Tseung Kwun O 137
7. The non-inert C&D wastes, including general refuse & special waste (i.e. sediment from DSD sedimentation tank) are disposed at NENT

EM&A Monthly Reporting Template (cut-off at the end of each month)

Name of Department: ~~ArchSD/CEDD~~/DSD/~~EMSD/HyD/WSD~~ Contract No.: DE/2018/03

Monthly Summary Waste Flow Table for 2022 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	176.71 T	0	0	0	176.71 T	0	0	0.177	0.008	0	2.7T
Feb	83.58T	0	0	0	83.58T	0	0	0.132	0.003	0	0
Mar	0	0	0	0	0	0	0	0	0	0	3.06T
Apr											
May											
June											
Sub-total											
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	260.29 T	0	0	0	260.29 T	0	0	0.309	0.011	0	5.76T

Name of Department: DSD Contract No.: DE/2018/04

Monthly Summary Waste Flow Table for 2022 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	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 '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0
Apr											
May											
June											
Sub-total	0	0	0	0	0	0	0	0	0	0	0
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	0	0	0	0	0	0	0	0	0	0	0

Appendix 6.1

Event and Action Plans

Event and Action Plan

Event and Action Plan for Construction Noise

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

Event and Action Plan for Construction Dust Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level				
Action level being exceeded by one sampling	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify the Contractor.	1. Rectify any unacceptable practices. 2. Amend working methods agreed with the ER as appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify sources. 2. Inform the IEC and ER. 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings. 5. Increase monitoring frequency to daily. 6. Discuss with the IEC, ER and Contractor on remedial action required. 7. If exceedance continues, arrange meeting with the IEC, Contractor and ER. 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

Event	Action			
	ET	IEC	ER	Contractor
	ER informed of the results.			
Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Ecological Monitoring

Action level	Response	Limit Level	Response
Construction Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.

Event and Action Plan for Landscape and Visual

Event	Action			
	ET	IEC	ER	Contractor
Non-conformity on one occasion	1. Inform the Contractor, IEC and ER; 2. Discuss remedial actions with IEC, ER and Contractor 3. Monitor remedial actions until rectification has been completed.	1. Check inspection report; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise ER on effectiveness of proposed remedial measures..	1. Confirm receipt of notification of failure in writing; 2. Review and agree on the remedial measures proposed by the Contractor; 3. Supervise implementation of remedial measures.	1. Identify source and investigate the non-conformity; 2. Implement remedial measures; 3. Amend working methods agreed with ER as appropriate; 4. Rectify damage and undertake any necessary replacement.
Repeated Non-conformity	1. Identify source; 2. Inform IEC, ER, EPD; 3. Discuss inspection frequency; 4. Discuss remedial actions with IEC, ER and Contractor; 5. Monitor remedial actions until rectification has been completed; 6. If non-conformity stops, cease additional monitoring	1. Check inspection report; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise ER on effectiveness of proposed remedial measures.	1. Notify the Contractor; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise implementation of remedial measures.	1. Identify source and investigate the non-conformity; 2. Implement remedial measures; 3. Amend working methods agreed with ER as appropriate; 4. Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by ER until the non-conformity is abated.

Appendix 6.2

Summary of Notification of Exceedance

Summary for Notification of Exceedance

Reporting Period: March 2022

Ref No.	Date	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up Action
-	-	-	-	-	-	-	-

Ref. No.	Date	Time	Location	Construction Noise Level	Parameter	Action Level	Limit Level	Follow-up action
-	-	-	-	-	-	-	-	-

Remarks:

1. One action level was triggered for ecological monitoring in the reporting month and it is non-project related, no remedial action was required. No Limit Level was triggered.

Appendix 8.1

Complaint Log

Summary of Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
1	18 March 2020	EPD	Expansion Site of SWHSTP (Portion C)	Water contamination	Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby The investigation and mitigation measures included - Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River - Arranged to repair the wastewater treatment system - Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity - Clean the slurry sediment released from the outlet regularly by suction trucks - Avoid damage of underground drains and pipes caused by existing construction works - Avoid illegal discharge from the Site into foul drains and manholes	Closed
2	19 February 2021	EPD	SWHEPP	Odour nuisance	Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP The investigation and mitigation measures included - Ensured only PMEs with valid NRMM label were used on-site - Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart - Used ULSD for diesel-powered equipment - Provided water spraying and water sprinklers system for haul road access and demolition works - Used battery powered solution to provide power to the tower crane - Provided cover for all rubbish bins on-site - Separated general refuse from construction waste	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
3	9 August 2021	EPD	SWHEPP	Air Quality	Air nuisance was suspected to be originated from the construction activities of SWHEPP The investigation and mitigation measures included - Ensured only PMEs with valid NRMM label were used on-site - Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart - Used ULSD for diesel-powered equipment - Used battery powered solution to provide power to the tower crane - Carried out plant maintenance in a timely manner	Closed
20220304	4 March 2022	EPD	SWHEPP	Odour nuisance	"The complainant alleged the odour nuisance was sourced from the construction site of Shek Wu Hui Effluent Polishing Plant on 4 March 2022. Thus, all four contracts (Contract Nos. DC/2018/06, DC/2018/07, DE/2018/03 and DE/2018/04) were involved in the complaint investigation. After investigation, no construction activities undertaken by all four contracts was asscoated with the odour nuisance received on 4 March 2022. Nevertheless, the contractors were reminded and recommended to: • Ensure only equipement with valid NRMM label is allowed to be used at site and regular maintenance of equipement • Provide regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart • Use ULSD as fuel for diesel-powered equipement • Maintain proper segregation and storage of general refuse	Pending

Appendix 9.1

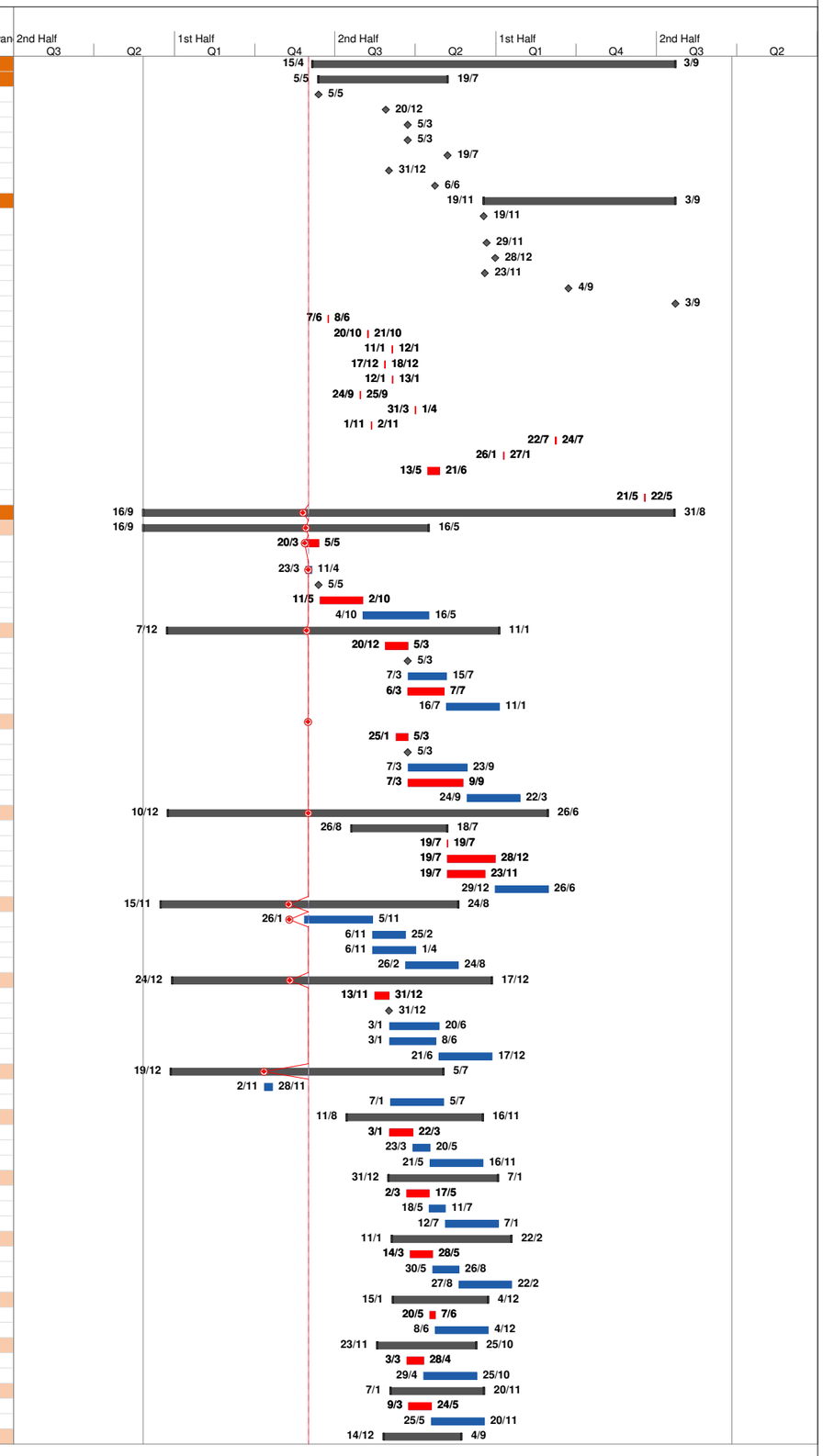
Construction Programme of Individual Contracts

Contract No.: DC/2018/06
Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

Updated Programme (Status Date: 31/07/2021)

群利－俊和聯營體
KL－CW JV

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
34	**PD-00000**	*	**Planned Completion - Key Date (cal. day)**			**1238 days**	**Thu 15/4/21**	**Tue 3/9/24**	**NA**	**NA**	**-55 days**			**0%**	
35	**PKD-00000**	*	**Planned Completion - Key Dates**			**440 days**	**Wed 5/5/21**	**Tue 19/7/22**	**NA**	**NA**	**-21 days**			**0%**	
36	PKD-01000	KD1A	KD1A			0 days	Wed 5/5/21	Wed 5/5/21	NA	NA	-17 days	250FF		0%	
37	PKD-02000	KD2A	KD2A			0 days	Mon 20/12/21	Mon 20/12/21	NA	NA	-96 days	556FF,559FF		0%	
38	PKD-03000	KD3A	KD3A			0 days	Sat 5/3/22	Sat 5/3/22	NA	NA	-87 days	272FF		0%	
39	PKD-04000	KD3B	KD3B			0 days	Sat 5/3/22	Sat 5/3/22	NA	NA	-99 days	295FF		0%	
40	PKD-05000	KD3C	KD3C			0 days	Tue 19/7/22	Tue 19/7/22	NA	NA	-188 days	315FF		0%	
41	PKD-06000	KD3D	KD3D			0 days	Fri 31/12/21	Fri 31/12/21	NA	NA	-118 days	347FF		0%	
42	PKD-07000	KD3E	KD3E			0 days	Mon 6/6/22	Mon 6/6/22	NA	NA	-88 days	362FF,369FF,376FF,383FI		0%	
43	**PCD-00000**	*	**Planned Completion - Section of the Works (cal. day)**			**522 days**	**Sat 19/11/22**	**Tue 3/9/24**	**NA**	**NA**	**-356 days**			**0%**	
44	PCD-01000	SW1	Section 1 of Works			0 days	Sat 19/11/22	Sat 19/11/22	NA	NA	-356 days	447FF,483FF,491FF,510FI		0%	
45	PCD-02000	SW2	Section 2 of Works			0 days	Tue 29/11/22	Tue 29/11/22	NA	NA	144 days	561FF,578FF		0%	
46	PCD-03000	SW3	Section 3 of Works			0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	-23 days	171FF,317FF,331FF,349FI	526	0%	
47	PCD-04000	SW4	Section 4 of Works			0 days	Wed 23/11/22	Wed 23/11/22	NA	NA	-172 days	390FF,396FF,401FF,448FI		0%	
48	PCD-05000	SW5	Section 5 of Works			0 days	Mon 4/9/23	Mon 4/9/23	NA	NA	0 days	252FF,277FF,299FF,319FI	49,50	0%	
49	PCD-06000	DLP	Defect Liability Period			365 days	Tue 5/9/23	Tue 3/9/24	NA	NA	141 days	48		0%	
54	IWKD1A-01020	KD1A	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Mon 7/6/21	Tue 8/6/21	NA	NA	-43 days	53		0%	
60	IWKD2A-01020	KD2A	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Wed 20/10/21	Thu 21/10/21	NA	NA	-43 days	59		0%	
66	IWKD3A-01020	KD3A	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Tue 11/1/22	Wed 12/1/22	NA	NA	-26 days	65		0%	
72	IWKD3B-01020	KD3B	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Fri 17/12/21	Sat 18/12/21	NA	NA	-16 days	71		0%	
77	IWKD3C-01020	KD3C	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Wed 12/1/22	Thu 13/1/22	NA	NA	-37 days	76		0%	
82	IWKD3D-01020	KD3D	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Fri 24/9/21	Sat 25/9/21	NA	NA	-37 days	81		0%	
87	IWKD3E-01020	KD3E	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Thu 31/3/22	Fri 1/4/22	NA	NA	-37 days	86		0%	
92	IWSW1-01020	SW1	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Mon 1/11/21	Tue 2/11/21	NA	NA	-43 days	91		0%	
98	IWSW2-01020	SW2	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Sat 22/7/23	Mon 24/7/23	NA	NA	-43 days	97		0%	
104	IWSW3-01020	SW3	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Thu 26/1/23	Fri 27/1/23	NA	NA	-43 days	103		0%	
109	IWSW4-01010	SW4	Delay and Disruption of Works before Mar 2021	257, (69), (92), (112), (165)		33 days	Fri 13/5/22	Tue 21/6/22	NA	NA	-43 days	113	110	0%	
116	IWSW5-01020	SW5	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Tue 21/5/24	Wed 22/5/24	NA	NA	-43 days	115		0%	
215	**CWPC-00000**	*	**Construction Works of Portion C of the Site**			**1463 days**	**Mon 16/9/19**	**Sat 31/8/24**	**Mon 16/9/19**	**NA**	**0 days**			**18%**	
216	**CUV1-00000**	*	**UV System No. 1 & Effluent Pumping Station No. 1 (1)**			**787 days**	**Mon 16/9/19**	**Mon 16/5/22**	**Mon 16/9/19**	**NA**	**389 days**			**61%**	
247	CUV1-09041	KD1A	Walls, Slabs and staircase Construction @+7.4mPD to 16.4mPD [Additional SP1-3 puddle (DN100 x 2 & DN80)		(108), (146), (148), (179), (182)	35 days	Sat 20/3/21	Wed 5/5/21	Sat 20/3/21	NA	-17 days	244	250,251,249	0%	
248	CUV1-10000	KD1A	Construction of Switch room			20 days	Tue 23/3/21	Sun 11/4/21	Tue 23/3/21	NA	3 days			50%	
250	CUV1-11000	**KD1A**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Wed 5/5/21**	**Wed 5/5/21**	**NA**	**NA**	**-17 days**	**247**	**36FF**	**0%**	
251	CUV1-12000	SW1	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining		(95)	120 days	Tue 11/5/21	Sat 2/10/21	NA	NA	-20 days	208,135,247	252,44FF	0%	
252	CUV1-13000	SW5	Surrounding Site formation works and road works			180 days	Mon 4/10/21	Mon 16/5/22	NA	NA	389 days	251	48FF	0%	
253	**CSDC-00000**	*	**Sludge Digesters and Distribution Chamber (4)**			**916 days**	**Sat 7/12/19**	**Wed 11/1/23**	**Sat 7/12/19**	**NA**	**191 days**			**36%**	
270	CSDC-11050	KD3A	Construction of Roof Slab			60 days	Mon 20/12/21	Sat 5/3/22	NA	NA	-87 days	269	272,275,273,274,	0%	
272	CSDC-12000	**KD3A**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Sat 5/3/22**	**Sat 5/3/22**	**NA**	**NA**	**-87 days**	**270**	**38FF**	**0%**	
275	CSDC-15000	SW3	ABWF Works & BS Works		(173)	105 days	Mon 7/3/22	Fri 15/7/22	NA	NA	114 days	208,135,270	277	0%	
276	CSDC-15500	SW4	Surrounding sewerage, utility and process pipe works			124 days	Sun 6/3/22	Thu 7/7/22	NA	NA	-70 days	270	47FF	0%	
277	CSDC-16000	SW5	Surrounding Site formation works and road works			180 days	Sat 16/7/22	Wed 11/1/23	NA	NA	236 days	275	48FF	0%	
278	**CSDB-00000**	*	**Sludge Dewatering Building (2)**			**875 days**	**Tue 26/11/19**	**Wed 9/11/22**	**Tue 26/11/19**	**NA**	**242 days**			**39%**	
294	CSDB-11040	KD3B	Roof Construction @ +25.65mPD			32 days	Tue 25/1/22	Sat 5/3/22	NA	NA	-119 days	293	416,295,387,298,	0%	
295	CSDB-12000	**KD3B**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Sat 5/3/22**	**Sat 5/3/22**	**NA**	**NA**	**-99 days**	**294**	**39FF**	**0%**	
297	CSDB-14000	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining		(95), (173)	164 days	Mon 7/3/22	Fri 23/9/22	NA	NA	55 days	290,208,135	299	0%	
298	CSDB-14500	SW4	Surrounding sewerage, utility and process pipe works			153 days	Mon 7/3/22	Fri 9/9/22	NA	NA	-111 days	294	47FF	0%	
299	CSDB-15000	SW5	Surrounding Site formation works and road works			180 days	Sat 24/9/22	Wed 22/3/23	NA	NA	166 days	297	48FF	0%	
300	**CHPB-00000**	*	**Combined Heat Power Building (3)**			**1046 days**	**Tue 10/12/19**	**Mon 26/6/23**	**Tue 10/12/19**	**NA**	**59 days**			**13%**	
309	**CHPB-08000**	**KD3C**	**R.C. Structure**			**263 days**	**Thu 26/8/21**	**Mon 18/7/22**	**NA**	**NA**	**-188 days**	**205,206,133,307,204,308S**	**316,317,315**	**0%**	**10**
315	CHPB-09000	**KD3C**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**1 day**	**Tue 19/7/22**	**Tue 19/7/22**	**NA**	**NA**	**-188 days**	**309,314**	**40FF**	**0%**	
317	CHPB-11000	SW3	ABWF Works & BS Works		(95), (173)	135 days	Tue 19/7/22	Wed 28/12/22	NA	NA	-23 days	309,208,135	319,46FF	0%	
318	CHPB-11500	SW4	Surrounding sewerage, utility and process pipe works			107 days	Tue 19/7/22	Wed 23/11/22	NA	NA	-172 days	314	47FF	0%	
319	CHPB-12000	SW5	Surrounding Site formation works and road works			180 days	Thu 29/12/22	Mon 26/6/23	NA	NA	70 days	317	48FF	0%	
320	**CSPS-00000**	*	**Sewage Pumping Station (9)**			**821 days**	**Fri 15/11/19**	**Wed 24/8/22**	**Fri 15/11/19**	**NA**	**305 days**			**16%**	
330	CSPS-09000	KD3E	R.C. Structure & waterproofing works	(165), (181)	(63)	230 days	Tue 26/1/21	Fri 5/11/21	Tue 26/1/21	NA	50 days	328,133,204,205,206,329S	331,42FF,365SS-	0%	
331	CSPS-10000	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining			90 days	Sat 6/11/21	Fri 25/2/22	NA	NA	226 days	208,135,134,330	333,46FF	0%	3
332	CSPS-10500	SW4	Surrounding sewerage, utility and process pipe works			120 days	Sat 6/11/21	Fri 1/4/22	NA	NA	191 days	330	47FF	0%	
333	CSPS-11000	SW5	Surrounding Site formation works and road works			180 days	Sat 26/2/22	Wed 24/8/22	NA	NA	376 days	331	48FF	0%	
334	**CWS2-00000**	*	**Workshop No. 2 (5)**			**884 days**	**Tue 24/12/19**	**Sat 17/12/22**	**Tue 24/12/19**	**NA**	**209 days**			**14%**	
346	CWS2-08030	KD3D	Roof Construction @+19.00mPD			40 days	Sat 13/11/21	Fri 31/12/21	NA	NA	-118 days	345	348,349,347,404,	0%	
347	CWS2-09000	**KD3D**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Fri 31/12/21**	**Fri 31/12/21**	**NA**	**NA**	**-118 days**	**346**	**41FF**	**0%**	
349	CWS2-11000	SW3	ABWF Works & BS Works		(95), (173)	135 days	Mon 3/1/22	Mon 20/6/22	NA	NA	135 days	208,135,346	351,46FF	0%	
350	CWS2-11500	SW4	Surrounding sewerage, utility and process pipe works			125 days	Mon 3/1/22	Wed 8/6/22	NA	NA	140 days	346	47FF	0%	
351	CWS2-12000	SW5	Surrounding Site formation works and road works			180 days	Tue 21/6/22	Sat 17/12/22	NA	NA	261 days	349	48FF	0%	
352	**CTHP-00000**	*	**Thermal Hydrolysis Pretreatment (6)**			**749 days**	**Thu 19/12/19**	**Tue 5/7/22**	**Thu 19/12/19**	**NA**	**348 days**			**35%**	
362	CTHP-09000	KD3E	R.C. Plinth	(165), (181)	225, (115)	0 days	Mon 2/11/20	Sat 28/11/20	Mon 2/11/20	Sat 28/11/20	0 days	360,265,361SS-2 emons	363,42FF	100%	
363	CTHP-10000	SW5	Surrounding Site formation works and road works			180 days	Fri 7/1/22	Tue 5/7/22	NA	NA	426 days	362,426SS	48FF	0%	
364	**CFCD-00000**	*	**Ferric Chloride Dosing Facilities (10)**			**377 days**	**Wed 11/8/21**	**Wed 16/11/22**	**NA**	**NA**	**-30 days**			**0%**	
369	CFCD-04000	KD3E	Steel Roof Structure (On-site Fabrication)			65 days	Mon 3/1/22	Tue 22/3/22	NA	NA	-30 days	368	370,42FF	0%	
370	CFCD-05000	SW3	ABWF Works & BS Works			45 days	Wed 23/3/22	Fri 20/5/22	NA	NA	160 days	369,208,135	371,46FF	0%	
371	CFCD-06000	SW5	Surrounding Site formation works and road works			180 days	Sat 21/5/22	Wed 16/11/22	NA	NA	292 days	370	48FF	0%	
372	**CFHB-00000**	*	**Fire Hydrant and Booster Pump Room (16)**			**302 days**	**Fri 31/12/21**	**Sat 7/1/23**	**NA**	**NA**	**-83 days**			**0%**	
376	CFHB-03000	KD3E	R.C. Structure & waterproofing works			60 days	Wed 2/3/22	Tue 17/5/22	NA	NA	-103 days	374	377,42FF,478,475	0%	5
377	CFHB-04000	SW3	ABWF Works & BS Works			45 days	Wed 18/5/22	Mon 11/7/22	NA	NA	118 days	376,208,135	378,46FF	0%	
378	CFHB-05000	SW5	Surrounding Site formation works and road works			180 days	Tue 12/7/22	Sat 7/1/23	NA	NA	240 days	377	48FF	0%	
379	**CTFS-00000**	*	**Transformer and Switchroom (15)**			**330 days**	**Tue 11/1/22**	**Wed 22/2/23**	**NA**	**NA**	**-101 days**			**0%**	
383	CTFS-03000	KD3E	R.C. Structure			60 days	Mon 14/3/22	Sat 28/5/22	NA	NA	-113 days	381,133,413,204,382SS-2	384,42FF,478,475	0%	5
384	CTFS-04000	SW3	ABWF Works & BS Works		(95)	75 days	Mon 30/5/22	Fri 26/8/22	NA	NA	78 days	383,208,135	385,46FF	0%	
385	CTFS-05000	SW5	Surrounding Site formation works and road works			180 days	Sat 27/8/22	Wed 22/2/23	NA	NA	194 days	384	48FF	0%	
386	**CWMC-00000**	*	**Water Meter Cabinet (11)**		**204**	**263 days**	**Sat 15/1/22**	**Sun 4/12/22**	**NA**	**NA**	**9 days**			**0%**	
390	CWMC-03000	SW4	ABWF Works & BS Works			15 days	Fri 20/5/22	Tue 7/6/22	NA	NA	-31 days	389,208,135	391,47FF	0%	
391	CWMC-04000	SW5	Surrounding Site formation works and road works			180 days	Wed 8/6/22	Sun 4/12/22	NA	NA	274 days	390	48FF	0%	
392	**CGH-00000**	*	**Guard House (14)**			**272 days**	**Tue 23/11/21**	**Tue 25/10/22**	**NA**	**NA**	**29 days**			**0%**	
396	CGH-03000	SW4	ABWF Works & BS Works		(95)	45 days	Thu 3/3/22	Thu 28/4/22	NA	NA	0 days	395,208,135	397,47FF	0%	
397	CGH-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 29/4/22	Tue 25/10/22	NA	NA	314 days	396	48FF	0%	
398	**CCPS-00000**	*	**THP Coolers Pumping Station (21)**			**258 days**	**Fri 7/1/22**	**Sun 20/11/22**	**NA**	**NA**	**-11 days**			**0%**	
401	CCPS-02000	SW4	R.C. Structure			60 days	Wed 9/3/22	Tue 24/5/22	NA	NA	-20 days	399,133,204,400SS-2 emo	402,47FF	0%	5
402	CCPS-03000	SW5	Surrounding Site formation works and road works			180 days	Wed 25/5/22	Sun 20/11/22	NA	NA	288 days	401	48FF	0%	
403	**CWGB-00000**	*	**Waste Gas Buner (8)**			**213 days**	**Tue 14/12/21**	**Sun 4/9/22**	**NA**	**NA**	**-24 days**			**0%**	



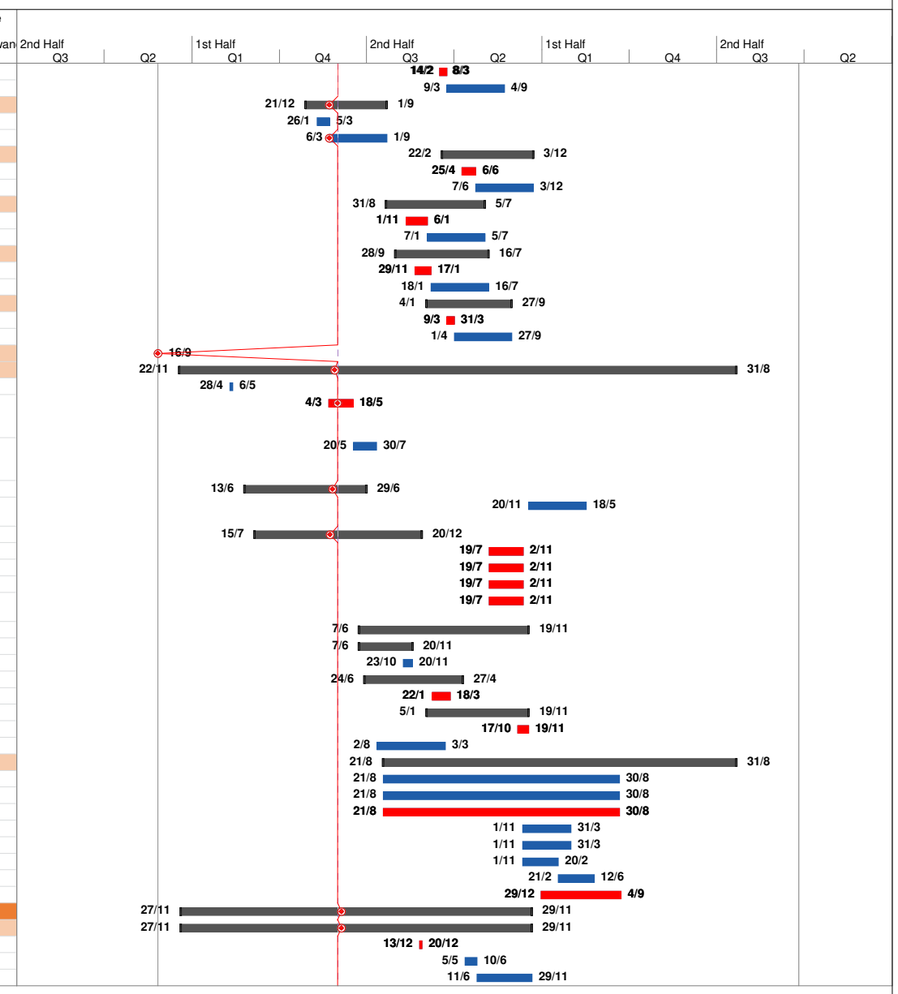
Critical Split | Task | Milestone | Summary | Critical

Contract No.: DC/2018/06
Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

Updated Programme (Status Date: 31/07/2021)

群利－俊和聯營體
KL－CW JV

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
407	CWGB-03000	KD3E	R.C. Plinth			20 days	Mon 14/2/22	Tue 8/3/22	NA	NA	-38 days	405,133,406SS-2 emons	437,408,42FF	0%	
408	CWGB-04000	SW5	Surrounding Site formation works and road works			180 days	Wed 9/3/22	Sun 4/9/22	NA	NA	365 days	407	48FF	0%	
409	**CPSW-00000**	*	**Plant Services Water System (20)**			**205 days**	**Mon 21/12/20**	**Wed 1/9/21**	**Mon 21/12/20**	**NA**	**594 days**			**14%**	
413	CPSW-03000	KD3E	Basement Construction @+1.20mPD		(136), (117)	0 days	Tue 26/1/21	Fri 5/3/21	Tue 26/1/21	Fri 5/3/21	0 days	411,133,412SS-2 emons	383,414,42FF	100%	
414	CPSW-04000	SW5	Surrounding Site formation works and road works			180 days	Sat 6/3/21	Wed 1/9/21	NA	NA	733 days	413	48FF	0%	
415	**CDS11-00000**	*	**Deodorization System No. 11 (18)**			**234 days**	**Tue 22/2/22**	**Sat 3/12/22**	**NA**	**NA**	**-108 days**			**0%**	
419	CDS11-03000	KD3E	R.C. Plinth			34 days	Mon 25/4/22	Mon 6/6/22	NA	NA	-119 days	417,133,418SS-2 emons	420,42FF,478,475	0%	
420	CDS11-04000	SW5	Surrounding Site formation works and road works			180 days	Tue 7/6/22	Sat 3/12/22	NA	NA	275 days	419	48FF	0%	
421	**CBGH-00000**	*	**Biogas Holder (7)**			**248 days**	**Tue 31/8/21**	**Tue 5/7/22**	**NA**	**NA**	**12 days**			**0%**	
425	CBGH-03000	KD3E	R.C. Plinth			55 days	Mon 1/11/21	Thu 6/1/22	NA	NA	0 days	423,133,424SS-2 emons	426,42FF,478,475	0%	
426	CBGH-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 7/1/22	Tue 5/7/22	NA	NA	426 days	425	48FF,363SS	0%	
427	**CH2S-00000**	*	**H2S Removal System (12)**			**235 days**	**Tue 28/9/21**	**Sat 16/7/22**	**NA**	**NA**	**-15 days**			**0%**	
431	CH2S-03000	KD3E	R.C. Plinth			40 days	Mon 29/11/21	Mon 17/1/22	NA	NA	-36 days	429,430SS-2 emons	432,42FF,399,43	0%	
432	CH2S-04000	SW5	Surrounding Site formation works and road works			180 days	Tue 18/1/22	Sat 16/7/22	NA	NA	415 days	431	48FF	0%	
433	**CDS12-00000**	*	**Deodorization System No. 12 (19)**			**217 days**	**Tue 4/1/22**	**Tue 27/9/22**	**NA**	**NA**	**-24 days**			**0%**	
437	CDS12-03000	KD3E	R.C. Plinth			20 days	Wed 9/3/22	Thu 31/3/22	NA	NA	-38 days	435,133,407,436SS-2 emo	438,42FF	0%	
438	CDS12-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 1/4/22	Tue 27/9/22	NA	NA	342 days	437	48FF	0%	
439	CUPH-00000	*	Underpass & Pump House		332	0 days	Mon 16/9/19	Mon 16/9/19	NA	NA	0 days			0%	
440	**CPWU-00000**	*	**Pipe Works and Utility Installation**			**1407 days**	**Fri 22/11/19**	**Sat 31/8/24**	**Fri 22/11/19**	**NA**	**0 days**			**11%**	
445	CPWU-01130	KD1A	Stage 1 - Backfilling Works for Drainage Diversion			9 days	Tue 28/4/20	Wed 6/5/20	Tue 28/4/20	Wed 6/5/20	0 days		229	100%	
446	CPWU-01140	KD1A	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Exisitng Drainage Culvert (1 Cell, 1000mm x 1150mm) within Portion C-1A & C-1B - Part 1	(181)		60 days	Thu 4/3/21	Tue 18/5/21	Thu 4/3/21	NA	-28 days	241	447	40%	
447	CPWU-01150	SW1	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Exisitng Drainage Culvert (1 Cell, 1000mm x 1150mm) outside Portion C-1A & C-1B - Part 2			60 days	Thu 20/5/21	Fri 30/7/21	NA	NA	33 days	446	44FF	0%	
448	CPWU-01200	**SW4**	**Trenchless Work for Pipe Installation**			**309 days**	**Sat 13/6/20**	**Tue 29/6/21**	**Sat 13/6/20**	**NA**	**502 days**		**47FF**	**64%**	
471	CPWU-01020	SW5	Surrounding Site formation works and road works			180 days	Sun 20/11/22	Thu 18/5/23	NA	NA	109 days	470,478,479,480,481,482	48FF	0%	
475	CPWU-02111	**SW1**	**Effluent Pipe(approx. 70m, dia 300-1600)**			**524 days**	**Wed 15/7/20**	**Mon 20/12/21**	**Wed 15/7/20**	**NA**	**338 days**			**79%**	
478	CPWU-02120	SW4	Remaining Effluent Pipes & testing works			89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,197,200,271,2	47FF,471	0%	
479	CPWU-02130	SW4	Stormdrain Pipeworks & testing works			89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,188,271,294,2	47FF,471	0%	
480	CPWU-02140	SW4	Sewerage Pipeworks, manhole, protective lining & testing works		210	89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,194,271,294,2	47FF,471	0%	
481	CPWU-02150	SW4	Watermain Pipeworks & testing works		205, 206, 207, 216, 219, 220, 221, 221-1, 222	89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,191,194,271,2	47FF,471	0%	
482	**CPWU-02160**	**SW4**	Cable & Other Underground Utility Pipeworks			**434 days**	**Mon 7/6/21**	**Sat 19/11/22**	**NA**	**NA**	**-342 days**	**138,288,341**	**471**	**0%**	
483	**CPWU-02161**	**SW1**	**Portion C1-B, Area 1**			**139 days**	**Mon 7/6/21**	**Sat 20/11/21**	**NA**	**NA**	**273 days**	**249**	**44FF**	**0%**	
490	CPWU-02161g	SW1	Road works (footpath 25m)			25 days	Sat 23/10/21	Sat 20/11/21	NA	NA	273 days	489	477	0%	
491	**CPWU-02162**	**SW1**	**Portion C1-1B, Area 2**			**250 days**	**Thu 24/6/21**	**Wed 27/4/22**	**NA**	**NA**	**-356 days**		**44FF**	**0%**	
509	CPWU-02162j4	SW1	Road works (footpath & carriageway)			45 days	Sat 22/1/22	Fri 18/3/22	NA	NA	-356 days	508,507	511FS-60 days	0%	
510	**CPWU-02163**	**SW1**	**Portion C1-1B, Area 3**			**260 days**	**Wed 5/1/22**	**Sat 19/11/22**	**NA**	**NA**	**-356 days**		**44FF**	**0%**	
516	CPWU-02163f	SW1	Road Works (footpath & carriageway)			30 days	Mon 17/10/22	Sat 19/11/22	NA	NA	-356 days	515		0%	
517	CPWU-02200	SW4	Pipe Bridge No.1			175 days	Mon 2/8/21	Thu 3/3/22	NA	NA	44 days	2	47FF	0%	
518	**CRWL-00000**	*	**Remaining Works & Landscape Works**			**891 days**	**Sat 21/8/21**	**Sat 31/8/24**	**NA**	**NA**	**0 days**			**0%**	
519	CRWL-01000	SW5	Irrigation System		218	600 days	Sat 21/8/21	Wed 30/8/23	NA	NA	4 days	141	48FF	0%	
520	CRWL-02000	SW5	Hard Landscape Works			600 days	Sat 21/8/21	Wed 30/8/23	NA	NA	4 days	141	48FF	0%	
521	CRWL-03000	SW5	Soft Landscape Works			600 days	Sat 21/8/21	Wed 30/8/23	NA	NA	0 days	141	527,48FF	0%	
522	CRWL-04000	SW5	Outfall for Effluent Pipes			124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	126 days	180	48FF	0%	
523	CRWL-05000	SW5	Slope Formation Works near Outfall			124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	126 days	180	48FF	0%	
524	CRWL-06000	SW5	Removal of invasive trees along River Embankment		(37)	90 days	Tue 1/11/22	Mon 20/2/23	NA	NA	70 days	180	525	0%	
525	CRWL-07000	SW5	Retaining Wall along River Embankment, street furniture & road works			90 days	Tue 21/2/23	Mon 12/6/23	NA	NA	70 days	180,524	48FF	0%	
526	CRWL-08000	SW5	Remaining Site formation works, road works and boundary fence wall			250 days	Thu 29/12/22	Mon 4/9/23	NA	NA	0 days	46	48FF	0%	
528	**CWPA-00000**	*	**Construction of Portion A of the Site**			**891 days**	**Wed 27/11/19**	**Tue 29/11/22**	**Wed 27/11/19**	**NA**	**144 days**			**42%**	
529	**C132S-00000**	*	**132kV Substation**			**891 days**	**Wed 27/11/19**	**Tue 29/11/22**	**Wed 27/11/19**	**NA**	**144 days**			**42%**	
559	C132SI-31000	KD2A	**Handover to CLP for Electrical System Installation**			7 days	Mon 13/12/21	Mon 20/12/21	NA	NA	-96 days	557,558	560,37FF	0%	
561	C132SI-33000	SW2	Inspection and Handover to CLP			30 days	Thu 5/5/22	Fri 10/6/22	NA	NA	144 days	560	578,45FF	0%	
578	C132SE-03000	SW2	Construction of New Boundary Wall		(155)	143 days	Sat 11/6/22	Tue 29/11/22	NA	NA	144 days	561,577	45FF	0%	

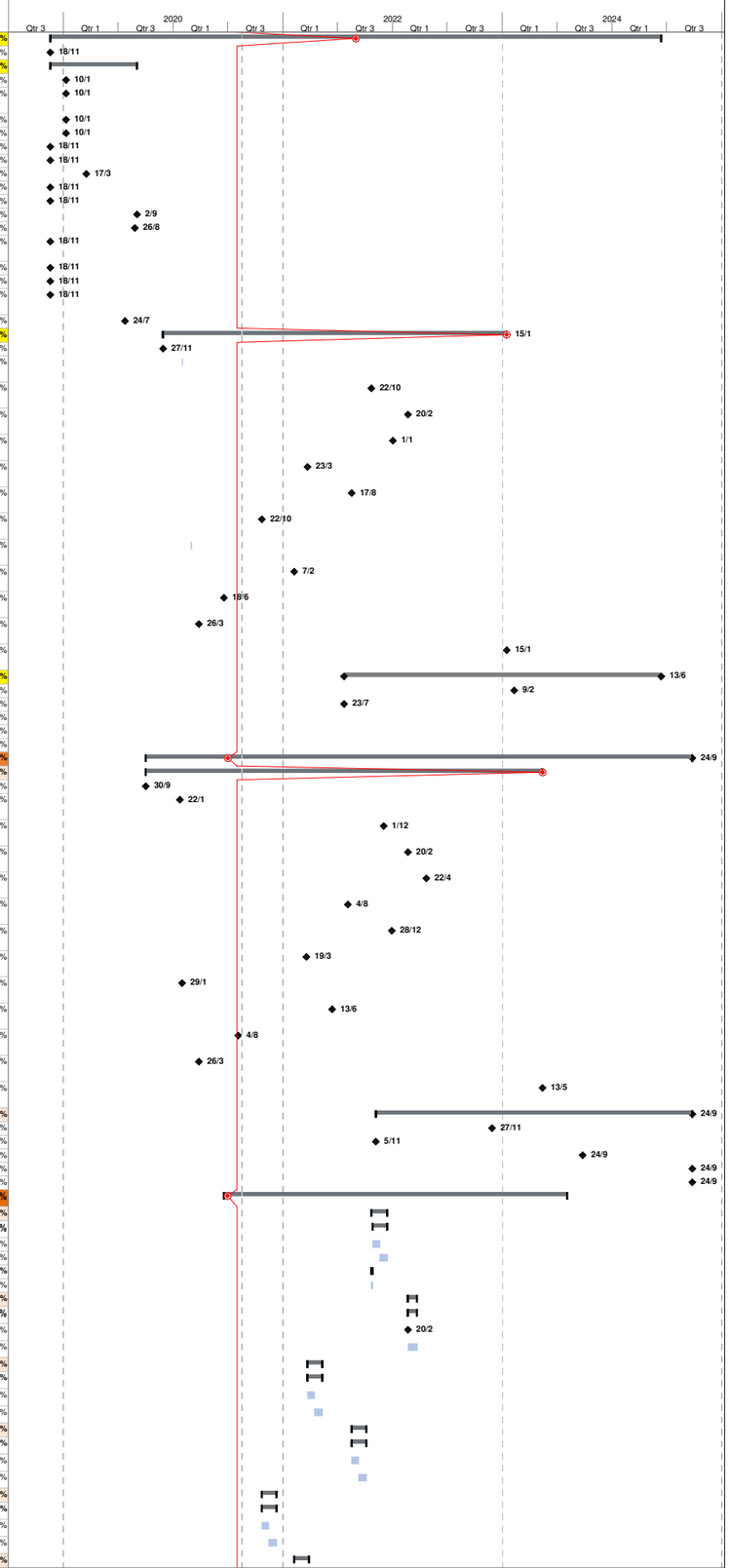


Critical Split | Task | Milestone | Summary | Critical

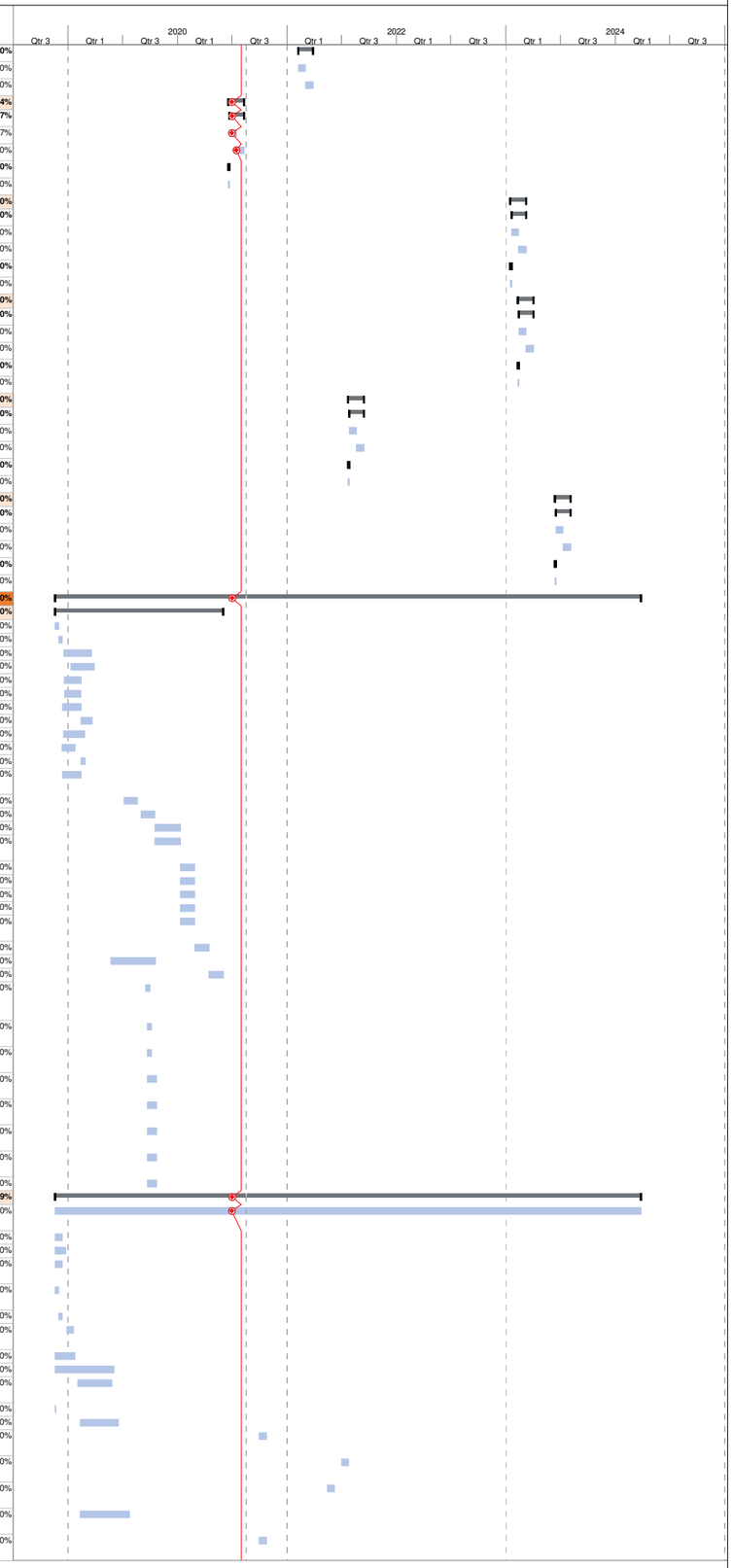
Contract No. DC/2018/07
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Revised Works Programme (Status Date: 31/07/2021)

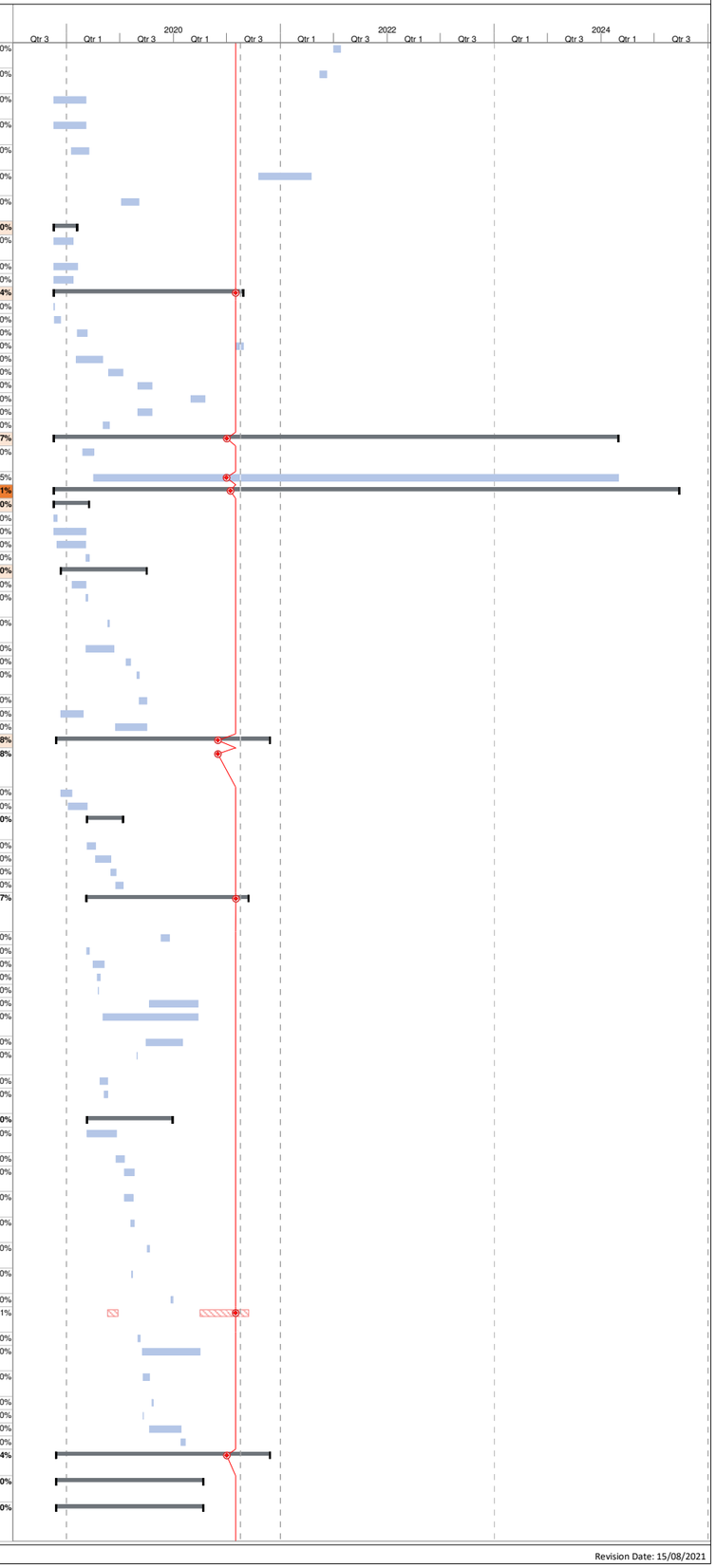
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
1	**CD-1000**		**Contract Dates**			**1585 days**	**Mon 18/11/19**	**Thu 27/3/25**	**1651.5 days**	**Mon 18/11/19**	**Fri 13/6/25**	**Mon 18/11/19**	**NA**			**88.5 days**		**0%**
2	CD-1010		Starting Date			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		8,9,13FS+290 days,14FS+311 days	0 days		100%
3	**CAD-1000**		**Access Dates (cal. day)**			**310 days**	**Mon 18/11/19**	**Wed 23/9/20**	**289 days**	**Mon 18/11/19**	**Wed 2/9/20**	**Mon 18/11/19**	**Wed 2/9/20**			**0 days**		**100%**
4	CAD-1010		Portion B-1 (Access Road AR3)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	201	0 days		100%
5	CAD-1020		Portion B-1A (Area for the works for Sidestream Treatment Facilities by Others			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2		0 days		100%
6	CAD-1030		Portion B-2 (Inlet Works No.1)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	295,306	0 days		100%
7	CAD-1040		Portion B-2A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2		0 days		100%
8	CAD-1050		Portion B-3 (Primary Sedimentation Tanks No. 1-4)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	335	0 days		100%
9	CAD-1060		Portion B-4 (Bioreactor No. 2A & 2B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	353	0 days		100%
10	CAD-1070		Portion B-5 (Membrane Facilities Building No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	2	402,419,425	0 days		100%
11	CAD-1080		Portion B-6 (SAS Pumping Station)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	434	0 days		100%
12	CAD-1090		Portion B-7 (Ancillary structures)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	461	0 days		100%
13	CAD-1100		Portion B-7A (Alternation works for existing Power House)			0 days	Wed 2/9/20	Wed 2/9/20	0 days	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	2FS+290 days	539FS-1 day,29FS+179 days	0 days		100%
14	CAD-1110		Portion B-8 (Alternation for existing Membrane Facilities Building No.1)			0 days	Tue 22/9/20	Tue 22/9/20	0 days	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	2FS+311 days	541FS-1 day	0 days		100%
15	CAD-1020		Portion B-8A (Alternation of air supply main for existing Air Blower House No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	532	0 days		100%
16	CAD-1130		Portion B-9 (remainder works in Zone B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	542,556	0 days		100%
17	CAD-1140		Portion B-9A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2		0 days		100%
18	CAD-1150		Portion B-9B (Area for underground pipework modification and connection works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2		0 days		100%
19	CAD-1160		Portion B-9C (Area for the works for pipeworks)			0 days	Wed 22/7/20	Wed 22/7/20	0 days	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	2FS+151 days		0 days		100%
20	**CKD-1000**		**Key Dates (cal. day)**			**1440 days**	**Tue 19/11/19**	**Sat 28/10/23**	**1144 days**	**Fri 27/11/20**	**Mon 15/1/24**	**Fri 27/11/20**	**NA**			**618 days**		**99%**
21	CKD-1010		KD1A completion of AR3 in Portion B-1 (375 days after starting date)			300 days	Tue 19/11/19	Sun 13/9/20	0 days	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	2FS+376 days		0 days		100%
22	CKD-1020		KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (438.5 days after starting date)			360 days	Tue 19/11/19	Thu 12/11/20	1 day	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	2FS+439.5 days		0 days		100%
23	CKD-1030		KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (1068.5 days after starting date)			990 days	Tue 19/11/19	Thu 4/8/22	0 days	Sat 22/10/22	Sat 22/10/22	NA	NA	2FS+1069.5 days	67	1056.5 days		0%
24	CKD-1040		KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			1190 days	Tue 19/11/19	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	2FS+1191 days	70	947 days		0%
25	CKD-1050		KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1140days after starting date)			1140 days	Tue 19/11/19	Sun 1/1/23	0 days	Sun 1/1/23	Sun 1/1/23	NA	NA	2FS+1141 days		997 days		0%
26	CKD-1060		KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (855.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Wed 23/3/22	Wed 23/3/22	NA	NA	2FS+856.5 days	74	1273.5 days		0%
27	CKD-1070		KD1G completion of civil and structural works of MFB in Portion B-5 (1002.5 days after starting date)			950 days	Tue 19/11/19	Sat 25/6/22	0 days	Wed 17/8/22	Wed 17/8/22	NA	NA	2FS+1003.5 days	78	1126.5 days		0%
28	CKD-1080		KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (703.5 days after starting date)			630 days	Tue 19/11/19	Mon 9/8/21	0 days	Fri 22/10/21	Fri 22/10/21	NA	NA	2FS+704.5 days	82	1425.5 days		0%
29	CKD-1090		KD1I completion alternation works for existing Power House in Portion B-7A (179days after access date of B-7A)			150 days	Fri 4/9/20	Sun 31/1/21	1 day	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	13FS+179 days		0 days		100%
30	CKD-1100		KD1J completion of auxiliary facilites in Portion B-7 (811.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Mon 7/2/22	Mon 7/2/22	NA	NA	2FS+812.5 days	86	1317.5 days		0%
31	CKD-1110		KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (577.5 days after starting date)			495 days	Tue 19/11/19	Sat 27/3/21	0 days	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	2FS+578.5 days	93	0 days		100%
32	CKD-1120		KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (494 days after starting date)			420 days	Tue 19/11/19	Mon 11/1/21	0 days	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	2FS+495 days		0 days		100%
33	CKD-1130		KD3A completion of all utilities and road works (1519 days after starting date)			1440 days	Tue 19/11/19	Sat 28/10/23	0 days	Mon 15/1/24	Mon 15/1/24	NA	NA	2FS+1520 days	99	606 days		0%
34	**CCD-1000**		**Completion Date (cal. Day)**			**1956 days**	**Tue 19/11/19**	**Thu 27/3/25**	**1056 days**	**Sat 23/7/22**	**Fri 13/6/25**	**Sat 23/7/22**	**NA**			**50.5 days**		**0%**
35	CCD-1010		Section 1 of the Works (1,543.5 after starting date)			1460 days	Tue 19/11/19	Fri 17/11/23	0 days	Fri 9/2/24	Fri 9/2/24	NA	NA	2FS+1544.5 days	105	0 days		0%
36	CCD-1020		Section 2 of the Works (977.5 after starting date)			900 days	Tue 19/11/19	Fri 6/5/22	0 days	Sat 23/7/22	Sat 23/7/22	NA	NA	2FS+978.5 days	111	0 days		0%
37	CCD-1030		Section 3 of the Works (1,667.5 after starting date)			1590 days	Tue 19/11/19	Tue 26/3/24	0 days	Wed 12/6/24	Wed 12/6/24	NA	NA	2FS+1668.5 days	39FS+1 day,117,38FS+1 day	-77.5 days		99%
38	CCD-1040		Defects Liability Period			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		0 days		0%
39	CCD-1050		Landscape Establishment Works			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		103.5 days		0%
40	**PD-1000**	*	**Planned Completion**			**1686 days**	**Fri 14/8/20**	**Thu 27/3/25**	**1820 days**	**Wed 30/9/20**	**Wed 24/9/25**	**Wed 30/9/20**	**NA**			**0 days**		**3%**
41	**PCD-1000**	*	**Planned Completion - Key Dates (cal. day)**			**1170 days**	**Fri 14/8/20**	**Sat 28/10/23**	**1321 days**	**Wed 30/9/20**	**Mon 13/5/24**	**Wed 30/9/20**	**NA**			**-119 days**		**99%**
42	PKD-1010	KD1A	KD1A completion of AR3 in Portion B-1 (300days after starting date)			0 days	Sat 12/9/20	Sat 12/9/20	0 days	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	210FF		0 days		100%
43	PCD-1020	KD1B	KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (360days after starting date)			0 days	Fri 14/8/20	Fri 14/8/20	0 days	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	286FF,291FF,273FF		0 days		100%
44	PCD-1030	KD1C	KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (990days after starting date)			0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA	330FF,322FF,248FF,294FF,212FF,250FF		-40 days		0%
45	PCD-1040	KD1D	KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	349FF,348FF,351FF,333FF		0 days		0%
46	PCD-1050	KD1E	KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1,140days after starting date)			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391FF,397FF,393FF,396FF,392FF		-111 days		0%
47	PCD-1060	KD1F	KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (800days after starting date)			0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA	430FF		-135 days		0%
48	PCD-1070	KD1G	KD1G completion of civil and structural works of MFB in Portion B-5 (950days after starting date)			0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	431FF		-133 days		0%
49	PCD-1080	KD1H	KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (630days after starting date)			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	459FF,458FF		-148 days		0%
50	PCD-1090	KD1I	KD1I completion alternation works for existing Power House in Portion B-7A (150days after access date of B-7A)			0 days	Sat 30/1/21	Sat 30/1/21	1 day	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	539FF		0 days		100%
51	PCD-1100	KD1J	KD1J completion of auxiliary facilites in Portion B-7 (800days after starting date)			0 days	Wed 26/1/22	Wed 26/1/22	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	496FF,495FF,521FF,520FF,513FF,512FF		-126 days		0%
52	PCD-1110	KD2A	KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (495days after starting date)			0 days	Sat 27/3/21	Sat 27/3/21	0 days	Wed 4/8/21	Wed 4/8/21	NA	NA	545FF,543FF		-47 days		0%
53	PCD-1120	KD2B	KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (420days after starting date)			0 days	Thu 3/9/20	Thu 3/9/20	1 day	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	532FF,536FF,537FF,538FF		0 days		100%
54	PCD-1130	KD3A	KD3A completion of all utilities and road works (1440days after starting date)			0 days	Sat 28/10/23	Sat 28/10/23	0 days	Mon 13/5/24	Mon 13/5/24	NA	NA	555FF,557FF		-119 days		0%
55	**PCD-1000**	*	**Planned Completion Date (cal. Day)**			**1056 days**	**Fri 6/5/22**	**Thu 27/3/25**	**1054 days**	**Sat 5/11/22**	**Wed 24/9/25**	**NA**	**NA**			**-106 days**		**0%**
56	PCD-1010	SW1	Section 1 of the Works (1,460 after starting date)			0 days	Wed 23/8/23	Wed 23/8/23	0 days	Mon 27/11/23	Mon 27/11/23	NA	NA	522FF,514FF,477FF,504FF,488FF,460FF		73 days		0%
57	PCD-1020	SW2	Section 2 of the Works (900 after starting date)			0 days	Fri 6/5/22	Fri 6/5/22	0 days	Sat 5/11/22	Sat 5/11/22	NA	NA	549FF,399FF,433FF,352FF,334FF,550FF		-106 days		0%
58	PCD-1030	SW3	Section 3 of the Works (1,590 after starting date)			0 days	Tue 26/3/24	Tue 26/3/24	0 days	Tue 24/9/24	Tue 24/9/24	NA	NA	558FF,559FF,541FF,540FF		-105 days		0%
59	PCD-1040	DLP	Defects Liability Period			0 days	Thu 27/3/25	Thu 27/3/25	0 days	Wed 24/9/25	Wed 24/9/25	NA	NA	560FF,153FF		0 days		0%
60	PCD-1050		Landscape Establishment Works			0 days	Thu 27/3/25	Thu 27/3/25	0 days	Wed 24/9/25	Wed 24/9/25	NA	NA	560FF		0 days		0%
61	**ET-1000**		**Effects from Inclement Weather and Other Time Affected Events**			**0 days**	**NA**	**NA**	**1143 days**	**Fri 18/6/21**	**Sun 4/8/24**	**Fri 18/6/21**	**NA**			**416.5 days**		**2%**
62	**ET1C-1000**		**Effects to KD1C**			**0 days**	**NA**	**NA**	**53 days**	**Sat 22/10/22**	**Wed 14/12/22**	**NA**	**NA**			**1015.5 days**		**0%**
63	**ET1C-1100**		**Inclement Weather to KD1C (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 26/10/22**	**Wed 14/12/22**	**NA**	**NA**			**1015.5 days**		**0%**
64	ET1C-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 26/10/22	Fri 18/11/22	NA	NA	67	65	1015.5 days		0%
65	ET1C-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 18/11/22	Wed 14/12/22	NA	NA	64		1015.5 days		0%
66	**ET1C-1200**		**Other Events to KD1C (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Sat 22/10/22**	**Wed 26/10/22**	**NA**	**NA**			**1015.5 days**		**0%**
67	ET1C-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Sat 22/10/22	Wed 26/10/22	NA	NA	23	64	1056.5 days		0%
68	**ET1D-1000**		**Effects to KD1D**			**0 days?**	**NA**	**NA**	**26 days**	**Mon 20/2/23**	**Wed 22/3/23**	**NA**	**NA**			**749 days**		**0%**
69	**ET1D-1100**		**Inclement Weather to KD1D (cal. Day)**			**0 days?**	**NA**	**NA**	**26 days**	**Mon 20/2/23**	**Wed 22/3/23**	**NA**	**NA**			**749 days**		**0%**
70	ET1D-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	24	71	749 days		0%
71	ET1D-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Tue 21/2/23	Wed 22/3/23	NA	NA	70		749 days		0%
72	**ET1F-1000**		**Effects to KD1F**			**0 days**	**NA**	**NA**	**49 days**	**Wed 23/3/22**	**Wed 11/5/22**	**NA**	**NA**			**1232.5 days**		**0%**
73	**ET1F-1100**		**Inclement Weather to KD1F (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 23/3/22**	**Wed 11/5/22**	**NA**	**NA**			**1232.5 days**		**0%**
74	ET1F-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 23/3/22	Fri 15/4/22	NA	NA	26	75	1232.5 days		0%
75	ET1F-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 15/4/22	Wed 11/5/22	NA	NA	74		1232.5 days		0%
76	**ET1G-1000**		**Effects to KD1G**			**0 days**	**NA**	**NA**	**49 days**	**Wed 17/8/22**	**Wed 5/10/22**	**NA**	**NA**			**1085.5 days**		**0%**
77	**ET1G-1100**		**Inclement Weather to KD1G (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 17/8/22**	**Wed 5/10/22**	**NA**	**NA**			**1085.5 days**		**0%**
78	ET1G-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 17/8/22	Fri 9/9/22	NA	NA	27	79	1085.5 days		0%
79	ET1G-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 9/9/22	Wed 5/10/22	NA	NA	78		1085.5 days		0%
80	**ET1H-1000**		**Effects to KD1H**			**0 days**	**NA**	**NA**	**49 days**	**Fri 22/10/21**	**Fri 10/12/21**	**NA**	**NA**			**1384.5 days**		**0%**
81	**ET1H-1100**		**Inclement Weather to KD1H (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Fri 22/10/21**	**Fri 10/12/21**	**NA**	**NA**			**1384.5 days**		**0%**
82	ET1H-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Fri 22/10/21	Sun 14/11/21	NA	NA	28	83	1384.5 days		0%
83	ET1H-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Sun 14/11/21	Fri 10/12/21	NA	NA	82		1384.5 days		0%
84	**ET1H-1000**		**Effects to KD1J**			**0 days**	**NA**	**NA**	**49 days**	**Mon 7/2/22**	**Mon 28/3/22**	**NA**	**NA**			**1276.5 days**		**0%**



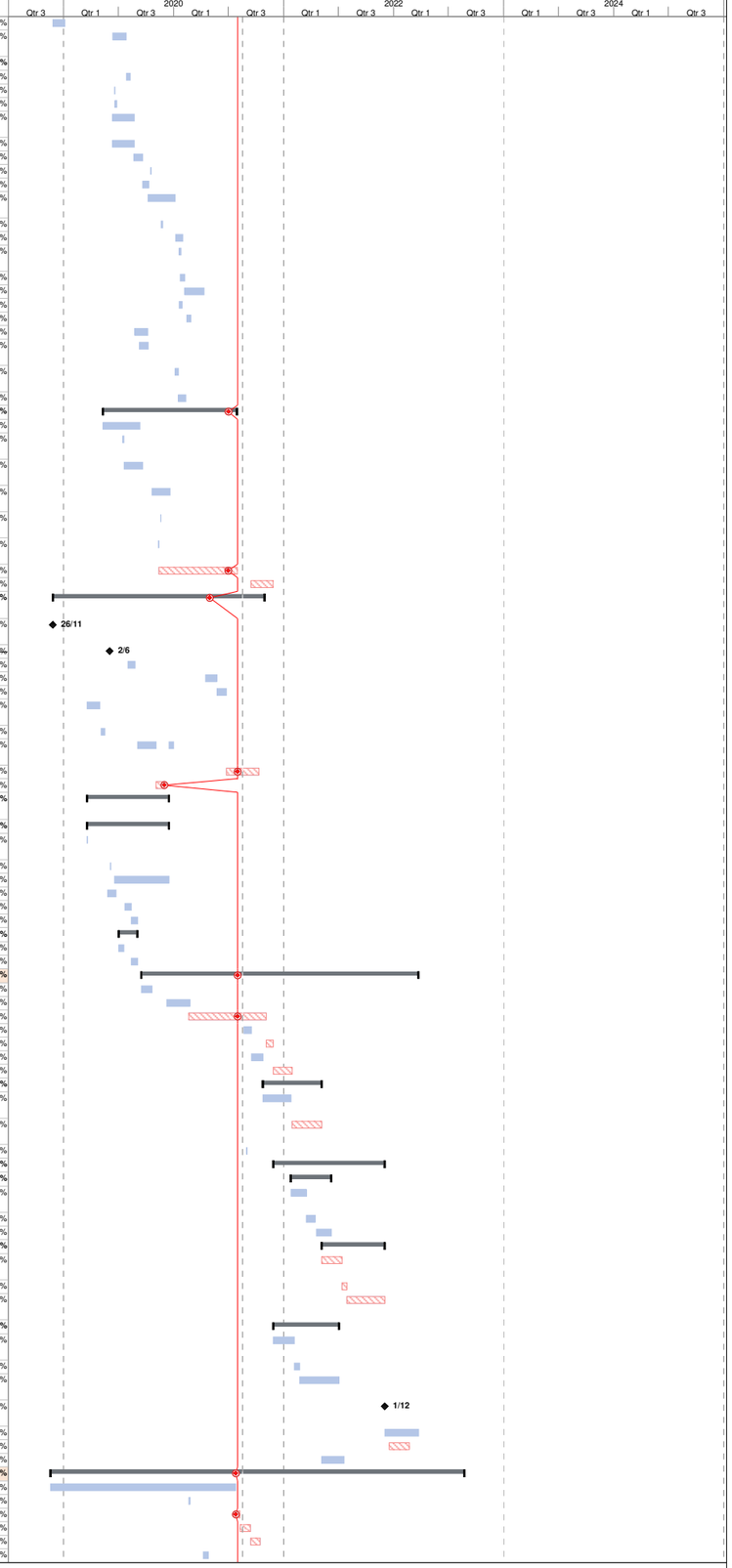
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
85	**ET1H-1100**		**Inclement Weather to KD1J (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Mon 7/2/22**	**Mon 28/3/22**	**NA**	**NA**			**1276.5 days**		**0%**
86	ET1H-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Mon 7/2/22	Wed 2/3/22	NA	NA	30	87	1276.5 days		0%
87	ET1H-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Wed 2/3/22	Mon 28/3/22	NA	NA	86		1276.5 days		0%
88	**ET2A-1000**		**Effects to KD2A**			**0 days**	**NA**	**NA**	**53 days**	**Fri 18/6/21**	**Tue 10/8/21**	**Fri 18/6/21**	**NA**			**1506.5 days**		**24%**
89	**ET2A-1100**		**Inclement Weather to KD2A (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Tue 22/6/21**	**Tue 10/8/21**	**Tue 22/6/21**	**NA**			**1506.5 days**		**17%**
90	ET2A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 22/6/21	Thu 15/7/21	Tue 22/6/21	NA	93	91	1506.5 days		37%
91	ET2A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 15/7/21	Tue 10/8/21	NA	NA	90		1506.5 days		0%
92	**ET2A-1200**		**Other Events to KD2A (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Fri 18/6/21**	**Tue 22/6/21**	**Fri 18/6/21**	**Tue 22/6/21**			**0 days**		**100%**
93	ET2A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 18/6/21	Tue 22/6/21	Fri 18/6/21	Tue 22/6/21	31	90	0 days		100%
94	**ET3A-1000**		**Effects to KD3A**			**0 days**	**NA**	**NA**	**53 days**	**Tue 16/1/24**	**Fri 8/3/24**	**NA**	**NA**			**565 days**		**0%**
95	**ET3A-1100**		**Inclement Weather to KD3A (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Sat 20/1/24**	**Fri 8/3/24**	**NA**	**NA**			**565 days**		**0%**
96	ET3A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sat 20/1/24	Sun 11/2/24	NA	NA	99	97	565 days		0%
97	ET3A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Mon 12/2/24	Fri 8/3/24	NA	NA	96		565 days		0%
98	**ET3A-1200**		**Other Events to KD3A (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Tue 16/1/24**	**Fri 19/1/24**	**NA**	**NA**			**565 days**		**0%**
99	ET3A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Tue 16/1/24	Fri 19/1/24	NA	NA	33	96	565 days		0%
100	**ETS1-1000**		**Effects to Section 1 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Fri 9/2/24**	**Tue 2/4/24**	**NA**	**NA**			**540.5 days**		**0%**
101	**ETS1-1100**		**Inclement Weather to Section 1 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Tue 13/2/24**	**Tue 2/4/24**	**NA**	**NA**			**540.5 days**		**0%**
102	ETS1-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 13/2/24	Thu 7/3/24	NA	NA	105	103	540.5 days		0%
103	ETS1-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 7/3/24	Tue 2/4/24	NA	NA	102		540.5 days		0%
104	**ETS1-1200**		**Other Events to Section 1 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Fri 9/2/24**	**Tue 13/2/24**	**NA**	**NA**			**540.5 days**		**0%**
105	ETS1-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 9/2/24	Tue 13/2/24	NA	NA	35	102	540.5 days		0%
106	**ETS2-1000**		**Effects to Section 2 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Sat 23/7/22**	**Wed 14/9/22**	**NA**	**NA**			**1106.5 days**		**0%**
107	**ETS2-1100**		**Inclement Weather to Section 2 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 27/7/22**	**Wed 14/9/22**	**NA**	**NA**			**1106.5 days**		**0%**
108	ETS2-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 27/7/22	Fri 19/8/22	NA	NA	111	109	1106.5 days		0%
109	ETS2-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 19/8/22	Wed 14/9/22	NA	NA	108		1106.5 days		0%
110	**ETS2-1200**		**Other Events to Section 2 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Sat 23/7/22**	**Wed 27/7/22**	**NA**	**NA**			**1106.5 days**		**0%**
111	ETS2-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Sat 23/7/22	Wed 27/7/22	NA	NA	36	108	1106.5 days		0%
112	**ETS3-1000**		**Effects to Section 3 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Wed 12/6/24**	**Sun 4/8/24**	**NA**	**NA**			**416.5 days**		**0%**
113	**ETS3-1100**		**Inclement Weather to Section 3 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Sun 16/6/24**	**Sun 4/8/24**	**NA**	**NA**			**416.5 days**		**0%**
114	ETS3-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sun 16/6/24	Tue 9/7/24	NA	NA	117	115	416.5 days		0%
115	ETS3-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Tue 9/7/24	Sun 4/8/24	NA	NA	114		416.5 days		0%
116	**ETS3-1200**		**Other Events to Section 3 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Wed 12/6/24**	**Sun 16/6/24**	**NA**	**NA**			**416.5 days**		**0%**
117	ETS3-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Wed 12/6/24	Sun 16/6/24	NA	NA	37	114	416.5 days		0%
118	**SUB-1000**		**Submissions (cal.day)**			**1564 days**	**Mon 18/11/19**	**Wed 28/2/24**	**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**182 days**		**60%**
119	**SUBS-1000**		**Subletting Package**			**96 days**	**Mon 18/11/19**	**Fri 21/2/20**	**562 days**	**Mon 18/11/19**	**Tue 1/6/21**	**Mon 18/11/19**	**Tue 1/6/21**			**0 days**		**100%**
120	SUBS-1010		Prepare & submit subletting procedure			12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19	2	121	0 days		100%
121	SUBS-1020		PM review and accept subletting procedure			15 days	Sat 30/11/19	Wed 11/12/19	12 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	120	142,122,125,124,123	0 days		100%
122	SUBS-1030		Subletting for demolition works			24 days	Thu 12/12/19	Sat 4/1/20	93 days	Tue 17/12/19	Wed 18/3/20	Tue 17/12/19	Wed 18/3/20	121,154	339,462,295,402,539,359	0 days		100%
123	SUBS-1040		Subletting for UU diversion for Inlet Works No.1			24 days	Thu 12/12/19	Sat 4/1/20	78 days	Fri 10/1/20	Fri 27/3/20	Fri 10/1/20	Fri 27/3/20	121	212	0 days		100%
124	SUBS-1050		Subletting for Inspection pit excavation			0 days	NA	NA	56 days	Thu 19/12/19	Wed 12/2/20	Thu 19/12/19	Wed 12/2/20	121,154	214,126	0 days		100%
125	SUBS-1060		Subletting for Preliminary Works (topographic surveying)			14 days	Thu 12/12/19	Wed 25/12/19	54 days	Fri 20/12/19	Tue 11/2/20	Fri 20/12/19	Tue 11/2/20	121,154	159,198,129,130,131,127	0 days		100%
126	SUBS-1070		Subletting for AR3 access road			24 days	Thu 12/12/19	Sat 4/1/20	0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	124	127,210	0 days		100%
127	SUBS-1080		Subletting for pre-drilling works			24 days	Thu 12/12/19	Sat 4/1/20	38 days	Thu 6/2/20	Fri 20/3/20	Thu 6/2/20	Fri 20/3/20	125,126	452,342,414,128	0 days		100%
128	SUBS-1090		Subletting for Contractor designer for temporary works and ICE			24 days	Thu 12/12/19	Sat 4/1/20	71 days	Mon 16/12/19	Mon 24/2/20	Mon 16/12/19	Mon 24/2/20	127		0 days		100%
129	SUBS-1100		Subletting for independent BIM consultant			24 days	Thu 12/12/19	4/1/120	0 days	Wed 11/12/19	Thu 23/1/20	Wed 11/12/19	Thu 23/1/20	125	193	0 days		100%
130	SUBS-1110		Subletting for independent BIM services			0 days	NA	NA	15 days	Tue 14/1/20	Wed 26/2/20	Tue 14/1/20	Wed 26/2/20	125	193	0 days		100%
131	SUBS-1120		Subletting for Design, Supply & Install of Temporary Activated Carbon Deodorization Units (E&M Works)			0 days	NA	NA	0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	125	132,133	0 days		100%
132	SUBS-1130		Subletting for pre-bored H pile works			36 days	Thu 12/12/19	Thu 16/1/20	45 days	Sun 5/7/20	Tue 18/8/20	Sun 5/7/20	Tue 18/8/20	131	343,415,453,309	0 days		100%
133	SUBS-1140		Subletting for Sheetpile installation works			0 days	NA	NA	45 days	Tue 1/9/20	Thu 15/10/20	Tue 1/9/20	Thu 15/10/20	131	344,455,134,135	0 days		100%
134	SUBS-1150		Subletting for ELS works for Inlet Works No.1			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	133		0 days		100%
135	SUBS-1160		Subletting for ELS works for Membrance Facilities Building and other buildings			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	133	346,389,456,136,137,138,139,140,4	0 days		100%
136	SUBS-1170		Subletting for structural works for Inlet Works Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135		0 days		100%
137	SUBS-1180		Subletting for structural works for Primary Sedimentation Tanks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	348	0 days		100%
138	SUBS-1190		Subletting for structural works for Bioreactors			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	391	0 days		100%
139	SUBS-1200		Subletting for structural works for Membrance Facilities Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	426	0 days		100%
140	SUBS-1210		Subletting for structural works for SAS pumping house and ancillary structures			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	141	0 days		100%
141	SUBS-1220		Subletting for ABWF works			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Fri 26/2/21	Wed 14/4/21	Fri 26/2/21	Wed 14/4/21	140	332,350,398,460,488,504,514,522,	0 days		100%
142	SUBS-1230		Subletting for Process Pipeworks, Utilities and Roadworks			48 days	Thu 12/12/19	Tue 28/1/20	150 days	Fri 22/5/20	Sun 18/10/20	Fri 22/5/20	Sun 18/10/20	121	532,549,551,552,553,554,543	0 days		100%
143	SUBS-1240		Subletting for Landscape Hardworks and Softworks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Thu 15/4/21	Tue 1/6/21	Thu 15/4/21	Tue 1/6/21	141	559,560	0 days		100%
144	SUBS-1250		Subletting for Trial dewatering works and installation of additional stop logs at BR2 connon channel due to malfucntioned of existing penstock at FST no. 5 and 7 (EWN 055)			0 days	NA	NA	15 days	Tue 15/9/20	Tue 29/9/20	Tue 15/9/20	Tue 29/9/20		355	0 days		100%
145	SUBS-1260		Subletting for Diversion of Power supply for existing Slaghter House pump station (CE 034)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20			0 days		100%
146	SUBS-1270		Subletting for Decommission of exisiting power and signal systems in leachate Pump station switch room (PMI 039)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20		439	0 days		100%
147	SUBS-1280		Subletting for Diversion of Existing DN250 Leachate Raising Main (PPMI 025)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20			0 days		100%
148	SUBS-1290		Subletting for Construction of Cable trough for CLP 11kv Cable Diversion (PPMI 041)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		453	0 days		100%
149	SUBS-1300		Subletting for Demolition of Existing Pillar box and its concrete plinth (CE 030)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		441	0 days		100%
150	SUBS-1310		Subletting for Excavation to locate existing underground cable near SAS Pump Station (PPMI 038)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20			0 days		100%
151	SUBS-1320		Subletting for Diversion of pumping system sewerage (PPMI 083)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		446	0 days		100%
152	**SUBA-1000**		**Statutory Submission, Submission and Approval**			**1564 days**	**Mon 18/11/19**	**Wed 28/2/24**	**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**182 days**		**49%**
153	SUBA-1010		Liaison with operator of SWHSTW and obtain their consent of associated method statement of major activities			0 days	NA	NA	1584 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19	NA	2	59FF	156 days		30%
154	SUBA-1020		Prepare and submit Subcontractor Management Plan (SMP)			24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19	2	122,125,124	0 days		100%
155	SUBA-1030		Prepare and submit Interface Management Plan			36 days	Mon 18/11/19	Mon 23/12/19	36 days	Mon 18/11/19	Mon 23/12/19	Mon 18/11/19	Mon 23/12/19	2		0 days		100%
156	SUBA-1040		Prepare and submit the TTA plans inside Treatment Plant for UU diversion and buildings construction			24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19	2	201	0 days		100%
157	SUBA-1050		Prepare and submit method statement for UU diversion for Inlet Works No.1			12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19	2	158	0 days		100%
158	SUBA-1060		PM review and accept the method statement			12 days	Sat 30/11/19	Wed 11/12/19	0 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	157	213,214	0 days		100%
159	SUBA-1070		Prepare and submit combine underground services drawing for PM's review the alignment			24 days	Thu 26/12/19	Sat 18/1/20	23 days	Thu 26/12/19	Sat 18/1/20	Thu 26/12/19	Sat 18/1/20	125		0 days		100%
160	SUBA-1080		Prepare and submit method statement for demolition existing structures			24 days	Mon 18/11/19	Wed 11/12/19	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2	402,339,462,295,539	0 days		100%
161	SUBA-1090		Prepare and submit method statement for structural works for buildings			24 days	Mon 18/11/19	Wed 11/12/19	197 days	Mon 18/11/19	Mon 1/6/20	Mon 18/11/19	Mon 1/6/20	2		0 days		100%
162	SUBA-1100		Prepare and submit method statements to MTRC regarding the works within railing protection boundary			36 days	Mon 18/11/19	Mon 23/12/19	92 days	Sat 1/2/20	Mon 25/5/20	Sat 1/2/20	Mon 25/5/20	2	339,462,539,359	0 days		100%
163	SUBA-1110		Prepare and submit & approve Safety Management Plan			24 days	Mon 18/11/19	Wed 11/12/19	3 days	Mon 18/11/19	Wed 20/11/19	Mon 18/11/19	Wed 20/11/19	2		0 days		100%
164	SUBA-1120		Prepare and submit Excavation and lateral support (ELS) proposal			24 days	Mon 10/2/20	Wed 4/3/20	128 days	Mon 10/2/20	Tue 16/6/20	Mon 10/2/20	Tue 16/6/20	2		0 days		100%
165	SUBA-1120a		Prepare and submit Excavation and lateral support (ELS) proposal for Inlet Works No.1			0 days	NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA	NA	314SF		1433 days		0%
166	SUBA-1120b		Prepare and submit Excavation and lateral support (ELS) proposal for Primnary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	346SF		1158 days		0%
167	SUBA-1120c		Prepare and submit Excavation and lateral support (ELS) proposal for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	389SF		1205 days		0%
168	SUBA-1130		Prepare and submit Dewatering proposal for basement construction			24 days	Mon 10/2/20	Wed 4/3/20	165 days	Mon 10/2/20	Thu 23/7/20	Mon 10/2/20	Thu 23/7/20	2		0 days		100%
169	SUBA-1130a		Prepare and submit Dewatering proposal for basement construction for Inlet Works No.1			0 days	NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA	NA	314SF		1433 days		0%



ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
170	SUBA-1130b		Prepare and submit Dewatering proposal for basement construction for Primnary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	346SF		1158 days		0%
171	SUBA-1130c		Prepare and submit Dewatering proposal for basement construction for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	389SF		1205 days		0%
172	SUBA-1140		Prepare and submit Pre-construction condition survey of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	0 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198		0 days		100%
173	SUBA-1150		Prepare and submit Settlement and movement monitoring proposal of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	110 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198FS+120 days		0 days		100%
174	SUBA-1160		Prepare and submit design of structure elements of the temporary activated carbon deodourization unit			60 days	Fri 17/1/20	Mon 16/3/20	60 days	Mon 18/11/19	Mon 16/3/20	Mon 18/11/19	Mon 16/3/20	2FS+60 days		0 days		100%
175	SUBA-1170		Prepare of RSE and structural design for alternation and additional (A&A) works at Membrane Facilities Building No.1			180 days	Mon 18/10/21	Fri 15/4/22	180 days	Mon 18/10/21	Fri 15/4/22	NA	NA	NA	541	332 days		0%
176	SUBA-1180		Prepare of RSE and structural design for alternation and additional (A&A) works at Main Power House			44 days	Wed 15/7/20	Thu 3/9/20	60 days	Mon 6/7/20	Thu 3/9/20	Mon 6/7/20	Thu 3/9/20		539	0 days		100%
177	**SUBE-1000**		**Environmental Aspect Submissions**			**45 days**	**Mon 18/11/19**	**Wed 1/1/20**	**81 days**	**Mon 18/11/19**	**Thu 6/2/20**	**Mon 18/11/19**	**Thu 6/2/20**			**0 days**		**100%**
178	SUBE-1010		Prepare, submit & approve Site Management Plan for Trip Tricket System			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%
179	SUBE-1020		Prepare, submit & approve Waste Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	81 days	Mon 18/11/19	Thu 6/2/20	Mon 18/11/19	Thu 6/2/20	2		0 days		100%
180	SUBE-1030		Prepare, submit & approve Environmental Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%
181	**SUBP-1000**		**Procurement**			**731 days**	**Mon 18/11/19**	**Wed 17/11/21**	**648 days**	**Mon 18/11/19**	**Thu 26/8/21**	**Mon 18/11/19**	**NA**			**278 days**		**94%**
182	SUBP-1010		Prepare and submit the Procurement Procedure			12 days	Mon 18/11/19	Fri 29/11/19	2 days	Mon 18/11/19	Tue 19/11/19	Mon 18/11/19	Tue 19/11/19	2	183	0 days		100%
183	SUBP-1020		PM Review & Accept Procurement Procedure			12 days	Sat 30/11/19	Wed 11/12/19	21 days	Tue 19/11/19	Tue 10/12/19	Tue 19/11/19	Tue 10/12/19	182	184,185,186,187,188,189,190,191	0 days		100%
184	SUBP-1030		Prepare, submit and approve the pipe works material			25 days	Thu 12/12/19	Sun 5/1/20	34 days	Thu 6/2/20	Tue 10/3/20	Thu 6/2/20	Tue 10/3/20	183	212,532,551,552,554,553,549,557,5	0 days		100%
185	SUBP-1040		Prepare, submit and approve the water proofing material			25 days	Thu 12/12/19	Sun 5/1/20	25 days	Mon 2/8/21	Thu 26/8/21	NA	NA	183	329,325	278 days		0%
186	SUBP-1050		Prepare, submit and approve the concrete mix material			48 days	Thu 12/12/19	Tue 28/1/20	90 days	Mon 3/2/20	Sat 2/5/20	Mon 3/2/20	Sat 2/5/20	183	391,426	0 days		100%
187	SUBP-1060		Prepare, submit and approve the rebar material			48 days	Thu 12/12/19	Tue 28/1/20	49 days	Sat 23/5/20	Fri 10/7/20	Sat 23/5/20	Fri 10/7/20	183	391,426	0 days		100%
188	SUBP-1070		Prepare, submit and approve the metal works material			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%
189	SUBP-1080		Prepare, submit and approve the ABWF works material			48 days	Sat 12/12/20	Tue 28/1/20	48 days	Mon 1/3/21	Sat 17/4/21	Mon 1/3/21	Sat 17/4/21	183	332,350,398,460,488,504,514,522,4	0 days		100%
190	SUBP-1090		Prepare, submit and approve the protective lining to concrete			0 days	NA	NA	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%
191	SUBP-1100		Prepare, submit and approve the multi-part covers			0 days	NA	NA	21 days	Tue 5/5/20	Mon 25/5/20	Tue 5/5/20	Mon 25/5/20	183		0 days		100%
192	**SUBB-1000**		**BIM**			**1205 days**	**Thu 6/2/20**	**Wed 28/2/24**	**1562 days**	**Mon 18/11/19**	**Fri 28/2/25**	**Mon 18/11/19**	**NA**			**178 days**		**27%**
193	SUBB-1010		Prepare, submit and approve the proposal of details of Common data environment (CDE)			48 days	Thu 6/2/20	Wed 1/4/20	37 days	Mon 18/11/19	Wed 1/4/20	Mon 18/11/19	Wed 1/4/20	129,130	194	0 days		100%
194			Prepare and submit BIM submission			1484 days	Thu 6/2/20	Wed 28/2/24	1451 days	Thu 2/4/20	Fri 28/2/25	Thu 2/4/20	NA	193		178 days		25%
195	**C-1000**	*	**Construction Works (Working day)**			**1957 days**	**Mon 18/11/19**	**Thu 27/3/25**	**2138 days**	**Mon 18/11/19**	**Wed 24/9/25**	**Mon 18/11/19**	**NA**			**0 days**		**51%**
196	**CPW-1000**		**Preliminary Works**			**109 days**	**Mon 18/11/19**	**Thu 5/3/20**	**121 days**	**Mon 18/11/19**	**Tue 17/3/20**	**Mon 18/11/19**	**Tue 17/3/20**			**0 days**		**100%**
197	CPW-1000		Initial Survey			24 days	Mon 18/11/19	Sat 14/12/19	10 days	Mon 18/11/19	Thu 28/11/19	Mon 18/11/19	Thu 28/11/19	2	198	0 days		100%
198	CPW-2000		Condition Survey			30 days	Fri 27/12/19	Tue 4/2/20	89 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	125,197	199,172,173FS+120 days,200	0 days		100%
199	CPW-3000		Installation of Monitoring Markers			26 days	Wed 5/2/20	Thu 5/3/20	78 days	Fri 29/11/19	Thu 5/3/20	Fri 29/11/19	Thu 5/3/20	198		0 days		100%
200	CPW-4000		Tree Felling Works		22, 235	0 days	NA	NA	9 days	Sat 7/3/20	Tue 17/3/20	Sat 7/3/20	Tue 17/3/20	198		0 days		100%
201	**CAR-0000**	*	**Access Road (AR3), B-1**			**193 days**	**Mon 20/1/20**	**Sat 12/9/20**	**238 days**	**Thu 12/12/19**	**Wed 30/9/20**	**Thu 12/12/19**	**Wed 30/9/20**	**4,156**		**0 days**		**100%**
202	CAR-1000		Site setup and clearance wroks		05	28 days	Mon 20/1/20	Mon 24/2/20	38 days	Mon 20/1/20	Fri 6/3/20	Mon 20/1/20	Fri 6/3/20		203	0 days		100%
203	CAR-1001		Awaiting for AECOM instruction for alignment confirmation for road works		055	0 days	NA	NA	5 days	Mon 17/2/20	Thu 12/3/20	Mon 17/2/20	Thu 12/3/20	202	204	0 days		100%
204	CAR-1002		Additional Works in Access Road AR3 to Settle Left-in Material by Contract DC/2016/07		215-1	0 days	NA	NA	4 days	Thu 21/5/20	Mon 25/5/20	Thu 21/5/20	Mon 25/5/20	203	205	0 days		100%
205	CAR-2000		Drainage and Utilities Works			76 days	Fri 6/3/20	Tue 9/6/20	75 days	Sat 7/3/20	Tue 9/6/20	Sat 7/3/20	Tue 9/6/20	204	206	0 days		100%
206	CAR-2000a		Trimming of Existing Sheet Piles in Access Road AR3		215-2	0 days	NA	NA	20 days	Tue 14/7/20	Wed 5/8/20	Tue 14/7/20	Wed 5/8/20	205	207	0 days		100%
207	CAR-2000b		Installation of Multi-part Cover and Manhole Cover of Chamber RP6 and Associated Concreting Works in Portion B-1		215	0 days	NA	NA	7 days	Fri 28/8/20	Fri 4/9/20	Fri 28/8/20	Fri 4/9/20	206	208	0 days		100%
208	CAR-2001		Diversion of Existing Underground Cables in Portion B-1A		036	0 days	NA	NA	172 days	Thu 5/3/20	Wed 30/9/20	Thu 5/3/20	Wed 30/9/20	207	210	0 days		100%
209	CAR-2002		Additional U-channel, beam barrier and footway concrete pavement		055	0 days	NA	NA	60 days	Thu 12/12/19	Wed 26/2/20	Thu 12/12/19	Wed 26/2/20		210	0 days		100%
210	CAR-3000	KD1A	Roadworks			80 days	Wed 10/6/20	Sat 12/9/20	133 days	Fri 24/4/20	Wed 30/9/20	Fri 24/4/20	Wed 30/9/20	126,209,208	42FF	0 days		100%
211	**CIW-0000**	*	**Inlet Works No.1, B-2**			**854 days**	**Mon 6/1/20**	**Mon 21/11/22**	**594 days**	**Tue 26/11/19**	**Thu 25/11/21**	**Tue 26/11/19**	**NA**			**0 days**		**88%**
212	**CIW-1000**		**Diversion Works (1. Inlet Trunk Sewer, Leachate Rising Mains, Sludge Pipes, Tank Drains and Pipelines near Primary Sludge Thinkeners)**			**180 days**	**Mon 6/1/20**	**Fri 14/8/20**	**459 days**	**Tue 26/11/19**	**Wed 16/6/21**	**Tue 26/11/19**	**NA**	**184,123**	**44FF**	**111 days**		**88%**
213	CIW-1100		Utilities scanning to idenify existing UU arrangement			12 days	Mon 6/1/20	Sat 18/1/20	0 days	Fri 13/12/19	Sat 18/1/20	Fri 13/12/19	Sat 18/1/20	158	214SS,216	0 days		100%
214	CIW-1200		Trial pits to locate the collection points			24 days	Mon 6/1/20	Wed 5/2/20	0 days	Mon 6/1/20	Tue 10/3/20	Mon 6/1/20	Tue 10/3/20	158,213SS,124	232,251	0 days		100%
215	**CIW-1300**		**Installation and Commissioning of Temporary Activated Carbon Deodorization Unit for the Existing Inlet Works**			**0 days**	**NA**	**NA**	**98 days**	**Wed 11/3/20**	**Sat 11/7/20**	**Wed 11/3/20**	**Sat 11/7/20**			**0 days**		**100%**
216	CIW-1310		Construction of concrete plinth			0 days	NA	NA	24 days	Wed 11/3/20	Wed 8/4/20	Wed 11/3/20	Wed 8/4/20	213	217	0 days		100%
217	CIW-1320		Installation of Deodorizer			0 days	NA	NA	40 days	Thu 9/4/20	Sat 30/5/20	Thu 9/4/20	Sat 30/5/20	216	218	0 days		100%
218	CIW-1330		Testing & commissioning			0 days	NA	NA	15 days	Mon 1/6/20	Wed 17/6/20	Mon 1/6/20	Wed 17/6/20	217	219FS-1 day	0 days		100%
219	CIW-1340		Demolishment of the existing carbon deodorization unit			0 days	NA	NA	20 days	Wed 17/6/20	Sat 11/7/20	Wed 17/6/20	Sat 11/7/20	218FS-1 day		0 days		100%
220	**CIW-1400**		**Diversion of Inlet Trunk Sewer (approx. 40m 1800mm dia concrete pipe, 4 deep manholes and Inlet Reception Chamber)**			**146 days**	**Thu 6/2/20**	**Mon 3/8/20**	**451 days**	**Mon 9/3/20**	**Mon 13/9/21**	**Mon 9/3/20**	**NA**			**0 days**		**97%**
221	CIW-1405		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	24 days	Thu 19/11/20	Wed 16/12/20	Thu 19/11/20	Wed 16/12/20		222	0 days		100%
222	CIW-1410		Remedial Works for uncharted sludge Pipe leakage		41	0 days	NA	NA	8 days	Mon 9/3/20	Tue 17/3/20	Mon 9/3/20	Tue 17/3/20	221	223	0 days		100%
223	CIW-1420		Diversion of uncharted DN250 sludge pipe		41	0 days	NA	NA	27 days	Tue 31/3/20	Thu 7/5/20	Tue 31/3/20	Thu 7/5/20	222	230,224,225	0 days		100%
224	CIW-1421		Diversion of uncharted 2' water pipe		24	0 days	NA	NA	9 days	Wed 15/4/20	Fri 24/4/20	Wed 15/4/20	Fri 24/4/20	223	230	0 days		100%
225	CIW-1422		Additional Underground Utility Scanning for existing sludge pipe		32	0 days	NA	NA	1 day	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	223		0 days		100%
226	CIW-1423		HV Cable Diversion for Inlet Works		84	0 days	NA	NA	135 days	Sat 10/10/20	Wed 24/3/21	Sat 10/10/20	Wed 24/3/21			0 days		100%
227	CIW-1423a		Exposing, Removal and Diversion of Existing Cables near Inlet Works No. 1		236	0 days	NA	NA	268 days	Mon 4/5/20	Wed 24/3/21	Mon 4/5/20	Wed 24/3/21			0 days		100%
228	CIW-1424		Diversion of Existing Sludge Rising Main and Sewerage System		81	0 days	NA	NA	102 days	Mon 28/9/20	Sat 30/1/21	Mon 28/9/20	Sat 30/1/21		307,309,279,280	0 days		100%
229	CIW-1425		Demolition of Deodorization System and Facilities between Existing Primary Sludge Thickeners and Primary Sludge Pump Pit		037	0 days	NA	NA	1 day	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20			0 days		100%
230	CIW-1430		Removal of concrete surround and uncharted sludge pipe		030	0 days	NA	NA	20 days	Fri 24/4/20	Tue 19/5/20	Fri 24/4/20	Tue 19/5/20	223,224	231	0 days		100%
231	CIW-1440		Remedial works for uncharted pipe and unforeseen water seepage		273	0 days	NA	NA	10 days	Fri 8/5/20	Tue 19/5/20	Fri 8/5/20	Tue 19/5/20	230	232,233	0 days		100%
232	**CIW-1450**		**Trench Excavation for 1800mm dia pipeline and manholes**			**146 days**	**Thu 6/2/20**	**Mon 3/8/20**	**238 days**	**Wed 11/3/20**	**Mon 28/12/20**	**Wed 11/3/20**	**Mon 28/12/20**	**214,231**		**0 days**		**100%**
233	CIW-1450a		Sheetpile installation (on hold due to identification of uncharted obstruction)		28	0 days	NA	NA	80 days	Wed 11/3/20	Thu 18/6/20	Wed 11/3/20	Thu 18/6/20	231	234	0 days		100%
234	CIW-1450b		Trench Excavation for 1800mm dia pipeline and manholes			45 days	Thu 6/2/20	Sat 28/3/20	22 days	Thu 18/6/20	Wed 15/7/20	Thu 18/6/20	Wed 15/7/20	233	235,247	0 days		100%
235	CIW-1450c		Identification of uncharted concrete surround and pipes near MHA01		28	0 days	NA	NA	29 days	Thu 16/7/20	Tue 18/8/20	Thu 16/7/20	Tue 18/8/20	234	238,243,247	0 days		100%
236	CIW-1450d		Removal of existing DSD drawpits near IRC & exposure of CLP cables with installation of additional temporary support		215-2	0 days	NA	NA	26 days	Thu 16/7/20	Fri 14/8/20	Thu 16/7/20	Fri 14/8/20			0 days		100%
237	CIW-1450e		Removal of uncharted concrete surround and pipes near MHA01 and Sheetpile installation		(045)	0 days	NA	NA	10 days	Fri 7/8/20	Tue 18/8/20	Fri 7/8/20	Tue 18/8/20		238,243	0 days		100%
238	CIW-1450f		Revised type of pipe bedding between Manholes no. MHA01 and MHA02		096	0 days	NA	NA	6 days	Sat 3/10/20	Fri 9/10/20	Sat 3/10/20	Fri 9/10/20	237,235	239	0 days		100%
239	CIW-1450g		Replace top soil with Grade 200 Rockfill below Formation level of the proposed pipe between MHA01 and MHA02		079	0 days	NA	NA	3 days	Mon 10/8/20	Wed 12/8/20	Mon 10/8/20	Wed 12/8/20	238	241	0 days		100%
240	CIW-1450h		Grade 200 Rockfill in ELS cofferdam of IRC		(161)	0 days	NA	NA	3 days	Wed 23/12/20	Mon 28/12/20	Wed 23/12/20	Mon 28/12/20		241	0 days		100%
241	CIW-1451		Construct M/H MHA01, MHA02, MHA04 and Inlet Reception Chamber			65 days	Mon 30/3/20	Fri 19/6/20	395 days	Wed 20/5/20	Mon 13/9/21	Wed 20/5/20	NA	239,243,242,244,240	283	-135 days		91%
242	CIW-1452		Enlarged size of Manhole MHA02		052	0 days	NA	NA	6 days	Tue 1/9/20	Mon 7/9/20	Tue 1/9/20	Mon 7/9/20		241	0 days		100%
243	CIW-1453		Additional Works for Manhole MHA01 Construction and Pipe Connection to Manhole MHA01		(094) (146)	0 days	NA	NA	160 days	Wed 16/9/20	Wed 31/3/21	Wed 16/9/20	Wed 31/3/21	235,237	241	0 days		100%
244	CIW-1454		Additional Works for IRC and Pipe Connection to IRC from Existing Manhole FMH1004115		(096)	0 days	NA	NA	17 days	Fri 18/9/20	Fri 9/10/20	Fri 18/9/20	Fri 9/10/20		245,247,241	0 days		100%
245	CIW-1455		Removal of left-in sheetpiles at IRC		381	0 days	NA	NA	3 days	Mon 19/10/20	Wed 21/10/20	Mon 19/10/20	Wed 21/10/20	244		0 days		100%
246	CIW-1456		Compliance Test for DN1800 Precast Concrete Pipe		065	0 days	NA	NA	1 day	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20			0 days		100%
247	CIW-1457		Lay 1800mm dia concretre pipe			24 days	Sat 20/6/20	Mon 20/7/20	88 days	Thu 17/9/20	Mon 25/1/21	Thu 17/9/20	Mon 25/1/21	234,235,244	248	0 days		100%
248	CIW-1458		Connection to existing Inlet Chamber			12 days	Tue 21/7/20	Mon 3/8/20	12 days	Tue 26/1/21	Mon 8/2/21	Tue 26/1/21	Mon 8/2/21	247	307,44FF	0 days		100%
249	**CIW-1500**		**Diversion of Leachate Rising Main, Sludge Pipes and Tank Drain**			**150 days**	**Thu 6/2/20**	**Fri 7/8/20**	**594 days**	**Tue 26/11/19**	**Thu 25/11/21**	**Tue 26/11/19**	**NA**			**-99 days**		**94%**
250	**CIW-1510**	**KD1B**	**Diversion of Tank Drain MHD9.5 (approx. 70m CHES1 & CHES2)**			**150 days**	**Thu 6/2/20**	**Fri 7/8/20**	**406 days**	**Tue 26/11/19**	**Mon 12/4/21**	**Tue 26/11/19**	**Sat 10/4/21**	**278**	**307,44FF**	**0 days**		**100%**
251	**CIW-1500a**		**Diversion of Tank Drain MHD9.5 to MHA04 (approx. 70m 675mm dia conrete pipe, 24m DN250 DI leachate rising main, 90m CHES1&S2 DN250 CI)**			150 days	Thu 6/2/20	Fri 7/8/20	**406 days**	**Tue 26/11/19**	**Mon 12/4/21**	**Tue 26/11/19**	**Sat 10/4/21**	**214**		**0 days**		**100%**

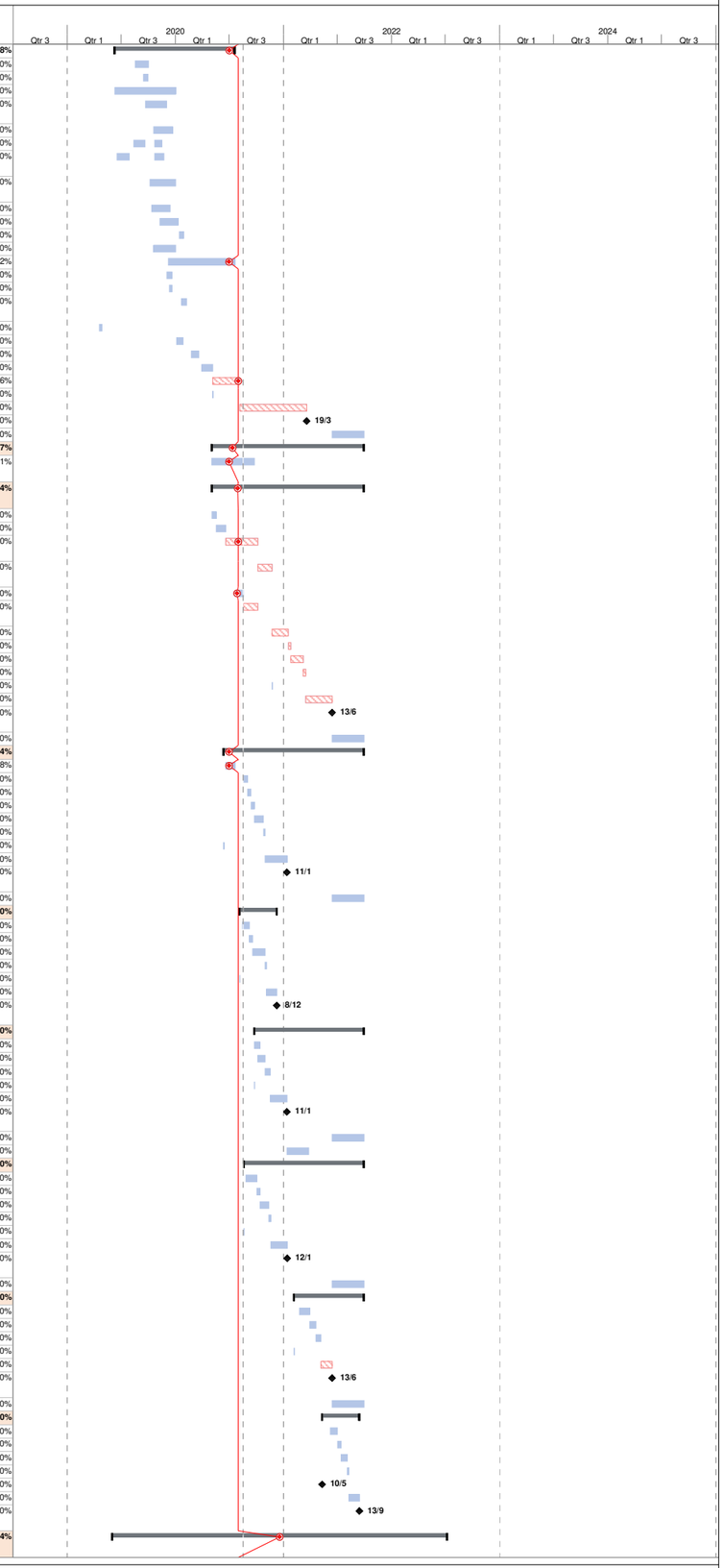


ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
252	CIW-1500b		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	158 days	Tue 26/11/19	Wed 10/6/20	Tue 26/11/19	Wed 10/6/20			0 days		100%
253	CIW-1500c		Site Clearance & inspection pit excavation under conforming alignments			0 days	NA	NA	36 days	Fri 12/6/20	Sat 25/7/20	Fri 12/6/20	Sat 25/7/20			0 days		100%
254	**CIW-1511**		**Tank Drain Diversion near MTRCL track**			**0 days**	**NA**	**NA**	**248 days**	**Thu 11/6/20**	**Mon 12/4/21**	**Thu 11/6/20**	**Sat 10/4/21**			**0 days**		**100%**
255	CIW-1511a		Excavation of trial pit near MHD9.5 (TP45 & 47)		040	0 days	NA	NA	12 days	Mon 27/7/20	Sat 8/8/20	Mon 27/7/20	Sat 8/8/20		256,260	0 days		100%
256	CIW-1511b		Uncharted cables found near MTRC track and identification			0 days	NA	NA	1 day	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	255		0 days		100%
257	CIW-1511c		Excavation of trial pit near MHD8.5			0 days	NA	NA	5 days	Fri 19/6/20	Wed 24/6/20	Fri 19/6/20	Wed 24/6/20		258	0 days		100%
258	CIW-1511d		Lower the ground surface, opening and additional trial pit (TP38)		(046)	0 days	NA	NA	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	257	259	0 days		100%
259	CIW-1511e		Excavation of Trial Pits near Manhole MHA04 and MH09		040	0 days	NA	NA	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	258		0 days		100%
260	CIW-1511f		Additional Trial Pit between MHD9.5 and MHA04		040	0 days	NA	NA	25 days	Fri 21/8/20	Fri 18/9/20	Fri 21/8/20	Fri 18/9/20	255		0 days		100%
261	CIW-1511g		Sheetpile installation for MHD9.5			0 days	NA	NA	38 days	Tue 1/9/20	Fri 16/10/20	Tue 1/9/20	Fri 16/10/20			0 days		100%
262	CIW-1511h		Sheetpile installation between MHD9.5 & MHA04			0 days	NA	NA	25 days	Tue 8/9/20	Thu 8/10/20	Tue 8/9/20	Thu 8/10/20			0 days		100%
263	CIW-1511i		UU supporting & ELS works& excavatuib between MHD9.5 & MHA04			0 days	NA	NA	73 days	Wed 7/10/20	Mon 4/1/21	Wed 7/10/20	Mon 4/1/21			0 days		100%
264	CIW-1511j		Unsuit excavated material from MHD9.5 to MHA04		261	0 days	NA	NA	4 days	Fri 20/11/20	Tue 24/11/20	Fri 20/11/20	Tue 24/11/20			0 days		100%
265	CIW-1511k		Revise design of manhole MHD9.5		(167)	0 days	NA	NA	20 days	Thu 7/1/21	Fri 29/1/21	Thu 7/1/21	Fri 29/1/21			0 days		100%
266	CIW-1511l		Break up opening and plugging existing concrete pipe at MHD9.5			0 days	NA	NA	6 days	Mon 18/1/21	Sat 23/1/21	Mon 18/1/21	Sat 23/1/21			0 days		100%
267	CIW-1511l1		Trimming existing concrete pipe at MHD9.5			0 days	NA	NA	13 days	Fri 22/1/21	Fri 5/2/21	Fri 22/1/21	Fri 5/2/21			0 days		100%
268	CIW-1511l2		Construction of manhole MHD9.5			0 days	NA	NA	49 days	Sat 6/2/21	Sat 10/4/21	Sat 6/2/21	Sat 10/4/21			0 days		100%
269	CIW-1511m		Additional work to prevent backflow from MHI1 to MHD9.5		(176)	0 days	NA	NA	9 days	Mon 18/1/21	Wed 27/1/21	Mon 18/1/21	Wed 27/1/21			0 days		100%
270	CIW-1511n		Sewage overflow incident of MHD11		(180)	0 days	NA	NA	9 days	Sat 13/2/21	Thu 25/2/21	Sat 13/2/21	Thu 25/2/21			0 days		100%
271	CIW-1512		Additional Special manhole for tank drain (NCE)			0 days	NA	NA	35 days	Mon 24/8/20	Mon 5/10/20	Mon 24/8/20	Mon 5/10/20		272,273	0 days		100%
272	CIW-1513		Breaking of concrete surround of cables (0.8mx0.8mx70m) (NCE)			0 days	NA	NA	24 days	Tue 8/9/20	Wed 7/10/20	Tue 8/9/20	Wed 7/10/20	271		0 days		100%
273	CIW-1514	KD1B	Construction of tank drain along revised alignment w/ concrete surround		051	0 days	NA	NA	10 days	Tue 5/1/21	Fri 15/1/21	Tue 5/1/21	Fri 15/1/21	271	43FF,307	0 days		100%
274	CIW-1516		Backfilling trench between MHD9.5 & MHA04			0 days	NA	NA	20 days	Sat 16/1/21	Mon 8/2/21	Sat 16/1/21	Mon 8/2/21			0 days		100%
275	**CIW-1520**		**Diversion of Sludge Pipes**			75 days	Tue 21/4/20	Tue 21/7/20	**364 days**	**Mon 11/5/20**	**Thu 29/7/21**	**Mon 11/5/20**	**NA**			**0 days**		**96%**
276	CIW-1520a		Excavation of trial pit and identification of connection point		351	0 days	NA	NA	103 days	Mon 11/5/20	Wed 9/9/20	Mon 11/5/20	Wed 9/9/20		277	0 days		100%
277	CIW-1520b		Trench excavation for twin DN250 sludge pipe ,on hold due to encounter of uncharted sludge pipe		351	75 days	Tue 21/4/20	Tue 21/7/20	4 days	Wed 15/7/20	Sat 18/7/20	Wed 15/7/20	Sat 18/7/20	276	278	0 days		100%
278	CIW-1520c		Additional hole drilling works and identification of connetion point			0 days	NA	NA	53 days	Mon 20/7/20	Fri 18/9/20	Mon 20/7/20	Fri 18/9/20	277	250	0 days		100%
279	CIW-1520d		Temporary diversion of substandard DI 250 Leachate raising main		202	0 days	NA	NA	127 days	Tue 20/10/20	Wed 24/3/21	Tue 20/10/20	Wed 24/3/21	228		0 days		100%
280	CIW-1520e		Protection work for substandard DI 500 tank drain Pipe (near MHD 9.5)		302	0 days	NA	NA	93 days	Wed 18/11/20	Fri 12/3/21	Wed 18/11/20	Fri 12/3/21	228		0 days		100%
281	CIW-1520f		Encounter of uncharted concrete pipe within sheetpile cofferdam at MHA04			0 days	NA	NA	2 days	Tue 10/11/20	Wed 11/11/20	Tue 10/11/20	Wed 11/11/20		282	0 days		100%
282	CIW-1520g		Resumption and construction of sludge pipe construction			0 days	NA	NA	253 days	Sat 19/9/20	Thu 29/7/21	Sat 19/9/20	NA	281	307,44FF	-36 days		91%
283	CIW-1530		Diversion of Leachate Rising Main			60 days	Tue 21/4/20	Fri 3/7/20	60 days	Tue 14/9/21	Thu 25/11/21	NA	NA	241		-135 days		0%
284	**CIW-1600**		**Diversion of pipelines near Primary Sludge Thickeners (approx. 180m long 150mm to 375mm concrete pipes)**			**156 days**	**Thu 6/2/20**	**Fri 14/8/20**	**570 days**	**Tue 26/11/19**	**Thu 28/10/21**	**Tue 26/11/19**	**NA**			**0 days**		**55%**
285	CIW-1610		~~Trench Excavation from M/H MHD1E to MHD5 (approx. 90m long with M/Hs MHD1A, 1B, 1C, 1D & 1E) - realigned~~		87	~~60 days~~	~~Thu 6/2/20~~	~~Mon 20/4/20~~	~~0 days~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~			0 days		100%
286	~~CIW-1620~~		~~Manholes construction and Pipe laying - omitted~~		87	~~60 days~~	~~Mon 30/3/20~~	~~Sat 13/6/20~~	~~0 days~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~		~~43FF,291~~	~~0 days~~		~~100%~~
287	CIW-1621		Temporary Diversion of Existing DN200 Filitrate Rising Main		034	0 days	NA	NA	20 days	Sat 1/8/20	Mon 24/8/20	Sat 1/8/20	Mon 24/8/20		288	0 days		100%
288	CIW-1623		Pipeline Diversion Works near Primary Sludge Thickening Tank		(114)	0 days	NA	NA	30 days	Fri 16/4/21	Sat 22/5/21	Fri 16/4/21	Sat 22/5/21	287	289	0 days		100%
289	CIW-1625		Uncharted underground utilities near Proposed MHD5B		0260	0 days	NA	NA	26 days	Mon 24/5/21	Wed 23/6/21	Mon 24/5/21	Wed 23/6/21	288	290,293	0 days		100%
290	CIW-1630		Trench Excavation from M/H (approx. 90m long with M/Hs M1A to M3B)			60 days	Tue 21/4/20	Fri 3/7/20	32 days	Thu 19/3/20	Wed 29/4/20	Thu 19/3/20	Wed 29/4/20	289	291,292	0 days		100%
291	CIW-1640		Manholes construction (M1A, M1B, M2B, M3B) and Pipe laying			25 days	Mon 15/6/20	Wed 15/7/20	12 days	Mon 4/5/20	Sat 16/5/20	Mon 4/5/20	Sat 16/5/20	290,286	43FF	0 days		100%
292	CIW-1650		Trench Excavation from MHD5 to MHD9.5 (approx. 90m long with M/Hs MHD5A & 5B)		(114)	50 days	Thu 16/7/20	Fri 11/9/20	60 days	Wed 2/9/20	Wed 30/12/20	Wed 2/9/20	Wed 30/12/20	290,296,301,303,305		0 days		100%
293	CIW-1660		Provision of Pumping System from Screen to Flume Channel		87	0 days	NA	NA	287 days	Tue 10/11/20	Thu 28/10/21	Tue 10/11/20	NA	289	294	-111 days		75%
294	CIW-1670		Manholes construction (MHD5A, MHD5B, MHD5C) and Pipe laying			45 days	Sat 23/5/20	Thu 16/7/20	293 days	Tue 3/11/20	Thu 28/10/21	Tue 3/11/20	NA	293	44FF	-111 days		8%
295	**CIW-2000**		**Decommission and Demolition of Existing Faciliates and Structures**			**240 days**	**Mon 2/3/20**	**Fri 18/12/20**	**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**	**6,122,160**		**0 days**		**100%**
296	**CIW-2100**		**Primary Sludge Thickening Tank No.1 and No.2**			**80 days**	**Mon 2/3/20**	**Tue 9/6/20**	**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**		**292**	**0 days**		**100%**
297	CIW-2101		Additional Works for Temporary Diversion of Bypass Pipe near Primary Sludge Thickeners			0 days	NA	NA	45 days	Thu 19/3/20	Sun 17/5/20	Thu 19/3/20	Sun 17/5/20			0 days		100%
298	CIW-2110		Removal of E&M equipment of primary sludge thickening tank			0 days	NA	NA	1 day	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20		299	0 days		100%
299	CIW-2120		Decommission and Demolition the tank			80 days	Mon 2/3/20	Tue 9/6/20	150 days	Thu 18/6/20	Tue 15/12/20	Thu 18/6/20	Tue 15/12/20	298	301	0 days		100%
300	CIW-2130		Demolition of structure no.2			0 days	NA	NA	24 days	Mon 18/5/20	Mon 22/6/20	Mon 18/5/20	Mon 22/6/20			0 days		100%
301	CIW-2200		Primary Sludge Pump Pit			60 days	Wed 10/6/20	Thu 20/8/20	18 days	Wed 22/7/20	Tue 11/8/20	Wed 22/7/20	Tue 11/8/20	299	302,303,292,304	0 days		100%
302	CIW-2300		Septic Tank			50 days	Fri 21/8/20	Tue 20/10/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	301		0 days		100%
303	**CIW-2400**		**Diesel Tank**			**50 days**	**Wed 21/10/20**	**Fri 18/12/20**	**53 days**	**Thu 2/7/20**	**Tue 1/9/20**	**Thu 2/7/20**	**Tue 1/9/20**	**301**	**292**	**0 days**		**100%**
304	CIW-2410		Transfers of Remaining Diesel Fuel of Existing Diesel Tank			0 days	NA	NA	15 days	Thu 2/7/20	Tue 21/7/20	Thu 2/7/20	Tue 21/7/20	301	305	0 days		100%
305	CIW-2420		Demolition of diesel tank			50 days	Wed 21/10/20	Fri 18/12/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	304	**292**	0 days		100%
306	**CIW-3000**	*	**Inlet Works No.1 Building (1)**			**569 days**	**Sat 19/12/20**	**Mon 21/11/22**	**747 days**	**Tue 15/9/20**	**Thu 23/3/23**	**Tue 15/9/20**	**NA**	**6**		**748 days**		**18%**
307	CIW-3100		Predrilling (10nrs, 1rigs, 2.5days/drillhole/rig) - stage 1			40 days	Mon 4/1/21	Mon 22/2/21	28 days	Tue 15/9/20	Mon 19/10/20	Tue 15/9/20	Mon 19/10/20	248,250,273,228,282		0 days	1	100%
308	CIW-3100a		Predrilling (22nrs, 1rigs, 2.5days/drillhole/rig) - stage 2			0 days	NA	NA	60 days	Tue 8/12/20	Mon 22/2/21	Tue 8/12/20	Mon 22/2/21			0 days		100%
309	CIW-3200		Pre-bored H piles (188nos, 1.8rigs, 2days/rig/pile)			133 days	Tue 23/2/21	Wed 4/8/21	210 days	Fri 19/2/21	Tue 2/11/21	Fri 19/2/21	NA	228,132	310SS+150 days,311	-34 days	5	63%
310	CIW-3400a		Pile Load Test at stage 1			26 days	Thu 5/8/21	Fri 3/9/21	21 days	Sat 21/8/21	Tue 14/9/21	NA	NA	309SS+150 days	312	83 days		0%
311	CIW-3400b		Pile Load Test at stage 2 & 3			0 days	NA	NA	21 days	Wed 3/11/21	Fri 26/11/21	NA	NA	309	328,313	-34 days		0%
312	CIW-3300a		Sheetpile Installation at Phase C(900sq.m, 1rigs, 50sqm/rig/day)			80 days	Tue 23/3/21	Wed 30/6/21	30 days	Wed 15/9/21	Fri 22/10/21	NA	NA	310	315	83 days		0%
313	CIW-3300b		Sheetpile Installation at Phase B (2300sq.m, 1rigs, 50sqm/rig/day)			0 days	NA	NA	50 days	Sat 27/11/21	Thu 27/1/22	NA	NA	311	316	-34 days		0%
314	CIW-3500		**ELS works**			**77 days**	**Sat 4/9/21**	**Mon 6/12/21**	**157 days**	**Sat 23/10/21**	**Fri 6/5/22**	**NA**	**NA**		**334,165SF,169SF**	**3 days**	**5**	**0%**
315	CIW-3510		Phrase C (Grid G3 to L7)) - Excavation to -3.3mPD and blinding (strutting 2 layers, excavate soil 2250 cu.m)			77 days	Fri 4/6/21	Mon 6/12/21	77 days	Sat 23/10/21	Mon 24/1/22	NA	NA	312	320,333	83 days		0%
316	CIW-3520		Phrase B (Grid A1 to G3) - Excavation to -7.5mPD and blinding (strutting 4 layers, excavate soil 11000cu.m)			77 days	Fri 4/6/21	Mon 6/12/21	77 days	Fri 28/1/22	Fri 6/5/22	NA	NA	313	324	-34 days		0%
317	CIW-3590		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Mon 30/8/21	Mon 30/8/21	NA	NA	318SS-3 emons		1211 days		0%
318	CIW-3600		**R.C. Structure works**			**296 days**	**Thu 5/8/21**	**Thu 4/8/22**	**300 days**	**Sat 27/11/21**	**Thu 1/12/22**	**NA**	**NA**		**317SS-3 emons,332**	**-34 days**	**5**	**0%**
319	CIW-3610		**Phase C (Grid G3 to L7)**			**105 days**	**Thu 5/8/21**	**Wed 8/12/21**	**105 days**	**Tue 25/1/22**	**Tue 7/6/22**	**NA**	**NA**			**114 days**		**0%**
320	CIW-3611		Rebar fix and formwork and concreting for the pile cap (G/F) (including ELS demolition works)			40 days	Thu 5/8/21	Mon 20/9/21	40 days	Tue 25/1/22	Tue 15/3/22	NA	NA	315	321	114 days		0%
321	CIW-3612		Rebar fix and formwork and concreting upto +13.45mPD (1/F)			25 days	Tue 21/9/21	Fri 22/10/21	25 days	Wed 16/3/22	Thu 14/4/22	NA	NA	320	322	114 days		0%
322	CIW-3613	KD1C	Rebar fix and formwork and concreting upto +25.80mPD (R/F)			40 days	Sat 23/10/21	Wed 8/12/21	40 days	Tue 19/4/22	Tue 7/6/22	NA	NA	321	44FF,331,524	114 days		0%
323	CIW-3620		**Phase B (Gride A1 to G3)**			**193 days**	**Tue 7/12/21**	**Thu 4/8/22**	**173 days**	**Sat 7/5/22**	**Thu 1/12/22**	**NA**	**NA**			**-34 days**		**0%**
324	CIW-3621		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level (including ELS demolition works)			54 days	Tue 7/12/21	Mon 14/2/22	54 days	Sat 7/5/22	Tue 12/7/22	NA	NA	316	325	-34 days		0%
325	CIW-3622		Apply waterproofing membrance and backfilling			14 days	Tue 15/2/22	Wed 2/3/22	14 days	Wed 13/7/22	Thu 28/7/22	NA	NA	324,185	326	-34 days		0%
326	CIW-3623	KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level			105 days	Thu 3/3/22	Thu 4/8/22	105 days	Fri 29/7/22	Thu 1/12/22	NA	NA	325	331	-34 days		0%
327	CIW-3630		**Phase A (G1 to L3)**			**193 days**	**Tue 7/12/21**	**Thu 4/8/22**	**173 days**	**Sat 27/11/21**	**Sat 2/7/22**	**NA**	**NA**			**93 days**		**0%**
328	CIW-3631		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level (including ELS demolition works)			54 days	Tue 7/12/21	Mon 14/2/22	54 days	Sat 27/11/21	Fri 4/2/22	NA	NA	311	329	93 days		0%
329	CIW-3632		Apply waterproofing membrance and backfilling			14 days	Tue 15/2/22	Wed 2/3/22	14 days	Sat 5/2/22	Mon 21/2/22	NA	NA	328,185	330	93 days		0%
330	CIW-3633	KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level			105 days	Thu 3/3/22	Thu 4/8/22	105 days	Tue 22/2/22	Sat 2/7/22	NA	NA	329	332,44FF,331	93 days		0%
331	CIW-3700	KD1C	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA	330,322,326	44FF	-34 days		0%
332	CIW-3800	SW1	ABWF works + BS works			90 days	Fri 5/8/22	Mon 21/11/22	90 days	Fri 2/12/22	Thu 23/3/23	NA	NA	330,189,141,318	56FF	262 days		0%
333	CIW-3900	KD1D	Process Pipe CHE chainage 0-20 & CHF chainage 0-20			0 days	NA	NA	50 days	Sat 17/12/22	Mon 20/2/23	NA	NA	315,351FF	45FF	0 days		0%
334	CIW-4000	SW2	Remaining sewerage and utilities in Portion B1 & B2			0 days	NA	NA	60 days	Sat 7/5/22	Tue 19/7/22	NA	NA	314	57FF,555	3 days		0%
335	**CPS-0000**	*	**Primary Sedimentation Tanks, B-3 (2)**			**1115 days**	**Mon 18/11/19**	**Wed 23/8/23**	**1115 days**	**Mon 18/11/19**	**Wed 23/8/23**	**Mon 18/11/19**	**NA**	**8**		**139 days**		**44%**
336	CPS-1000		Operation of the Existing Primary sedimentation Tanks			615 days	Mon 18/11/19	Sat 24/7/21	615 days	Mon 18/11/19	Sat 24/7/21	Mon 18/11/19	Sat 24/7/21	2	339,338	0 days		100%
337	CPS-1100		Identification of existing cables near Primary Sedimentation Tank		88	0 days	NA	NA	3 days	Fri 19/2/21	Mon 22/2/21	Fri 19/2/21	Mon 22/2/21			0 days		100%
338	CPS-1200		Removal of residual sludge			0 days	NA	NA	12 days	Mon 26/7/21	Sat 7/8/21	NA	NA	336	339	-62 days		0%
339	CPS-2000		Demolition of existing primary sedimentation tanks no. 1			45 days	Mon 13/12/21	Wed 9/2/22	30 days	Mon 9/8/21	Sat 11/9/21	NA	NA	122,160,162,336,338	342,340	-62 days		0%
340	CPS-2000a		Demolition of existing primary sedimentation tanks no. 2			0 days	NA	NA	25 days	Mon 13/9/21	Wed 13/10/21	NA	NA	339	342	-62 days		0%
341	CPS-3000a		Predrilling (5nrs, 1rigs, 3days/drillhole/rig) - In-advanced stage			0 days	NA	NA	15 days	Thu 8/4/21	Sat 24/4/21	Thu 8/4/21	Sat 24/4/21		343	0 days		100%

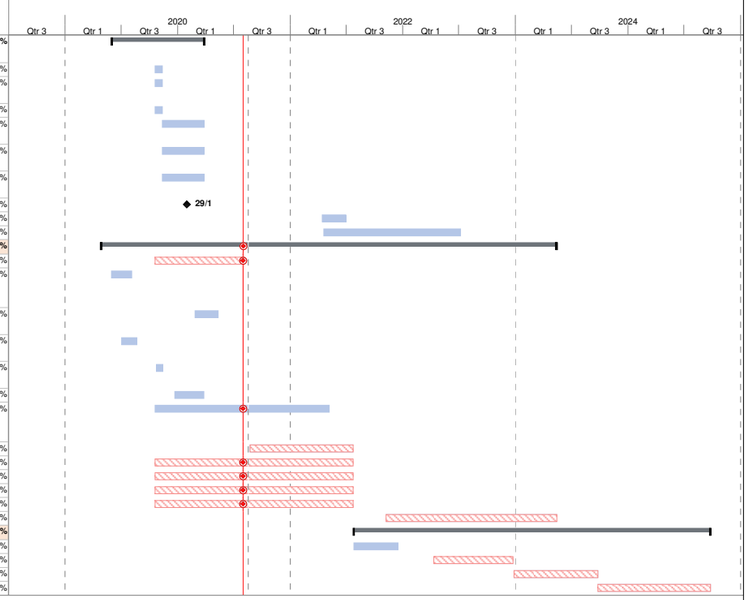


ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
342	CPS-3000		Predrilling (63nrs, 3rigs, 3days/drillhole/rig)			38 days	Thu 10/2/22	Fri 25/3/22	38 days	Fri 15/10/21	Sat 27/11/21	NA	NA	127,452,339,340	343	-62 days	1	0%
343	CPS-4000		Pre-bored H piles (205nos, 2.5rigs, 2days/pile/rig)			102 days	Sat 26/3/22	Mon 1/8/22	164 days	Mon 29/11/21	Wed 22/6/22	NA	NA	132,453,341,342	344FS-40 days,346,345	-62 days	5	0%
344	CPS-5000		Sheetpile Installation (FSP-II, 3360sq.m, 1rigs, 50sqm/rig/day)			85 days	Wed 25/5/22	Fri 2/9/22	42 days	Thu 5/5/22	Fri 24/6/22	NA	NA	343FS-40 days,133	346,352SS+27 days	-62 days		0%
345	CPS-6000		Pile Load Test			26 days	Tue 2/8/22	Wed 31/8/22	26 days	Thu 23/6/22	Sat 23/7/22	NA	NA	343	346	0 days		0%
346	CPS-7000		ELS works (20000cu.m soil with 2 layers wailing / strutting)			45 days	Sat 3/9/22	Fri 28/10/22	60 days	Mon 25/7/22	Wed 5/10/22	NA	NA	343,135,345,344	347FF-3 emons,348,166SF,170SF	0 days	3	0%
347	CPS-7900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 7/7/22	Thu 7/7/22	NA	NA	346FF-3 emons	348SS-3 emons	186 days		0%
348	CPS-8000	KD1D	R.C. Structure works (including ELS demolition works)			92 days	Sat 29/10/22	Mon 20/2/23	112 days	Thu 6/10/22	Mon 20/2/23	NA	NA	137,346,347SS-3 emons	349,350,45FF,351FF	0 days	3	0%
349	CPS-9000	KD1D	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	348	45FF	0 days		0%
350	CPS-10000	SW1	ABWF works + BS works			150 days	Tue 21/2/23	Wed 23/8/23	150 days	Tue 21/2/23	Wed 23/8/23	NA	NA	348,189,141	56FF	139 days		0%
351	CPS-11000	KD1D	Flowmeter Chamber no.1			60 days	Tue 21/2/23	Sat 6/5/23	60 days	Tue 6/12/22	Mon 20/2/23	NA	NA	348FF	45FF,333FF	0 days		0%
352	CPS-12000	SW2	Process Pipe CHG chainage 0-50, CHH chainage 0-80, CHI chainage 0-95 & CHJ chianage 0-40 and surrounding utilities			0 days	NA	NA	100 days	Wed 8/6/22	Thu 6/10/22	NA	NA	344SS+27 days	57FF,555	-62 days		0%
353	**CBR-0000**	*	**Bioreactors No.2A & 2B, B-4 (3)**			**1106 days**	**Mon 18/11/19**	**Sat 12/8/23**	**1194 days**	**Mon 18/11/19**	**Mon 27/11/23**	**Mon 18/11/19**	**NA**	**9**		**546 days**		**38%**
354	CBR-1000		Operation of 2no. Existing 800mm air mains over bioreactor no.2			360 days	Mon 18/11/19	Wed 11/11/20	292 days	Mon 18/11/19	Wed 11/11/20	Mon 18/11/19	Wed 11/11/20	2		0 days		100%
355	CBR-2000		Construction of Removable Steel Shutter in the Common Channel of BR2 and 3		67	0 days	NA	NA	86 days	Thu 1/10/20	Fri 15/1/21	Thu 1/10/20	Fri 15/1/21	144	365	0 days		100%
356	CBR-4100		Take Down E&M Equipment & cables in Bioreactor BR2 and Return to DSD		95	0 days	NA	NA	90 days	Thu 15/10/20	Mon 1/2/21	Thu 15/10/20	Mon 1/2/21		366	0 days		100%
357	CBR-4200		Installation of monitoring points before demolition of BR2		219	0 days	NA	NA	5 days	Wed 27/1/21	Mon 1/2/21	Wed 27/1/21	Mon 1/2/21	363	358	0 days		100%
358	CBR-4300		Condition Survey for BR2			0 days	NA	NA	1 day	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	357	366	0 days		100%
359	**CBR-5000**		**Demolition of existing bioreactor no.2**			**60 days**	**Wed 3/2/21**	**Tue 20/4/21**	**98 days**	**Tue 10/11/20**	**Wed 10/3/21**	**Tue 10/11/20**	**Wed 10/3/21**	**122,162**		**0 days**		**100%**
360	CBR-5100		Identification and removal of existing cables on air main pipe bridge		210	0 days	NA	NA	35 days	Tue 10/11/20	Sat 19/12/20	Tue 10/11/20	Sat 19/12/20		361,365	0 days		100%
361	CBR-5300		Plugging and demolition of existing DN800 air main			0 days	NA	NA	5 days	Mon 28/12/20	Sat 2/1/21	Mon 28/12/20	Sat 2/1/21	360		0 days		100%
362	CBR-5200		Diversion of existing lighting cable and Earthing ducts_stage 1		264	0 days	NA	NA	43 days	Fri 4/12/20	Tue 26/1/21	Fri 4/12/20	Tue 26/1/21	363	366	0 days		100%
363	CBR-5400		Overflow incident from BR1 to BR2 works area no.1 (Dec 2020)		285	0 days	NA	NA	33 days	Fri 18/12/20	Thu 28/1/21	Fri 18/12/20	Thu 28/1/21	364	357,362	0 days		100%
364	CBR-5410		Overflow incident from BR1 to BR2 works area (Feb 2021)		340	0 days	NA	NA	8 days	Tue 16/2/21	Wed 24/2/21	Tue 16/2/21	Wed 24/2/21	365	366,363	0 days		100%
365	CBR-3000		Construction of Isolation Wall & stoplog in common channel of BR2 & BR3		277	0 days	NA	NA	43 days	Sat 16/1/21	Wed 10/3/21	Sat 16/1/21	Wed 10/3/21	355,360	364	0 days		100%
366	CBR-5500		Demolition of existing pipe bridge, partition wall and base slab (Stage 1)			30 days	Wed 3/2/21	Fri 12/3/21	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	362,358,364,356	367SS,368	0 days		100%
367	CBR-5520		Removal of additional concrete infill within the partition walls		(174)	0 days	NA	NA	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	366SS	368	0 days		100%
368	CBR-5900		Construction of precautionary measures (i.e. isolation wall)		322	0 days	NA	NA	2 days	Tue 9/3/21	Wed 10/3/21	Tue 9/3/21	Wed 10/3/21	366,367	369,371	0 days		100%
369	CBR-5905		Construction of precautionary measures (i.e. bund wall)		305	0 days	NA	NA	3 days	Thu 15/4/21	Sat 17/4/21	Thu 15/4/21	Sat 17/4/21	368		0 days		100%
370	CBR-5910		Removal of abandoned DN250 air pipe		209	0 days	NA	NA	6 days	Tue 20/4/21	Mon 26/4/21	Tue 20/4/21	Mon 26/4/21			0 days		100%
371	CBR-6000		Predrilling (33nrs, 3rigs, 2days/drillhole/rig)_stage 1			44 days	Wed 21/4/21	Sat 12/6/21	44 days	Mon 1/3/21	Wed 5/5/21	Mon 1/3/21	Wed 5/5/21	368	372	0 days	1	100%
372	CBR-7000		Pre-bored H piles (113nos, 2rigs, 2days/pile/rig)_stage 1			113 days	Tue 15/6/21	Thu 18/11/21	113 days	Thu 6/5/21	Fri 17/9/21	Thu 6/5/21	NA	371	382SS+30 days,377SS+45 days,38	1 day	5	41%
373	CBR-7100		**External works between BR2 and MFB2**			**0 days**	**NA**	**NA**	**217 days**	**Wed 30/6/21**	**Mon 21/3/22**	**Wed 30/6/21**	**NA**			**1046 days**		**9%**
374	CBR-7110		DN700 (CHER)RAS Diversion			0 days	NA	NA	45 days	Wed 30/6/21	Sat 21/8/21	Wed 30/6/21	NA	372SS+45 days	375	1212 days		2%
375	CBR-7120		Temporary vehicle diversion for RAS operation			0 days	NA	NA	6 days	Mon 23/8/21	Sat 28/8/21	NA	NA	374		1212 days		0%
376	CBR-7130		**DN600 Temporary Sewage diversion**			**0 days**	**NA**	**NA**	**120 days**	**Wed 30/6/21**	**Sat 20/11/21**	**Wed 30/6/21**	**NA**			**-45 days**		**18%**
377	CBR-7131		2nos. Manhole Construction (MHTD1 and MHTD2)		204, 353	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372SS+45 days	378FS-30 days	-88 days		36%
378	CBR-7132		Existing DN600 tank drain diversion		204, 353	45 days	NA	NA	75 days	Mon 23/8/21	Sat 20/11/21	NA	NA	377FS-30 days	379	-88 days		0%
379	CBR-7140		Demolition of abandoned DN600 pipe and existing surrounded wall & channel of BR2		353, 336	30 days	NA	NA	45 days	Mon 22/11/21	Sat 15/1/22	NA	NA	378	380	-88 days		0%
380	CBR-7150		Pre-drilling(3nr.) & Pre-bored H piles (20nrs, 1rig, 2days/drillhole/rig)_stage 2A			26 days	NA	NA	26 days	Mon 17/1/22	Fri 18/2/22	NA	NA	379	381	-88 days		0%
381	CBR-7160		Pile load test			26 days	NA	NA	26 days	Sat 19/2/22	Mon 21/3/22	NA	NA	380,386	389,388	-88 days		0%
382	CBR-7200		**External works between BR2 and PST**			**0 days**	**NA**	**NA**	**141 days**	**Wed 30/6/21**	**Wed 15/12/21**	**Wed 30/6/21**	**NA**	**372SS+30 days**		**-38 days**		**19%**
383	CBR-7210		Demolition of existing DN1200. DN900 and DN500 pipe (w/ ELS works)		91	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372SS+45 days	384	-38 days		36%
384	CBR-7220		Diversion of existing lighting cable and Earthing ducts (w/ ELS)		264	0 days	NA	NA	30 days	Tue 28/9/21	Wed 3/11/21	NA	NA	383	385	-38 days		0%
385	CBR-7230		Demolition of existing side wall		336	0 days	NA	NA	12 days	Thu 4/11/21	Wed 17/11/21	NA	NA	384	386	-38 days		0%
386	CBR-7240		Pre-bored H piles (24nrs, 2rig, 2days/drillhole/rig)_stage 2B			24 days	NA	NA	24 days	Thu 18/11/21	Wed 15/12/21	NA	NA	385	381	-38 days		0%
387	CBR-7340		Demolition of existing side wall between BR2 & BR3 and baseslab			0 days	NA	NA	60 days	Sat 18/9/21	Tue 30/11/21	NA	NA	372	388	1 day		0%
388	CBR-8000		Sheetpile Installation (3000sq.m, 1rigs, 50sqm/rig/day)			60 days	Wed 8/9/21	Fri 19/11/21	60 days	Tue 22/3/22	Tue 7/6/22	NA	NA	381,387	389	-88 days		0%
389	CBR-10000		ELS works (18100cu.m soil with 4 layers wailing / strutting)			125 days	Mon 20/12/21	Fri 27/5/22	80 days	Wed 8/6/22	Fri 9/9/22	NA	NA	135,381,388	391,390FF-3 emons,399SS+46 day	-88 days	3	0%
390	CBR-10900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 11/6/22	Sat 11/6/22	NA	NA	389FF-3 emons	391SS-3 emons	168 days		0%
391	CBR-11000	KD1E	R.C. Structure works (including ELS demolition works)			180 days	Sat 28/5/22	Sat 31/12/22	180 days	Sat 10/9/22	Sat 22/4/23	NA	NA	138,186,187,190,188,389,390SS-3 emons	398,46FF,397,393FF,394SS+25 da	-88 days	5	0%
392		KD1E	Process Pipe CHO chainage 65-140			0 days	NA	NA	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	391FF	46FF	-88 days		0%
393	CBR-11020	KD1E	Additional backfill works after end wall construction at BR2 common channel		277	0 days	NA	NA	30 days	Wed 15/3/23	Sat 22/4/23	NA	NA	391FF	46FF	-88 days		0%
394	CBR-13000	KD1E	Flowmeter no. 2-4			180 days	2023/1/3	2023/8/12	60 days	Thu 13/10/22	Wed 21/12/22	NA	NA	391SS+25 days	395FS-13 days	-88 days		0%
395	CBR-14000	KD1E	Gate Valve Chamber no.1-3			180 days	2023/1/3	2023/8/12	60 days	Wed 7/12/22	Tue 21/2/23	NA	NA	394FS-13 days	396FS-12 days	-88 days		0%
396	CBR-15000	KD1E	Plug Valve Chamber no.1-2			180 days	2023/1/3	2023/8/12	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	395FS-12 days	46FF	-88 days		0%
397	CBR-12000	KD1E	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391	46FF	-88 days		0%
398	CBR-16000	SW1	ABWF works + BS works			180 days	Tue 3/1/23	Sat 12/8/23	180 days	Mon 24/4/23	Mon 27/11/23	NA	NA	391,189,141	56FF	60 days		0%
399	CBR-17000	SW2	Process Pipe CHQ chainage 65-170, CHP chainage 60-130, CHL chainage 0-35 & CHK chianage 0-50 and surrounding utilities			0 days	NA	NA	80 days	Tue 2/8/22	Sat 5/11/22	NA	NA	389SS+46 days	57FF,555	-88 days		0%
400	**CMF-0000**	*	**Membrane Facilities Building, B-5**			**941 days**	**Mon 6/1/20**	**Thu 9/3/23**	**1133 days**	**Mon 18/11/19**	**Wed 13/9/23**	**Mon 18/11/19**	**NA**	**2**		**121 days**		**45%**
401			Operation of existing Final Sedimentation Tanks no.3 & 4		26	0 days	NA	NA	98 days	Mon 18/11/19	Tue 17/3/20	Mon 18/11/19	Tue 17/3/20	2		0 days		100%
402	**CMF-1000**		**Demolition of existing final sedimentation tanks no. 3 & 4**			**14 days**	**Mon 6/1/20**	**Tue 21/1/20**	**340 days**	**Mon 6/1/20**	**Sun 28/2/21**	**Mon 6/1/20**	**Sun 28/2/21**	**160,122,10**		**0 days**		**100%**
403	CMF-1100		Confirmation of Decommission Schedule	68	30	0 days	NA	NA	58 days	Mon 6/1/20	Mon 16/3/20	Mon 6/1/20	Mon 16/3/20		404	0 days		100%
404	CMF-1200		Provision of new submersed pump	68	26	0 days	NA	NA	27 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	403	405	0 days		100%
405	CMF-1205		Assistant to decommissioning of Final Sedimentation Tank No. 3 and 4	68	7	0 days	NA	NA	14 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	404	406	0 days		100%
406	CMF-1300		Additional dismantling works to retain specified electrical and mechanical equipment	75	(013)	0 days	NA	NA	21 days	Tue 7/4/20	Wed 6/5/20	Tue 7/4/20	Wed 6/5/20	405	407	0 days		100%
407	CMF-1400		Additional pluging works for DN 1200 Conc. S&S pipe at wash water pumping station chamber	76, 77, 144	(015)	0 days	NA	NA	70 days	Mon 8/6/20	Sat 29/8/20	Mon 8/6/20	Sat 29/8/20	406	408	0 days		100%
408	CMF-1500		Diversion of wash water main	76, 77	032	0 days	NA	NA	21 days	Mon 15/6/20	Fri 10/7/20	Mon 15/6/20	Fri 10/7/20	407	409	0 days		100%
409	CMF-1600		Isolation wall for RAS Channel No.1	76, 77	035	0 days	NA	NA	40 days	Mon 1/6/20	Sat 18/7/20	Mon 1/6/20	Sat 18/7/20	408	413	0 days		100%
410	CMF-1710		Removal of DN1400 Bioreactor No. 2 Effluent Pipe		043	0 days	NA	NA	8 days	Fri 19/2/21	Sun 28/2/21	Fri 19/2/21	Sun 28/2/21			0 days		100%
411	CMF-1800		Exposed and disconnet uncharted existing cable between FST3 and FST 4	77	038	0 days	NA	NA	20 days	Thu 2/7/20	Fri 24/7/20	Thu 2/7/20	Fri 24/7/20			0 days		100%
412	CMF-1110		Demolition of structure no. 3 & 4	68, 75, 76, 77, 144		14 days	Mon 6/1/20	Tue 21/1/20	122 days	Wed 1/4/20	Sat 29/8/20	Wed 1/4/20	Sat 29/8/20		414	0 days		100%
413	CMF-1900		Removal of Existing DN150 SAS Rising Main at RAS Channel No. 1	212	060	0 days	NA	NA	23 days	Mon 31/8/20	Fri 25/9/20	Mon 31/8/20	Fri 25/9/20	409	415	0 days		100%
414	CMF-2000		Predrilling (83nrs, 4rigs, 2.5days/drillhole/rig)	144, 212	120	42 days	Sat 6/6/20	Mon 27/7/20	31 days	Mon 10/8/20	Mon 14/9/20	Mon 10/8/20	Mon 14/9/20	127,412	415	0 days	1	100%
415	CMF-3000		Pre-bored H piles (171nos, 2rigs, 1.5days/pile/rig) [Extended working hours 0700-1900 & shortern pile length]	212, 308, 309	120	140 days	Tue 28/7/20	Wed 13/1/21	96 days	Mon 28/9/20	Sat 23/1/21	Mon 28/9/20	Sat 23/1/21	414,132,413	416,417	0 days	5	100%
416	CMF-3100		Change of Layout of Basement of MFB no. 2		(102)	0 days	NA	NA	17 days	Tue 3/11/20	Sat 21/11/20	Tue 3/11/20	Sat 21/11/20	415		0 days		100%
417	CMF-4000		Pile Load Test			25 days	Thu 14/1/21	Tue 16/2/21	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	415	421,418	0 days		100%
418	CMF-5000		Installation of sheetpile [with pre-boring]		120	40 days	Wed 22/1/20	Wed 11/3/20	120 days	Mon 28/12/20	Thu 24/6/21	Mon 28/12/20	Thu 24/6/21	417	421	0 days		100%
419	**CMF-6000**		**ELS works**			**169 days**	**Wed 17/2/21**	**Thu 9/9/21**	**188 days**	**Fri 25/6/21**	**Thu 10/2/22**	**Fri 25/6/21**	**NA**	**10**	**424FF-3 emons**	**-87 days**	**5**	**22%**
420	**CMF-6100**		**Pharse A (A1 to N6) - Excavation to -9mPD and blinding**		**45**	**169 days**	**Wed 17/2/21**	**Thu 9/9/21**	**188 days**	**Fri 25/6/21**	**Thu 10/2/22**	**Fri 25/6/21**	**NA**		**423SS**	**-100 days**		**16%**
421	CMF-6110		Soil Excavation [Extended working hours 0700-1900 & reduction of excavation volume]		120, 207	169 days	Wed 17/2/21	Thu 9/9/21	88 days	Fri 25/6/21	Fri 8/10/21	Fri 25/6/21	NA	418,135,417	422	-117 days		35%
422	CMF-6120		Additional Rock Excavation [2200 cu.m, 7.5cu.m/group x 2]		120, 207	0 days	NA	NA	100 days	Sat 9/10/21	Thu 10/2/22	NA	NA	421	426	-117 days		0%
423	CMF-6200		Pharse B (A6 to N10) - Excavation to -1.9mPD and blinding			169 days	Wed 17/2/21	Thu 9/9/21	100 days	Fri 25/6/21	Sat 23/10/21	Fri 25/6/21	NA	420SS	427,433	1 day		31%
424	CMF-6900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Fri 12/11/21	Fri 12/11/21	NA	NA	419FF-3 emons	425SS-3 emons	216 days		0%
425	**CMF-7000**		**RC Structure works**			**232 days**	**Fri 10/9/21**	**Sat 25/6/22**	**262 days**	**Fri 11/2/22**	**Wed 28/12/22**	**NA**	**NA**	**10,424SS-3 emons**		**-117 days**	**5**	**0%**
426	CMF-7100	KD1F	Phase A - from B2 - Level 1 (including ELS demolition works)			112 days	Fri 10/9/21	Tue 25/1/22	112 days	Fri 11/2/22	Wed 29/6/22	NA	NA	139,186,187,190,188,422	427SS+30 days,428,430	-117 days		0%
427	CMF-7110	KD1F	Phase B - from B1 - Level 1 (including ELS demolition works)			112 days	Fri 10/9/21	Tue 25/1/22	112 days	Fri 18/3/22	Thu 4/8/22	NA	NA	426SS+30 days,423	429,430	-117 days		0%
428	CMF-7120	KD1G	Phase A - from Level 1 to Roof			120 days	Wed 26/1/22	Sat 25/6/22	120 days	Thu 30/6/22	Mon 21/11/22	NA	NA	426	431,432	-87 days		0%
429	CMF-7130	KD1G	Phase B - from Level 1 to Roof			120 days	Wed 26/1/22	Sat 25/6/22	120 days	Fri 5/8/22	Wed 28/12/22	NA	NA	427	431,432	-117 days		0%
430	CMF-8000	KD1F	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from B2-level 1)			0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA	426,427	47FF	-115 days		0%
431	CMF-9000	KD1G	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from Level to Roof)			0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	428,429	48FF	-117 days		0%
432	CMF-10000	SW1	ABWF works + BS works			210 days	Mon 27/6/22	Thu 9/3/23	210 days	Thu 29/12/22	Wed 13/9/23	NA	NA	189,428,429	56FF	121 days		0%
433	CMF-11000	SW2	Process Pipe CHQ chainage 0-65, CHM chainage 0-120, CHN chainage 0-125, CHO chainage 0-65, CHP chainage 0-60 & CHV chainge 0-50 and surrounding utilities			0 days	NA	NA	176 days	Mon 25/10/21	Tue 31/5/22	NA	NA	423	57FF,555	43 days		0%
434	**CSA-0000**	*	**SAS Pumping Station, B-6**			**455 days**	**Wed 20/5/20**	**Thu 25/11/21**	**728 days**	**Sat 18/4/20**	**Wed 28/9/22**	**Sat 18/4/20**	**NA**	**11**		**891 days**		**78%**

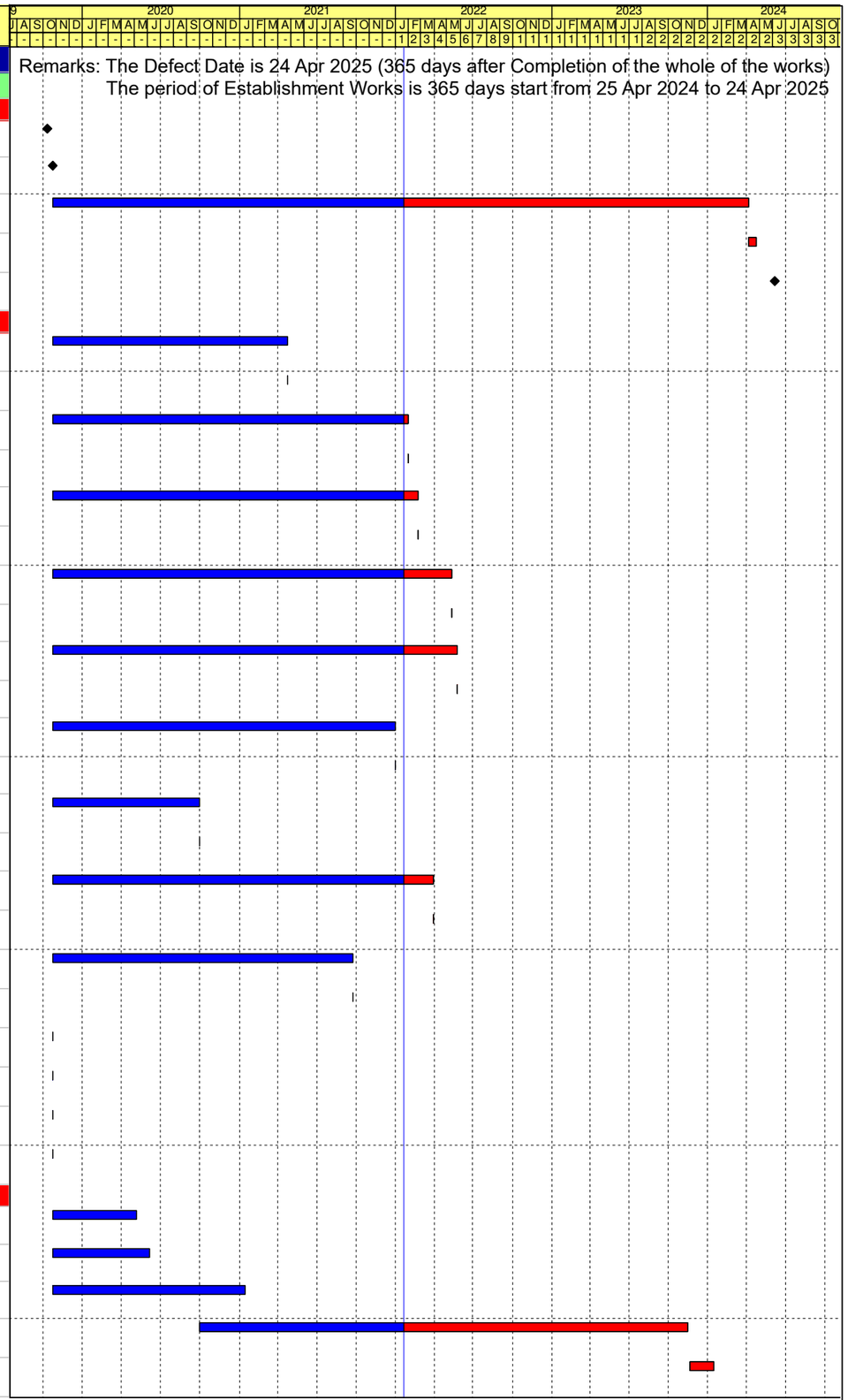
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
435	**CSA-1000**		**Additional Preliminary Works**			**0 days**	**NA**	**NA**	**330 days**	**Tue 9/6/20**	**Mon 19/7/21**	**Tue 9/6/20**	**NA**			**1247 days**		**98%**
436	CSA-1020		Expose and abandon existing electric cable & trial pits		78	0 days	NA	NA	39 days	Mon 17/8/20	Wed 30/9/20	Mon 17/8/20	Wed 30/9/20			0 days		100%
437	CSA-1030		Installation of standpipes		71	0 days	NA	NA	13 days	Mon 14/9/20	Mon 28/9/20	Mon 14/9/20	Mon 28/9/20			0 days		100%
438	CSA-1100		Diversion of Existing SAS Rising Main near SAS Pumping Station	68, 75, 76	69	0 days	NA	NA	170 days	Tue 9/6/20	Thu 31/12/20	Tue 9/6/20	Thu 31/12/20		453	0 days		100%
439	CSA-1200		Decommission of exisiting power and signal systems in leachate Pump station switch room	312, 309, 310	74	0 days	NA	NA	58 days	Mon 21/9/20	Mon 30/11/20	Mon 21/9/20	Mon 30/11/20	146	453	0 days		100%
440	CSA-1300		Construction of Cable trough for CLP 11kv Cable Diversion	75, 76, 77, 161		0 days	NA	NA	54 days	Mon 19/10/20	Mon 21/12/20	Mon 19/10/20	Mon 21/12/20		453	0 days		100%
441	CSA-1400		Demolition of Existing Pillar box and its concrete plinth	144, 212, 30	30	0 days	NA	NA	53 days	Wed 12/8/20	Sat 14/11/20	Wed 12/8/20	Sat 14/11/20	149	453	0 days		100%
442	CSA-1500		Excavation to locate existing underground cble near SAS Pump Station		78	0 days	NA	NA	59 days	Wed 17/6/20	Sat 21/11/20	Wed 17/6/20	Sat 21/11/20		453	0 days		100%
443	CSA-1600		Diversion of Existing DN80 Permeate Rising Main near SAS Pumping station		89	0 days	NA	NA	72 days	Tue 6/10/20	Thu 31/12/20	Tue 6/10/20	Thu 31/12/20		453	0 days		100%
444	CSA-1800		Trench Excavation near SAS for CLP diversion of 11kV cable	309, 310	97	0 days	NA	NA	53 days	Mon 12/10/20	Sat 12/12/20	Mon 12/10/20	Sat 12/12/20		453	0 days		100%
445	CSA-1700		Relocation of Oil Interceptor Near Existing Compressor House	144, 212, 30	70	0 days	NA	NA	50 days	Mon 9/11/20	Fri 8/1/21	Mon 9/11/20	Fri 8/1/21		453	0 days		100%
446	CSA-1900		Diversion of pumping system sewerage	212, 309, 31	83	0 days	NA	NA	36 days	Wed 13/1/21	Fri 26/2/21	Wed 13/1/21	Fri 26/2/21	151	455,453,447	0 days		100%
447	CSA-1910		Diversion of Existing copper pipe near proposed SAS pumping station	309, 310	225	0 days	NA	NA	61 days	Mon 19/10/20	Thu 31/12/20	Mon 19/10/20	Thu 31/12/20	446	453	0 days		100%
448	CSA-1920		Pipework of proposed SAS Pumping Station - 13 nos. of puddles		221	0 days	NA	NA	180 days	Mon 7/12/20	Mon 19/7/21	Mon 7/12/20	NA			1247 days		92%
449	CSA-1930		Additional DN150 Rising main for SAS		220/69	0 days	NA	NA	15 days	Wed 2/12/20	Fri 18/12/20	Wed 2/12/20	Fri 18/12/20			0 days		100%
450	CSA-1940		Additional DN90 PE pipe diversion		89	0 days	NA	NA	7 days	Fri 11/12/20	Fri 18/12/20	Fri 11/12/20	Fri 18/12/20			0 days		100%
451	CSA-1970		Additional diversion of existing sludge rising main and sewerage system		81	0 days	NA	NA	15 days	Thu 21/1/21	Sat 6/2/21	Thu 21/1/21	Sat 6/2/21			0 days		100%
452	CSA-2000		Predrilling (4nrs, 1rig, 4days/drillhole/rig)	68		16 days	Wed 20/5/20	Sat 6/6/20	7 days	Sat 18/4/20	Sat 25/4/20	Sat 18/4/20	Sat 25/4/20	127	342,453	0 days		100%
453	CSA-3000		Pre-bored H piles (12nos, 1rigs, 4days/pile/rig)			60 days	Mon 8/6/20	Tue 18/8/20	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	132,452,148,438,439,441,442,443,445,44	343,454	0 days	2	100%
454	CSA-4000		Pile Load Test			21 days	Wed 19/8/20	Thu 17/9/20	22 days	Tue 23/2/21	Fri 19/3/21	Tue 23/2/21	Fri 19/3/21	453	456,455	0 days		100%
455	CSA-5000		Sheetpile Installation (FSP-II, 690sq.m, 40sqm/day)			28 days	Wed 19/8/20	Sat 19/9/20	28 days	Tue 30/3/21	Wed 5/5/21	Tue 30/3/21	Wed 5/5/21	133,454,446	456	0 days		100%
456	CSA-6000		ELS works (1300cu.m soil with 2 layers wailing / strutting)			75 days	Mon 21/9/20	Wed 19/2/20	75 days	Thu 6/5/21	Wed 4/8/21	Thu 6/5/21	NA	455,135,454	458,457FF-3 emons	-121 days	2	96%
457	CSA-6900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	456FF-3 emons	458SS-3 emons	0 days		100%
458	CSA-7000	KD1H	R.C. Structure works (including ELS demolition works)			186 days	Mon 21/12/20	Mon 9/8/21	186 days	Thu 5/8/21	Sat 19/3/22	NA	NA	456,457SS-3 emons	459,460,49FF	-121 days	5	0%
459	CSA-8000	KD1H	Allow access to Contractor DE/2018/03 for E&M installation and T&C works			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	458	49FF	-121 days		0%
460	CSA-9000	SW1	ABWF works + BS works			90 days	Tue 10/8/21	Thu 25/11/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	458,189,141,522SS	56FF	405 days		0%
461	**CAS-0000**	*	**Ancillary Structures, B-7**			**503 days**	**Mon 7/9/20**	**Sat 21/5/22**	**420 days**	**Mon 3/5/21**	**Wed 28/9/22**	**Mon 3/5/21**	**NA**	**12**		**891 days**		**7%**
462	**CAS-1000**		Demolition of Existing Faciliates and Structures (leachate pump pit & pumping station)			120 days	Mon 7/9/20	Sat 30/1/21	120 days	Mon 3/5/21	Thu 23/9/21	Mon 3/5/21	NA	122,160,162	497	48 days		41%
463	**CFS-1000**	*	**Fire Services Sprinkler Pumping Room & Emergency Generator House (9)+(10)****		**301**	**220 days**	**Sat 10/4/21**	**Sun 3/1/21**	**419 days**	**Tue 4/5/21**	**Wed 28/9/22**	**Tue 4/5/21**	**NA**			**405 days**		**14%**
464	CFS-1000		Water Sampling and Testing for existing effluent pump pit		384	0 days	NA	NA	12 days	Tue 4/5/21	Mon 17/5/21	Tue 4/5/21	Mon 17/5/21		465	0 days		100%
465	CFS-1150		Identification, decommission and demolition of the existing kiosk		86	0 days	NA	NA	26 days	Tue 18/5/21	Fri 18/6/21	Tue 18/5/21	Fri 18/6/21	464	466,479	0 days		100%
466	CFS-1100		Provision of Flowmeter chamber, gate valve chamber and associated seweage		85	0 days	NA	NA	90 days	Sat 19/6/21	Tue 5/10/21	Sat 19/6/21	NA	465	467,469FF	-101 days		40%
467	CFS-1200		Decommission and demolistion of the existing pump pit and associated sewerage manholes and pipes		86	0 days	NA	NA	40 days	Wed 6/10/21	Mon 22/11/21	NA	NA	466	470	-101 days		0%
468	CFS-1250		Diversion of Leachate Rising Main near SSSH		241	0 days	NA	NA	18 days	Wed 28/7/21	Wed 18/8/21	NA	NA	469SF	480	18 days		0%
469	CFS-1300		E&M provision of flowmeter chamber and associated sewerage for effluent and sewage from SSSH		256	0 days	NA	NA	40 days	Wed 18/8/21	Tue 5/10/21	NA	NA	466FF	470,468SF	-61 days		0%
470	CFS-2000		Excavation for Raft Footing (800cu.m)			65 days	NA	NA	44 days	Tue 23/11/21	Sat 15/1/22	NA	NA	469,467	471	-101 days		0%
471	CFS-2800		Plate load test at bottom level of compacted generall fill(2no.)			12 days	NA	NA	7 days	Mon 17/1/22	Mon 24/1/22	NA	NA	470	472	-101 days		0%
472	CFS-2900		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Mon 24/1/22	Mon 7/3/22	NA	NA	471	473	-124.42 edays		0%
473	CFS-3000		Plate load test at bottom level of base slab (3no.)			28 days	Fri 4/6/21	Mon 21/6/21	7 days	Tue 8/3/22	Tue 15/3/22	NA	NA	472	474FF-3 mons,475	-101 days		0%
474	CFS-3900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Tue 23/11/21	Tue 23/11/21	NA	NA	473FF-3 mons	475SS-3 emons	59 days		0%
475	CFS-4000	KD1J	R.C. structure works			120 days	NA	NA	70 days	Wed 16/3/22	Mon 13/6/22	NA	NA	473,474SS-3 emons	477,476,51FF,521FF,520FF	-101 days	2	0%
476	CFS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 13/9/21	Mon 13/9/21	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	475	51FF	-101 days		0%
477	CFS-6000	SW1	ABWF works + BS works			90 days	Tue 14/9/21	Mon 3/1/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	475	56FF	405 days		0%
478	**CCS-1000**	*	**Chemical System No.1 (8)***			**168 days**	**Mon 1/2/21**	**Thu 26/8/21**	**386 days**	**Sat 12/6/21**	**Wed 28/9/22**	**Sat 12/6/21**	**NA**			**891 days**		**4%**
479	CCS-1310		Demolition of SSSH Pump Pit and Associated Sewerage System		086	0 days	NA	NA	26 days	Sat 19/6/21	Tue 20/7/21	Sat 19/6/21	NA	465	481	54 days		38%
480	CCS-1110		Removal of existing Leachate Rising Main near SSSH		241	0 days	NA	NA	12 days	Wed 18/8/21	Tue 31/8/21	NA	NA	468	481	18 days		0%
481	CCS-1100		Excavation for Raft Footing (20cu.m)			10 days	Mon 1/2/21	Thu 11/2/21	10 days	Wed 1/9/21	Sat 11/9/21	NA	NA	480,479	485FF-3 emons,486,482	18 days		0%
482	CCS-1080		Plate load test at bottom level of compacted generall fill(2no.)			9 days	NA	NA	9 days	Mon 13/9/21	Thu 23/9/21	NA	NA	481	483	18 days		0%
483	CCS-1090		Soil Replacement (10 layers SRT)			0 days	NA	NA	30 edays	Thu 23/9/21	Sat 23/10/21	NA	NA	482	484	23.58 edays		0%
484	CCS-1200		Plate load test at bottom level of base slab (1no.)			5 days	Tue 16/2/21	Wed 3/3/21	5 days	Mon 25/10/21	Fri 29/10/21	NA	NA	483	486,493	19 days		0%
485	CCS-1190		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	481FF-3 emons	486SS-3 emons	0 days		100%
486	CCS-1300	KD1J	R.C. structure works			45 days	Mon 15/3/21	Mon 10/5/21	60 days	Sat 30/10/21	Tue 11/1/22	NA	NA	481,485SS-3 emons,484	51FF,488,487	20 days	2	0%
487	CCS-1400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 10/5/21	Mon 10/5/21	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA	486	51FF	20 days		0%
488	CCS-1500	SW1	ABWF works + BS works			90 days	Tue 11/5/21	Thu 26/8/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,486,522SS	56FF	405 days		0%
489	**CDS-0000**	*	**Deodorization System No.3A (7)***			**149 days**	**Tue 16/11/21**	**Sat 21/5/22**	**105 days**	**Thu 5/8/21**	**Wed 8/12/21**	**NA**	**NA**			**90 days**		**0%**
490	CDS-2000		Excavation for Raft Footing (400cu.m)			20 days	Tue 16/11/21	Wed 8/12/21	20 days	Sat 14/8/21	Tue 7/9/21	NA	NA	491SF		1205 days		0%
491	CDS-2008		Plate load test at bottom level of compacted generall fill(2no.)			10 days	NA	NA	10 days	Tue 7/9/21	Sat 18/9/21	NA	NA	492SF	490SF	1195 days		0%
492	CDS-2100		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Sat 18/9/21	Sat 30/10/21	NA	NA	493SF	491SF	1425.42 edays		0%
493	CDS-3000		Plate load test at bottom level of base slab (1no.)			4 days	Thu 9/12/21	Fri 24/12/21	4 days	Sat 30/10/21	Wed 3/11/21	NA	NA	484	494FF-3 emons,495,492SF,500FS	-19 days		0%
494	CDS-3900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 5/8/21	Thu 5/8/21	NA	NA	493FF-3 emons	495SS-3 emons	150 days		0%
495	CDS-4000	KD1J	Footing works			20 days	Tue 4/1/22	Wed 26/1/22	30 days	Thu 4/11/21	Wed 8/12/21	NA	NA	493,494SS-3 emons	496,51FF	46 days		0%
496	CDS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Wed 26/1/22	Wed 26/1/22	0 days	Wed 8/12/21	Wed 8/12/21	NA	NA	495	51FF	46 days		0%
497	**CCS-2000**	*	**Chemical System No.2 (11)**			**189 days**	**Thu 4/3/21**	**Thu 21/10/21**	**300 days**	**Fri 24/9/21**	**Wed 28/9/22**	**NA**	**NA**	**462**		**48 days**		**0%**
498	CCS-2100		Excavation for Raft Footing (100cu.m)			15 days	Thu 4/3/21	Sat 20/3/21	14 days	Fri 24/9/21	Mon 11/10/21	NA	NA	499SF		1177 days		0%
499	CCS-2110		Soil Replacement (8 layers SRT)			0 days	NA	NA	24 edays	Wed 6/10/21	Sat 30/10/21	NA	NA	500SF	498SF	1425.42 edays		0%
500	CCS-2200		Plate load test (2no.)			14 days	Mon 22/3/21	Fri 9/4/21	15 days	Sat 30/10/21	Tue 16/11/21	NA	NA	493FS-4 days	501FF-3 emons,502,499SF,510FS	-19 days		0%
501	CCS-2290		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Fri 24/9/21	Fri 24/9/21	NA	NA	500FF-3 emons	502SS-3 emons	108 days		0%
502	CCS-2300	KD1J	R.C. structure works			45 days	Tue 11/5/21	Mon 5/7/21	45 days	Wed 17/11/21	Tue 11/1/22	NA	NA	500,501SS-3 emons	503,51FF,504,505	20 days	2	0%
503	CCS-2400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 5/7/21	Mon 5/7/21	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA	502	51FF	20 days		0%
504	CCS-2500	SW1	ABWF works + BS works			90 days	Tue 6/7/21	Thu 21/10/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,502,522SS	56FF	405 days		0%
505	CCS-2600	SW1	Demolition of existing chemical room			60 days	Tue 6/7/21	Mon 13/9/21	60 days	Wed 12/1/22	Fri 25/3/22	NA	NA	502	56FF	556 days		0%
506	**CTC-0000**	*	**Temporary Chemical Dosing System (5)**			**191 days**	**Tue 22/6/21**	**Thu 10/2/22**	**330 days**	**Thu 19/8/21**	**Wed 28/9/22**	**NA**	**NA**			**89 days**		**0%**
507	CTC-2000		Excavation for Raft Footing (300cu.m)			30 days	Tue 22/6/21	Tue 27/7/21	30 days	Thu 26/8/21	Sat 2/10/21	NA	NA	508SF		1185 days		0%
508	CTC-2080		Plate load test at bottom level of compacted generall fill(2no.)			9 days	NA	NA	9 days	Sat 2/10/21	Wed 13/10/21	NA	NA	509SF	507SF	1176 days		0%
509	CTC-2100		Soil Replacement (10 layers SRT)			0 days	NA	NA	30 edays	Wed 13/10/21	Fri 12/11/21	NA	NA	510SF	508SF	1412.42 edays		0%
510	CTC-1000		Plate load test at bottom level of base slab (1no.)			5 days	Wed 28/7/21	Thu 12/8/21	5 days	Fri 12/11/21	Wed 17/11/21	NA	NA	500FS-4 days	509SF,511FF-3 emons,512	19 days		0%
511	CTC-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 19/8/21	Thu 19/8/21	NA	NA	510FF-3 emons	512SS-3 emons	138 days		0%
512	CTC-3000	KD1J	R.C. structure works			30 days	Tue 14/9/21	Thu 21/10/21	45 days	Thu 18/11/21	Wed 12/1/22	NA	NA	511SS-3 emons,510	513,51FF,514	19 days	1	0%
513	CTC-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 21/10/21	Thu 21/10/21	0 days	Wed 12/1/22	Wed 12/1/22	NA	NA	512	51FF	19 days		0%
514	CTC-5000	SW1	ABWF works + BS works			90 days	Fri 22/10/21	Thu 10/2/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,512,522SS	56FF	405 days		0%
515	**CFB-0000**	*	**Fire Hydrant and Booster Pump Room (13)***			**177 days**	**Fri 13/8/21**	**Thu 17/3/22**	**193 days**	**Sat 5/2/22**	**Wed 28/9/22**	**NA**	**NA**			**-28 days**		**0%**
516	CFB-1000		Excavation for Raft Footing (200cu.m)			30 days	Fri 13/8/21	Thu 16/9/21	30 days	Wed 23/2/22	Wed 30/3/22	NA	NA	517SF		1039 days		0%
517	CFB-1100		Soil Replacement (7 layers SRT)			0 days	NA	NA	21 edays	Wed 30/3/22	Wed 20/4/22	NA	NA	518SF	516SF	1253.42 edays		0%
518	CFB-2000		Plate load test (3no.)			14 days	Fri 17/9/21	Tue 5/10/21	14 days	Wed 20/4/22	Sat 7/5/22	NA	NA	520SF	519FF-3 emons,517SF	1011 days		0%
519	CFB-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 5/2/22	Sun 6/2/22	NA	NA	518FF-3 emons		1083 days		0%
520	CFB-3000	KD1J	R.C. structure works			30 days	Fri 22/10/21	Thu 25/11/21	30 days	Sat 7/5/22	Mon 13/6/22	NA	NA	475FF	521,522,51FF,518SF	-101 days	1	0%
521	CFB-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 25/11/21	Thu 25/11/21	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	520,475FF	51FF	-101 days		0%
522	CFB-5000	SW1	ABWF works + BS works			90 days	Fri 26/11/21	Thu 17/3/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	520,189,141	56FF,514SS,504SS,488SS,460SS	405 days		0%
523	**CDS1-0000**		**Deodorization System No.1 (6)***			**64 days**	**NA**	**NA**	**105 days**	**Tue 10/5/22**	**Tue 13/9/22**	**NA**	**NA**			**418 days**		**0%**
524	CDS1-1000		Excavation for Raft Footing (400cu.m)			20 days	NA	NA	20 days	Wed 8/6/22	Thu 30/6/22	NA	NA	322	525	420 days		0%
525	CDS1-1080		Plate load test at bottom level of compacted generall fill(2no.)			10 days	NA	NA	10 days	Sat 2/7/22	Wed 13/7/22	NA	NA	524	526	420 days		0%
526	CDS1-1100		Soil Replacement (7 layers SRT)			0 days	NA	NA	21 edays	Wed 13/7/22	Wed 3/8/22	NA	NA	525	527	513.58 edays		0%
527	CDS1-2000		Plate load test at bottom level of base slab (1no.)			4 days	NA	NA	4 days	Thu 4/8/22	Mon 8/8/22	NA	NA	526	529,528FF-3 emons	418 days		0%
528	CDS1-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	0 days	Tue 10/5/22	Tue 10/5/22	NA	NA	527FF-3 emons	529SS-3 emons	523 days		0%
529	CDS1-3000	SW1	Footing works			30 days	NA	NA	30 days	Tue 9/8/22	Tue 13/9/22	NA	NA	527,528SS-3 emons	530,56FF	418 days		0%
530	CDS1-4000	SW1	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	NA	NA	0 days	Tue 13/9/22	Tue 13/9/22	NA	NA	529	56FF	418 days		0%
531	**CAA-0000**	*	**Additional and Alternation Works for Existing Facilities (B-7A, B-8, B-8A)**			**662 days**	**Wed 29/1/20**	**Fri 22/4/22**	**918 days**	**Mon 1/6/20**	**Thu 6/7/23**	**Mon 1/6/20**	**NA**			**269 days**		**64%**



ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
532	**CAA-1000**	**KD2B**	**B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)**			**180 days**	**Wed 29/1/20**	**Thu 3/9/20**	**246 days**	**Mon 1/6/20**	**Fri 26/3/21**	**Mon 1/6/20**	**Fri 26/3/21**	**15,142,184**	**53FF**	**0 days**		**100%**
533	CAA-1100		Change of pipe bridge design		(057)	0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
534	CAA-1200		Additional inspection pit to verilify the connection point to existing (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
535	CAA-1300		Additional MBV installation (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
536	CAA-1400		Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			180 days	Wed 29/1/20	Thu 3/9/20	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
537	CAA-1500	KD2B	Re-alignmnet of DN800 Temporary Air Main (CHTA) and Provision of FRP Staircases		064	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
538	CAA-1600	KD2B	Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distibution Chamber No. 2		062	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF,539	0 days		100%
539	CAA-2000	KD1I	B7-A Alternation works for existing Power House			122 days	Fri 4/9/20	Sat 30/1/21	0 days	Wed 11/11/20	Fri 29/1/21	Wed 11/11/20	Fri 29/1/21	13FS-1 day,122,160,162,176,538	50FF,540FS+356 days	0 days		100%
540	CAA-2100	SW3	Additional works for Power House		224	0 days	NA	NA	60 days	Thu 14/4/22	Wed 29/6/22	NA	NA	539FS+356 days	58FF	570 days		0%
541	CAA-3000	SW3	Alternation works for existing Membrane Facilities Building No.1			360 days	Mon 1/2/21	Fri 22/4/22	360 days	Tue 19/4/22	Thu 6/7/23	NA	NA	14FS-1 day,175	58FF	269 days		0%
542	**CUU-0000**	*	**External Underground Service, Utilities, Road/Drain**			**1091 days**	**Mon 24/2/20**	**Sat 28/10/23**	**1192 days**	**Mon 27/4/20**	**Mon 13/5/24**	**Mon 27/4/20**	**NA**	**16**		**-88 days**		**46%**
543	CUU-1000	KD2A	Process Pipes CHR and CHS (approx. 93m twin DN900 D.I.)		33, 222, 255	325 days	Mon 24/2/20	Sat 27/3/21	379 days	Mon 27/4/20	Wed 4/8/21	Mon 27/4/20	NA	184,142	554SS+48 days,552SS+48 days,55	-39 days		99%
544	CUU-1000a		Special Treatment for Removing the Existing Abandoned DN1800 By-pass Pipe and the Concrete Mass in Conflict with the Proposed Sheetpile wall for trenching work of Process Pipeline CHR and CHS		33	0 days	NA	NA	54 days	Sat 30/5/20	Mon 3/8/20	Sat 30/5/20	Mon 3/8/20			0 days		100%
545	CUU-1000b		Trenchless work for Process Pipes CHR and CHS (approx. 7m twin DN900 D.I.)		255	0 days	NA	NA	60 days	Thu 25/2/21	Mon 10/5/21	Thu 25/2/21	Mon 10/5/21		52FF	0 days		100%
546	CUU-1001		Removal of Abandoned DN1800 Concrete Pipe and Concrete Mass near Existing UV Disinfection Channel at CHR & CHS Process Pipe Works Area		033	0 days	NA	NA	43 days	Thu 2/7/20	Thu 20/8/20	Thu 2/7/20	Thu 20/8/20			0 days		100%
547	CUU-1002		Grouting for Sheung Shui Slaughter House Boundary Walls along CHR & CHS Pipes Works Area		222	0 days	NA	NA	20 days	Fri 23/10/20	Mon 16/11/20	Fri 23/10/20	Mon 16/11/20			0 days		100%
548	CUU-1004		Delay Delivery of DI pipes due to COVID-19		(076)	0 days	NA	NA	75 days	Tue 22/12/20	Thu 25/3/21	Tue 22/12/20	Thu 25/3/21		549FF	0 days		100%
549	CUU-2000	SW2	Process Pipes, including CHT, CHX, CHY, CHPS1&2, CHS S1&2, CHDO 1&2, CHPSW 1-8, CHTPS, CHPT1&2, CHTFT 1&2, CHTE, CHTD, Foam Collection & Surplus activated sludge rising main pipe			550 days	Mon 29/6/20	Fri 6/5/22	457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	184,142,548FF,543SS+48 days	57FF,555,550SS+250 days	63 days		51%
550	CUU-2100	SW2	Remaining Process Pipes			0 days	NA	NA	270 days	Mon 23/8/21	Fri 22/7/22	NA	NA	549SS+250 days	57FF	0 days		0%
551	CUU-3000	SW2	Remaining Drainage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142	555,57FF	0 days	5	45%
552	CUU-4000	SW2	Remaining Sewerage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
553	CUU-5000	SW2	Remaining Waterworks			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	557FS+2 days,57FF	0 days	5	45%
554	CUU-6000	SW2	Remaining Cable Ducts			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
555	CUU-7000	KD3A	Roadworks			540 days	Fri 31/12/21	Sat 28/10/23	440 days	Mon 7/11/22	Mon 13/5/24	NA	NA	554,551,552,549,352,399,334,433	54FF,558SS+123 days	-88 days	5	0%
556	**CLW-0000**	*	**Landscaping Works**			**854 days**	**Wed 11/5/22**	**Thu 27/3/25**	**946 days**	**Tue 26/7/22**	**Wed 24/9/25**	**NA**	**NA**	**16**		**0 days**		**0%**
557	CLW-1000	KD3A	Irrigation System			120 days	Wed 11/5/22	Fri 30/9/22	120 days	Tue 26/7/22	Thu 15/12/22	NA	NA	553FS+2 days,184	558,54FF	1 day		0%
558	CLW-2000	SW3	Hard Landscaping Works			220 days	Mon 3/10/22	Mon 3/7/23	214 days	Tue 11/4/23	Sat 23/12/23	NA	NA	557,555SS+123 days	559,58FF	-88 days	5	0%
559	CLW-3000	SW3	Soft Landscaping Works			220 days	Tue 4/7/23	Tue 26/3/24	214 days	Wed 27/12/23	Tue 24/9/24	NA	NA	558,143	560,58FF	-88 days	5	0%
560	CLW-4000	DLP	Establishment Works (365 days)			294 days	Wed 27/3/24	Thu 27/3/25	365 days	Wed 25/9/24	Wed 24/9/25	NA	NA	559,143	59FF,60FF	0 days	5	0%



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
SWH - Main Works Stage 1 Sidestream Treatment Facilities & E&M Works for Sludge Treatment Facilities									
Contract Data									
Starting Date & Completion Date									
AS000010	Contract Date (LOA)	0	11-Oct-19 A		14-Sep-21				AS000020, AS103100,
AS000020	Starting Date	0	23-Oct-19 A		14-Sep-21			AS000010	AS102100, AS001300,
AS000110	Whole Contract Period (1626 days from starting date)	1626	23-Oct-19 A	04-Apr-24	21-Jan-22	04-Apr-24	0	AS000020	AS000220, AS000120I
AS000120I	Extension of Time Granted (Total 19.5days)	20	05-Apr-24	24-Apr-24*	05-Apr-24	24-Apr-24	0	AS000110	AS000220
AS000220	Completion Date for the whole of the Works	0		05-Jun-24		05-Jun-24	0	AS000110, AS000020,	
Access Date									
AS001100	Portion C-1A (within 480 to 550 days from starting date)	550	23-Oct-19 A	24-Apr-21 A	05-Jan-22	05-Jan-22		AS000020	AS001120
AS001120	Planned Access Date for Portion C-1A	1	24-Apr-21 A	24-Apr-21 A	05-Jan-22	05-Jan-22		AS000020, AS001100	AS013300, AS106100
AS001200	Portion C-2A (within 705 to 795 days from starting date) (SS by NCE-NCE-288, within 705 to 831 days from starting date)	831	23-Oct-19 A	30-Jan-22	18-Jan-22	28-Jan-22	-3	AS000020	AS001220
AS001220	Planned Access Date for Portion C-2A	1	30-Jan-22	30-Jan-22*	27-Jan-22	28-Jan-22	-3	AS000020, AS001200	AS502160, AS502440,
AS001300	Portion C-2B (within 765 to 855 days from starting date)	855	23-Oct-19 A	23-Feb-22	21-Jan-22	23-Feb-22	0	AS000020	AS001320
AS001320	Planned Access Date for Portion C-2B	1	23-Feb-22	23-Feb-22*	23-Feb-22	23-Feb-22	0	AS000020, AS001300	AS503100, AS503160
AS001400	Portion C-2C (within 715 to 805 days from starting date) (SS by NCE-NCE-287, within 715 to 934 days from starting date)	934	23-Oct-19 A	13-May-22	14-Sep-21	04-Jan-22	-129	AS000020	AS001420
AS001420	Planned Access Date for Portion C2-C	1	13-May-22	13-May-22*	04-Jan-22	04-Jan-22	-129	AS000020, AS001400	AS503500, AS503600,
AS001500	Portion C-2D (within 825 to 945 days from starting date)	945	23-Oct-19 A	24-May-22	21-Jan-22	24-May-22	0	AS000020	AS001520
AS001520	Planned Access Date for Portion C-2D	1	24-May-22	24-May-22*	24-May-22	24-May-22	0	AS001500	AS504500, AS504520,
AS001600	Portion C-3 (within 615 to 705 days from starting date) (SS by NCE-NCE-273, within 615 to 815 days from starting date)	815	23-Oct-19 A	31-Dec-21 A	04-Feb-22	04-Feb-22		AS000020	AS001620
AS001620	Planned Access Date for Portion C-3 (SS by NCE-NCE-273)	1	31-Dec-21 A	31-Dec-21 A	04-Feb-22	04-Feb-22		AS001600, AS020230	AS002060, AS504000,
AS001700	Portion B-1 (within 285 to 345 days from starting date)	345	23-Oct-19 A	30-Sep-20 A	11-Dec-21	11-Dec-21		AS000020	AS001720
AS001720	Planned Access Date for Portion B-1	1	30-Sep-20 A	30-Sep-20 A	11-Dec-21	11-Dec-21		AS001700	AS002050, AS161120,
AS001800	Portion B-2a (within 615 to 705 days from starting date) (SS by NCE-NCE-219, within 771 to 891 days from starting date)	891	23-Oct-19 A	31-Mar-22	21-Jan-22	31-Mar-22	0	AS000020	AS001820
AS001820	Planned Access Date for Portion B-2a (SS by NCE-NCE-219)	1	31-Mar-22	31-Mar-22*	31-Mar-22	31-Mar-22	0	AS001800	AS505600
AS001830	Portion B-2b (within 615 to 705 days from starting date) (SS by NCE-NCE-219)	705	23-Oct-19 A	24-Sep-21 A	05-Jun-24	05-Jun-24			
AS001840	Planned Access Date for Portion B-2b (SS by NCE-NCE-219)	1	24-Sep-21 A	24-Sep-21 A	05-Jun-24	05-Jun-24			
AS001900	Works Area WA1-B (starting date)	1	23-Oct-19 A	23-Oct-19 A	05-Feb-22	05-Feb-22		AS000020	AS001910
AS001910	Planned Access Date for Works Area WA1-B	1	23-Oct-19 A	23-Oct-19 A	05-Feb-22	05-Feb-22		AS000020, AS001900	AS010100, AS010205a
AS001920	Works Area WA3 (starting date)	1	23-Oct-19 A	23-Oct-19 A	05-Feb-22	05-Feb-22		AS000020	AS001930
AS001930	Planned Access Date for Works Area WA3	1	23-Oct-19 A	23-Oct-19 A	05-Feb-22	05-Feb-22		AS000020, AS001920	AS010100, AS010210
Key Dates									
AS002010	KD1A Submission of Civil Requirement Dwgs, Elec. Schematic Dwgs of UV System No.1 and Effluent Pumping Station No.1	196	23-Oct-19 A	05-May-20 A	16-Jan-22	16-Jan-22		AS000020, AS102100,	AS000220, AS104100
AS002020	KD2A Submission of Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, Workshop No.2, etc.	226	23-Oct-19 A	04-Jun-20 A	05-Jun-24	05-Jun-24		AS000020, AS020200,	AS002040
AS002040	KD2B Submission of Remaining Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, etc.	461	23-Oct-19 A	15-Jan-21 A	05-Jun-24	05-Jun-24		AS000020, AS020300,	AS003220
AS002050	KD3A Completion of Phase 1 Commissioning of Sidestream Treatment Facilities (1140d after Portion B-1 Access)	1141	30-Sep-20 A	14-Nov-23*	21-Jan-22	14-Nov-23	0	AS001720	AS002050j
AS002050j	Revised KD3A Completion Date (Impacted by Inclement Weather)	58	19-Nov-23	15-Jan-24*	19-Nov-23	15-Jan-24	0	AS002050, AS155210e	AS003320

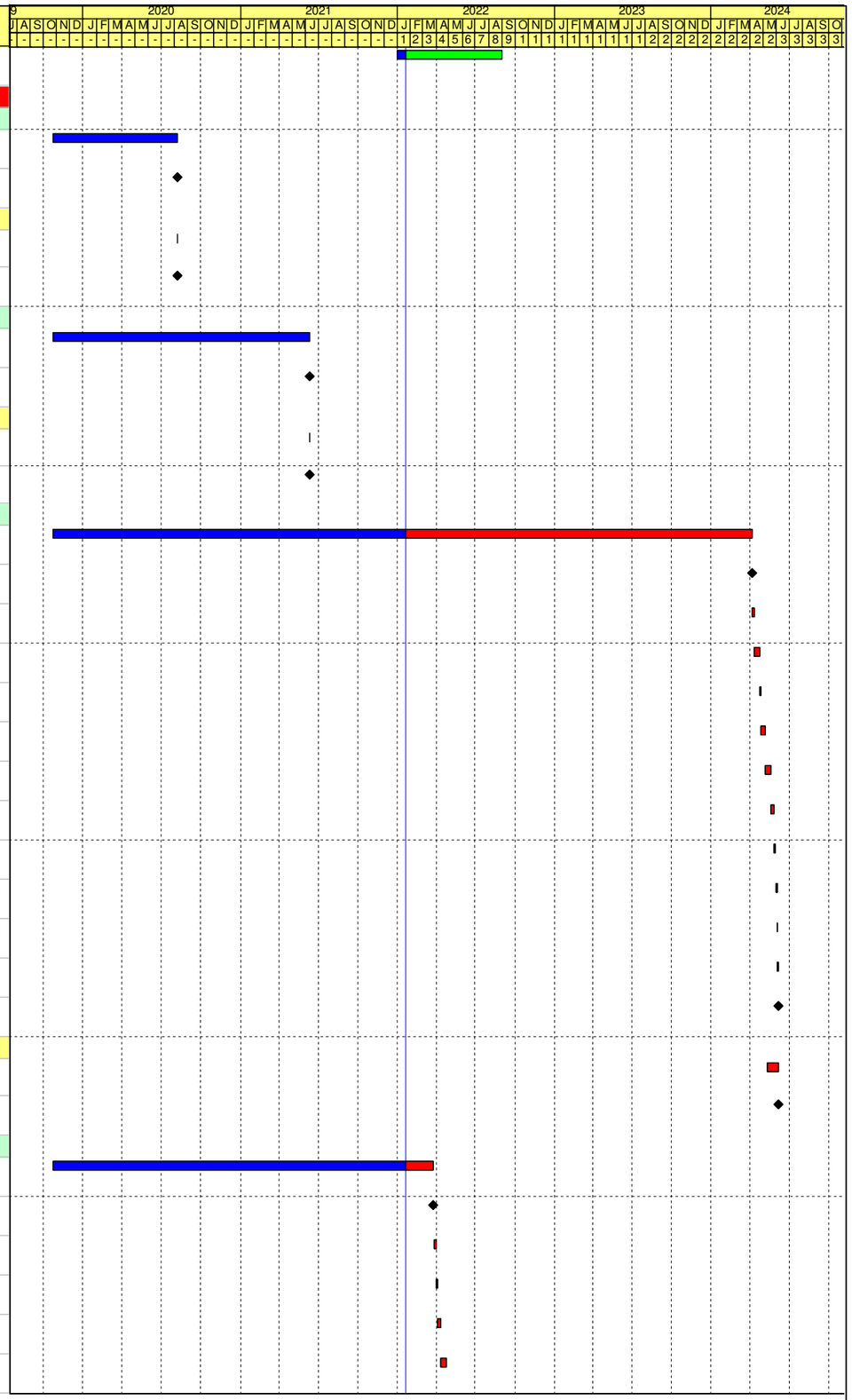


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Jan 2022

Date	Revision	Checked	Approved
30-Sep-21	Rev.14	LT	KM
31-Oct-21	Rev.15	LT	KM
30-Nov-21	Rev.16	LT	KM
31-Dec-21	Rev.17	LT	KM
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS002060	KD5A - Completion of BS Fitting at CLP Sub-Station at Workshop No.2 (245d after Portion C-3 Access)(Impacted by NCE-273)	246	31-Dec-21 A	02-Sep-22*	04-Feb-22	16-Sep-22	14	AS001620, AS504100	
Completion Date									
Section 1 - Complete All Design at UV System No.1 & EP Station No. 1									
AS003100	Contract Duration of Section 1	291	23-Oct-19 A	08-Aug-20 A	05-Jun-24	05-Jun-24		AS000020	AS003110
AS003110	Completion date - Section 1 (290 days after starting date)	0		08-Aug-20 A		05-Jun-24		AS003100	AS003130
Time Risk Allowance and Planned Completion									
AS003105	Time Risk Allowance for Section 1	1	08-Aug-20 A	08-Aug-20 A	05-Jun-24	05-Jun-24		AS103100, AS103200,	AS003130
AS003130	Planned Completion for Section 1	0		08-Aug-20 A		05-Jun-24		AS003105, AS003110	AS000220
Section 2 - Complete All Designs (exclude Sec. 1 & 3)									
AS003200	Contract Duration of Section 2	601	23-Oct-19 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS000020	AS003210
AS003210	Completion date - Section 2 (600 days after starting date)	0		11-Jun-21 A		05-Jun-24		AS003200	AS003230
Time Risk Allowance and Planned Completion									
AS003220	Time Risk Allowance for Section 2	6	11-Jun-21 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS023100, AS023120,	AS003230
AS003230	Planned Completion for Section 2	0		11-Jun-21 A		05-Jun-24		AS003220, AS003210,	AS000220
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities									
AS003300	Contract Duration of Section 3	1626	23-Oct-19 A	04-Apr-24	21-Jan-22	04-Apr-24	0	AS000020	AS003310
AS003310	Completion date - Section 3 (1625 days after starting date)	0		04-Apr-24*		04-Apr-24	0	AS003300	AS003320, AS003311j
AS003311j	NICE-CNE-0248 - Inclement Weather (May 2021) - 5days (Implemented)	5	05-Apr-24	09-Apr-24	05-Apr-24	09-Apr-24	0	AS003310	AS003312k
AS003312k	NICE-CNE-0256 Inclement Weather (June 2021) - 14.5days (Implemented)	15	10-Apr-24	24-Apr-24	10-Apr-24	24-Apr-24	0	AS003311j	AS003313k
AS003313k	CNE-007 Black and Red Rainstorm Warning (June 2021) - 1day	1	24-Apr-24	25-Apr-24	24-Apr-24	25-Apr-24	0	AS003312k	AS003314k
AS003314k	CNE-009 Inclement Weather (July 2021) - 10days	10	25-Apr-24	05-May-24	25-Apr-24	05-May-24	0	AS003313k	AS003315k
AS003315k	CNE-013 Inclement Weather (August 2021) - 12.5days	13	05-May-24	17-May-24	05-May-24	17-May-24	0	AS003314k	AS003316k
AS003316k	CNE-017 Inclement Weather (September 2021) - 7.5days	8	18-May-24	25-May-24	18-May-24	25-May-24	0	AS003315k	AS003317k
AS003317k	CNE-019 Inclement Weather (October 2021) - 4.5days	5	25-May-24	29-May-24	25-May-24	29-May-24	0	AS003316k	AS003318k
AS003318k	CNE-020 Inclement Weather (October 2021) (Time and Cost Implication) - 3 days	3	30-May-24	01-Jun-24	30-May-24	01-Jun-24	0	AS003317k	AS003319m
AS003319m	CNE-027 Inclement Weather (November 2021) - 1.5days	2	02-Jun-24	03-Jun-24	02-Jun-24	03-Jun-24	0	AS003318k	AS003320m
AS003320m	CNE-031 Inclement Weather (December 2021) - 2.5days	3	03-Jun-24	05-Jun-24	03-Jun-24	05-Jun-24	0	AS003319m	AS003400k
AS003400k	Planned Completion for Section 3 (Include EOT)	0		05-Jun-24		05-Jun-24	0	AS003320m	
Time Risk Allowance and Planned Completion									
AS003320	Time Risk Allowance for Section 3	26	11-May-24	05-Jun-24	29-Mar-24	24-Apr-24	-43	AS003310, AS161260,	AS003330
AS003330	Planned Completion for Section 3	0		05-Jun-24*		24-Apr-24	-43	AS003320	AS000220
Section 4 - Complete Construction & T&C for UV System No.1 & EP Station No. 1									
AS003400	Contract Duration of Section 4	886	23-Oct-19 A	26-Mar-22	21-Jan-22	26-Mar-22	0	AS000020	AS003410
AS003410	Completion date - Section 4 (885 days after starting date)	0		26-Mar-22*		26-Mar-22	0	AS003400	AS003420, AS003411l
AS003411l	NICE-CNE-0256 Inclement Weather (June 2021) - 6.5days (Implemented)	7	27-Mar-22	02-Apr-22	27-Mar-22	02-Apr-22	0	AS003410	AS106113l, AS003412l
AS003412l	CNE-007 Black and Red Rainstorm Warning (June 2021) - 1day	1	02-Apr-22	03-Apr-22	02-Apr-22	03-Apr-22	0	AS003411l	AS106113l
AS106113l	CNE-009 Inclement Weather (July 2021) - 10days	10	03-Apr-22	13-Apr-22	03-Apr-22	13-Apr-22	0	AS003411l, AS003412l	AS106114l
AS106114l	CNE-013 Inclement Weather (August 2021) - 12.5days	13	13-Apr-22	25-Apr-22	13-Apr-22	25-Apr-22	0	AS106113l	AS106115l



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30-Sep-21	Rev.14	LT	KM
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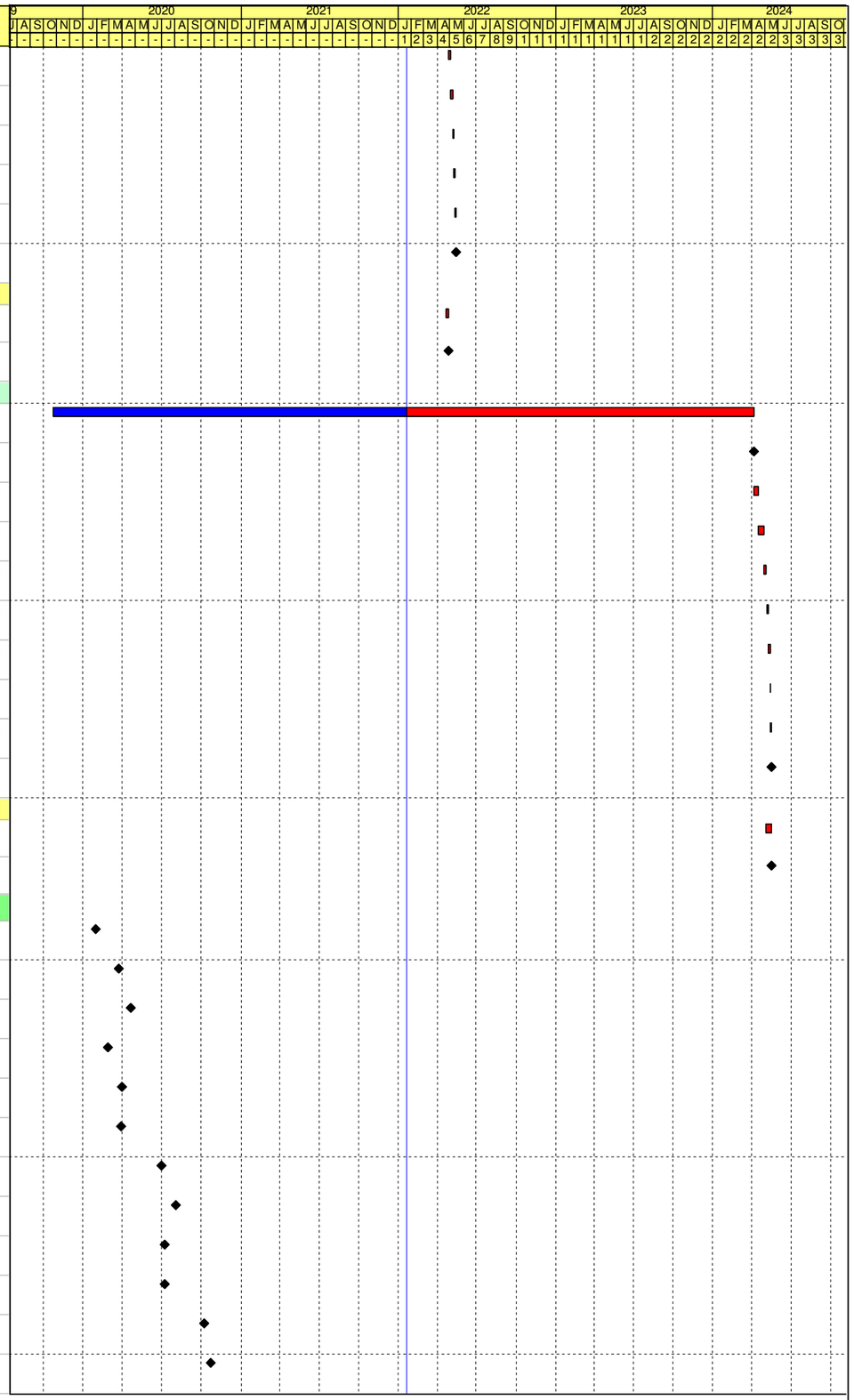
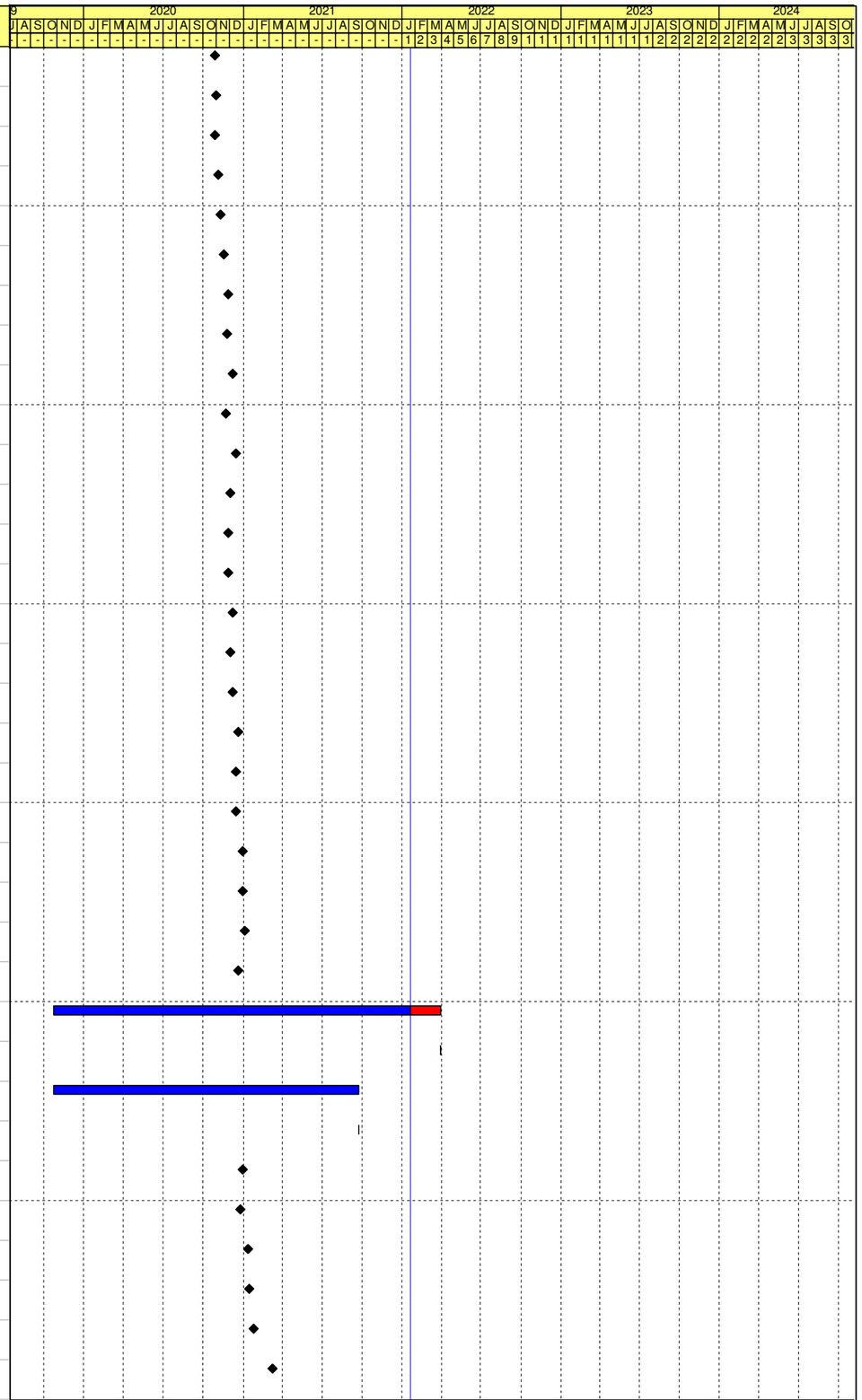
30-Nov-21	Rev.16	LT	KM
31-Dec-21	Rev.17	LT	KM
31-Jan-22	Rev.18	LT	KM

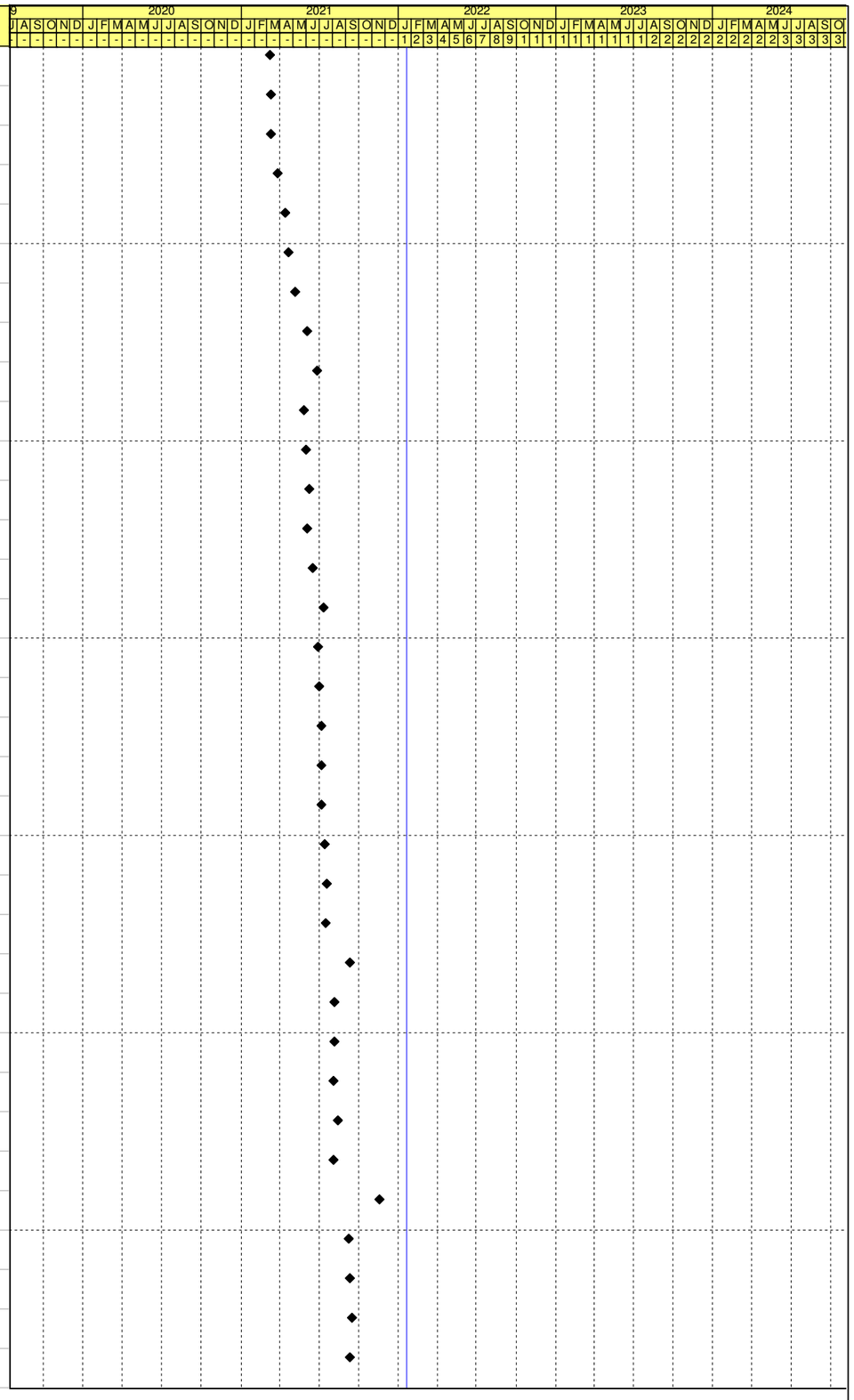
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS106115l	CNE-017 Inclement Weather (September 2021) - 7.5days	8	26-Apr-22	03-May-22	26-Apr-22	03-May-22	0	AS106114l	AS106116l
AS106116l	CNE-019 Inclement Weather (October 2021) - 4.5days	5	03-May-22	07-May-22	03-May-22	07-May-22	0	AS106115l	AS106117l
AS106117l	CNE-020 Inclement Weather (October 2021) (Time and Cost Implication) - 3 days	3	08-May-22	10-May-22	08-May-22	10-May-22	0	AS106116l	AS106118m
AS106118m	CNE-027 Inclement Weather (November 2021) - 1.5days	2	11-May-22	12-May-22	11-May-22	12-May-22	0	AS106117l	AS106119m
AS106119m	CNE-031 Inclement Weather (December 2021) - 2.5days	3	12-May-22	14-May-22	12-May-22	14-May-22	0	AS106118m	AS106200l
AS106200l	Planned Completion for Section 4 (Include EOT)	0		14-May-22*		14-May-22	0	AS106119m	
Time Risk Allowance and Planned Completion									
AS003420	Time Risk Allowance for Section 4	7	21-Apr-22	27-Apr-22	26-Mar-22	02-Apr-22	-26	AS003410, AS106240,	AS003430
AS003430	Planned Completion for Section 4	0		27-Apr-22*		02-Apr-22	-26	AS003420	AS000220
Section 5 - Complete all remaining Works (incl. T&C)									
AS003500	Contract Duration of Section 5	1626	23-Oct-19 A	04-Apr-24	21-Jan-22	04-Apr-24	0	AS000020	AS003510
AS003510	Completion date - Section 5 (1625 days after starting date)	0		04-Apr-24*		04-Apr-24	0	AS003500	AS003520, AS003511m
AS003511m	CNE-009 Inclement Weather (July 2021) - 10days	10	05-Apr-24	14-Apr-24	05-Apr-24	14-Apr-24	0	AS003510	AS003512m
AS003512m	CNE-013 Inclement Weather (August 2021) - 12.5days	13	15-Apr-24	27-Apr-24	15-Apr-24	27-Apr-24	0	AS003511m	AS003513m
AS003513m	CNE-017 Inclement Weather (September 2021) - 7.5days	8	27-Apr-24	04-May-24	27-Apr-24	04-May-24	0	AS003512m	AS003514m
AS003514m	CNE-019 Inclement Weather (October 2021) - 4.5days	5	05-May-24	09-May-24	05-May-24	09-May-24	0	AS003513m	AS003515m
AS003515m	CNE-020 Inclement Weather (October 2021) (Time and Cost Implication) - 3 days	3	09-May-24	12-May-24	09-May-24	12-May-24	0	AS003514m	AS003516m
AS003516m	CNE-027 Inclement Weather (November 2021) - 1.5days	2	12-May-24	13-May-24	12-May-24	13-May-24	0	AS003515m	AS003517n
AS003517n	CNE-031 Inclement Weather (December 2021) - 2.5days	3	14-May-24	16-May-24	14-May-24	16-May-24	0	AS003516m	AS003600m
AS003600m	Planned Completion for Section 5 (Include EOT)	0		16-May-24*		16-May-24	0	AS003517n	
Time Risk Allowance and Planned Completion									
AS003520	Time Risk Allowance for Section 5	13	04-May-24	16-May-24	23-Mar-24	04-Apr-24	-42	AS003510, AS509200,	AS003530
AS003530	Planned Completion for Section 5	0		16-May-24*		04-Apr-24	-42	AS003520, AS013440f,	AS000220
Compensation Event									
CE000001	CE No.001 - Special Work Arrangement in Reducing the Risk of the Spread of Novel Coronavirus	0		30-Jan-20 A		05-Jun-24			
CE000002	CE No.002 - The Contractor's Site Accomodation by Modular Integrated Construction (MIC) Method	0		23-Mar-20 A		05-Jun-24			
CE000003	CE No.003 - Flowmeter Relocation & Pipework Rearrangement at Effluent Transfer Pumping Station	0		20-Apr-20 A		05-Jun-24			
CE000004	CE No.004 - Designated Area for the Contractor's Site Accommodation in Works Area WA1	0		26-Feb-20 A		05-Jun-24			
CE000005	CE No.005 - Revised Size of Penstock at UV System No.1 & Effluent Pumping Station No.1 for Ex. Outfall	0		30-Mar-20 A		05-Jun-24			
CE000006	CE No.006 - Additional Duty Point for Effluent Transfer Pumps	0		27-Mar-20 A		05-Jun-24			
CE000007	CE No.007 - Additional Adjustable Weir at UV System No.1 & Effluent Pumping Station No.1	0		30-Jun-20 A		05-Jun-24			
CE000008	CE No.008 - Provision of Additional 2nd Temp. Power Supply for UV System No.1 & Effluent Pumping Station No.1	0		03-Aug-20 A		05-Jun-24			
CE000009	CE No.009 - Employment of Temporary Staff under Anti-Epidemic Fund	0		07-Jul-20 A		05-Jun-24			
CE000010	CE No.010 - Revised Setting Out Plan for Sidestream Treatment Facilities	0		07-Jul-20 A		05-Jun-24			
CE000012	CE No.012 - Provision of Touchscreen Display System for the Project Manager's Office	0		06-Oct-20 A		05-Jun-24			
CE000013	CE No.013 - Feasibility Study for Adopting emMiC & DfMA	0		22-Oct-20 A		05-Jun-24			



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
CE000014	CE No.014 - Revised FS Water Supply Arrangement for CHP, Guard House, Workshop No.2, SludgeDigester&DistributionChamber	0		28-Oct-20 A		05-Jun-24			
CE000015	CE No.015 - Revised Plumbing Arranagement for Workshop No.2, UV & Effluent No.1, CHP, SPS&FCDF, DOU No.11&12, H2S, SDDC	0		30-Oct-20 A		05-Jun-24			
CE000016	CE No.016 - Elect. Provisions for Addit. 800A ACB w/ CMPD as Standby Supply for MBBR for UV No.2 for Future Expansion	0		28-Oct-20 A		05-Jun-24			
CE000018	CE No.018 - MVAC Layout for Plant Service Water System	0		05-Nov-20 A		05-Jun-24			
CE000020	CE No.020 - Addit. set of 11kV power feeder panel at 11kV SB in CHP for future connection to Zone B in Stage 2	0		09-Nov-20 A		05-Jun-24			
CE000201	NCE-PMI-0201 - Provision of Access Platform for EOT cranes in UV System No.1 & Effluent Pumping Station No.1	0		16-Nov-20 A		05-Jun-24			
CE000202	NCE-PMI-0202 - Revised Plumbing Arrangement for Sludge Dewatering Building	0		26-Nov-20 A		05-Jun-24			
CE000203	NCE-PPMI-0203 - MVAC Layout for SAS Pumping Station	0		25-Nov-20 A		05-Jun-24			
CE000204	NCE-PMI-0204 - CHP - Provisional of Additional ATS for Power Supply for UPS	0		08-Dec-20 A		05-Jun-24			
CE000205	NCE-PPMI-0205 - Fibre Optics Network Connection for SCADA Systems between Zone B & Zone C	0		23-Nov-20 A		05-Jun-24			
CE000206	NCE-PMI-0206 - SDB - Provisional of Additional ATS for Power Supply for UPS	0		15-Dec-20 A		05-Jun-24			
CE000207	NCE-PMI-0207 - TX Rm & Switch Rm - Provision of ATS for Power Supply for UPS	0		01-Dec-20 A		05-Jun-24			
CE000208	NCE-PPMI-0208 - Provision of Drainage service Layout for SAS Pumping Station	0		26-Nov-20 A		05-Jun-24			
CE000209	NCE-PPMI-0209 - Drainage System for Plant Service Water System	0		26-Nov-20 A		05-Jun-24			
CE000210	NCE-PPMI-0210 - Electrical provisions for MVAC & Drainage Systems in SAS Pumping Station	0		08-Dec-20 A		05-Jun-24			
CE000211	NCE-PPMI-0211 - Revised MVAC Layout & Electrical Provisions for MVAC in TX and Switch Rm	0		02-Dec-20 A		05-Jun-24			
CE000212	NCE-PMI-0212 - Provision of Louvre Panel for Outdoor AC Units at Contractor's Site Accomodation	0		07-Dec-20 A		05-Jun-24			
CE000213	NCE-PPMI-0213 - Electrical provisions for MVAC & Drainage System in UV System No.1 & Effluent Pumping Station No.1	0		21-Dec-20 A		05-Jun-24			
CE000214	NCE-PPMI-0214 - Additional Sump Pump & Drain Pipes at UV System No.1 & Effluent Pumping Station	0		14-Dec-20 A		05-Jun-24			
CE000215	NCE-PPMI-0215 - Revised MVAC Layout for UV System No.1 & Effluent Pumping Station No.1	0		14-Dec-20 A		05-Jun-24			
CE000216	NCE-PPMI-0216 - Electrical Provisions for MVAC & drainage Sytems in Plant Service Water System	0		31-Dec-20 A		05-Jun-24			
CE000217	NCE-PMI-0217 - Revised Duty Points for Effluent Transfer Pumps	0		29-Dec-20 A		05-Jun-24			
CE000218	NCE-PMI-0218 - Scoping Study for Application of Digital Twin & IoT in Zone B & Zone C of SWHEPP	0		04-Jan-21 A		05-Jun-24			
CE000219	NCE-NCE-0219 - Change of Site Access Date to SAS Pumping Station Forming Part of Portion B-2 of the Site	0		19-Dec-20 A		05-Jun-24			
CE000219a	NCE-NCE-0219 - Portion B-2a (within 771 to 891 days from starting date)	891	23-Oct-19 A	31-Mar-22	21-Jan-22	31-Mar-22	0	AS000020	CE000219b
CE000219b	NCE-NCE-0219 - Revised Access Date for Portion B-2a	1	31-Mar-22	31-Mar-22*	31-Mar-22	31-Mar-22	0	CE000219a	AS505600
CE000219c	NCE-NCE-0219 - Portion B-2b (within 615 to 705 days from starting date)	705	23-Oct-19 A	24-Sep-21 A	26-May-22	26-May-22			CE000219d
CE000219d	NCE-NCE-0219 - Revised Access Date for Portion B-2b	1	24-Sep-21 A	24-Sep-21 A	26-May-22	26-May-22		CE000219c	AS506500h
CE000220	NCE-PMI-0220 - Supply of Puddle Pipes for Effluent to Shek Sheung River	0		30-Dec-20 A		05-Jun-24			
CE000221	NCE-PPMI-0221 - General Arrangement for Fire Hydrant & Booster Pump Room	0		24-Dec-20 A		05-Jun-24			
CE000222	NCE-PMI-0222 - Revised Water Supply Arrangement (FS Water) to Sludge Dewatering Building	0		12-Jan-21 A		05-Jun-24			
CE000223	NCE-PMI-0223 - Construction of Trial Pits for Sidestream Treatment Facilities	0		15-Jan-21 A		05-Jun-24			
CE000224	NCE-PMI-0224 - Independent Inspection Body (IIB) for the Factory Acceptance Test (FAT) for UV Disinfeciton System	0		25-Jan-21 A		05-Jun-24			
CE000225	NCE-PMI-0225 - Supply of Ductile Iron Puddle Pipes at the Basement of Sludge Dewatering Building	0		09-Mar-21 A		05-Jun-24			



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
CE000226	NCE-PMI-0226 - Provision of Solar Water Heating System at the Contractor's Site Accomodation	0		09-Mar-21 A		05-Jun-24			
CE000227	NCE-PMI-0227 - Dual Power Fedder for LV Switch Panel at Sewage Pumping Station	0		11-Mar-21 A		05-Jun-24			
CE000228	NCE-PMI-0228 - Provision of Effluent Pipes and Associated Valve and Supply of Supports for Effluent to Shek Sheung River	0		11-Mar-21 A		05-Jun-24			
CE000230	NCE-PMI-0230 - Provision of Project Jackets with Fleece Vests	0		26-Mar-21 A		05-Jun-24			
CE000231	NCE-PMI-0231 - Extension of Sampling Pipe From Low Level on Sludge Digesters	0		12-Apr-21 A		05-Jun-24			
CE000232	NCE-PMI-0232 - Dual Power Fedder for LV Switch Panel at 1/F LV Switch Room of Combined Heat and Power (CHP) Building	0		22-Apr-21 A		05-Jun-24			
CE000233	NCE-PMI-0233 - Sampling, Simulating and Testing of Existing Sludge for Obtaining the Viscosity of the Mixed Sludge	0		06-May-21 A		05-Jun-24			
CE000234	NCE-PMI-0234 - Provision of FRP Walkway, Access Platform & Handrailing for Sludge Digester No. 2	0		02-Jun-21 A		05-Jun-24			
CE000237	NCE-CNE-0237 - Provision of Inspectin Windows for Sludge Digester	0		25-Jun-21 A		05-Jun-24			
CE000238	NCE-PMI-0238 - Supply of Stainless Steel Puddle Pipes for Surplus Activated Sludge (SAS) Pumping Station	0		27-May-21 A		05-Jun-24			
CE000239	NCE-PMI-0239 - Revised the Arrangement for Process Water Supply and Plant Services Water System	0		01-Jun-21 A		05-Jun-24			
CE000240	NCE-PMI-0240 - Revised Coping and Invert Levels for Penstock and Stoplog of SAS Pumping Station	0		09-Jun-21 A		05-Jun-24			
CE000241	NCE-PMI-0241 - Revised Diesel Fuel Tank at Combined Heat and Power (CHP) Building	0		04-Jun-21 A		05-Jun-24			
CE000242	NCE-PMI-0242 - Revised Fire Services Provision of UV System No. 1 and Effluent Pumping Station No. 1	0		15-Jun-21 A		05-Jun-24			
CE000243	NCE-PMI-0243 - Provision of Flow Signal Inputs for UV Disinfection System	0		12-Jul-21 A		05-Jun-24			
CE000244	RCNE-CNE-0244 - Access to and use of portion C-1A	0		29-Jun-21 A		05-Jun-24			
CE000245	NCE-PMI-0245 - Provision of Augmented Reality (AR) Mobile Application	0		30-Jun-21 A		05-Jun-24			
CE000246	NCE-PMI-0246 - Revised HV Remote Control Panels at CHP & Workshop No. 2	0		06-Jul-21 A		05-Jun-24			
CE000247	NCE-PMI-0247 - Temporary 4G System for SCADA System Monitoring	0		07-Jul-21 A		05-Jun-24			
CE000248	NCE-PMI-0248 - Inclement Weather - May 2021 (Time Implication)	0		05-Jul-21 A		05-Jun-24			
CE000250	NCE-PMI-0250 - Provision of Front Access LV Switch Panel in the LV Switch Room on G/F Workshop No. 2	0		14-Jul-21 A		05-Jun-24			
CE000252	NCE-PMI-0252 - Provision of Neutral Earthing Resistor (NER) at Workshop No. 2	0		19-Jul-21 A		05-Jun-24			
CE000253	NCE-PMI-0253 - Provision of Building Services Systems in New LV Switch Room on the G/F Workshop No. 2	0		16-Jul-21 A		05-Jun-24			
CE000254	NCE-CNE-0254 - Removal of Obstructions at Trail Pit No. 3 at Sidestreamt Facilities	0		10-Sep-21 A		05-Jun-24			
CE000256	RCNE-CNE-0256 - Amber Rainstrom Warning and Inclement Weather - June 2021 (Time Implication)	0		05-Aug-21 A		05-Jun-24			
CE000257	RCNE-CNE-0257 - Black and Red Rainstrom Warning - June 2021 (Time & Cost Implication)	0		05-Aug-21 A		05-Jun-24			
CE000258	NCE-PMI-0258 - Provision of FRP Cover for Overflow Chambers of Sludge Digesters	0		04-Aug-21 A		05-Jun-24			
CE000259	NCE-PMI-0259 - Provision of Virtual Reality (VR) Safety Training Platform	0		13-Aug-21 A		05-Jun-24			
CE000260	NCE-PMI-0260 - Provision of Chequer Plates at UV System No. 1 & Effluent Pumping Station No. 1	0		04-Aug-21 A		05-Jun-24			
CE000262	NCE-PMI-0262 - Emergency Access Door for Lift at Sludge Dewatering Building	0		18-Nov-21 A		05-Jun-24			
CE000263	NCE-PMI-0263 - Upgrade of the Supporting Frame of 1st and 2nd Stage Heat Exchangers for Future Expansion of THP System	0		07-Sep-21 A		05-Jun-24			
CE000264	RCNE-CNE-0264 - Inclement Weather - July 2021 (Time Implication)	0		10-Sep-21 A		05-Jun-24			
CE000265	NCE-PMI-0265 - Water Supply to Emergency Drench Shower and Eye Fountain at Deodorization System No. 11	0		16-Sep-21 A		05-Jun-24			
CE000269	NCE-PMI-0269 - Additional Cleansing Points at Sludge Skip Area of Sludge Dewatering Building	0		10-Sep-21 A		05-Jun-24			

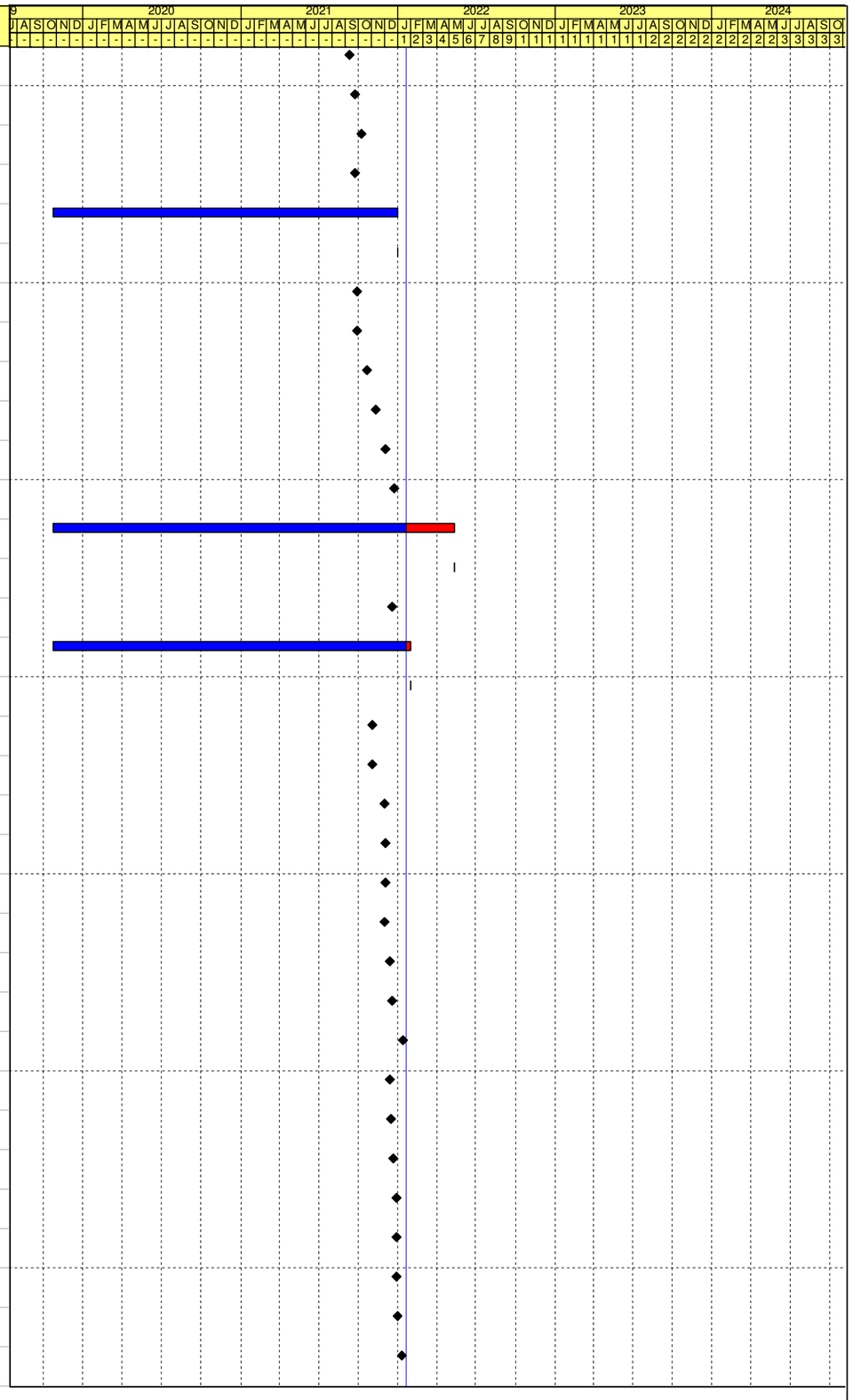


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Jan 2022

Date	Revision	Checked	Approved
30-Sep-21	Rev.14	LT	KM
31-Oct-21	Rev.15	LT	KM
30-Nov-21	Rev.16	LT	KM
31-Dec-21	Rev.17	LT	KM
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
CE000270	NCE-CNE-0270 - Extra sampling, simulating & testing of exiting sludge for obtaining the viscosity of the existing sludge	0		10-Sep-21 A		05-Jun-24			
CE000271	NCE-PMI-0271 - Provision of Access Platform for the EOT Crane (LA-01-02) in Sludge Dewatering Building	0		23-Sep-21 A		05-Jun-24			
CE000272	NCE-PMI-0272 - Employment of Temporary Staff under Job Creation Scheme 2.0 (JCS 2.0) under Anti-Epidemiv Fund (AEF)	0		08-Oct-21 A		05-Jun-24			
CE000273	NCE-NCE-0273 - Change of Site Access Date to Workshop No. 2 Forming Part of Portion C-3 of the Site	0		24-Sep-21 A		05-Jun-24			
CE000273a	NCE-NCE-0273 - Portion C-3 (within 615 to 815 days from starting date)	815	23-Oct-19 A	31-Dec-21 A	05-Jun-24	05-Jun-24			CE000273b
CE000273b	NCE-NCE-0273 - Revised Access Date for Portion C-3	1	31-Dec-21 A	31-Dec-21 A	05-Jun-24	05-Jun-24		CE000273a	
CE000275	NCE-PMI-0275 - Additional Lighting Fittings for UV System No.1 & Effluent Pumping Station No.1	0		29-Sep-21 A		05-Jun-24			
CE000277	NCE-PMI-0277 - Provision of Access Platform for the EOT Crane (LA-01-03) in Sludge Dewatering Building	0		27-Sep-21 A		05-Jun-24			
CE000280	NCE-PMI-0280 - Employment of Temporary Staff under Job Creation Scheme 2.0 (JCS 2.0) under Anti-Epidemiv Fund (AEF)	0		21-Oct-21 A		05-Jun-24			
CE000283	NCE-PMI-0283 - Provision of Metal Base Plate,Stopper&Guide Rail for Loading&Unloading of Sludge Skip at Skip Rm of SDB	0		11-Nov-21 A		05-Jun-24			
CE000284	NCE-PMI-0284 - Revised Road Lighting System for Zone C	0		03-Dec-21 A		05-Jun-24			
CE000287	NCE-NCE-0287 - Change of Site Access Date to Sludge Digester & Distribution Chamber Forming Part of Portion C- 2C	0		24-Dec-21 A		05-Jun-24			
CE000287a	NCE-NCE-0287 - Portion C-2C (within 715 to 934 days from starting date)	934	23-Oct-19 A	13-May-22	21-Jan-22	13-May-22	0		CE000287b
CE000287b	NCE-NCE-0287 - Revised Access Date for Portion C2-C	1	13-May-22	13-May-22*	13-May-22	13-May-22	0	CE000287a	
CE000288	NCE-NCE-0288 - Change of Site Access Date to Sludge Dewatering Building Forming Part of the Portion C- 2A of the site	0		18-Dec-21 A		05-Jun-24			
CE000288a	NCE-NCE-0288 - Portion C-2A (within 705 to 831 days from starting date)	831	23-Oct-19 A	30-Jan-22	21-Jan-22	30-Jan-22	0		CE000288b
CE000288b	NCE-NCE-0288 - Revised Access Date for Portion C-2A	1	30-Jan-22	30-Jan-22*	30-Jan-22	30-Jan-22	0	CE000288a	
CE000292	RCNE-CNE-0292 - Inclement Weather - August 2021 (Time Implication)	0		02-Nov-21 A		05-Jun-24			
CE000293	RCNE-CNE-0293 - Inclement Weather - September 2021 (Time Implication)	0		02-Nov-21 A		05-Jun-24			
CE000294	NCE-PMI-0294 - IIB for FAT for THP System	0		30-Nov-21 A		05-Jun-24			
CE000296	NCE-PMI-0296 - Provision of emMiC Adoption of FRP Walkway and Platform for Sludge Digesters	0		03-Dec-21 A		05-Jun-24			
CE000297	NCE-PMI-0297-Provision of Addit. Module BIM Collaboration Pro to existing CDE&Omission of Procurement Maintenance of CDE	0		03-Dec-21 A		05-Jun-24			
CE000298	NCE-PMI-0298 - Additional Light Fittings at Roof Floor of UV System No.1 & Effluent Pumping Station No.1	0		30-Nov-21 A		05-Jun-24			
CE000299	NCE-PMI-0299 - Revised Plumbing Layout for UV System No.1 & Effluent Pumping Station No.1	0		14-Dec-21 A		05-Jun-24			
CE000302	NCE-PMI-0302 - Revised Lighting Layout Plan for Workshop No.2	0		17-Dec-21 A		05-Jun-24			
CE000305	NCE-PMI-0305 - Process Review for Advance Works	0		12-Jan-22 A		05-Jun-24			
CE000307	NCE-PMI-0307 - Revised Quantity for Stoplogs of Sewage Pumping Station	0		13-Dec-21 A		05-Jun-24			
CE000309	RCNE-CNE-0309 - Inclement Weather - October 2021 (Time Implication)	0		16-Dec-21 A		05-Jun-24			
CE000310	NCE-PMI-0310 - Temp. Leased Line for UV System No.1, Effluent PS No.1 & existing Control Room at Zone B	0		20-Dec-21 A		05-Jun-24			
CE000311	NCE-PMI-0311 - Temp. Setup for SCADA System Monitoring & CCTV System Surveillance	0		29-Dec-21 A		05-Jun-24			
CE000312	CNE-0312 - Weather Condition Affecting the Site in Oct due to Typhoon Signal No.8 or above, Red/Black Rainstorm Warning	0		29-Dec-21 A		05-Jun-24			
CE000313	CNE-0313 - Inclement Weather - November 2021 (Time Implication)	0		29-Dec-21 A		05-Jun-24			
CE000315	NCE-PMI-0315 - Modification of Monorali LA-01-04 in Sludge Dewatering Building	0		30-Dec-21 A		05-Jun-24			
CE000317	NCE-PMI-0317 - Revised CCTV Layout Plan & Addition of CCTV Camera for UV System No.1 & Effluent Pumping Station	0		11-Jan-22 A		05-Jun-24			



Remaining Work
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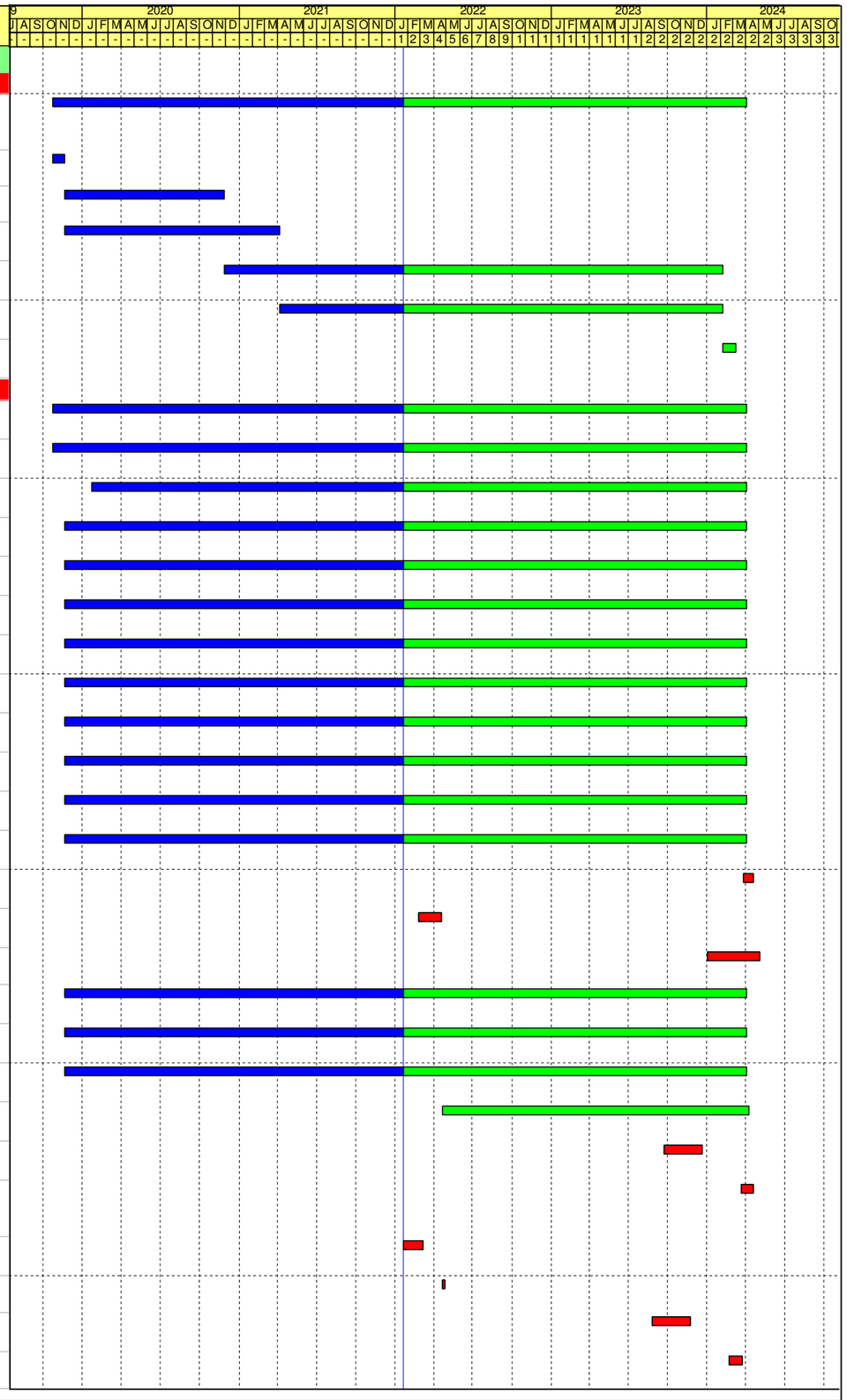
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Jan 2022

Date	Revision	Checked	Approved
30-Sep-21	Rev.14	LT	KM
31-Oct-21	Rev.15	LT	KM
30-Nov-21	Rev.16	LT	KM
31-Dec-21	Rev.17	LT	KM
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
Preliminaries									
Mobilisation									
AS010100	Provison of Equipment / Facilities for the PM's Office	1625	23-Oct-19 A	03-Apr-24	25-Mar-22	05-Jun-24	63	AS001910, AS001930, AS000020	AS000220
AS010200	Mobilisation	28	23-Oct-19 A	19-Nov-19 A	11-Dec-21	11-Dec-21		AS000020	AS011800, AS023120,
AS010205a	Design, Procurement & PO & Construction of Contractor's Site Office (Works Area WA1-B)	270	20-Nov-19 A	27-Nov-20 A	05-Feb-22	05-Feb-22		AS001910, AS010200	AS010220, AS211100,
AS010210	Design, Procurement & PO & Construction of Contractor's Storage Area (Works Area WA3)	503	20-Nov-19 A	05-Apr-21 A	05-Feb-22	05-Feb-22		AS001930, AS010200	AS010230a
AS010220	Maintain Contractor's Site Office	1166	28-Nov-20 A	06-Feb-24	05-Feb-22	22-Feb-24	16	AS010205a	AS010240
AS010230a	Maintain Contractor's Storage Area	1037	06-Apr-21 A	06-Feb-24	05-Feb-22	22-Feb-24	16	AS010210	AS010240
AS010240	Removal of Site Office, Storage & Relevant Facilities	30	07-Feb-24	07-Mar-24	22-Feb-24	23-Mar-24	16	AS010220, AS010230a	AS003520
Site Preliminaries									
AS010300	Provision of Insurance, Third Party Insurances & PII	1625	23-Oct-19 A	03-Apr-24	25-Mar-22	05-Jun-24	63	AS000020	AS000220
AS010400	Provision of 2 Contract Car for the Use of the PM & Supervisor	1625	23-Oct-19 A	03-Apr-24	25-Mar-22	05-Jun-24	63	AS000020	AS000220
AS010420a	Provision of 1 Electric Car for the Use of the PM & Supervisor	1534	22-Jan-20 A	03-Apr-24	25-Mar-22	05-Jun-24	63	AS000020, AS010200	AS000220
AS010600	Provision of Photographs	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS010700	Provision of Environmental Mitigation Measures	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS010800	Provision of Air Pollution Abatment	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS010900	Provision of Noise Pollution Abatment	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011000	Provision of Wastewater Pollution Abatement	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011100	Provision of Wastement Management	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011200	Provision of Monitoring the Use of Ultra Low Sulphur Diesel	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011300	Provision of Environmental Management	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011400	Provision of Site Management Plan for Trip Ticket System	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011500	Provision of As-constructed Drawings for Section 3	24	26-Mar-24	18-Apr-24	05-Mar-24	29-Mar-24	-21	AS000020, AS155340a	AS000220, AS003320
AS011520a	Provision of As-constructed Drawings for Section 4	55	25-Feb-22	20-Apr-22	06-Feb-22	02-Apr-22	-19	AS000020, AS107500	AS000220, AS003420
AS011540a	Provision of As-constructed Drawings for Section 5	124	01-Jan-24	03-May-24	20-Nov-23	23-Mar-24	-42	AS000020, AS512100,	AS000220, AS003520
AS011600	Provision of Systematic Risk Management	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011700	Provision of Site Liaison Group & Community Liaison Group	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS011800	Provision of 24-Hour Telephone Line	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
AS012000	Provision of Upkeeping and Protection of Completed Works	718	21-Apr-22	07-Apr-24	19-Jun-22	05-Jun-24	59	AS000020, AS107500	AS000220
AS012090m	Submission & Acceptance of Training Programme, Training Manual & Syllabus for Section 3	90	22-Sep-23	20-Dec-23	01-Sep-23	30-Nov-23	-21		AS012100
AS012100	Provision of Training for Employer's Staff for Section 3	30	20-Mar-24	18-Apr-24	28-Feb-24	29-Mar-24	-21	AS000020, AS155300, AS012090m	AS000220, AS003320
AS012110m	Submission & Acceptance of Training Programme, Training Manual & Syllabus for Section 4	45	21-Jan-22	06-Mar-22	26-Dec-21	09-Feb-22	-26		AS012120a
AS012120a	Provision of Training for Employer's Staff for Section 4	7	21-Apr-22	27-Apr-22	26-Mar-22	02-Apr-22	-26	AS000020, AS107500,	AS000220, AS003420
AS012130m	Submission & Acceptance of Training Programme, Training Manual & Syllabus for Section 5	90	26-Aug-23	23-Nov-23	26-Aug-23	24-Nov-23	1		AS012140a
AS012140a	Provision of Training for Employer's Staff for Section 5	30	22-Feb-24	22-Mar-24	22-Feb-24	23-Mar-24	1	AS000020, AS512800a,	AS000220, AS003520



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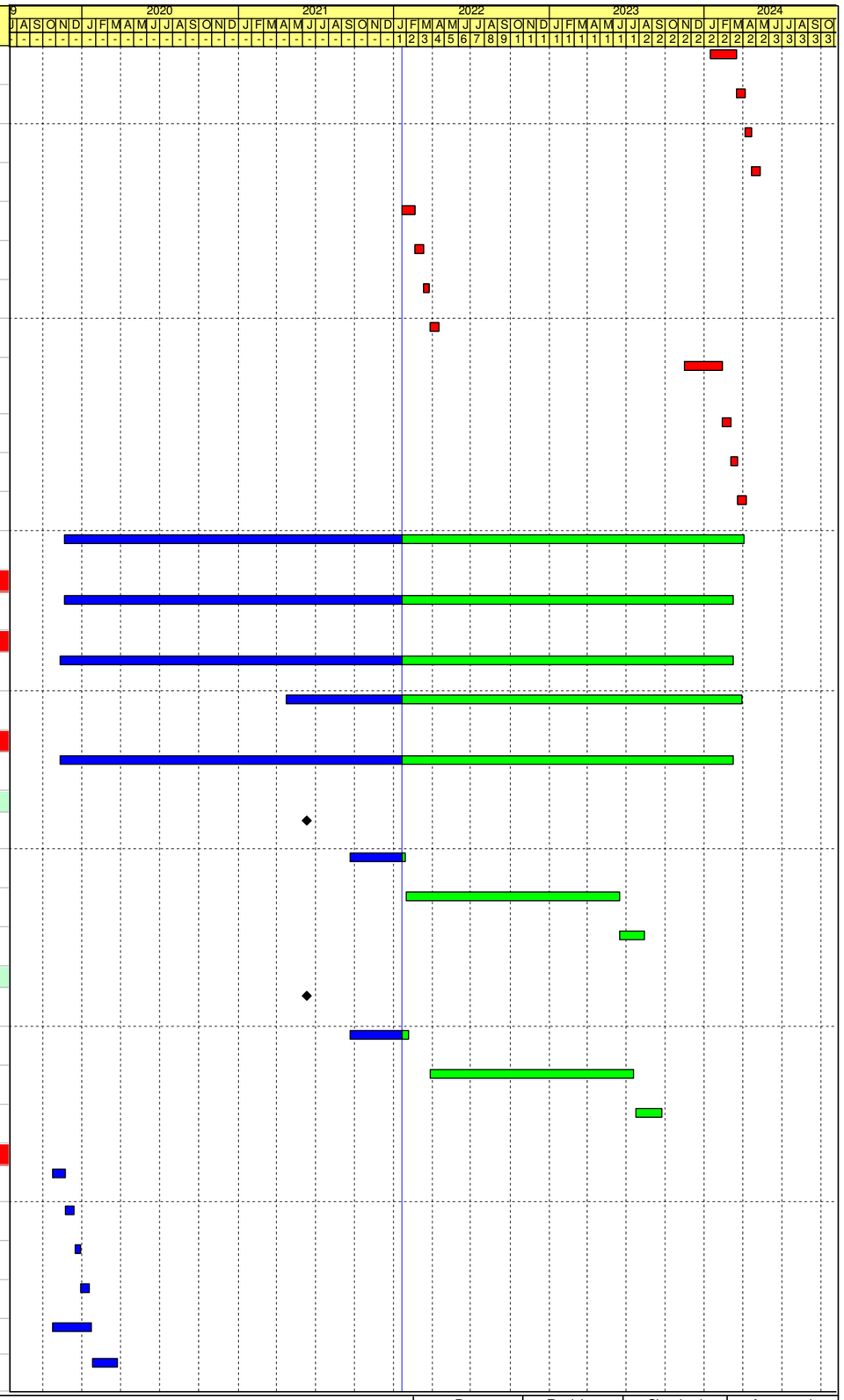
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS012300	Prepare & Submit O&M Manual for Section 3	60	16-Jan-24	15-Mar-24	04-Dec-23	02-Feb-24	-43	AS000020, AS155240a	AS000220, AS012302a
AS012302a	PM Reivew & Comment O&M Manual for Section 3	21	16-Mar-24	05-Apr-24	02-Feb-24	23-Feb-24	-43	AS012300	AS012304a
AS012304a	Revise & Re-submit O&M Manual for Section 3	14	06-Apr-24	19-Apr-24	23-Feb-24	08-Mar-24	-43	AS012302a	AS012306a
AS012306a	PM Reivew & Approval of O&M Manual for Section 3	21	20-Apr-24	10-May-24	08-Mar-24	29-Mar-24	-43	AS012304a	AS000220, AS003320
AS012320a	Prepare & Submit O&M Manual for Section 4	30	21-Jan-22	19-Feb-22	06-Jan-22	05-Feb-22	-15	AS000020	AS000220, AS012322a
AS012322a	PM Reivew & Comment O&M Manual for Section 4	21	20-Feb-22	12-Mar-22	05-Feb-22	26-Feb-22	-15	AS012320a	AS012324a
AS012324a	Revise & Re-submit O&M Manual for Section 4	14	13-Mar-22	26-Mar-22	26-Feb-22	12-Mar-22	-15	AS012322a	AS012326a
AS012326a	PM Reivew & Approval of O&M Manual for Section 4	21	27-Mar-22	16-Apr-22	12-Mar-22	02-Apr-22	-15	AS012324a	AS000220, AS003420
AS012340a	Prepare & Submit O&M Manual for Section 5	90	14-Nov-23	11-Feb-24	29-Oct-23	27-Jan-24	-16	AS000020, AS512200a, AS503500	AS000220, AS012342a
AS012342a	PM Reivew & Comment O&M Manual for Section 5	21	12-Feb-24	03-Mar-24	27-Jan-24	17-Feb-24	-16	AS012340a	AS012344a
AS012344a	Revise & Re-submit O&M Manual for Section 5	14	04-Mar-24	17-Mar-24	17-Feb-24	02-Mar-24	-16	AS012342a	AS012346a
AS012346a	PM Reivew & Approval of O&M Manual for Section 5	21	18-Mar-24	07-Apr-24	02-Mar-24	23-Mar-24	-16	AS012344a	AS000220, AS003520
AS012400	Provision of ICE for Certification of the Design, Cal, Dwgs, Plans and all relevant Doc and Process Commissioning	1596	20-Nov-19 A	02-Apr-24	26-Mar-22	05-Jun-24	64	AS000020, AS010200	AS000220
Site Upkeeping									
AS013100	General Site Upkeeping of the Site	1570	20-Nov-19 A	07-Mar-24	05-Feb-22	23-Mar-24	16	AS000020, AS010200	AS003520
Safety and Environmental Management									
AS013200	Construction Health and Safety Plan	1580	10-Nov-19 A	07-Mar-24	05-Feb-22	23-Mar-24	16	AS000010	AS003520
AS013300	Site Traffic Safety Management Plan	1070	25-Apr-21 A	29-Mar-24	30-Mar-22	05-Jun-24	68	AS001120	AS000220
Compliance with BEAM Requirements									
AS013400	BEAM Plus	1580	10-Nov-19 A	07-Mar-24	05-Feb-22	23-Mar-24	16	AS000020, AS000010	AS003520
Sludge Dewatering Building									
AS013410f	Material Submission & Design Calculation Approved	0		11-Jun-21 A		15-Sep-22		AS022310, AS032310,	AS013420f, AS003230
AS013420f	Issued approved submission & Calculation to Cinotech	15	21-Sep-21 A	28-Jan-22	15-Sep-22	22-Sep-22	238	AS013410f	AS013430f
AS013430f	Monthly Review & Submission	500	31-Jan-22	14-Jun-23	23-Sep-22	04-Feb-24	235	AS502100, AS013420f	AS013440f
AS013440f	Submission & Approval of Test Record	60	15-Jun-23	13-Aug-23	05-Feb-24	04-Apr-24	235	AS013430f, AS510400	AS003530
CHP Building									
AS013450f	Material Submission & Design Calculation Approved	0		11-Jun-21 A		08-Feb-22		AS082330	AS013460f, AS003230
AS013460f	Issued approved submission & Calculation to Cinotech	30	21-Sep-21 A	04-Feb-22	08-Feb-22	23-Feb-22	19	AS013450f	AS503100
AS013470f	Monthly Review & Submission	480	27-Mar-22	19-Jul-23	13-Oct-22	04-Feb-24	200	AS503100	AS013480f
AS013480f	Submission & Approval of Test Record	60	24-Jul-23	21-Sep-23	05-Feb-24	04-Apr-24	196	AS013470f, AS511200	AS003530
BIM									
AS011820a	Prepare & Submit Construction Stage BIM Execution Plan	30	24-Oct-19 A	22-Nov-19 A	26-Mar-22	26-Mar-22		AS000020	AS011830a, AS011920a,
AS011830a	PM Reivew & Comment Construction Stage BIM Execution Plan	21	23-Nov-19 A	13-Dec-19 A	26-Mar-22	26-Mar-22		AS011820a	AS011840a
AS011840a	Revise & Re-submit Construction Stage BIM Execution Plan	14	14-Dec-19 A	27-Dec-19 A	26-Mar-22	26-Mar-22		AS011830a	AS011850a
AS011850a	PM Reivew & Approval of Construction Stage BIM Execution Plan	21	28-Dec-19 A	17-Jan-20 A	26-Mar-22	26-Mar-22		AS011840a	AS011920a, AS011900
AS011880b	Contractor Review & Study Design Stage BIM	92	24-Oct-19 A	23-Jan-20 A	26-Mar-22	26-Mar-22		AS000020	AS000220, AS011960,
AS011900	Contractor Develop 1st Construction Stage BIM	60	24-Jan-20 A	23-Mar-20 A	26-Mar-22	26-Mar-22		AS011850a, AS011820a,	AS000220, AS011960,



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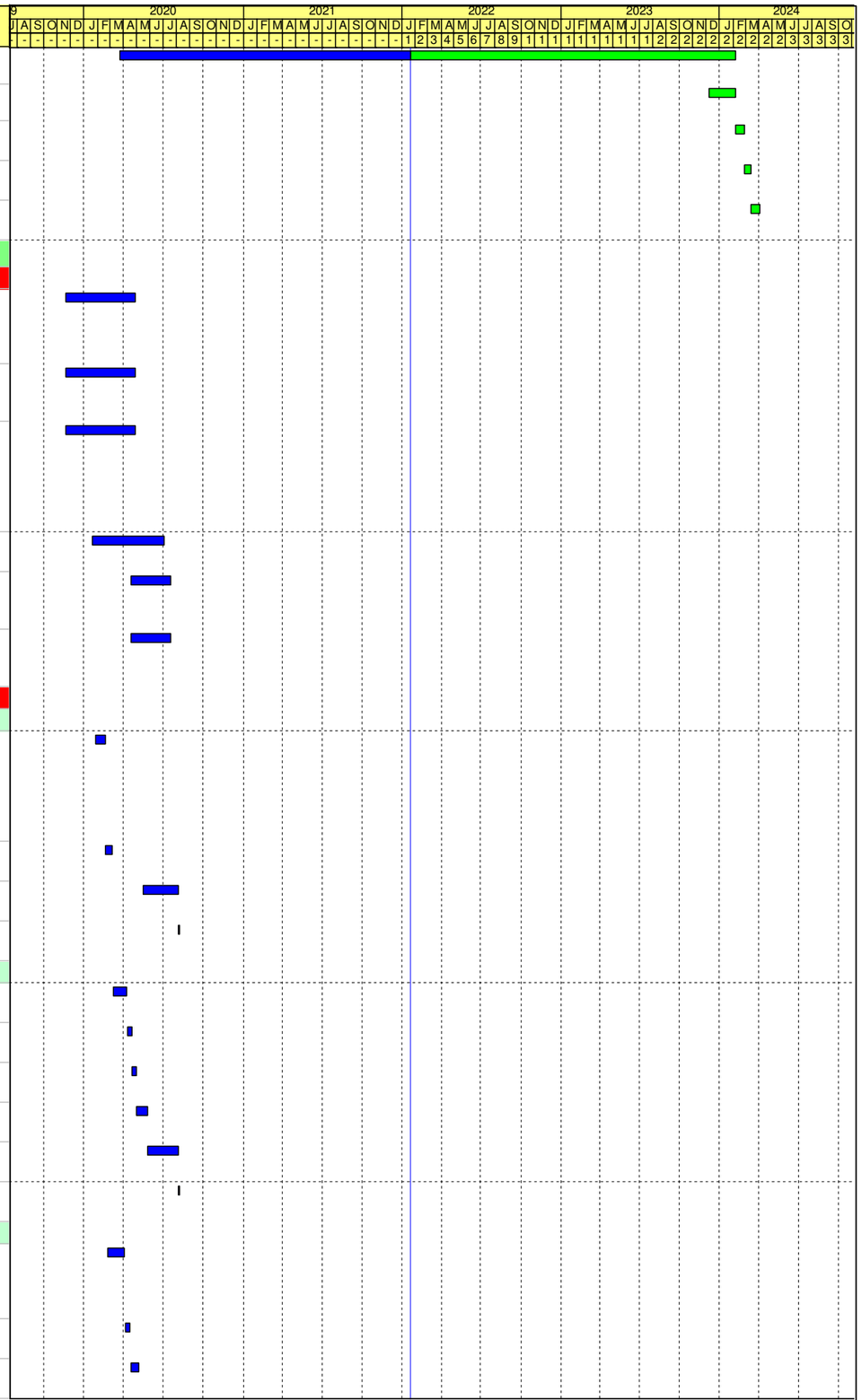
AS011920a	Review & Update BIM Execution Plan & BIM Model	1415	24-Mar-20 A	06-Feb-24	26-Mar-22	10-Apr-24	64	AS011820a, AS011900,	AS000220, AS011960
AS011960	Prepare & Submit the Fully Coordinated BIM	60	09-Dec-23	06-Feb-24	11-Feb-24	10-Apr-24	64	AS011900, AS011920a,	AS011961
AS011961	PM Reivew & Comment Fully Coordinated BIM	21	07-Feb-24	27-Feb-24	11-Apr-24	01-May-24	64	AS011960	AS011962
AS011962	Revise & Re-submit Fully Coordinated BIM	14	28-Feb-24	12-Mar-24	02-May-24	15-May-24	64	AS011961	AS011963
AS011963	PM Reivew & Approval of Fully Coordinated BIM	21	13-Mar-24	02-Apr-24	16-May-24	05-Jun-24	64	AS011962	AS000220
Section 1 - Design for UV System No. 1 & Effluent Pumping Station No.1									
Major Plant & Materials Procurement									
AS103100	Procurement & PO for UV Disinfection System (S10)	150	21-Nov-19 A	28-Apr-20 A	05-Jan-22	05-Jan-22		AS000010, AS000020, AS010200	AS003105, AS104100, AS101100, AS103180
AS103120	Procurement & PO for Lift-up Pumps (S11)	150	21-Nov-19 A	28-Apr-20 A	05-Jan-22	05-Jan-22		AS000020, AS010200	AS003105, AS104120, AS101100
AS103140	Procurement & PO for Transfer Pumps (S13)	150	21-Nov-19 A	28-Apr-20 A	05-Jan-22	05-Jan-22		AS000020, AS010200	AS003105, AS104140, AS103200, AS103220, AS101100, AS104160
AS103180	Procurement & PO for EOT Cranes (2T & 5T) (S19)	150	19-Jan-20 A	03-Jul-20 A	05-Jan-22	05-Jan-22		AS103100	AS003105, AS104180
AS103200	Procurement & PO for Stoplogs (S21)	90	18-Apr-20 A	17-Jul-20 A	16-Jan-22	16-Jan-22		AS103140, AS010200	AS003105, AS104200, AS023440
AS103220	Procurement & PO for Penstocks (S21)	90	18-Apr-20 A	17-Jul-20 A	16-Jan-22	16-Jan-22		AS103140, AS010200	AS003105, AS104220, AS023460
Design & Submission									
General Arrangement Drawings									
AS101100	Prepare & Submit General Arrangement Drawings	90	27-Jan-20 A	19-Feb-20 A	05-Jan-22	05-Jan-22		AS103100, AS103120, AS103140, AS010200	AS101110, AS102100, AS102150, AS102300, AS112300, AS103300
AS101110	Review & Comment on General Arrangement Drawings by PM	21	20-Feb-20 A	04-Mar-20 A	05-Jun-24	05-Jun-24		AS101100	AS101120
AS101120	Revise & Re-submit General Arrangement Drawings	14	16-May-20 A	05-Aug-20 A	05-Jun-24	05-Jun-24		AS101110	AS101130
AS101130	Review & Accept of General Arrangement Drawings by PM	5	06-Aug-20 A	08-Aug-20 A	05-Jun-24	05-Jun-24		AS101120	AS003105
Civil & Dimensional / Tolerance Requirement Drawings									
AS102100	Prepare & Submit Civil Requirement Drawings	60	07-Mar-20 A	08-Apr-20 A	16-Jan-22	16-Jan-22		AS000020, AS101100	AS102110, AS002010
AS102110	Review & Comment on Civil Requirement Drawings by PM	21	09-Apr-20 A	20-Apr-20 A	05-Jun-24	05-Jun-24		AS102100	AS102120
AS102120	Revise & Re-submit Civil Requirement Drawings	14	21-Apr-20 A	29-Apr-20 A	05-Jun-24	05-Jun-24		AS102110	AS102130
AS102130	Review & Comment of Civil Requirement Drawings by PM	21	30-Apr-20 A	25-May-20 A	05-Jun-24	05-Jun-24		AS102120	AS003105, AS512140
AS512140	Revise & Re-submit Civil Requirement Drawings	28	26-May-20 A	05-Aug-20 A	05-Jun-24	05-Jun-24		AS102130	AS512150
AS512150	Review & Accept of Civil Requirement Drawings by PM	5	06-Aug-20 A	08-Aug-20 A	05-Jun-24	05-Jun-24		AS512140	AS003105
Electrical Schematic Drawings									
AS102150	Prepare & Submit Elec. Schematic Drawings	60	25-Feb-20 A	03-Apr-20 A	05-Jan-22	05-Jan-22		AS000020, AS101100	AS102160, AS002010, AS102200, AS112200
AS102160	Review & Comment on Elec. Schematic Drawings by PM	21	04-Apr-20 A	16-Apr-20 A	05-Jan-22	05-Jan-22		AS102150	AS102170
AS102170	Revise & Re-submit Elec. Schematic Drawings	14	17-Apr-20 A	04-May-20 A	05-Jan-22	05-Jan-22		AS102160	AS102180



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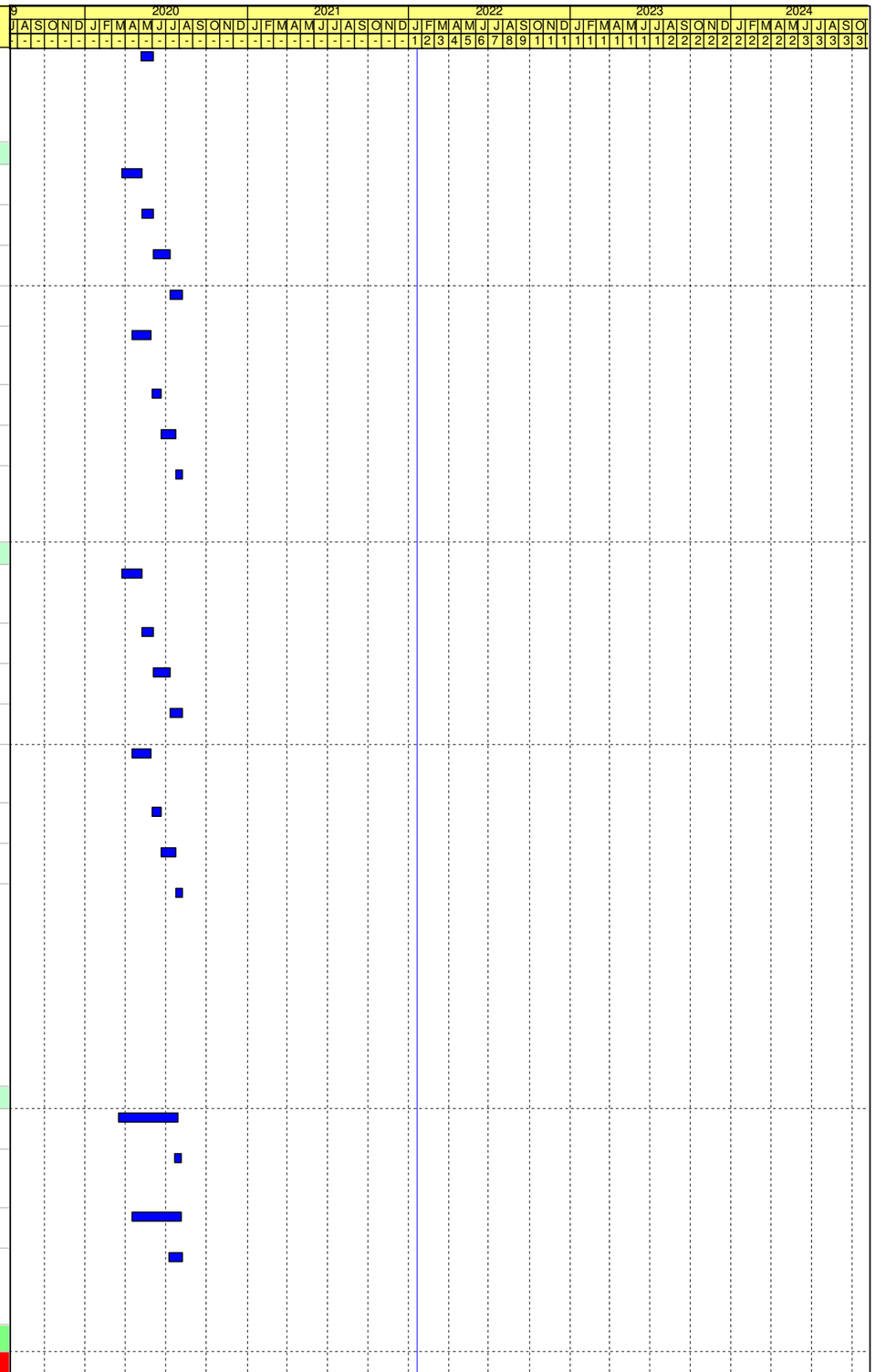
AS102180	Review & Accept of Elec. Schematic Drawings by PM	21	05-May-20 A	03-Jun-20 A	05-Jan-22	05-Jan-22		AS102170	AS104240, AS105100, AS106100, AS103320, AS003105
UV System No. 1									
AS102200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	60	24-Mar-20 A	08-May-20 A	05-Jan-22	05-Jan-22		AS000020, AS102150	AS102210, AS102300
AS102210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	09-May-20 A	01-Jun-20 A	05-Jun-24	05-Jun-24		AS102200	AS102220
AS102220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	14	02-Jun-20 A	10-Jul-20 A	05-Jun-24	05-Jun-24		AS102210	AS102230
AS102230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	11-Jul-20 A	06-Aug-20 A	05-Jun-24	05-Jun-24		AS102220	AS003105
AS102300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	60	15-Apr-20 A	29-May-20 A	05-Jan-22	05-Jan-22		AS000020, AS102200, AS101100	AS154100, AS102310, AS106120
AS102310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	30-May-20 A	19-Jun-20 A	16-Jan-22	16-Jan-22		AS102300	AS102320
AS102320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	14	20-Jun-20 A	23-Jul-20 A	16-Jan-22	16-Jan-22		AS102310	AS102330
AS102330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	14	24-Jul-20 A	08-Aug-20 A	16-Jan-22	16-Jan-22		AS102320	AS104100, AS104240, AS104260, AS003105
Effluent Pumping Station No. 1									
AS112200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	60	24-Mar-20 A	08-May-20 A	05-Jan-22	05-Jan-22		AS000020, AS102150	AS112210, AS112300, AS113100
AS112210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	09-May-20 A	01-Jun-20 A	05-Jun-24	05-Jun-24		AS112200	AS112220
AS112220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	14	02-Jun-20 A	10-Jul-20 A	05-Jun-24	05-Jun-24		AS112210	AS112230
AS112230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	11-Jul-20 A	08-Aug-20 A	05-Jun-24	05-Jun-24		AS112220	AS003105
AS112300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	60	15-Apr-20 A	29-May-20 A	05-Jan-22	05-Jan-22		AS000020, AS112200, AS101100	AS154100, AS112310, AS106120
AS112310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	30-May-20 A	19-Jun-20 A	05-Jan-22	05-Jan-22		AS112300	AS112320
AS112320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	14	20-Jun-20 A	23-Jul-20 A	05-Jan-22	05-Jan-22		AS112310	AS112330
AS112330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	14	24-Jul-20 A	08-Aug-20 A	05-Jan-22	05-Jan-22		AS112320	AS104200, AS104220, AS104120, AS104140, AS104160, AS104180, AS104240, AS104260, AS104280, AS104300, AS003105
Building Services									
AS113100	Prepare & Submit BS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	90	15-Mar-20 A	27-Jul-20 A	04-Feb-22	04-Feb-22		AS112200	AS113200, AS113160c
AS113160c	Review & Accept of BS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	8	21-Jul-20 A	05-Aug-20 A	10-Feb-22	10-Feb-22		AS113100	AS003105, AS105140, AS106260
AS113200	Prepare & Submit FS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	60	14-Apr-20 A	05-Aug-20 A	04-Feb-22	04-Feb-22		AS113100	AS113260c
AS113260c	Review & Accept of FS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	8	09-Jul-20 A	06-Aug-20 A	04-Feb-22	04-Feb-22		AS113200	AS003105, AS103400, AS104320, AS104400
Section 2 - Complete All Designs (exclude Sec. 1 & 3)									
Major Plant & Materials Procurement									



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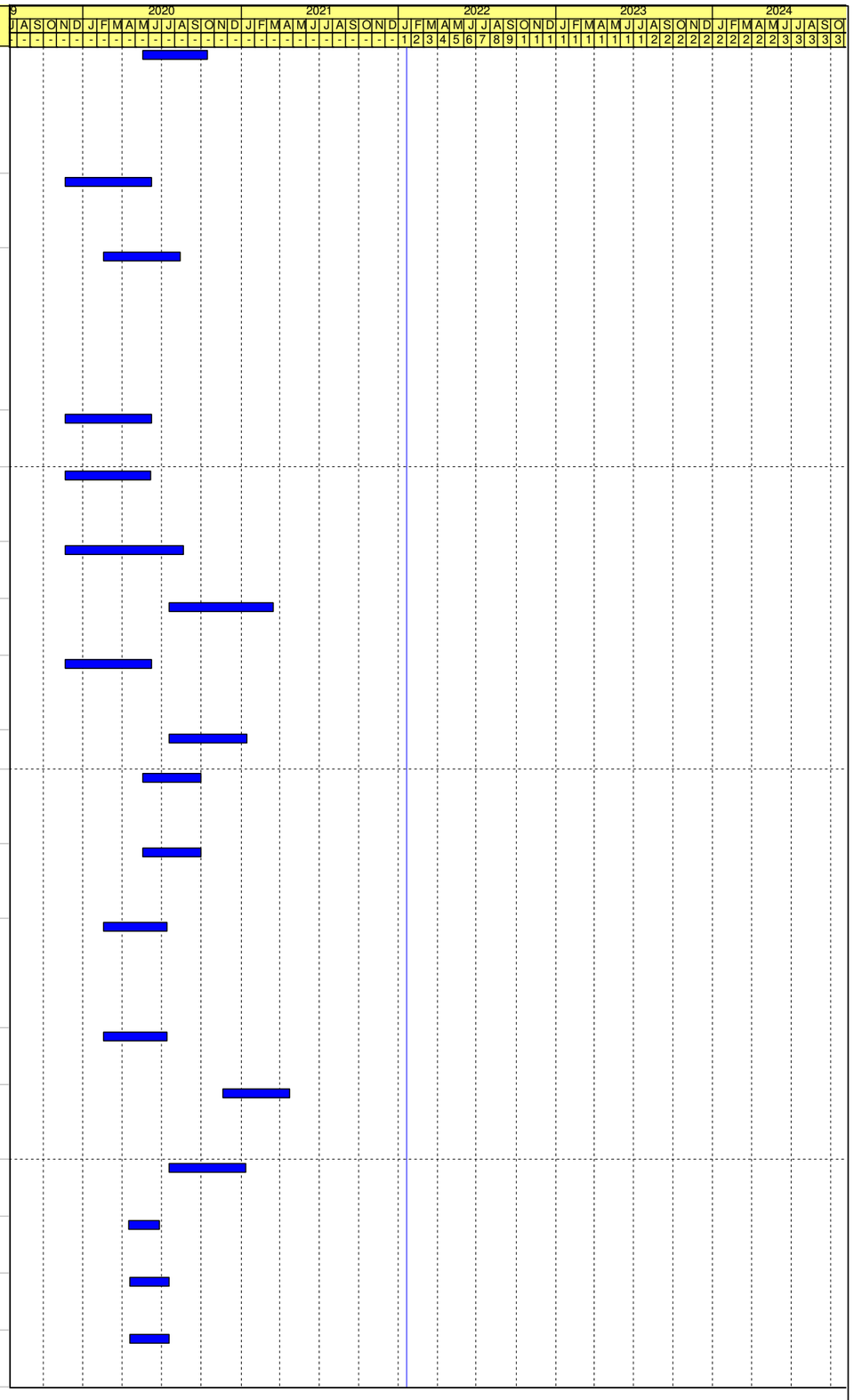
AS023100	Procurement & PO for Sludge Screening System (S2)	150	18-May-20 A	16-Oct-20 A	18-Mar-22	18-Mar-22		AS023140	AS003220, AS501100, AS022200, AS023200, AS023210, AS023420, AS023560
AS023120	Procurement & PO for Sludge Thickening System (S3)	180	20-Nov-19 A	08-Jun-20 A	22-Feb-22	22-Feb-22		AS010200, AS000020	AS003220, AS501120, AS032200, AS023160
AS023140	Procurement & PO for Sludge Digestion System (S5)	150	18-Feb-20 A	12-Aug-20 A	01-Feb-22	01-Feb-22		AS000020, AS023180	AS003220, AS501140, AS052200, AS501150a, AS023480, AS023540, AS023580, AS023100, AS023400
AS023160	Procurement & PO for Sludge Dewatering System (S6)	180	20-Nov-19 A	08-Jun-20 A	18-Mar-22	18-Mar-22		AS010200, AS000020, AS023120	AS003220, AS501160, AS062200
AS023180	Procurement & PO for THP System (S4)	180	20-Nov-19 A	05-Jun-20 A	01-Feb-22	01-Feb-22		AS000020, AS010200	AS003220, AS501180, AS042200, AS023140
AS023190a	Procurement & PO for Biogas Holding Tanks(S7)	180	20-Nov-19 A	20-Aug-20 A	09-Feb-22	09-Feb-22		AS010200	AS003220, AS501240, AS072200
AS023210	Procurement & PO for H2S Removal System (S7)	234	17-Jul-20 A	17-Mar-21 A	18-Mar-22	18-Mar-22		AS023100	AS003220, AS501780, AS072200
AS023220	Procurement & PO for CHP System (S8)	180	20-Nov-19 A	08-Jun-20 A	08-Jan-22	08-Jan-22		AS010200	AS003220, AS501260, AS082200, AS023300
AS023240	Procurement & PO for Waste Gas Burning System (S9)	150	17-Jul-20 A	15-Jan-21 A	09-Apr-22	09-Apr-22			AS003220, AS501320
AS023260	Procurement & PO for Plant Service Water System (S12)	150	18-May-20 A	30-Sep-20 A	18-Mar-22	18-Mar-22			AS003220, AS501380, AS122200, AS023500
AS023280	Procurement & PO for SAS Pumping System (S14)	150	18-May-20 A	30-Sep-20 A	31-Jan-22	31-Jan-22			AS003220, AS501400, AS142200, AS023600
AS023300	Procurement & PO for Transfomers (S17)	150	18-Feb-20 A	13-Jul-20 A	08-Jan-22	08-Jan-22		AS023220	AS003220, AS501420, AS501480, AS023320, AS023380, AS104240
AS023320	Procurement & PO for 11 kV Switchboard (S17)	150	18-Feb-20 A	13-Jul-20 A	18-Mar-22	18-Mar-22		AS023300	AS003220, AS501540, AS023340
AS023340	Procurement & PO for 380V Switchboard (S17)	174	21-Nov-20 A	23-Apr-21 A	18-Mar-22	18-Mar-22		AS023320, AS021300	AS003220, AS501600, AS023620, AS104260
AS023380	Procurement & PO for Control & Monitoring System (S18)	183	17-Jul-20 A	11-Jan-21 A	08-Jan-22	08-Jan-22		AS010200, AS023300	AS003220, AS501680, AS104280
AS023420	Procurement & PO for DO System (S21)	150	15-Apr-20 A	24-Jun-20 A	16-Jul-22	16-Jul-22		AS023100	AS003220, AS501800, AS211100
AS023440	Procurement & PO for Stoplog (S21)	90	18-Apr-20 A	17-Jul-20 A	23-Mar-22	23-Mar-22		AS010200, AS103200	AS003220, AS501820, AS023460
AS023460	Procurement & PO for Penstock (S21)	90	18-Apr-20 A	17-Jul-20 A	23-Mar-22	23-Mar-22		AS010200, AS023440, AS103220	AS003220, AS501840



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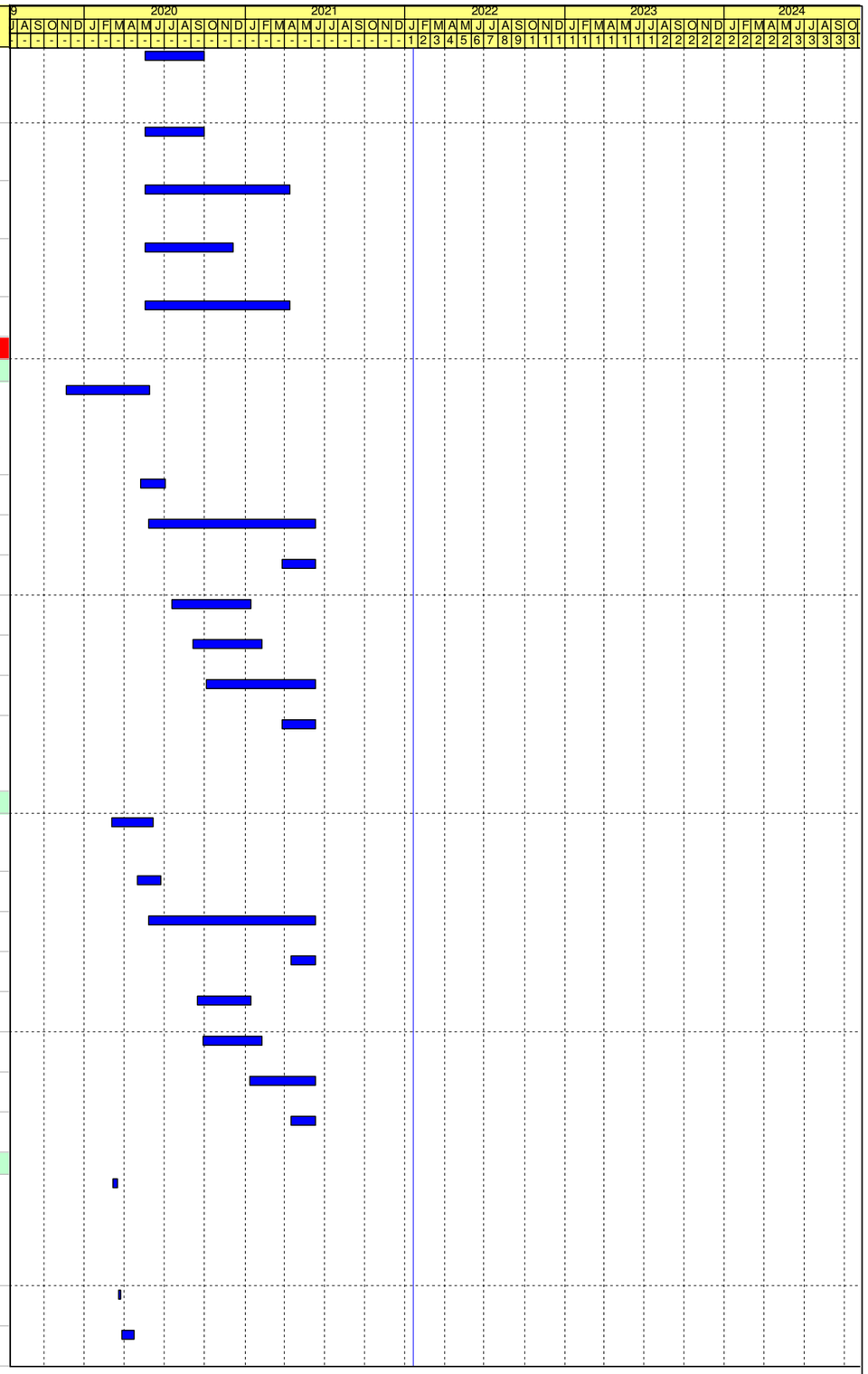
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS023480	Procurement & PO for Sewage Pump (S21)	120	18-May-20 A	30-Sep-20 A	01-Feb-22	01-Feb-22		AS023140	AS003220, AS501860, AS211200, AS023520
AS023500	Procurement & PO for Process Water Pump (S21)	120	18-May-20 A	30-Sep-20 A	21-Aug-22	21-Aug-22		AS023260	AS003220, AS501880, AS211300
AS023520	Procurement & PO for External Sludge Transfer Pump (S21)	348	18-May-20 A	14-Apr-21 A	10-Oct-22	10-Oct-22		AS023480	AS003220, AS501900, AS211400
AS023540	Procurement & PO for THP Cooling Pump (S21)	150	18-May-20 A	04-Dec-20 A	10-Oct-22	10-Oct-22		AS023140	AS003220, AS501920, AS211500
AS023600	Procurement & PO for Temporary Primary Sludge Pump (S21)	348	18-May-20 A	14-Apr-21 A	06-Aug-22	06-Aug-22		AS010200, AS023280	AS003220, AS501980
Design & Submission									
General Arrangement Drawings									
AS020100	Prepare & Submit General Arrangement Drawings (from formation level up to +8mPD)	180	20-Nov-19 A	29-May-20 A	30-Dec-21	30-Dec-21		AS010200	AS020110, AS020200, AS021200, AS020140a, AS042200
AS020110	Review & Comment on General Arrangement Drawings by PM (from formation level up to +8mPD)	21	07-May-20 A	02-Jul-20 A	05-Jun-24	05-Jun-24		AS020100	AS020120
AS020120	Revise & Re-submit General Arrangement Drawings (from formation level up to +8mPD)	381	26-May-20 A	10-Jun-21 A	05-Jun-24	05-Jun-24		AS020110	AS020130
AS020130	Review & Accept of General Arrangement Drawings by PM (from formation level up to +8mPD)	77	26-Mar-21 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS020120	AS003220
AS020140a	Prepare & Submit General Arrangement Drawings (remaining)	177	17-Jul-20 A	15-Jan-21 A	14-Jan-22	14-Jan-22		AS010200, AS020100	AS020150a, AS020300
AS020150a	Review & Comment on General Arrangement Drawings by PM (remaining)	21	05-Sep-20 A	08-Feb-21 A	14-Jan-22	14-Jan-22		AS020140a	AS020160a
AS020160a	Revise & Re-submit General Arrangement Drawings (remaining)	248	06-Oct-20 A	10-Jun-21 A	14-Jan-22	14-Jan-22		AS020150a	AS020170a
AS020170a	Review & Accept of General Arrangement Drawings by PM (remaining)	77	26-Mar-21 A	11-Jun-21 A	14-Jan-22	14-Jan-22		AS020160a	AS003220, AS509400a, AS023290, AS509380b
Civil & Dimensional / Tolerance Requirement Drawings									
AS020200	Prepare & Submit Civil Requirement Drawings (from formation level up to +8mPD) -KD2A	90	04-Mar-20 A	04-Jun-20 A	04-Feb-22	04-Feb-22		AS020100	AS020210, AS122200, AS002020
AS020210	Review & Comment on Civil Requirement Drawings by PM (from formation level up to +8mPD)	21	30-Apr-20 A	23-Jun-20 A	04-Feb-22	04-Feb-22		AS020200	AS020220
AS020220	Revise & Re-submit Civil Requirement Drawings (from formation level up to +8mPD)	381	26-May-20 A	10-Jun-21 A	04-Feb-22	04-Feb-22		AS020210	AS020230
AS020230	Review & Accept of Civil Requirement Drawings by PM (from formation level up to +8mPD)	55	17-Apr-21 A	11-Jun-21 A	04-Feb-22	04-Feb-22		AS020220	AS003220, AS001620
AS020300	Prepare & Submit Civil Requirement Drawings (remaining) -KD2B	120	15-Sep-20 A	15-Jan-21 A	05-Jun-24	05-Jun-24		AS020140a	AS020310, AS002040
AS020310	Review & Comment on Civil Requirement Drawings by PM (remaining)	21	28-Sep-20 A	08-Feb-21 A	05-Jun-24	05-Jun-24		AS020300	AS020320
AS020320	Revise & Re-submit Civil Requirement Drawings (remaining)	150	12-Jan-21 A	10-Jun-21 A	05-Jun-24	05-Jun-24		AS020310	AS020330
AS020330	Review & Accept of Civil Requirement Drawings by PM (remaining)	55	17-Apr-21 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS020320	AS003220
Electrical Schematic Drawings									
AS021200	Prepare & Elec. Schematic Drawings (from formation level up to +8mPD) -KD2A	90	05-Mar-20 A	16-Mar-20 A	30-Dec-21	30-Dec-21		AS020100	AS021210, AS022200, AS122200, AS002020, AS021300, AS023620b
AS021210	Review & Comment on Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	17-Mar-20 A	24-Mar-20 A	02-Feb-22	02-Feb-22		AS021200	AS021220
AS021220	Revise & Re-submit Elec. Schematic Drawings (from formation level up to +8mPD)	28	25-Mar-20 A	23-Apr-20 A	02-Feb-22	02-Feb-22		AS021210	AS021230, AS021300



Remaining Work
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Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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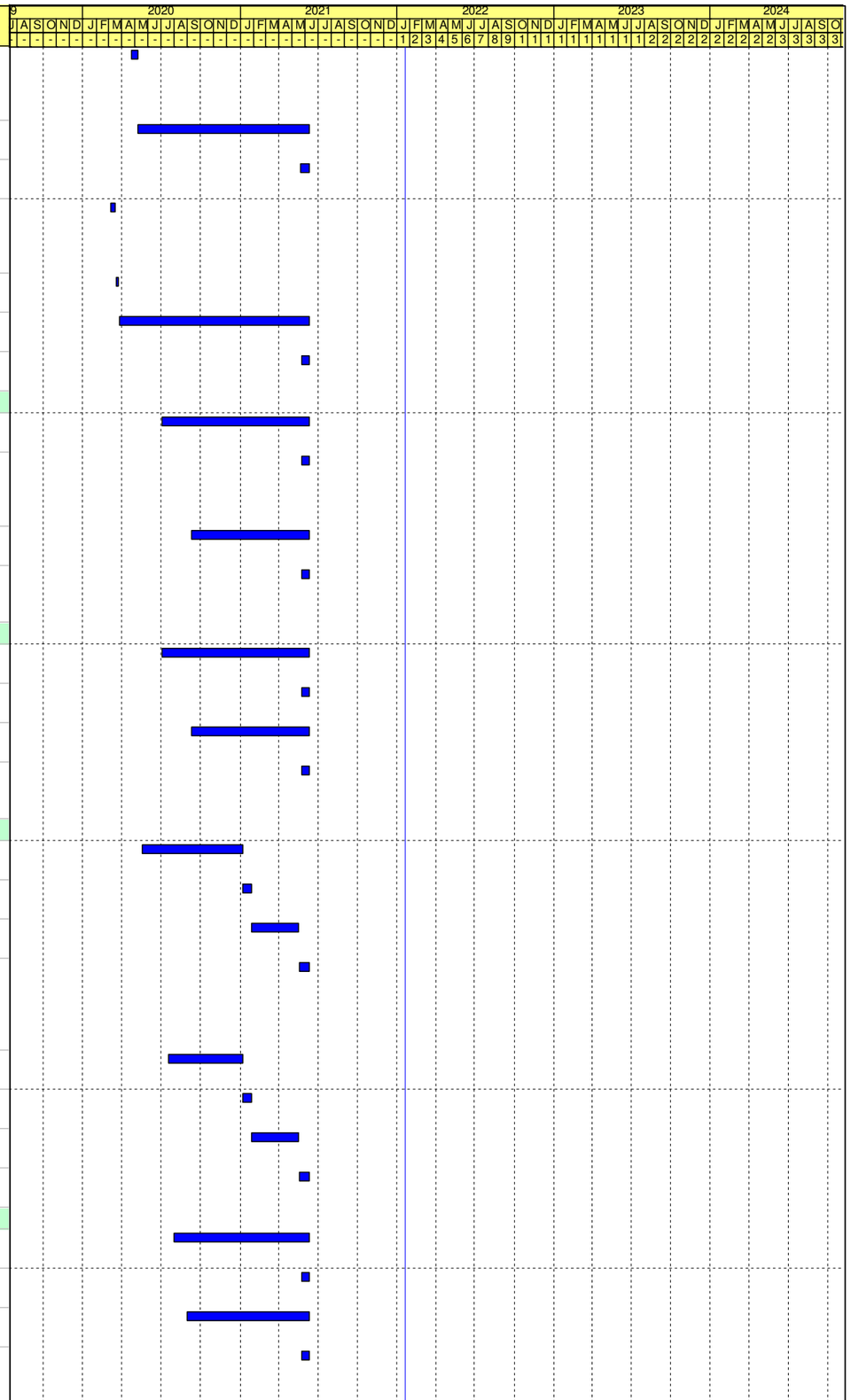
Date	Revision	Checked	Approved
30-Sep-21	Rev.14	LT	KM
31-Oct-21	Rev.15	LT	KM
30-Nov-21	Rev.16	LT	KM
31-Dec-21	Rev.17	LT	KM
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS021230	Review & Comment of Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	24-Apr-20 A	08-May-20 A	02-Feb-22	02-Feb-22		AS021220	AS021330, AS501600, AS021300, AS021240
AS021240	Revise & Re-submit Elec. Schematic Drawings (from formation level up to +8mPD)	398	09-May-20 A	10-Jun-21 A	05-Jun-24	05-Jun-24		AS021230	AS021250
AS021250	Review & Accept of Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	21-May-21 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS021240	AS003220
AS021300	Prepare & Submit Elec. Schematic Drawings (remaining) -KD2B	120	05-Mar-20 A	16-Mar-20 A	02-Feb-22	02-Feb-22		AS021200, AS021220, AS021230	AS021310, AS002040, AS023340, AS023620b
AS021310	Review & Comment on Elec. Schematic Drawings by PM (remaining)	21	17-Mar-20 A	24-Mar-20 A	28-Mar-22	28-Mar-22		AS021300	AS021320
AS021320	Revise & Re-submit Elec. Schematic Drawings (remaining)	443	25-Mar-20 A	10-Jun-21 A	28-Mar-22	28-Mar-22		AS021310	AS021330
AS021330	Review & Accept of Elec. Schematic Drawings by PM (remaining)	21	24-May-21 A	11-Jun-21 A	28-Mar-22	28-Mar-22		AS021320, AS021230	AS003220, AS501600
Sludge Screening (SSc)									
AS022200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	344	02-Jul-20 A	10-Jun-21 A	18-Mar-22	18-Mar-22		AS021200, AS023100	AS022210
AS022210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS022200	AS501480, AS501600, AS023620, AS003220
AS022300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	274	10-Sep-20 A	10-Jun-21 A	24-May-22	24-May-22			AS022310
AS022310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	24-May-22	24-May-22		AS022300	AS003220, AS501100, AS013410f
Sludge Thickening (STh)									
AS032200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	344	02-Jul-20 A	10-Jun-21 A	18-Mar-22	18-Mar-22		AS023120	AS032210
AS032210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS032200	AS003220, AS023620
AS032300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	274	10-Sep-20 A	10-Jun-21 A	22-Feb-22	22-Feb-22			AS032310
AS032310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	22-Feb-22	22-Feb-22		AS032300	AS501120, AS003220, AS013410f
Thermal Hydrolysis Process (THP)									
AS042200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	241	18-May-20 A	07-Jan-21 A	24-Feb-22	24-Feb-22		AS023180, AS020100	AS042210, AS211500
AS042210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	08-Jan-21 A	27-Jan-21 A	24-Feb-22	24-Feb-22		AS042200	AS042220
AS042220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	117	28-Jan-21 A	17-May-21 A	24-Feb-22	24-Feb-22		AS042210	AS042230
AS042230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	24	18-May-21 A	11-Jun-21 A	24-Feb-22	24-Feb-22		AS042220	AS003220, AS501180, AS501920, AS510060, AS023620
AS042300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	180	17-Jul-20 A	07-Jan-21 A	20-May-22	20-May-22			AS042310
AS042310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	08-Jan-21 A	27-Jan-21 A	20-May-22	20-May-22		AS042300	AS042320
AS042320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	117	28-Jan-21 A	17-May-21 A	20-May-22	20-May-22		AS042310	AS042330
AS042330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	24	18-May-21 A	11-Jun-21 A	20-May-22	20-May-22		AS042320	AS501180, AS003220
Sludge Digestion (SDi)									
AS052200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	314	01-Aug-20 A	10-Jun-21 A	18-Mar-22	18-Mar-22		AS023140	AS052210
AS052210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS052200	AS003220, AS023620
AS052300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	284	31-Aug-20 A	10-Jun-21 A	11-Feb-22	11-Feb-22			AS052310
AS052310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	11-Feb-22	11-Feb-22		AS052300	AS501140, AS003220, AS013410f



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Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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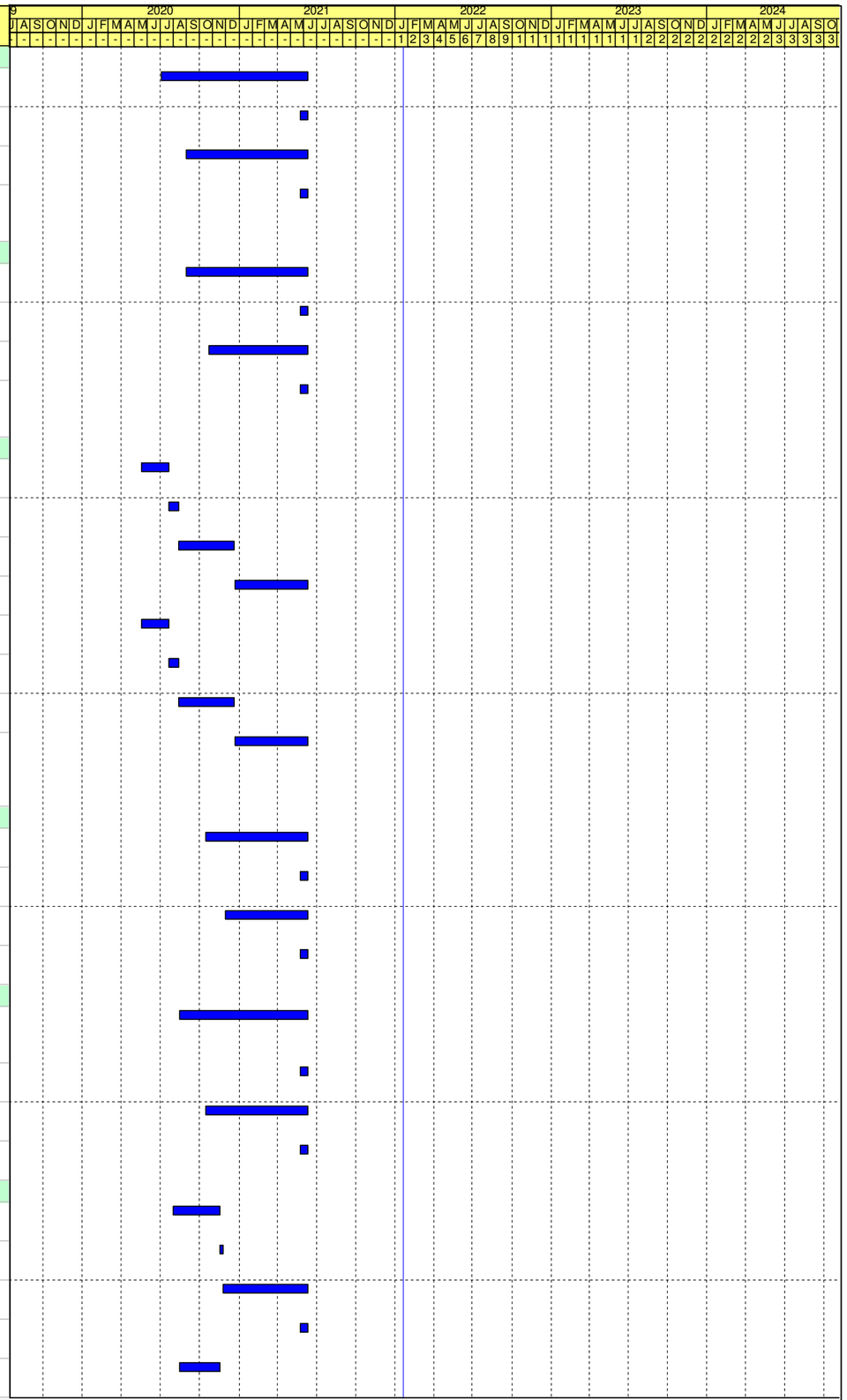
Sludge Dewatering (SDe)									
AS062200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	344	02-Jul-20 A	10-Jun-21 A	18-Mar-22	18-Mar-22		AS023160	AS062210
AS062210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS062200	AS003220, AS023620
AS062300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	284	31-Aug-20 A	10-Jun-21 A	03-Apr-22	03-Apr-22			AS062310
AS062310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	03-Apr-22	03-Apr-22		AS062300	AS501160, AS003220, AS013410f
Biogas Storage & Pre-Treatment (BSPT)									
AS072200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	284	31-Aug-20 A	10-Jun-21 A	18-Mar-22	18-Mar-22		AS023210, AS023190a	AS072210
AS072210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS072200	AS003220, AS023620
AS072300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	232	22-Oct-20 A	10-Jun-21 A	09-Feb-22	09-Feb-22			AS072310
AS072310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	09-Feb-22	09-Feb-22		AS072300	AS501240, AS501780, AS003220
Combined Heat & Power Generation (CHP)									
AS082200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	233	18-May-20 A	21-Jul-20 A	18-Mar-22	18-Mar-22		AS023220	AS082210
AS082210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	22-Jul-20 A	11-Aug-20 A	18-Mar-22	18-Mar-22		AS082200	AS082220, AS201200
AS082220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	12-Aug-20 A	21-Dec-20 A	18-Mar-22	18-Mar-22		AS082210	AS082230
AS082230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	171	22-Dec-20 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS082220	AS003220, AS023620
AS082300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	180	18-May-20 A	21-Jul-20 A	19-Jan-22	19-Jan-22			AS082310
AS082310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	22-Jul-20 A	11-Aug-20 A	19-Jan-22	19-Jan-22		AS082300	AS082320
AS082320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	12-Aug-20 A	21-Dec-20 A	19-Jan-22	19-Jan-22		AS082310	AS082330
AS082330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	171	22-Dec-20 A	11-Jun-21 A	19-Jan-22	19-Jan-22		AS082320	AS501260, AS003220, AS509520a, AS013450f
Waste Gas Burning System (WGB)									
AS092200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	239	15-Oct-20 A	10-Jun-21 A	18-Mar-22	18-Mar-22			AS092210
AS092210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS092200	AS003220, AS023620
AS092300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	194	29-Nov-20 A	10-Jun-21 A	09-Apr-22	09-Apr-22			AS092310
AS092310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	09-Apr-22	09-Apr-22		AS092300	AS501320, AS003220
Plant Service Water System (PSW)									
AS122200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	299	16-Aug-20 A	10-Jun-21 A	18-Mar-22	18-Mar-22		AS020200, AS021200, AS023260	AS122210
AS122210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	18-Mar-22	18-Mar-22		AS122200	AS003220, AS023620
AS122300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	239	15-Oct-20 A	10-Jun-21 A	06-Oct-22	06-Oct-22			AS122310
AS122310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	06-Oct-22	06-Oct-22		AS122300	AS501380, AS003220
Surplus Activated Sludge Pumping Station (SAS)									
AS142200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	202	01-Aug-20 A	17-Nov-20 A	05-Jun-24	05-Jun-24		AS023280	AS142210
AS142210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Nov-20 A	24-Nov-20 A	05-Jun-24	05-Jun-24		AS142200	AS142220
AS142220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	198	25-Nov-20 A	10-Jun-21 A	05-Jun-24	05-Jun-24		AS142210	AS142230
AS142230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS142220	AS003220
AS142300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	183	16-Aug-20 A	17-Nov-20 A	31-Jan-22	31-Jan-22			AS142310



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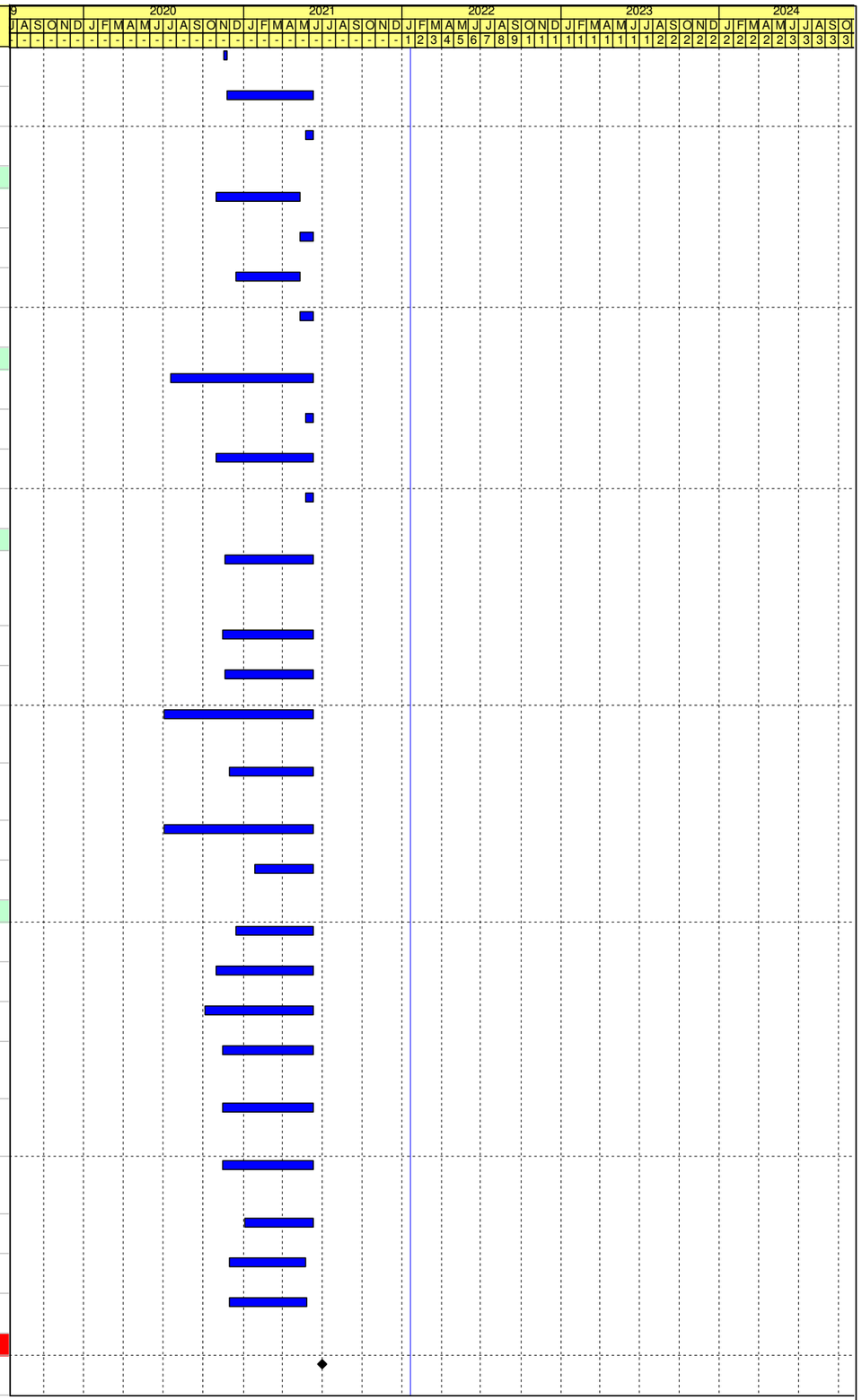
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS142310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	18-Nov-20 A	24-Nov-20 A	31-Jan-22	31-Jan-22		AS142300	AS142320
AS142320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	198	25-Nov-20 A	10-Jun-21 A	31-Jan-22	31-Jan-22		AS142310	AS142330
AS142330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	31-Jan-22	31-Jan-22		AS142320	AS501400, AS003220
Control and Monitoring System									
AS182200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	193	30-Oct-20 A	11-May-21 A	05-Jun-24	05-Jun-24			AS182210
AS182210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	30	12-May-21 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS182200	AS003220
AS182300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	148	14-Dec-20 A	11-May-21 A	08-Jan-22	08-Jan-22			AS182310
AS182310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	30	12-May-21 A	11-Jun-21 A	08-Jan-22	08-Jan-22		AS182300	AS501680, AS003220
Lifting Appliances									
AS192200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	329	17-Jul-20 A	10-Jun-21 A	03-Feb-22	03-Feb-22			AS192210
AS192210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	03-Feb-22	03-Feb-22		AS192200	AS003220, AS501740
AS192300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	224	30-Oct-20 A	10-Jun-21 A	03-Feb-22	03-Feb-22			AS192310
AS192310	Review & Acceptt on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	03-Feb-22	03-Feb-22		AS192300	AS501740, AS003220
Building Services									
AS201100	Submit & Accept BS Works Design & Dwgs for Sludge Dewatering Building	202	21-Nov-20 A	11-Jun-21 A	08-Feb-22	08-Feb-22			AS003220, AS509220, AS509500a, AS509300
AS201200	Submit & Accept BS Works Design & Dwgs for CHP Building	209	14-Nov-20 A	11-Jun-21 A	22-Jun-22	22-Jun-22		AS082210	AS003220, AS509300
AS201300	Submit & Accept BS Works Design & Dwgs for Sludge Digester & Distribution Chamber	202	21-Nov-20 A	11-Jun-21 A	22-Jun-22	22-Jun-22			AS003220, AS509300
AS201500	Submit & Accept BS Works Design & Dwgs for Workshop No. 2	344	02-Jul-20 A	11-Jun-21 A	13-Mar-22	13-Mar-22			AS003220, AS509370b, AS509300
AS201700	Submit & Accept BS Works Design & Dwgs for Other Facilities	194	29-Nov-20 A	11-Jun-21 A	22-Jun-22	22-Jun-22			AS201900, AS003220, AS509300
AS201800	Submit & Accept BS Works Design & Dwgs for FS Installation	344	02-Jul-20 A	11-Jun-21 A	22-Jun-22	22-Jun-22			AS003220, AS509300
AS201900	Submit & Accept BS Works Design & Dwgs for Outdoor Lighting Installation	134	28-Jan-21 A	11-Jun-21 A	05-Jun-24	05-Jun-24		AS201700	AS003220
Miscellaneous									
AS211100	Submit & Accept Design & Dwgs for DO System	179	14-Dec-20 A	11-Jun-21 A	16-Jul-22	16-Jul-22		AS023420, AS010205a	AS501800, AS003220
AS211200	Submit & Accept Design & Dwgs for Sewage Pumping Station	224	30-Oct-20 A	11-Jun-21 A	01-Feb-22	01-Feb-22		AS023480	AS501860, AS003220
AS211300	Submit & Accept Design & Dwgs for Process Water Pumping System	249	05-Oct-20 A	11-Jun-21 A	21-Aug-22	21-Aug-22		AS023500	AS501880, AS003220
AS211400	Submit & Accept Design & Dwgs for External Sludge Transfer Pumping System	209	14-Nov-20 A	11-Jun-21 A	10-Oct-22	10-Oct-22		AS023520	AS211500, AS501900, AS003220
AS211500	Submit & Accept Design & Dwgs for THP Cooling Water Pumping Station	209	14-Nov-20 A	10-Jun-21 A	10-Oct-22	10-Oct-22		AS042200, AS211400, AS023540	AS501920, AS003220
AS211600	Submit & Accept Design & Dwgs for Ferric Chloride Dosing System	209	14-Nov-20 A	11-Jun-21 A	02-May-22	02-May-22			AS501940, AS501960, AS003220
AS211700	Submit & Accept Design & Dwgs for Temporary Primary Sludge Pumping Facility	158	04-Jan-21 A	11-Jun-21 A	06-Aug-22	06-Aug-22		AS010205a	AS501980, AS003220
AS211800	Submit & Accept Design & Dwgs for Gas Detection System	194	29-Nov-20 A	24-May-21 A	06-Sep-22	06-Sep-22			AS003220, AS510080
AS211900	Submit & Accept Design & Dwgs for CCTV System	194	29-Nov-20 A	26-May-21 A	05-Jun-24	05-Jun-24			AS003220
Outstanding Works									
AS211950i	Certifiate of Completion - Section 2 of the works (Ref: RCYK:ccm:60427128/92-2021004626w)	0	02-Jul-21 A		05-Jun-24				



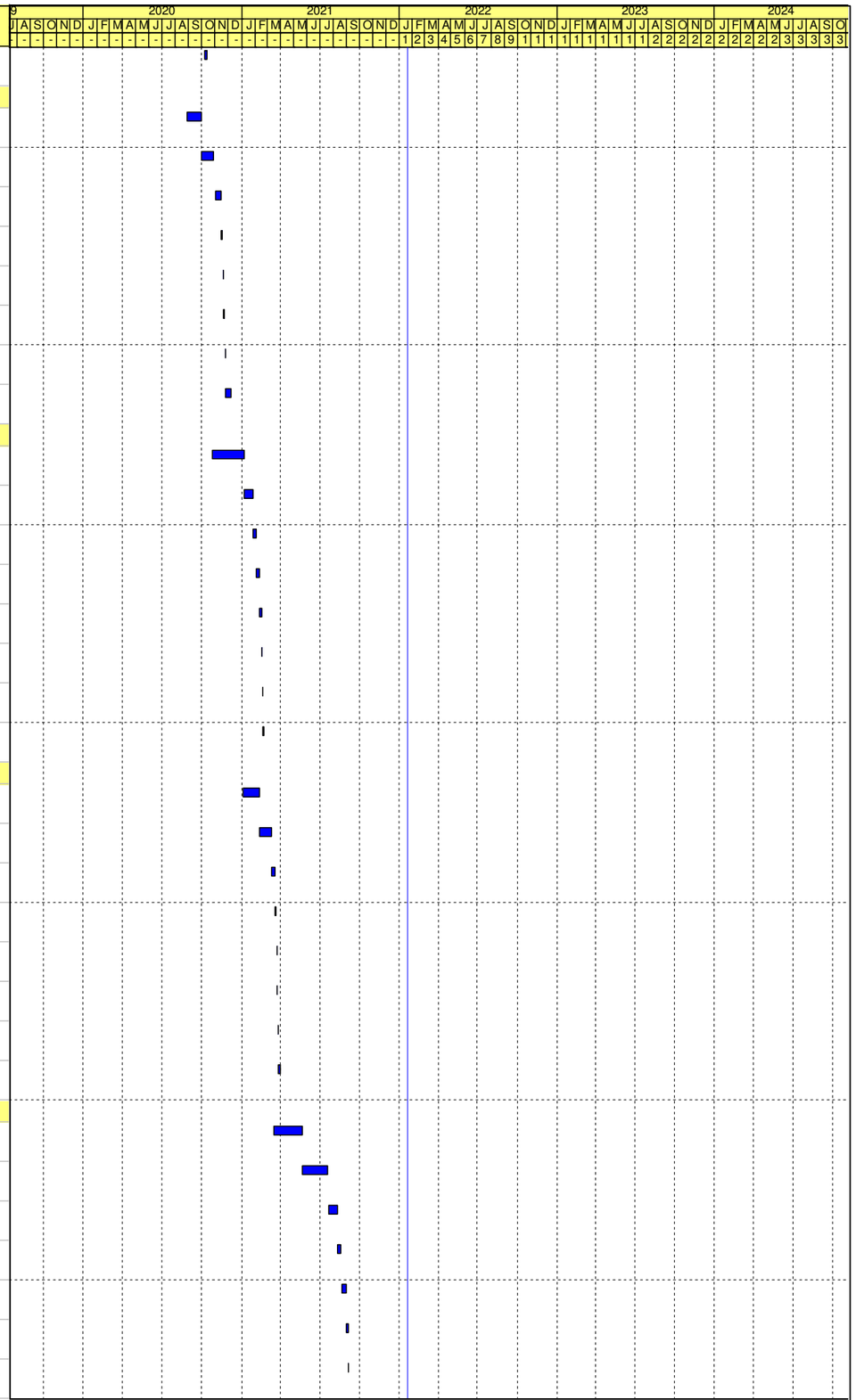
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS212000i	Provide ICE Certificate for all design, calculations, drawings, plans & relevant documents	334	02-Jul-21 A	31-May-22*	21-Jan-22	31-May-22	0		
AS212010i	Submit finalized design calculations, drawings & material submissions for BS systems (Workshop No.2)	76	02-Jul-21 A	15-Sep-21 A	05-Jun-24	05-Jun-24			
AS212015j	Submit finalized design calculations, drawings & material submissions for BS systems (except Workshop No.2)	303	02-Jul-21 A	30-Apr-22*	21-Jan-22	30-Apr-22	0		
AS212020i	Submit finalized sizing calculations for the actuators and stems for penstocks	91	02-Jul-21 A	30-Sep-21 A	05-Jun-24	05-Jun-24			
AS212021j	Submit finalized cable schedules & sizing calculation (LV System)	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212022j	Submit finalized pumps and associated motor and VSD calculations	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212023j	Submit finalized electrical loads to verify the rating of the switchgears, transformers and protective devices	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212024j	Submit finalized material submissions of the cables, cable tray, ladder and accessories	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212025j	Submit finalized cable route drawings	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212026j	Submit finalized layout and control wiring diagrams for switchboard, MCC, control panel, etc	214	02-Jul-21 A	31-Jan-22*	21-Jan-22	31-Jan-22	0		
AS212027j	Submit finalized design submissions of the CHP system	214	02-Jul-21 A	31-Jan-22*	21-Jan-22	31-Jan-22	0		
AS212028j	Submit finalized interlock devices for electrical equipment and system	303	02-Jul-21 A	30-Apr-22*	21-Jan-22	30-Apr-22	0		
AS212029j	Submit finalized calculations for total harmonic distortion, electrical faults and touch voltage	303	02-Jul-21 A	30-Apr-22*	21-Jan-22	30-Apr-22	0		
AS212030i	Submit finalized design calculations, drawings & material submissions for ELV systems	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212040i	Submit finalized design submissions of SCADA, PMS, CMMS, IDMS, UPS for FCS	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212042j	Submit finalized configuration of SCADA / PLC system, CMMS & PMS	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212044j	Submit finalized PLC and MCC panel design	242	02-Jul-21 A	28-Feb-22*	21-Jan-22	28-Feb-22	0		
AS212050i	Submit finalized design & philosophy of the process instrument	183	02-Jul-21 A	31-Jan-22*	21-Dec-21	31-Dec-21	-31		
AS212060i	Submit finalized Process Design Submission	152	02-Jul-21 A	30-Nov-21 A	05-Jun-24	05-Jun-24			
AS212070i	Submit finalized acoustic and noise calculations for all equipment	303	02-Jul-21 A	30-Apr-22*	21-Jan-22	30-Apr-22	0		
AS212080i	Submit finalized design of THP feeding system	122	02-Jul-21 A	30-Nov-21 A	05-Jun-24	05-Jun-24			
AS212090i	Submit finalized design of the centrifuge discharge system	152	02-Jul-21 A	30-Nov-21 A	05-Jun-24	05-Jun-24			
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities									
Major Subcontractor / Supplier Procurement									
Design									
AS160020	Procurement & PO for Deammonification Sidestream Treatment Facilities	200	20-Nov-19 A	05-Jun-20 A	11-Dec-21	11-Dec-21		AS000020, AS010200	AS160100, AS151100, AS153100
AS512260e	E&M (Process) Designer Award	1	05-Jun-20 A	05-Jun-20 A	05-Jun-24	05-Jun-24			
AS512270e	Civil & BS Designer Award	1	26-Jun-20 A	26-Jun-20 A	05-Jun-24	05-Jun-24			AS512280e
AS512280e	Mobilisation	14	27-Jun-20 A	12-Jul-20 A	05-Jun-24	05-Jun-24		AS512270e	
Civil & Building Contractor									
For Site Clearance & Survey									
AS512290e	Submit Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	05-Aug-20 A	20-Aug-20 A	11-Dec-21	11-Dec-21			AS512300e
AS512300e	Review & Comment the Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	21-Aug-20 A	01-Sep-20 A	11-Dec-21	11-Dec-21		AS512290e	AS512310e
AS512310e	Re-submit Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	02-Sep-20 A	02-Sep-20 A	11-Dec-21	11-Dec-21		AS512300e	AS512320e
AS512320e	Review & Accept Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	03-Sep-20 A	23-Sep-20 A	11-Dec-21	11-Dec-21		AS512310e	AS512330e
AS512330e	Civil Contractor (Site Clearance & Survey) Award	1	07-Oct-20 A	07-Oct-20 A	11-Dec-21	11-Dec-21		AS512320e	AS512340e

Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Jan 2022

Date	Revision	Checked	Approved
30-Sep-21	Rev.14	LT	KM
31-Oct-21	Rev.15	LT	KM
30-Nov-21	Rev.16	LT	KM
31-Dec-21	Rev.17	LT	KM
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS512340e	Mobilisation	5	08-Oct-20 A	12-Oct-20 A	11-Dec-21	11-Dec-21		AS512330e	AS161100
For Ground Investigation									
AS512350e	Submit Tender proprosal of Civil Contractor (Ground Investigation)	14	29-Aug-20 A	29-Sep-20 A	11-Dec-21	11-Dec-21			AS512360
AS512360	Review & Accept the Tender proprosal of Civil Contractor (Ground Investigation)	21	30-Sep-20 A	27-Oct-20 A	11-Dec-21	11-Dec-21		AS512350e	AS512370e
AS512370e	Tender Invitation of Civil Contractor (Ground Investigation)	7	02-Nov-20 A	13-Nov-20 A	11-Dec-21	11-Dec-21		AS512360	AS512380e
AS512380e	Submission of Tender Report	7	14-Nov-20 A	18-Nov-20 A	11-Dec-21	11-Dec-21		AS512370e	AS512390e
AS512390e	Review & Accept the Tender Report by PM	21	19-Nov-20 A	19-Nov-20 A	11-Dec-21	11-Dec-21		AS512380e	AS512400e
AS512400e	Contract Preparation	3	20-Nov-20 A	23-Nov-20 A	11-Dec-21	11-Dec-21		AS512390e	AS512410e
AS512410e	Civil Contractor (Ground Investigation) Award	1	24-Nov-20 A	24-Nov-20 A	11-Dec-21	11-Dec-21		AS512400e	AS512420e
AS512420e	Mobilisation	7	25-Nov-20 A	08-Dec-20 A	11-Dec-21	11-Dec-21		AS512410e	AS161120
For Pre-drilling & Post-drilling									
AS512430e	Submit Tender proprosal of Civil Contractor (Pre-drilling & Post-drilling)	74	26-Oct-20 A	06-Jan-21 A	11-Dec-21	11-Dec-21		AS160400, AS160300	AS512440e
AS512440e	Review & Accept the Tender proprosal of Civil Contractor (Predrill & Proof drill)	21	07-Jan-21 A	27-Jan-21 A	11-Dec-21	11-Dec-21		AS512430e	AS512450e
AS512450e	Tender Invitation of Civil Contractor (Pre-drilling & Post-drilling)	14	28-Jan-21 A	04-Feb-21 A	11-Dec-21	11-Dec-21		AS512440e	AS512460e
AS512460e	Submission of Tender Report	4	05-Feb-21 A	10-Feb-21 A	11-Dec-21	11-Dec-21		AS512450e	AS512470e
AS512470e	Review & Accept the Tender Report by PM	21	11-Feb-21 A	16-Feb-21 A	11-Dec-21	11-Dec-21		AS512460e	AS512480e
AS512480e	Contract Preparation	3	17-Feb-21 A	17-Feb-21 A	11-Dec-21	11-Dec-21		AS512470e	AS512490e
AS512490e	Civil Contractor (Pre-drilling & Post-drilling) Award	1	18-Feb-21 A	18-Feb-21 A	11-Dec-21	11-Dec-21		AS512480e	AS512500e
AS512500e	Mobilisation	3	19-Feb-21 A	21-Feb-21 A	11-Dec-21	11-Dec-21		AS512490e	AS161140
For Piling									
AS512510f	Submit Tender proprosal of Civil Contractor (Piling)	39	04-Jan-21 A	10-Feb-21 A	11-Dec-21	11-Dec-21			AS512520f
AS512520f	Review & Accept the Tender proprosal of Civil Contractor (Piling)	25	11-Feb-21 A	12-Mar-21 A	11-Dec-21	11-Dec-21		AS512510f	AS512530f
AS512530f	Tender Invitation of Civil Contractor (Piling)	14	12-Mar-21 A	19-Mar-21 A	11-Dec-21	11-Dec-21		AS512520f	AS512540f
AS512540f	Submission of Tender Report	7	20-Mar-21 A	22-Mar-21 A	11-Dec-21	11-Dec-21		AS512530f	AS512550f
AS512550f	Review & Accept the Tender Report by PM	21	23-Mar-21 A	23-Mar-21 A	11-Dec-21	11-Dec-21		AS512540f	AS512560f
AS512560f	Contract Preparation	3	24-Mar-21 A	25-Mar-21 A	11-Dec-21	11-Dec-21		AS512550f	AS512570f
AS512570f	Civil Contractor (Piling) Award	1	26-Mar-21 A	26-Mar-21 A	11-Dec-21	11-Dec-21		AS512560f	AS512580f
AS512580f	Mobilisation	3	26-Mar-21 A	01-Apr-21 A	11-Dec-21	11-Dec-21		AS512570f	AS161140
For Main Civil Works									
AS512590f	Submit Tender proprosal of Civil Contractor (Main Civil Works)	30	17-Mar-21 A	21-May-21 A	09-Dec-21	09-Dec-21			AS512600f
AS512600f	Review & Accept the Tender proprosal of Civil Contractor (Main Civil Works)	42	22-May-21 A	19-Jul-21 A	09-Dec-21	09-Dec-21		AS512590f	AS512610f
AS512610f	Tender Invitation of Civil Contractor (Main Civil Works)	14	21-Jul-21 A	11-Aug-21 A	09-Dec-21	09-Dec-21		AS512600f	AS512620f
AS512620f	Submission of Tender Report	1	12-Aug-21 A	19-Aug-21 A	09-Dec-21	09-Dec-21		AS512610f	AS512630f
AS512630f	Review & Accept the Tender Report by PM	6	20-Aug-21 A	31-Aug-21 A	09-Dec-21	09-Dec-21		AS512620f	AS512640f
AS512640f	Contract Preparation	1	01-Sep-21 A	05-Sep-21 A	09-Dec-21	09-Dec-21		AS512630f	AS512650f
AS512650f	Civil Contractor (Main Civil Works) Award	1	06-Sep-21 A	06-Sep-21 A	09-Dec-21	09-Dec-21		AS512640f	AS512160e, AS161157i



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Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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30-Sep-21	Rev.14	LT	KM
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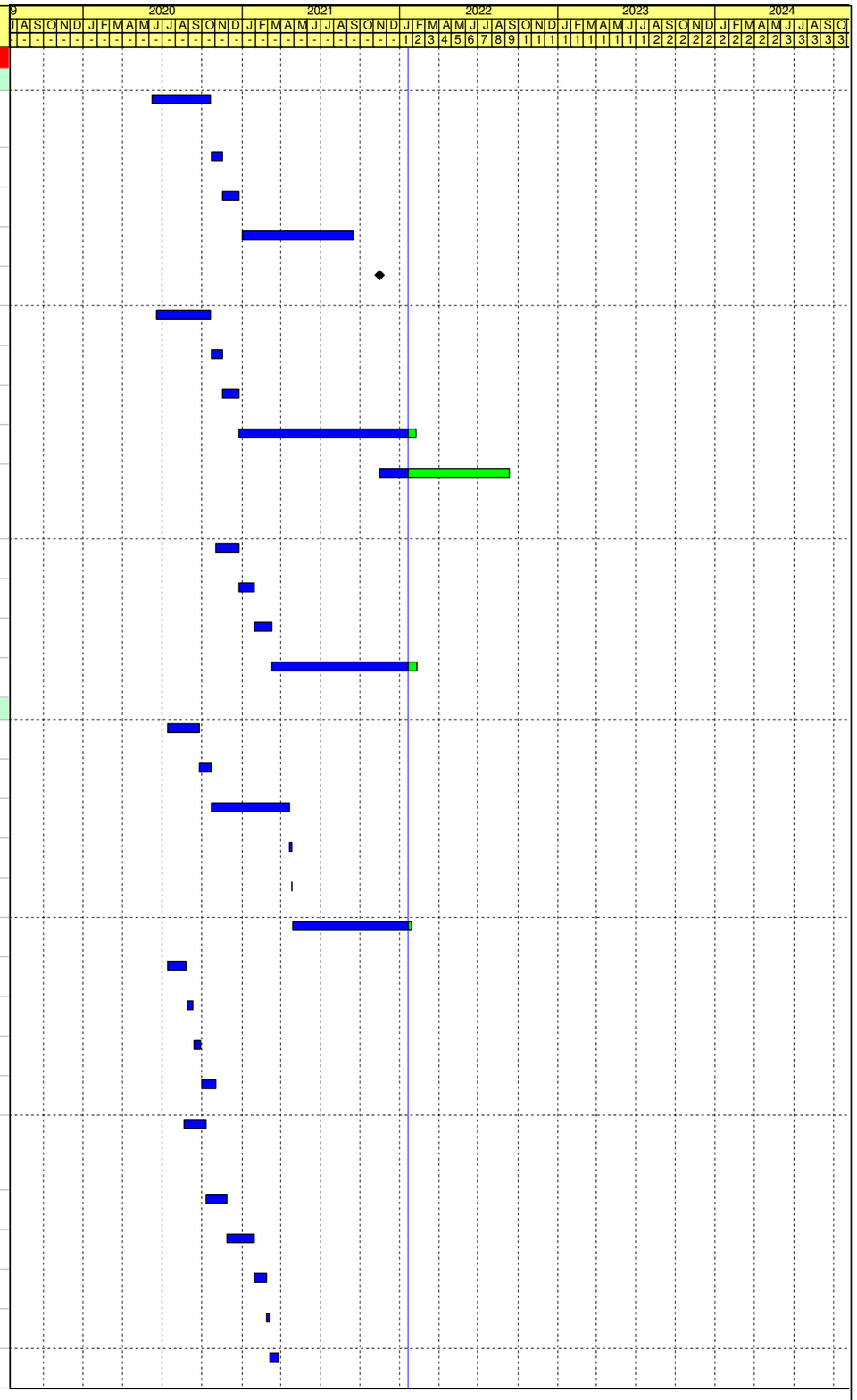
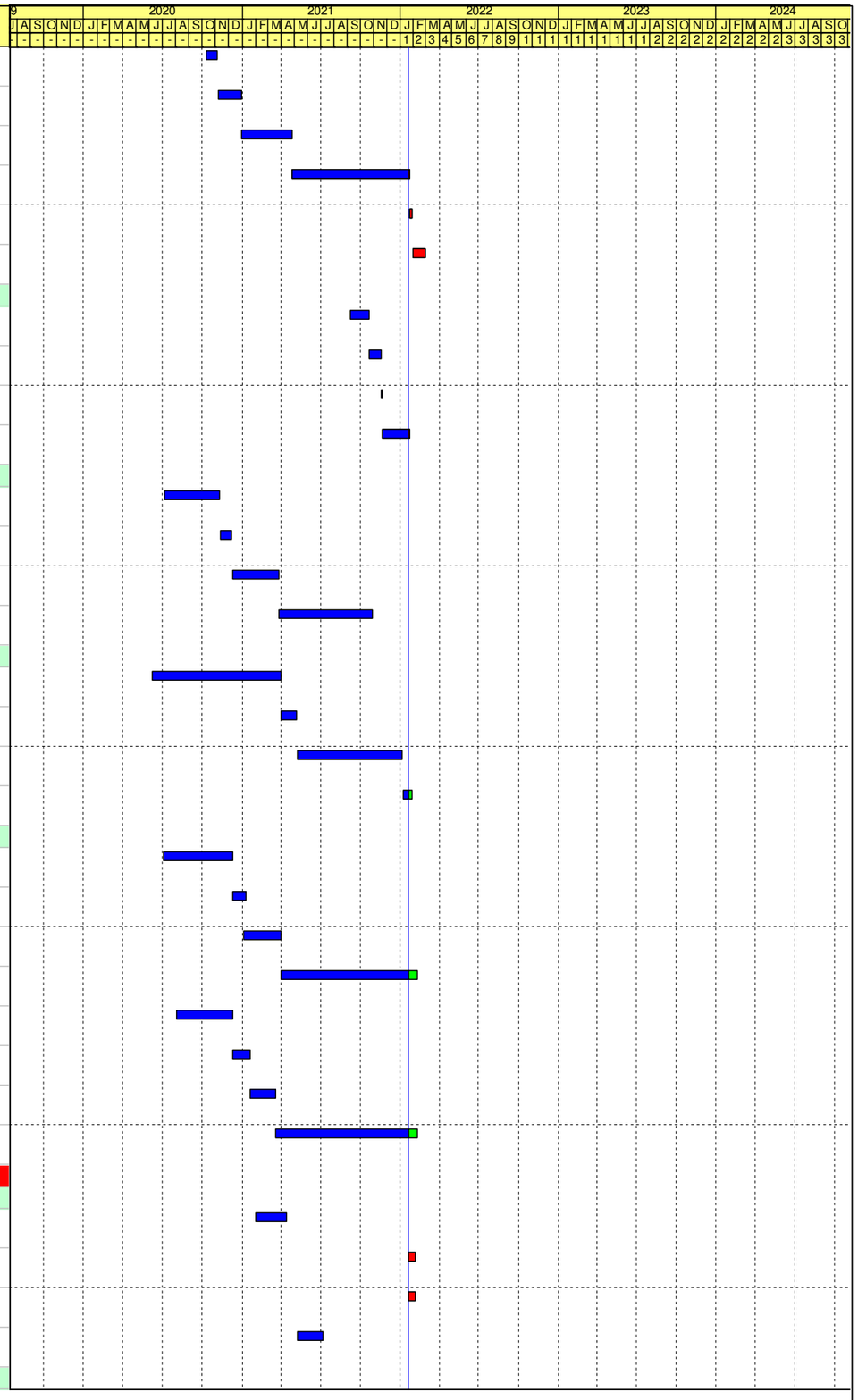
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
Design & Submission									
Architectural									
AS160100	Prepare & Submit Building Layout Plan	60	07-Jun-20 A	21-Oct-20 A	14-Aug-22	14-Aug-22		AS000020, AS160020	AS160110, AS160200, AS160500
AS160110	Review & Comment on BuildingI Layout Plan by PM	67	22-Oct-20 A	17-Nov-20 A	14-Aug-22	14-Aug-22		AS160100	AS160120
AS160120	Revise & Re-submit Building Layout Plan	28	18-Nov-20 A	24-Dec-20 A	14-Aug-22	14-Aug-22		AS160110	AS160130
AS160130	Review & Accept of Building Layout Plan by PM	214	01-Jan-21 A	16-Sep-21 A	14-Aug-22	14-Aug-22		AS160120	AS160240
AS160190e	Coordination Meeting with DSD (Employer) for the Architectural Drawing	0		15-Nov-21 A		14-Aug-22			AS160240
AS160200	Prepare & Submit Architectural Design / Drawings	60	17-Jun-20 A	21-Oct-20 A	16-Mar-23	16-Mar-23		AS160100	AS160210
AS160210	Review & Comment on Architectural Design / Drawings by PM	67	22-Oct-20 A	17-Nov-20 A	16-Mar-23	16-Mar-23		AS160200	AS160220
AS160220	Revise & Re-submit Architectural Design / Drawings	28	18-Nov-20 A	24-Dec-20 A	16-Mar-23	16-Mar-23		AS160210	AS160230
AS160230	Review & Accept of Architectural Design / Drawings by PM	411	25-Dec-20 A	08-Feb-22	16-Mar-23	04-Apr-23	420	AS160220	AS160240
AS160240	Review & Accept of Architectural Design / Drawings by DSD (incl. VCAB) & DAP of ArchSD	300	15-Nov-21 A	10-Sep-22	14-Aug-22	04-Apr-23	206	AS160230, AS160530, AS160130, AS160190e	AS161220, AS512370f
AS160500	Prepare & Submit ABWF Works Drawings	68	03-Nov-20 A	24-Dec-20 A	14-Mar-23	14-Mar-23		AS160100	AS160510
AS160510	Review & Comment on ABWF Works Drawings by PM	21	25-Dec-20 A	29-Jan-21 A	14-Mar-23	14-Mar-23		AS160500	AS160520
AS160520	Revise & Re-submit ABWF Works Drawings	41	30-Jan-21 A	11-Mar-21 A	14-Mar-23	14-Mar-23		AS160510	AS160530
AS160530	Review & Accept of ABWF Works Drawings by PM	336	12-Mar-21 A	10-Feb-22	14-Mar-23	04-Apr-23	418	AS160520	AS161220, AS160240
Civil / Structural									
AS160240e	Prepare & Submit Loading Plan to ICE	60	13-Jul-20 A	25-Sep-20 A	30-Jan-22	30-Jan-22			AS160250e
AS160250e	Review & Comment on Loading Plan by ICE	14	26-Sep-20 A	23-Oct-20 A	30-Jan-22	30-Jan-22		AS160240e	AS160260e
AS160260e	Revise & Re-submit Loading Plan to ICE	175	24-Oct-20 A	20-Apr-21 A	30-Jan-22	30-Jan-22		AS160250e	AS160270e
AS160270e	Review & Accept of Loading Plan by ICE	7	21-Apr-21 A	26-Apr-21 A	30-Jan-22	30-Jan-22		AS160260e	AS160280e
AS160280e	Prepare & Submit Loading Plan to PM	7	27-Apr-21 A	27-Apr-21 A	30-Jan-22	30-Jan-22		AS160270e	AS160290e
AS160290e	Review & Accept of Loading Plan by PM & DSD (incl. BCM)	275	28-Apr-21 A	27-Jan-22	30-Jan-22	06-Feb-22	10	AS160280e	AS161180
AS160292e	Prepare & Submit GI Plan	60	13-Jul-20 A	26-Aug-20 A	11-Dec-21	11-Dec-21			AS160294e
AS160294e	Review & Comment on GI Plan by PM	14	27-Aug-20 A	10-Sep-20 A	11-Dec-21	11-Dec-21		AS160292e	AS160296e
AS160296e	Revise & Re-submit GI Plan	7	11-Sep-20 A	28-Sep-20 A	11-Dec-21	11-Dec-21		AS160294e	AS160298e
AS160298e	Review & Accept of GI Plan by PM	21	29-Sep-20 A	02-Nov-20 A	11-Dec-21	11-Dec-21		AS160296e	AS161120
AS160300	Prepare & Submit Foundation Design / Drawings to ICE & PM	60	20-Aug-20 A	09-Oct-20 A	11-Dec-21	11-Dec-21			AS160310, AS161100, AS160400, AS512430e
AS160310	Review & Comment on Foundation Design / Drawings by ICE & PM	79	10-Oct-20 A	27-Nov-20 A	05-Jun-24	05-Jun-24		AS160300	AS160320
AS160320	Revise & Re-submit Foundation Design / Drawings to ICE & PM	14	28-Nov-20 A	29-Jan-21 A	05-Jun-24	05-Jun-24		AS160310	AS160330
AS160330	Review & Accept of Foundation Design / Drawings by ICE & PM	10	30-Jan-21 A	26-Feb-21 A	05-Jun-24	05-Jun-24		AS160320	AS160340e
AS160340e	Prepare & Submit Foundation Design / Drawings to DSD (incl. BCM)	7	27-Feb-21 A	05-Mar-21 A	05-Jun-24	05-Jun-24		AS160330	AS160350e
AS160350e	Review & Accept of Foundation Design / Drawings by DSD (incl. BCM)	45	06-Mar-21 A	26-Mar-21 A	05-Jun-24	05-Jun-24		AS160340e	



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS160400	Prepare & Submit Substructure / Superstructure Design / Drawings to ICE & PM	25	10-Oct-20 A	05-Nov-20 A	11-Dec-21	11-Dec-21		AS160300	AS160410, AS512430e
AS160410	Review & Comment on Substructure / Superstructure Design / Drawings by ICE & PM	55	06-Nov-20 A	30-Dec-20 A	29-Dec-21	29-Dec-21		AS160400	AS160420
AS160420	Revise & Re-submit Substructure / Superstructure Design / Drawings to ICE & PM	72	31-Dec-20 A	26-Apr-21 A	29-Dec-21	29-Dec-21		AS160410	AS160430
AS160430	Review & Accept of Substructure / Superstructure Design / Drawings by ICE & PM	271	27-Apr-21 A	22-Jan-22	29-Dec-21	31-Dec-21	-23	AS160420	AS160440e
AS160440e	Prepare & Submit Substructure / Superstructure Design / Drawings to DSD (incl. BCM)	7	23-Jan-22	29-Jan-22	31-Dec-21	07-Jan-22	-23	AS160430	AS160450e
AS160450e	Review & Accept of Substructure / Superstructure Design / Drawings by DSD (incl. BCM)	30	30-Jan-22	28-Feb-22	07-Jan-22	06-Feb-22	-23	AS160440e	AS161180
ELS									
AS512160e	Prepare & Submit ELS Plan to ICE	45	07-Sep-21 A	20-Oct-21 A	09-Dec-21	09-Dec-21		AS512650f	AS512190e
AS512190e	Review & Accept of ELS Plan by ICE	5	21-Oct-21 A	18-Nov-21 A	09-Dec-21	09-Dec-21		AS512160e	AS512200e
AS512200e	Prepare & Submit ELS Plan to PM	3	19-Nov-21 A	19-Nov-21 A	09-Dec-21	09-Dec-21		AS512190e	AS512210e
AS512210e	Review & Accept of ELS Plan by PM	64	20-Nov-21 A	22-Jan-22	09-Dec-21	11-Dec-21	-43	AS512200e	AS161160
Process Design									
AS512220e	Prepare & Submit E&M Works (Process) Design Drawings	198	06-Jul-20 A	10-Nov-20 A	18-Aug-22	18-Aug-22			AS512230e
AS512230e	Review & Comment on E&M Works (Process) Design Drawings by PM	21	11-Nov-20 A	08-Dec-20 A	18-Aug-22	18-Aug-22		AS512220e	AS512240e
AS512240e	Revise & Re-submit E&M Works (Process) Design Drawings	87	09-Dec-20 A	26-Mar-21 A	18-Aug-22	18-Aug-22		AS512230e	AS512250e
AS512250e	Review & Accept of E&M Works (Process) Design Drawings by PM	278	27-Mar-21 A	29-Oct-21 A	18-Aug-22	18-Aug-22		AS512240e	AS154100
E&M Design									
AS151100	Prepare & Submit General Arrangement Drawings	298	07-Jun-20 A	31-Mar-21 A	11-Dec-21	11-Dec-21		AS160020	AS151110, AS161160
AS151110	Review & Comment on General Arrangement Drawings by PM	37	01-Apr-21 A	07-May-21 A	30-Jan-22	30-Jan-22		AS151100	AS151120
AS151120	Revise & Re-submit General Arrangement Drawings	247	08-May-21 A	06-Jan-22 A	30-Jan-22	30-Jan-22		AS151110	AS151130
AS151130	Review & Accept of General Arrangement Drawings by PM	21	07-Jan-22 A	27-Jan-22	30-Jan-22	06-Feb-22	10	AS151120	AS161180
BS									
AS201400	Prepare & Submit BS Works Design & Dwgs for Sidestream Treatment Facilities	264	03-Jul-20 A	10-Dec-20 A	04-Oct-22	04-Oct-22			AS201405e
AS201405e	Review & Comment on BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	11-Dec-20 A	11-Jan-21 A	04-Oct-22	04-Oct-22		AS201400	AS201410e
AS201410e	Revise & Re-submit BS Works Design & Dwgs for Sidestream Treatment Facilities	102	05-Jan-21 A	31-Mar-21 A	04-Oct-22	04-Oct-22		AS201405e	AS201415e
AS201415e	Review & Accept of BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	315	01-Apr-21 A	09-Feb-22	04-Oct-22	24-Oct-22	257	AS201410e	AS154200
AS201420	Submission & Submit FS Works Design & Dwgs for Sidestream Treatment Facilities	182	03-Aug-20 A	10-Dec-20 A	28-Oct-22	28-Oct-22			AS201430e
AS201430e	Review & Comment on FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	11-Dec-20 A	19-Jan-21 A	28-Oct-22	28-Oct-22		AS201420	AS201440e
AS201440e	Revise & Re-submit FS Works Design & Dwgs for Sidestream Treatment Facilities	66	20-Jan-21 A	19-Mar-21 A	28-Oct-22	28-Oct-22		AS201430e	AS201450e
AS201450e	Review & Accept of FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	327	20-Mar-21 A	09-Feb-22	28-Oct-22	17-Nov-22	281	AS201440e	AS154160
Major Plant & Materials Procurement									
Civil & Structure									
AS153130e	Procurement, Manufacture & Delivery of Piling	60	01-Feb-21 A	14-Apr-21 A	11-Dec-21	11-Dec-21			AS161145g
AS153140e	Procurement, Manufacture & Delivery of Concrete Mix	15	21-Jan-22*	04-Feb-22	22-Jan-22	06-Feb-22	2		AS161180
AS153150e	Procurement, Manufacture & Delivery of Steel Reinforcement	15	21-Jan-22*	04-Feb-22	22-Jan-22	06-Feb-22	2		AS161180
AS153160e	Procurement, Manufacture & Delivery of Metal Works Material	80	09-May-21 A	07-Jul-21 A	11-Dec-21	11-Dec-21			AS161160
ABWF									



Remaining Work
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Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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30-Sep-21	Rev.14	LT	KM
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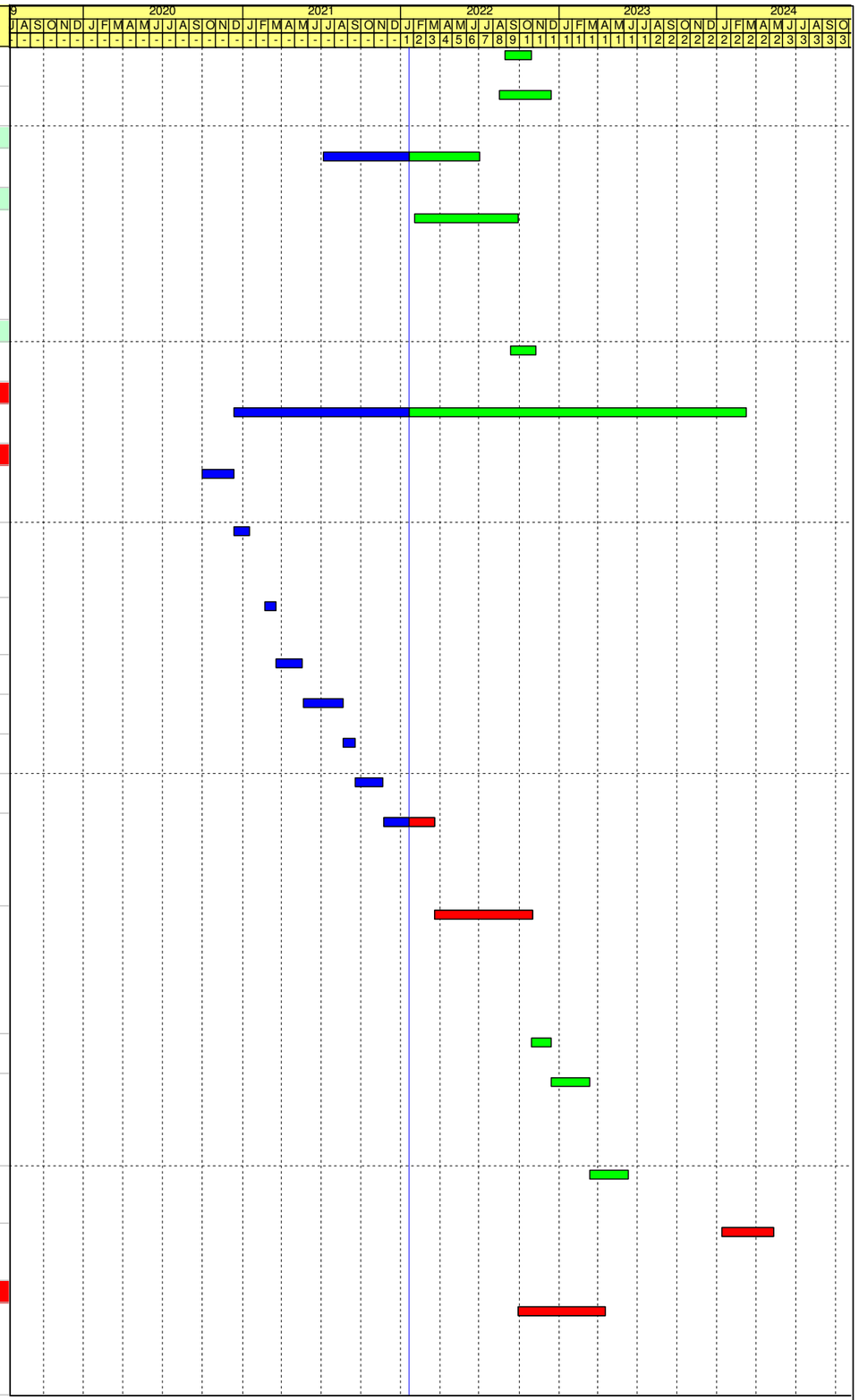
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS153170	Procurement, Manufacture & Delivery of Water Proofing Material	60	31-Aug-22	29-Oct-22	18-Feb-23	19-Apr-23	172		AS161200
AS153180	Procurement, Manufacture & Delivery of ABWF Works Material	120	16-Aug-22	13-Dec-22	03-Feb-23	03-Jun-23	172		AS161220
E&M Process									
AS153100	Procurement, Manufacture & Delivery of Deammonification Sidestream Treatment Facilities	360	07-Jul-21 A	01-Jul-22	09-Mar-22	18-Aug-22	48	AS160020	AS154100
BS									
AS153190	Procurement, Manufacture & Delivery of BS Works Material	240	02-Feb-22	29-Sep-22	26-Feb-22	24-Oct-22	25		AS154120, AS154160, AS154200, AS154240, AS155120a, AS154270
Fitting-out									
AS512370f	Procurement, Manufacture & Delivery of Fit-out Works Material	60	11-Sep-22	09-Nov-22	04-Apr-23	03-Jun-23	206	AS160240	AS161220
Ground Settlement, Tilting & Utility Monitoring									
AS153200f	Ground Settlement, Tilting & Utility Monitoring	1184	12-Dec-20 A	09-Mar-24	09-Feb-22	29-Mar-24	20	AS161100	AS155360a
Civil Works Construction									
AS161100	Site Clearance & Survey	50	30-Sep-20 A	11-Dec-20 A	11-Dec-21	11-Dec-21		AS160300, AS001720, AS512340e	AS161120, AS153200f
AS161120	Ground Investigation	65	12-Dec-20 A	18-Jan-21 A	11-Dec-21	11-Dec-21		AS001720, AS161100, AS512420e, AS160298e	AS161140
AS161140	Pre-drilling Works	180	22-Feb-21 A	19-Mar-21 A	11-Dec-21	11-Dec-21		AS161120, AS512500e, AS512580f	AS161145g
AS161145g	Minor Civil Works & Preperation Works for Piling	31	20-Mar-21 A	20-May-21 A	11-Dec-21	11-Dec-21		AS161140, AS153130e	AS161150g
AS161150g	Piling Works (Impacted by Inclement Weather)	69	21-May-21 A	21-Aug-21 A	11-Dec-21	11-Dec-21		AS161145g	AS161155g
AS161155g	Post-drilling, Proof test & remaining works (Impacted by Inclement Weather)	23	22-Aug-21 A	17-Sep-21 A	11-Dec-21	11-Dec-21		AS161150g	AS161160, AS161157i
AS161157i	Site Set-up / Mobilisation (Impacted by Inclement Weather)	51	18-Sep-21 A	20-Nov-21 A	11-Dec-21	11-Dec-21		AS161155g, AS512650f	AS161160
AS161160	Excavation / ELS (Impacted by Inclement Weather)	90	24-Nov-21 A	20-Mar-22	11-Dec-21	06-Feb-22	-43	AS151100, AS153160e, AS512210e, AS161155g, AS161157i	AS161180
AS161180	Substructure / Superstructure	225	21-Mar-22	31-Oct-22	06-Feb-22	19-Sep-22	-43	AS161160, AS201460, AS153140e, AS153150e, AS151130, AS160450e, AS160290e	AS161200, AS161260, AS154100, AS154110e, AS154160, AS154200
AS161200	Waterproofing	45	30-Oct-22	13-Dec-22	19-Apr-23	03-Jun-23	172	AS161180, AS153170	AS161220
AS161220	External & Internal Finishes - 1st Fix (Blockwork, Plastering, Wet Trade)	90	14-Dec-22	13-Mar-23	03-Jun-23	01-Sep-23	172	AS161200, AS153180, AS160240, AS160530, AS512370f	AS161240, AS161260
AS161240	External & Internal Finishes - 2nd Fix (Ceiling / Wall / Floor Finishing, Door)	90	14-Mar-23	11-Jun-23	01-Sep-23	30-Nov-23	172	AS161220	AS003320, AS201540a, AS161260
AS161260	Landscaping Works	120	12-Jan-24	10-May-24	30-Nov-23	29-Mar-24	-43	AS161180, AS161220, AS161240	AS003320
E&M Installation									
AS154100	E&M Installation of Deammonification Sidestream Treatment Facilities	200	30-Sep-22	17-Apr-23	18-Aug-22	06-Mar-23	-43	AS102300, AS112300, AS161180, AS153100, AS512250e	AS154120, AS155100, AS154240, AS155120a, AS154270



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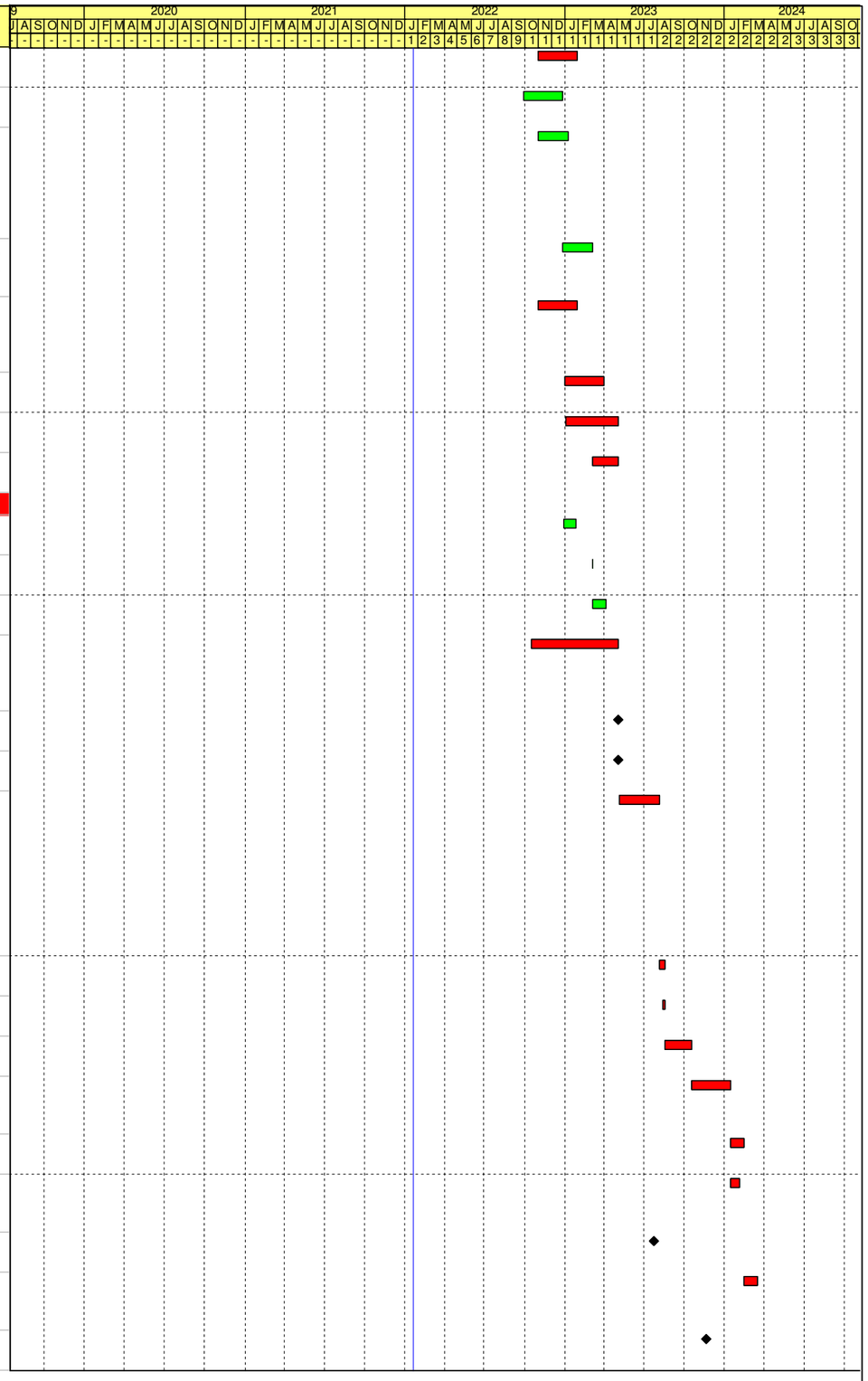
AS154110e	E&M installation of DG Plant Room	90	01-Nov-22	29-Jan-23	13-Oct-22	11-Jan-23	-19	AS161180, AS201489g	AS201490e
AS154120	Installation of Electrical Supply Systems (TX, LV Switchboard & Temp. Power)	90	30-Sep-22	28-Dec-22	02-Dec-22	02-Mar-23	64	AS154100, AS153190	AS155100, AS155000d
AS154160	FS Installation - Conduits, Trunking, & Pipeworks	70	01-Nov-22	09-Jan-23	17-Nov-22	26-Jan-23	17	AS201440, AS201460, AS201470e, AS161180, AS153190, AS201450e	AS154180, AS201472e
AS154180	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	70	27-Dec-22	06-Mar-23	12-Jan-23	23-Mar-23	17	AS154160	AS155120a, AS201510a, AS155040d
AS154200	BS Fitting Installation - Conduits, Trunking, & Ductworks	90	01-Nov-22	29-Jan-23	24-Oct-22	22-Jan-23	-8	AS201470e, AS161180, AS153190, AS201415e	AS154220, AS201472e
AS154220	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	90	31-Dec-22	30-Mar-23	23-Dec-22	23-Mar-23	-8	AS154200	AS155100
AS154240	Installation of Control & Monitoring System	120	05-Jan-23	04-May-23	23-Nov-22	23-Mar-23	-43	AS154100, AS153190	AS155100
AS154270	Installation of Gas Detection System	60	06-Mar-23	04-May-23	22-Jan-23	23-Mar-23	-43	AS154100, AS153190	AS155120a
Testing & Commissioning									
AS155000d	SAT for TX & LV Switchboard	30	29-Dec-22	27-Jan-23	27-Sep-23	27-Oct-23	273	AS154120	AS155020d
AS155020d	Power Energization (Power Provision from DE/2018/04 Contract)	1	06-Mar-23	06-Mar-23	27-Oct-23	28-Oct-23	236	AS155000d	AS155040d
AS155040d	Essential T&C for FSD Inspection	30	07-Mar-23	05-Apr-23	28-Oct-23	27-Nov-23	236	AS155020d, AS154180	AS201510a
AS155100	SAT for Deammonification Sidestream Treatment Facilities (Ref. to PS6B.1.18.3)	200	17-Oct-22	04-May-23	04-Sep-22	23-Mar-23	-43	AS154100, AS154120, AS154240, AS154220	AS155120a, AS155120a
AS155105e	Existing sludge dewatering facilities Ready (by DE/2018/04 Contract)	0		04-May-23		23-Mar-23	-43		AS155120a
AS155110e	Plant service water from zone B/C Ready (Zone B by DE/2018/04 Contract)	0		04-May-23		23-Mar-23	-43		AS155120a
AS155120a	Process Start Up	92	05-May-23	04-Aug-23	23-Mar-23	23-Jun-23	-43	AS155100, AS154180, AS155110e, AS155105e, AS201505e, AS154270, AS154100, AS153190, AS155100	AS155140a
AS155140a	Submission & Acceptance of Process Start Up Report	14	05-Aug-23	18-Aug-23	23-Jun-23	07-Jul-23	-43	AS155120a	AS155160a
AS155160a	Notice for Commencement of Phase 1 Commissioning Tests	7	12-Aug-23	18-Aug-23	30-Jun-23	07-Jul-23	-43	AS155140a	AS155200
AS155200	Phase 1 Commissioning Tests with daily result to PM	60	19-Aug-23	17-Oct-23	07-Jul-23	05-Sep-23	-43	AS155160a	AS155220a, AS155210e
AS155210e	Phase 1 Re-commissioning Tests with daily result to PM (If Failure)	90	18-Oct-23	15-Jan-24	05-Sep-23	04-Dec-23	-43	AS155200	AS155220a, AS155240a, AS002050j
AS155220a	Submission & Acceptance of Phase 1 Commissioning Tests Report	30	16-Jan-24	14-Feb-24	08-Dec-23	07-Jan-24	-39	AS155200, AS155210e	AS155260a
AS155240a	Phase 1 Post Commissioning with daily result to PM	19	16-Jan-24	03-Feb-24	04-Dec-23	23-Dec-23	-43	AS155210e	AS155260a, AS012300, AS155300
AS155250e	Ready to Process start up of the first Anaerobic Digester in Zone C	0	24-Jul-23		07-Jan-24		168	AS512200a	AS155260a
AS155260a	Submission & Acceptance of Phase 1 Post Commissioning Report	30	15-Feb-24	15-Mar-24	07-Jan-24	06-Feb-24	-39	AS155240a, AS155250e, AS155220a	AS155320a
AS155270e	THP digested sludge centrate from Zone C Ready	0		20-Nov-23		23-Dec-23	33	AS512200a	AS155300



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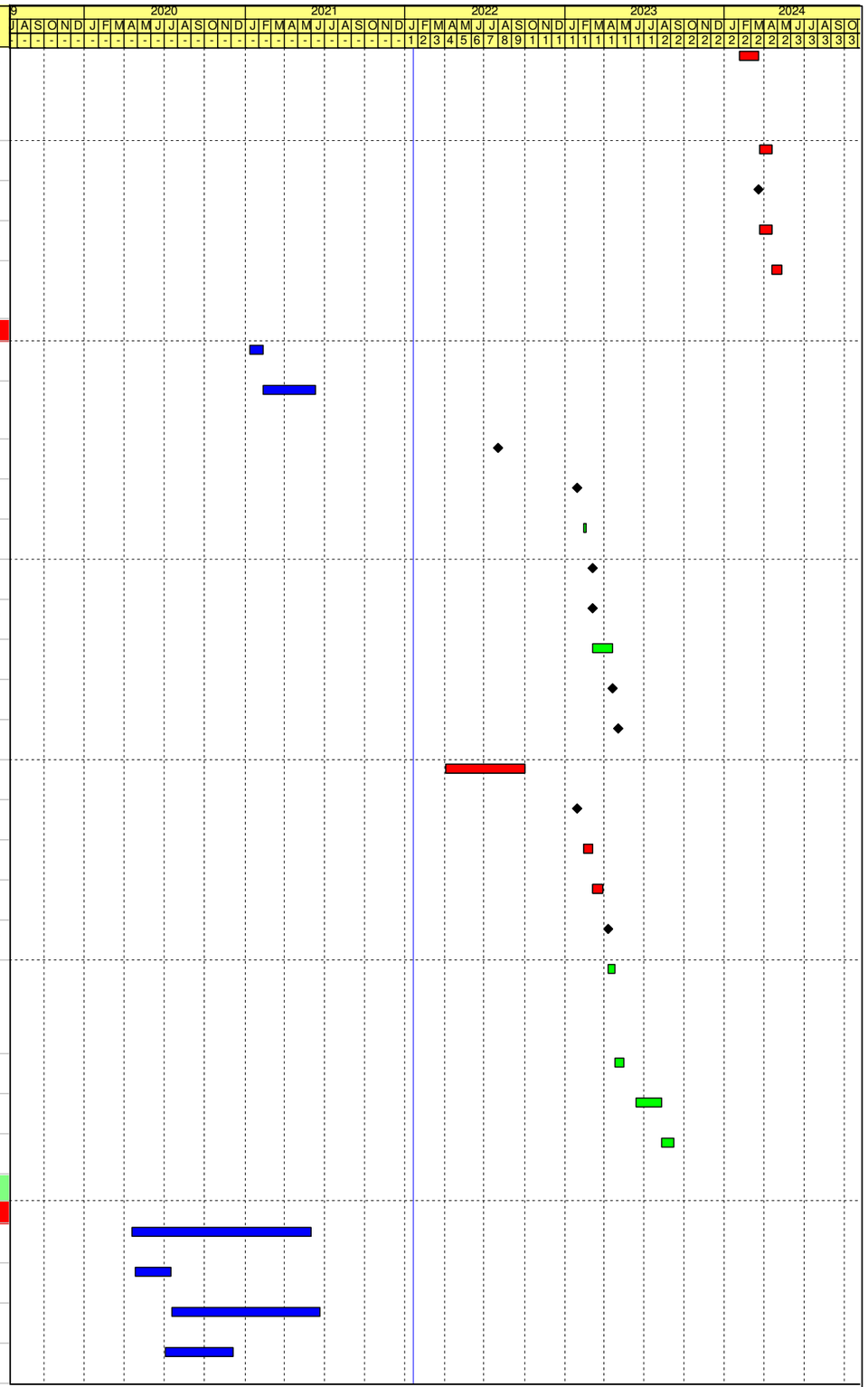
AS155300	Phase 2 Commissioning Tests with daily result to PM	45	04-Feb-24	19-Mar-24	23-Dec-23	06-Feb-24	-43	AS155270e, AS155240a	AS155320a, AS012100, AS155330e, AS155340a, AS513000a
AS155320a	Submission & Acceptance of Phase 2 Commissioning Tests Report	30	20-Mar-24	18-Apr-24	06-Feb-24	07-Mar-24	-43	AS155300, AS155260a	AS155360a
AS155330e	Commissioning of new Anaerobic Digesters (2 nos.) in Zone C Finished	0		19-Mar-24		06-Feb-24	-43	AS512800a, AS155300	AS155340a
AS155340a	Phase 3 Commissioning Tests with daily result to PM	30	20-Mar-24	18-Apr-24	06-Feb-24	07-Mar-24	-43	AS155330e, AS155300	AS155360a, AS011500
AS155360a	Submission & Acceptance of Phase 3 Commissioning Tests Report	22	19-Apr-24	10-May-24	07-Mar-24	29-Mar-24	-43	AS155340a, AS153200f, AS155320a	AS003320
Statutory Submission / Inspection (FSD)									
AS201440	Prepare & Submit GBP for FSD approval	90	12-Jan-21 A	10-Feb-21 A	06-Feb-22	06-Feb-22			AS154160, AS201460
AS201460	FSD Review & Approval of GBP	180	11-Feb-21 A	11-Jun-21 A	06-Feb-22	06-Feb-22		AS201440	AS154160, AS161180, AS201510a
AS201470e	Submit WWO46 Part I/II to WSD (FS / PD)	0	03-Aug-22		26-Jul-22		-8		AS154160, AS154200
AS201472e	Submit WWO46 Part IV to WSD (FS / PD)	0	30-Jan-23		23-Oct-23		267	AS154160, AS154200	AS201475e
AS201475e	WSD Inspection	7	13-Feb-23	19-Feb-23	06-Nov-23	13-Nov-23	267	AS201472e	AS201480e, AS201477e
AS201477e	Issuance of FS Water Certificate	0		05-Mar-23		27-Nov-23	267	AS201475e	AS201510a
AS201480e	Issuance of Form WWO46 Part Va	0		05-Mar-23		30-Jan-24	331	AS201475e	AS201485e, AS201482f
AS201482f	System Flushing / Sampling	45	06-Mar-23	19-Apr-23	30-Jan-24	15-Mar-24	331	AS201480e	AS201485e
AS201485e	Issuance of Form WWO46 Part Vb	0		19-Apr-23		15-Mar-24	331	AS201480e, AS201482f	AS201487f
AS201487f	Issuance of Water Certificate	0		03-May-23		29-Mar-24	331	AS201485e	AS003320
AS201489g	Submission & Approval of DG Application to FSD	180	05-Apr-22	01-Oct-22	17-Mar-22	13-Sep-22	-19		AS154110e
AS201490e	Submit Application to FSD for DG Licence	0	30-Jan-23		11-Jan-23		-19	AS154110e	AS201495e
AS201495e	D.G. Inspection, Defects Rectification & Re-inspection (Ventilation Division)	21	14-Feb-23	06-Mar-23	26-Jan-23	16-Feb-23	-19	AS201490e	AS201500e
AS201500e	D.G. Inspection, Defects Rectification & Re-inspection (DG Division)	21	07-Mar-23	27-Mar-23	16-Feb-23	09-Mar-23	-19	AS201495e	AS201505e
AS201505e	DG Licence issued	0		10-Apr-23		23-Mar-23	-19	AS201500e	AS201510a, AS155120a
AS201510a	Prepare & Submit FS/314, FS/501 & FS/501a	14	11-Apr-23	24-Apr-23	27-Nov-23	11-Dec-23	231	AS201460, AS154180, AS155040d, AS201505e, AS201477e	AS201520a
AS201520a	FSD Review & Approval of FS/314, FS/501 & FS/501a	21	25-Apr-23	15-May-23	11-Dec-23	01-Jan-24	231	AS201510a	AS201540a
AS201540a	F.S. Inspection, Defects Rectification & Re-inspection	60	12-Jun-23	10-Aug-23	01-Jan-24	01-Mar-24	204	AS201520a, AS161240	AS201560a
AS201560a	Issuance of Acceptance Letter	28	11-Aug-23	07-Sep-23	01-Mar-24	29-Mar-24	204	AS201540a	AS003320
Section 4 - Complete Construction & T&C for UV System No.1 & EP Station No. 1									
Major Plant & Materials Fabrication & Delivery									
AS103160	Procurement & PO for FRP Cover (S11)	409	18-Apr-20 A	31-May-21 A	08-Jan-22	08-Jan-22		AS010200	AS104160
AS103300	Procurement & PO for Pipeworks & Associated Valves	90	25-Apr-20 A	15-Jul-20 A	16-Jan-22	16-Jan-22		AS101100	AS104300
AS103320	Procurement & PO for Elec. Materials	365	18-Jul-20 A	22-Jun-21 A	26-Mar-22	26-Mar-22		AS102180	AS104320
AS103400	Procurement & PO for FS System (S20)	60	02-Jul-20 A	04-Dec-20 A	04-Feb-22	04-Feb-22		AS113260c	AS104400



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AS104100	Fabrication of UV Disinfection System (S10)	239	18-Jan-21 A	17-Sep-21 A	16-Jan-22	16-Jan-22		AS103100, AS002010, AS102330	AS106210, AS104105c
AS104105c	FAT for UV Disinfection System (S10)	71	23-Jul-21 A	17-Sep-21 A	16-Jan-22	16-Jan-22		AS104100	AS104110c
AS104110c	Delivery of UV Disinfection System (S10)	149	01-Jun-21 A	22-Oct-21 A	16-Jan-22	16-Jan-22		AS104105c	AS106210
AS104120	Fabrication & Delivery of Lift-up Pumps (S11)	225	11-Jan-21 A	26-Jul-21 A	05-Jan-22	05-Jan-22		AS103120, AS112330	AS106160
AS104140	Fabrication & Delivery of Transfer Pumps (S13)	218	26-Feb-21 A	26-Jul-21 A	15-Jun-22	15-Jun-22		AS103140, AS112330	AS106180
AS104160	Fabrication & Delivery of FRP Cover (S11)	89	01-Nov-21 A	28-Jan-22	08-Jan-22	16-Jan-22	-13	AS112330, AS103160, AS103140, AS010200	AS107400
AS104180	Fabrication & Delivery of EOT Cranes (2T & 5T) (S19)	170	28-Jan-21 A	27-May-21 A	05-Jan-22	05-Jan-22		AS103180, AS112330	AS106120
AS104200	Fabrication & Delivery of Stoplogs (S21)	289	16-Dec-20 A	07-Oct-21 A	16-Jan-22	16-Jan-22		AS103200, AS112330	AS106200
AS104220	Fabrication & Delivery of Penstocks (S21)	256	18-Jan-21 A	07-Oct-21 A	16-Jan-22	16-Jan-22		AS103220, AS112330	AS106200
AS104300	Fabrication & Delivery of Pipeworks & Associated Valves	200	11-Jan-21 A	08-Sep-21 A	16-Jan-22	16-Jan-22		AS103300, AS112330	AS106160
AS104320	Fabrication & Delivery of Elec. Materials	190	24-Jun-21 A	31-Dec-21 A	26-Mar-22	26-Mar-22		AS103320, AS113260c	AS106280
AS104400	Fabrication & Delivery of FS System (S20)	187	18-Apr-21 A	28-Oct-21 A	04-Feb-22	04-Feb-22		AS103400, AS113260c	AS106240
AS104410h	Fabrication & Delivery of Temp. Switchboard	194	05-May-21 A	15-Dec-21 A	14-Jan-22	14-Jan-22		AS107090g	AS105100
E&M Installation									
AS105100	Provision of Temporary Power for UV System No.1 & Effluent Transfer Pumping Station	45	15-Dec-21 A	28-Jan-22	14-Jan-22	21-Jan-22	-7	AS106100, AS102180, AS104410h	AS107400, AS106290g
AS106100	Mobilisation	30	25-Apr-21 A	12-Jun-21 A	05-Jan-22	05-Jan-22		AS001120, AS102180	AS106120, AS105140, AS106220, AS105100
AS106120	E&M Installation of EOT Cranes (2T)	46	25-Jun-21 A	17-Sep-21 A	05-Jan-22	05-Jan-22		AS102300, AS112300, AS106100, AS104180	AS107400, AS106140, AS106160, AS106260, AS106220, AS107350f, AS106210, AS106200
AS106140	E&M Installation of EOT Cranes (5T)	60	20-Oct-21 A	11-Dec-21 A	02-Feb-22	02-Feb-22		AS106120	AS106180, AS107350f
AS106160	E&M Installation of Transfer Pumps & Associated Pipeworks / Valves	103	21-Oct-21 A	31-Jan-22	05-Jan-22	16-Jan-22	-16	AS106120, AS104120, AS104300	AS106300, AS107400
AS106180k	Preperation Works for E&M Installation of Penstocks & Stoplogs	3	17-Sep-21 A	19-Sep-21 A	05-Jun-24	05-Jun-24			
AS106190l	CNE-014 Access to and use to Portion C-1A for Installation of EOT, UV Equipment and Effluent Transfer Pump	0	16-Sep-21 A		05-Jun-24				
AS106200	E&M Installation of Penstocks & Stoplogs (Impacted by CNE-014)	66	11-Nov-21 A	15-Jan-22 A	16-Jan-22	16-Jan-22		AS104200, AS104220, AS106120	AS107400, AS106300
AS106210	E&M Installation of UV System	44	11-Nov-21 A	23-Dec-21 A	16-Jan-22	16-Jan-22		AS104100, AS104110c, AS106120	AS107400, AS106300
AS106220	FS Installation - Conduits, Trunking, & Pipeworks	74	08-Nov-21 A	18-Jan-22 A	04-Feb-22	04-Feb-22		AS106100, AS106120	AS106240
AS106240	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	67	15-Nov-21 A	18-Jan-22 A	04-Feb-22	04-Feb-22		AS104400, AS106220	AS003420, AS107100
AS106260	BS Fitting Installation - Conduits, Trunking, & Ductworks	111	15-Nov-21 A	05-Mar-22	10-Feb-22	26-Mar-22	21	AS106120, AS113160c, AS107090g	AS106280
AS106280	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	83	13-Dec-21 A	05-Mar-22	10-Mar-22	26-Mar-22	21	AS106260, AS104320	AS106320

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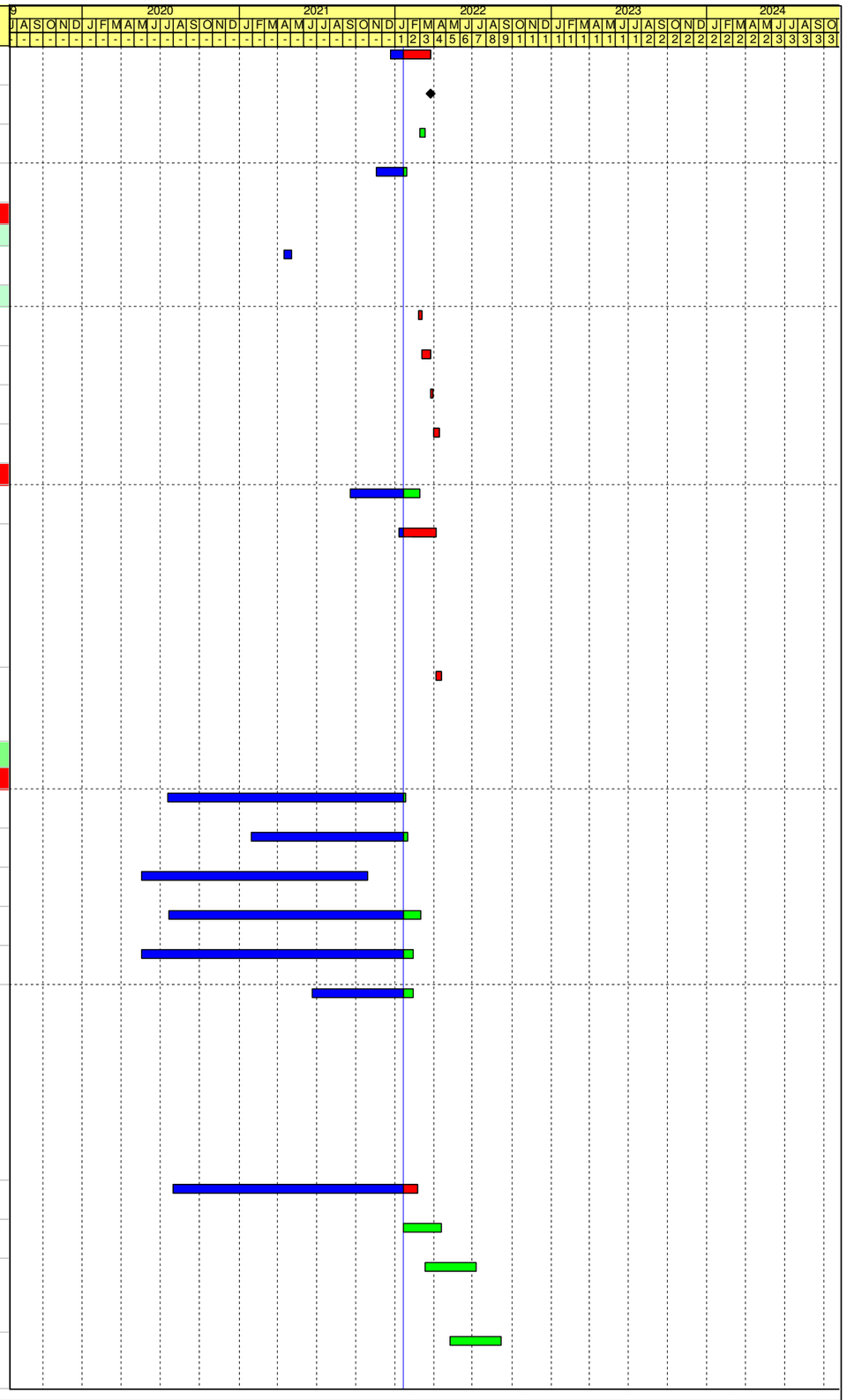
AS106285l	Excavation Works & Cable Laying - by CLP	93	22-Dec-21 A	24-Mar-22	26-Dec-21	27-Feb-22	-26		AS106290g
AS106290g	Ready for Power Energization	0		24-Mar-22		27-Feb-22	-26	AS105100, AS106285l	AS107200, AS107400
AS106320	Installation of CCTV System	13	28-Feb-22*	12-Mar-22	13-Mar-22	26-Mar-22	14	AS106280	AS003420
AS106330l	Installation of FS Link	73	17-Nov-21 A	28-Jan-22	27-Jan-22	04-Feb-22	7		AS107100
Statutory Submission / Inspection									
CLP Submission									
AS107090g	Submission & Approval of Electrical Schematic Wiring Diagram to CLP (Temp. Power)	60	17-Apr-21 A	04-May-21 A	14-Jan-22	14-Jan-22			AS106260, AS104410h
FSD Submission & Inspection									
AS107100	Prepare & Submit FS/314, FS/501 & FS/501a	10	24-Feb-22*	05-Mar-22	04-Feb-22	14-Feb-22	-20	AS106240, AS106330l	AS107110a
AS107110a	FSD Review & Approval of FS/314, FS/501 & FS/501a	19	06-Mar-22	24-Mar-22	14-Feb-22	05-Mar-22	-20	AS107100	AS107200
AS107200	F.S. Inspection, Defects Rectification & Re-inspection	7	25-Mar-22	31-Mar-22	05-Mar-22	12-Mar-22	-20	AS107110a, AS106290g	AS107300
AS107300	Issuance of Acceptance Letter	14	01-Apr-22	14-Apr-22	12-Mar-22	26-Mar-22	-20	AS107200	AS003420
Testing & Commissioning									
AS107350f	T&C and R.P.E inspection for EOT Cranes	163	18-Sep-21 A	27-Feb-22	02-Feb-22	12-Mar-22	13	AS106120, AS106140	AS107400
AS107400	SAT for UV System No. 1 & Effluent Transfer Pumping Station No. 1	87	10-Jan-22 A	06-Apr-22	16-Jan-22	12-Mar-22	-26	AS106120, AS106200, AS106210, AS105100, AS107350f, AS106160, AS104160, AS106290g	AS107500
AS107500	System Commissioning Tests	14	07-Apr-22	20-Apr-22	12-Mar-22	26-Mar-22	-26	AS107400	AS003420, AS011520a, AS012120a, AS012000
Section 5 - Complete all remaining Works (incl. T&C)									
Fabrication, FAT & Delivery of Major Plant & Materials									
AS023200	Procurement & PO for Biogas Booster and Transfer Pumps (S7)	558	17-Jul-20 A	25-Jan-22	01-Aug-22	06-Aug-22	193	AS023100	AS501230k
AS023290	Procurement & PO for Pipeworks & Associated Valves	368	29-Jan-21 A	31-Jan-22	16-Jun-22	27-Jun-22	147	AS020170a	AS501660b
AS023400	Procurement & PO for Lifting Appliances (S19)	537	18-May-20 A	29-Oct-21 A	03-Feb-22	03-Feb-22		AS023140	AS501740
AS023560	Procurement & PO for Ferric Chloride Storage Tank (S21)	591	20-Jul-20 A	02-Mar-22	21-Apr-22	01-Jun-22	91	AS023100	AS501940
AS023580	Procurement & PO for Ferric Chloride Dosing Pump (S21)	635	18-May-20 A	11-Feb-22	10-Apr-22	02-May-22	80	AS023140	AS501960
AS023620	Procurement & PO for Elec. Materials	236	21-Jun-21 A	11-Feb-22	24-Feb-22	18-Mar-22	35	AS010200, AS023340, AS042230, AS082230, AS022210, AS032210, AS052210, AS062210, AS072210, AS092210, AS122210	AS510060
AS023620b	Procurement & PO for Genset	573	31-Jul-20 A	23-Feb-22	30-Dec-21	02-Feb-22	-22	AS021200, AS021300	AS501990b
AS023630m	Procurement & PO for mechanical ventilation system	90	21-Jan-22	20-Apr-22	24-Mar-22	22-Jun-22	63		AS510090m
AS104240	Fabrication & Delivery of Transfomers -UV (Tx 07 & 08) (S17)	120	12-Mar-22	09-Jul-22	05-Jul-22	02-Nov-22	116	AS102180, AS112330, AS102330, AS023300	AS105140
AS104260	Fabrication & Delivery of LVSB -UV (S17)	120	11-May-22	07-Sep-22	03-Sep-22	01-Jan-23	116	AS102330, AS112330, AS023340	AS105160



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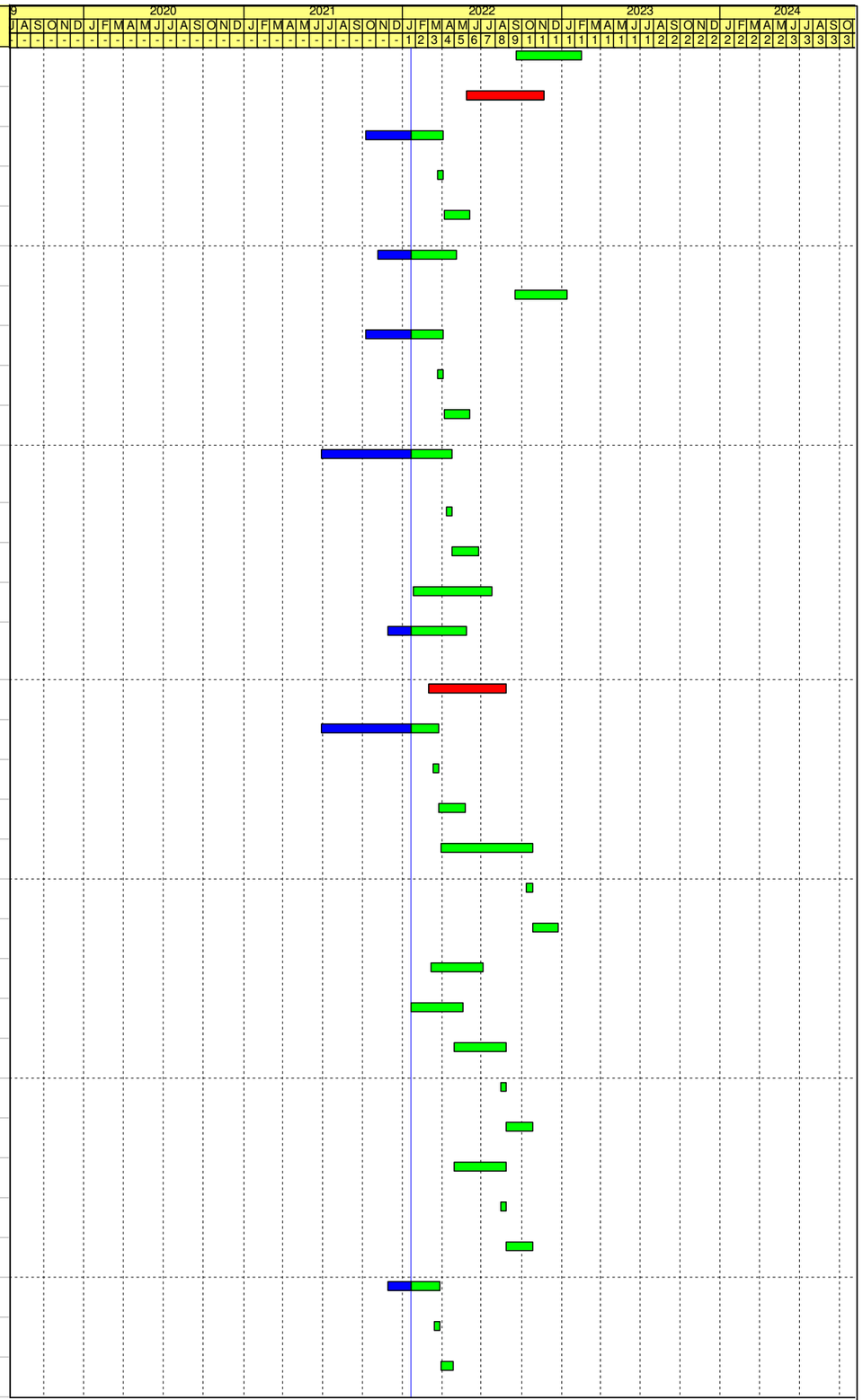
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS104280	Fabrication & Delivery of Control & Monitoring System -UV (S18)	150	19-Sep-22	15-Feb-23	31-Oct-22	30-Mar-23	43	AS112330, AS023380	AS106300
AS501100	Fabrication & Delivery of Sludge Screening System (S2)	180	27-May-22	22-Nov-22	24-May-22	20-Nov-22	-3	AS023100, AS022310	AS502200
AS501120	Fabrication of Sludge Thickening System (S3)	180	08-Oct-21 A	05-Apr-22	22-Feb-22	08-May-22	33	AS023120, AS032310	AS501125c
AS501125c	FAT for Sludge Thickening System (S3)	14	23-Mar-22	05-Apr-22	24-Apr-22	08-May-22	33	AS501120	AS501130c
AS501130c	Delivery of Sludge Thickening System (S3)	60	06-Apr-22	04-Jun-22	08-May-22	07-Jul-22	33	AS501125c	AS502280
AS501140	Fabrication & Delivery of Sludge Digestion System (S5)	180	06-Nov-21 A	04-May-22	11-Feb-22	26-May-22	22	AS023140, AS052310	AS503600
AS501150a	Fabrication & Delivery of FRP Walkway / Cover (S5)	120	17-Sep-22	14-Jan-23	17-Feb-23	17-Jun-23	154	AS023140	AS503500
AS501160	Fabrication of Sludge Dewatering System (S6)	180	08-Oct-21 A	05-Apr-22	03-Apr-22	17-Jun-22	73	AS023160, AS062310	AS501165c
AS501165c	FAT for Sludge Dewatering System (S6)	14	23-Mar-22	05-Apr-22	03-Jun-22	17-Jun-22	73	AS501160	AS501170c
AS501170c	Delivery of Sludge Dewatering System (S6)	60	06-Apr-22	04-Jun-22	17-Jun-22	16-Aug-22	73	AS501165c	AS502160
AS501180	Fabrication of THP System (S4)	300	29-Jun-21 A	24-Apr-22	20-May-22	22-Aug-22	120	AS023180, AS042330, AS042230	AS501200
AS501200	FAT for THP System (S4)	14	11-Apr-22	24-Apr-22	08-Aug-22	22-Aug-22	120	AS501180	AS501220
AS501220	Delivery of THP System (S4)	60	25-Apr-22	23-Jun-22	22-Aug-22	21-Oct-22	120	AS501200	AS505000
AS501230k	Fabrication & Delivery of Biogas Booster and Transfer Pumps	180	26-Jan-22	24-Jul-22	06-Aug-22	02-Feb-23	193	AS023200	AS504500
AS501240	Fabrication & Delivery of Biogas Storage	180	29-Nov-21 A	27-May-22	09-Feb-22	16-Jun-22	20	AS023190a, AS072310	AS504500, AS504520, AS504540
AS501250	Fabrication & Delivery of Pre-Treatment	180	02-Mar-22	28-Aug-22	28-Feb-22	27-Aug-22	-2		AS503160
AS501260	Fabrication of CHP System (S8)	270	29-Jun-21 A	25-Mar-22	02-Mar-22	05-May-22	41	AS023220, AS082330	AS501280
AS501280	FAT for CHP Generators (S8)	14	12-Mar-22	25-Mar-22	21-Apr-22	05-May-22	41	AS501260	AS501300
AS501300	Delivery of CHP Generators (S8)	60	26-Mar-22	24-May-22	05-May-22	04-Jul-22	41	AS501280	AS503160
AS501320	Fabrication of Waste Gas Burning System (S9)	210	31-Mar-22	26-Oct-22	09-Apr-22	05-Nov-22	10	AS023240, AS092310	AS501340
AS501340	FAT for Waste Gas Burning System (S9)	14	13-Oct-22	26-Oct-22	22-Oct-22	05-Nov-22	10	AS501320	AS501360
AS501360	Delivery of Waste Gas Burning System (S9)	60	27-Oct-22	25-Dec-22	05-Nov-22	04-Jan-23	10	AS501340	AS505300
AS501380	Fabrication & Delivery of Plant Service Water System (S12)	120	08-Mar-22	05-Jul-22	06-Oct-22	03-Feb-23	213	AS023260, AS122310	AS505400
AS501400	Fabrication & Delivery of SAS Pumping System (S14)	120	21-Jan-22	20-May-22	31-Jan-22	31-May-22	11	AS023280, AS142330	AS505600
AS501420	Fabrication of 11kV Transfomers (S17)	120	30-Apr-22	27-Aug-22	20-Jun-22	18-Oct-22	52	AS023300	AS501440
AS501440	FAT for 11kV Transfomers (S17)	14	14-Aug-22	27-Aug-22	04-Oct-22	18-Oct-22	52	AS501420	AS501460
AS501460	Delivery of 11kV Transfomers (S17)	60	28-Aug-22	26-Oct-22	18-Oct-22	17-Dec-22	52	AS501440	AS503380
AS501480	Fabrication of 380V Transfomers (S17)	120	30-Apr-22	27-Aug-22	03-Jun-22	01-Oct-22	35	AS023300, AS022210	AS501500
AS501500	FAT for 380V Transfomers (S17)	14	14-Aug-22	27-Aug-22	17-Sep-22	01-Oct-22	35	AS501480	AS501520
AS501520	Delivery of 380V Transfomers (S17)	60	28-Aug-22	26-Oct-22	01-Oct-22	30-Nov-22	35	AS501500	AS502440
AS501540	Fabrication of 11 kV Switchboard (S17)	120	29-Nov-21 A	28-Mar-22	29-Mar-22	04-Jun-22	68	AS023320	AS501560
AS501560	FAT for 11 kV Switchboard (S17)	14	15-Mar-22	28-Mar-22	21-May-22	04-Jun-22	68	AS501540	AS501580
AS501580	Delivery of 11 kV Switchboard (S17)	30	29-Mar-22	27-Apr-22	04-Jun-22	04-Jul-22	68	AS501560	AS503320, AS504240



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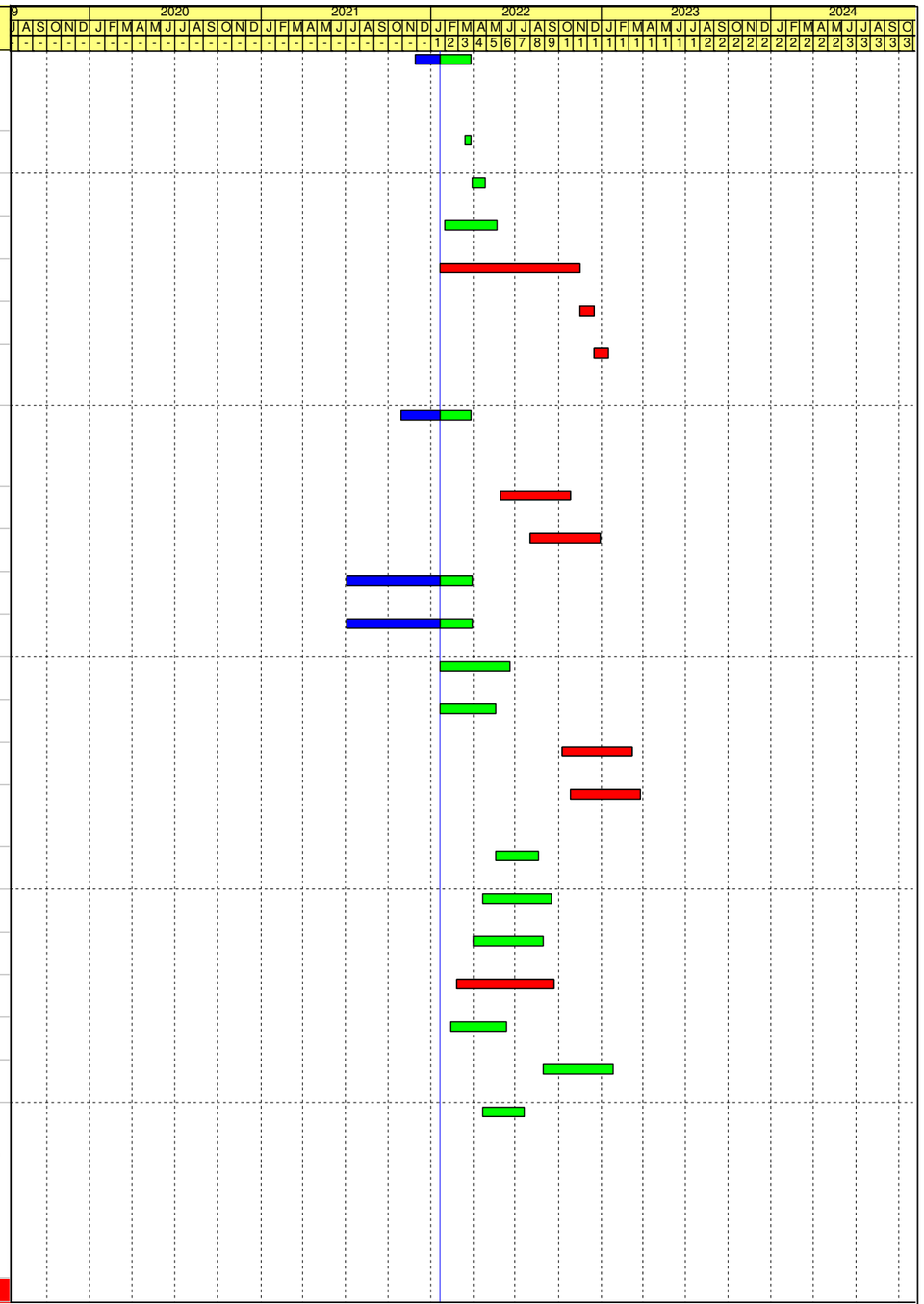
AS501600	Fabrication of 380V Switchboard (S17)	120	29-Nov-21 A	28-Mar-22	28-Mar-22	03-Jun-22	67	AS023340, AS021330, AS021230, AS022210	AS501620
AS501620	FAT for 380V Switchboard (S17)	14	15-Mar-22	28-Mar-22	20-May-22	03-Jun-22	67	AS501600	AS501640
AS501640	Delivery of 380V Switchboard (S17)	30	29-Mar-22	27-Apr-22	03-Jun-22	03-Jul-22	67	AS501620	AS502480, AS503420
AS501660b	Fabrication & Delivery of Pipeworks & Associated Valves	110	01-Feb-22	21-May-22	27-Jun-22	15-Oct-22	147	AS023290	AS502160
AS501680	Fabrication of Control & Monitoring System (S18)	300	21-Jan-22*	16-Nov-22	08-Jan-22	04-Nov-22	-13	AS023380, AS182310	AS501700
AS501700	FAT for SCADA System (S18)	30	17-Nov-22	16-Dec-22	04-Nov-22	04-Dec-22	-13	AS501680	AS501720
AS501720	Delivery of SCADA System (S18)	30	17-Dec-22	15-Jan-23	04-Dec-22	03-Jan-23	-13	AS501700	AS507200, AS503260, AS502380
AS501740	Fabrication & Delivery of Lifting Appliances (S19)	150	30-Oct-21 A	28-Mar-22	03-Feb-22	11-Apr-22	14	AS023400, AS192210, AS192310	AS502140, AS502150, AS502180, AS503120
AS501780	Fabrication & Delivery of H2S Removal System (S7)	150	30-May-22	26-Oct-22	12-May-22	09-Oct-22	-18	AS023210, AS072310	AS505200
AS501800	Fabrication & Delivery of DO System (S21)	150	03-Aug-22	30-Dec-22	16-Jul-22	13-Dec-22	-18	AS023420, AS211100	AS505700
AS501820	Fabrication & Delivery of Stoplog (S21)	270	04-Jul-21 A	30-Mar-22	23-Mar-22	31-May-22	62	AS023440	AS505600
AS501840	Fabrication & Delivery of Penstock (S21)	270	04-Jul-21 A	30-Mar-22	23-Mar-22	31-May-22	62	AS023460	AS505600
AS501860	Fabrication & Delivery of Sewage Pump (S21)	150	21-Jan-22	19-Jun-22	01-Feb-22	01-Jul-22	12	AS023480, AS211200	AS506000
AS501880	Fabrication & Delivery of Process Water Pump (S21)	120	21-Jan-22*	20-May-22	21-Aug-22	19-Dec-22	213	AS023500, AS211300	AS502120
AS501900	Fabrication & Delivery of External Sludge Transfer Pump (S21)	150	09-Oct-22	07-Mar-23	14-Oct-22	13-Mar-23	6	AS023520, AS211400	AS502220
AS501920	Fabrication & Delivery of THP Cooling Pump (S21)	150	28-Oct-22	26-Mar-23	10-Oct-22	09-Mar-23	-18	AS023540, AS211500, AS042230	AS506100
AS501940	Fabrication & Delivery of Ferric Chloride Storage Tank (S21)	90	21-May-22	18-Aug-22	01-Jun-22	30-Aug-22	12	AS023560, AS211600	AS506200
AS501960	Fabrication & Delivery of Ferric Chloride Dosing Pump (S21)	150	21-Apr-22	17-Sep-22	02-May-22	29-Sep-22	12	AS023580, AS211600	AS506300
AS501980	Fabrication & Delivery of Temporary Primary Sludge Pump (S21)	150	03-Apr-22	30-Aug-22	06-Aug-22	03-Jan-23	126	AS023600, AS211700	AS511300b, AS506500h
AS501990b	Fabrication & Delivery of Genset	210	24-Feb-22	21-Sep-22	02-Feb-22	31-Aug-22	-22	AS023620b	AS506500b
AS510060	Fabrication & Delivery of Elec. Materials	120	12-Feb-22	11-Jun-22	18-Mar-22	16-Jul-22	35	AS023620, AS042230	AS502460
AS510080	Fabrication & Delivery of Gas Detection System	150	29-Aug-22	25-Jan-23	06-Sep-22	03-Feb-23	9	AS211800, AS010205a	AS503290
AS510090m	Fabrication & Delivery of Ventilation Fans	90	21-Apr-22	19-Jul-22	22-Jun-22	20-Sep-22	63	AS023630m	AS502340, AS503220, AS504420a, AS507700, AS507800, AS507900, AS508000, AS508100, AS508110g
Sludge Dewatering Building									



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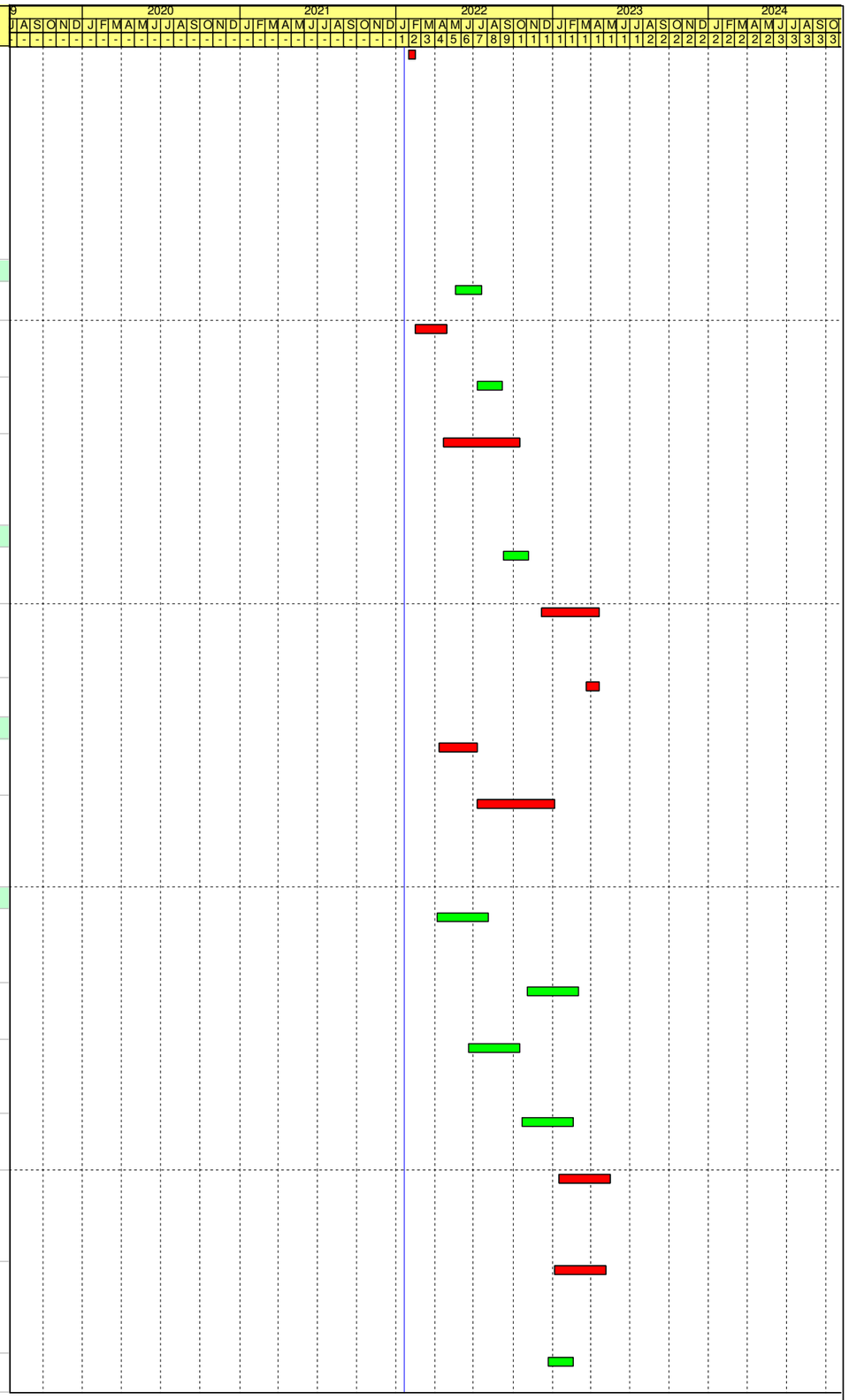
AS502100	Mobilisation	15	31-Jan-22	14-Feb-22	28-Jan-22	12-Feb-22	-3	AS001220	AS502140, AS502150, AS502180, AS502120, AS502460, AS502300, AS502340, AS503160, AS503180, AS503220, AS506500b, AS013430f
Sludge Dewatering (SDe)									
AS502120	E&M Installation of Process Water Pump (S21)	60	21-May-22	19-Jul-22	19-Dec-22	17-Feb-23	213	AS502100, AS501880	AS510300, AS505400
AS502140	E&M Installation of EOT Crane LA-01-02	75	15-Feb-22	30-Apr-22	12-Feb-22	28-Apr-22	-3	AS502100, AS501740	AS502260, AS502160, AS510300
AS502150	E&M Installation of Monorail LA-01-04	60	10-Jul-22	07-Sep-22	06-Aug-22	05-Oct-22	28	AS502100, AS502260, AS501740	AS502180, AS510300
AS502160	E&M Installation of Sludge Dewatering System (S6)	180	21-Apr-22	17-Oct-22	18-Apr-22	15-Oct-22	-3	AS001220, AS501660b, AS502140, AS501170c	AS502280, AS502200, AS502320, AS502380, AS510300
Sludge Screening (SSc)									
AS502180	E&M Installation of Monorail LA-01-01	60	08-Sep-22	06-Nov-22	05-Oct-22	04-Dec-22	28	AS502100, AS502150, AS501740	AS502200, AS510300
AS502200	E&M Installation of Sludge Screening System (S2)	135	07-Dec-22	20-Apr-23	04-Dec-22	18-Apr-23	-3	AS502160, AS502280, AS502180, AS501100	AS502220, AS502380, AS502400
AS502220	E&M Installation of External Sludge Transfer Pump (S21)	30	22-Mar-23	20-Apr-23	27-Mar-23	26-Apr-23	6	AS502200, AS501900	AS502380, AS511300b
Sludge Thickening (STh)									
AS502260	E&M Installation of EOT Crane LA-01-03	90	11-Apr-22	09-Jul-22	08-Apr-22	07-Jul-22	-3	AS502140	AS502150, AS502280, AS510300
AS502280	E&M Installation of Sludge Thickening System (S3)	180	10-Jul-22	05-Jan-23	07-Jul-22	03-Jan-23	-3	AS502160, AS502260, AS501130c	AS502200, AS502360, AS505100, AS505000, AS510300
Building Services									
AS502300	FS Installation - Conduits, Trunking, & Pipeworks	120	08-Apr-22	05-Aug-22	23-Jan-23	22-May-23	290	AS001220, AS502100, AS503180, AS509300	AS502320, AS509340
AS502320	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	120	04-Nov-22	03-Mar-23	23-May-23	19-Sep-23	200	AS502300, AS502160, AS503200	AS509120, AS507100
AS502340	BS Fitting Installation - Conduits, Trunking, & Ductworks	120	20-Jun-22	17-Oct-22	04-Nov-22	04-Mar-23	138	AS001220, AS502100, AS509300, AS510090m	AS502360, AS509370f
AS502360	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	120	23-Oct-22	19-Feb-23	04-Mar-23	02-Jul-23	133	AS502340, AS502280	AS502410, AS512200a, AS504430a
AS502380	Installation of Control & Monitoring System	120	16-Jan-23	15-May-23	03-Jan-23	03-May-23	-13	AS502160, AS502200, AS502220, AS501720	AS510400, AS512380f, AS512390f, AS512400f, AS512410f
AS502400	Installation of CCTV System	120	06-Jan-23	05-May-23	03-Jan-23	03-May-23	-3	AS502200	AS510400, AS512380f, AS512390f, AS512400f, AS512410f
AS502410	Installation of Gas Detection System	60	22-Dec-22	19-Feb-23	03-May-23	02-Jul-23	133	AS502360	AS512200a



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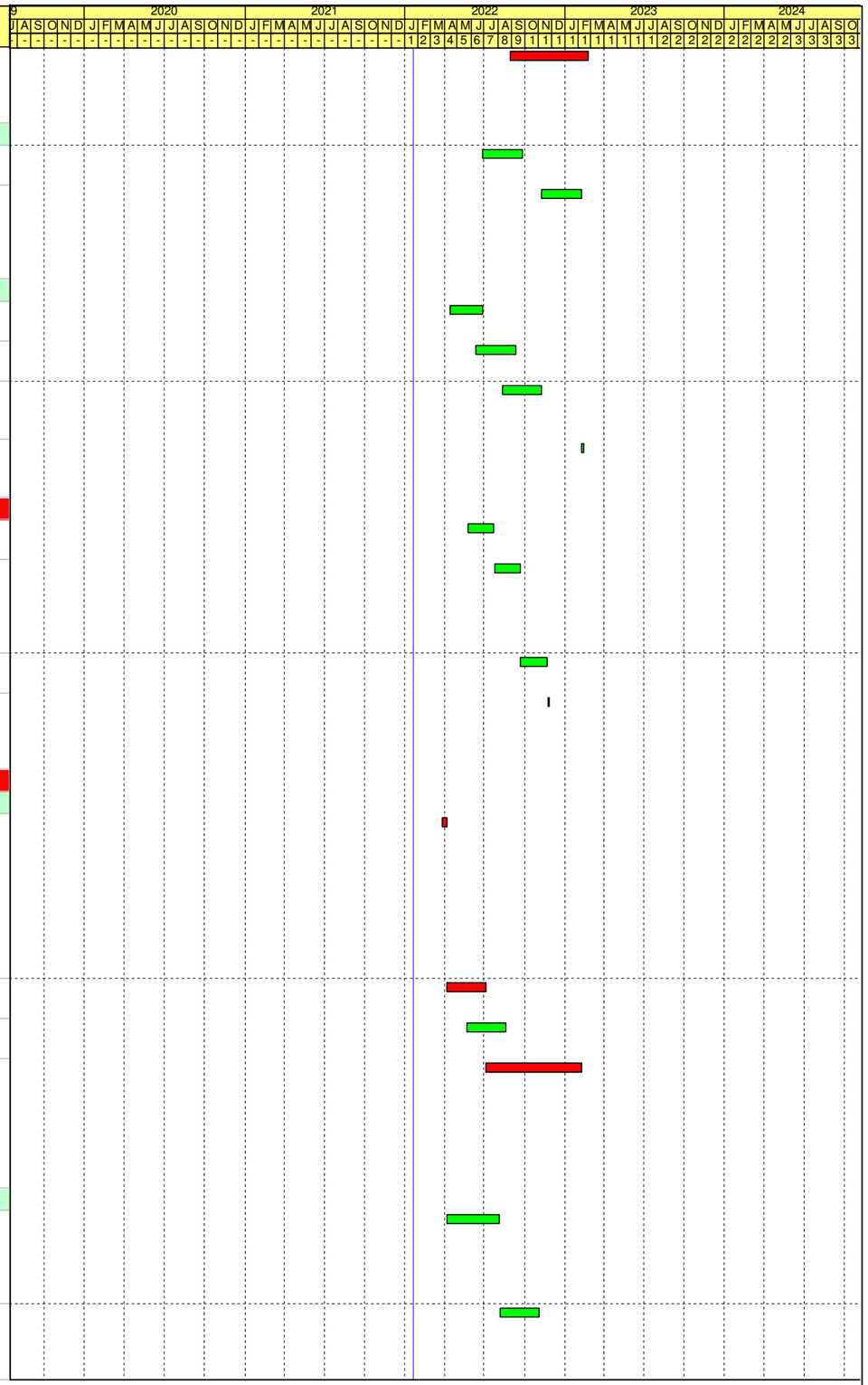
AS506500b	E&M Installation of Genset	180	29-Aug-22	24-Feb-23	07-Aug-22	03-Feb-23	-22	AS501990b, AS502100, AS509500a, AS509240	AS511300b, AS509250b
Tx Rm									
AS502420	BS Fitting Intallation	90	28-Jun-22	25-Sep-22	15-Sep-22	14-Dec-22	80	AS502460	AS502440
AS502440	E&M Installation of 380V Transformers (S17)	90	10-Nov-22	07-Feb-23	14-Dec-22	14-Mar-23	35	AS001220, AS502420, AS502500, AS501520, AS504280	AS502520
LV Switchroom									
AS502460	BS Fitting Intallation	75	14-Apr-22	27-Jun-22	18-May-22	01-Aug-22	35	AS502100, AS510060	AS502420, AS502480
AS502480	E&M Installation of LVSB at G/F (S17)	90	13-Jun-22	10-Sep-22	17-Jul-22	15-Oct-22	35	AS502460, AS501640	AS502500, AS502520
AS502500	E&M Installation of LVSB at 1/F (S17)	90	12-Aug-22	09-Nov-22	15-Sep-22	14-Dec-22	35	AS502480	AS502520, AS502440, AS503420
AS502520	Ready for Energisation	5	08-Feb-23	12-Feb-23	14-Mar-23	19-Mar-23	35	AS502480, AS502440, AS502500	AS510300, AS511300b
Tx Rm & LV Switchroom (for UV)									
AS105120	BS Fitting Intallation (at Tx Rm & LV Switchroom)	60	25-May-22	23-Jul-22	17-Sep-22	16-Nov-22	116	AS001520	AS105180, AS105140
AS105140	E&M Installation of Transfomers in Tx Rm	60	24-Jul-22	21-Sep-22	16-Nov-22	15-Jan-23	116	AS105120, AS106100, AS504260, AS104240, AS113160c	AS105160
AS105160	E&M Installation of LVSB	60	22-Sep-22	20-Nov-22	15-Jan-23	16-Mar-23	116	AS105140, AS104260	AS105180
AS105180	Ready for Permanet Power Energisation	3	23-Nov-22	25-Nov-22	16-Mar-23	19-Mar-23	114	AS105120, AS105160, AS504240, AS509980	AS003520, AS510100, AS510300
Combined Heat & Power Building									
Combined Heat & Power Generation (CHP)									
AS503100	Mobilisation	12	27-Mar-22	07-Apr-22	25-Mar-22	06-Apr-22	-2	AS001320, AS013460f, AS509520a	AS503120, AS503320, AS503360, AS503160, AS503180, AS503220, AS503400, AS503300, AS013470f
AS503120	E&M Installation of EOT Crane No. 1	89	08-Apr-22	05-Jul-22	06-Apr-22	04-Jul-22	-2	AS503100, AS501740	AS503140, AS503160
AS503140	E&M Installation of EOT Crane No. 2	89	23-May-22	19-Aug-22	13-Jun-22	10-Sep-22	22	AS503120	AS503160
AS503160	E&M Installation of CHP System (S8)	218	06-Jul-22	08-Feb-23	04-Jul-22	07-Feb-23	-2	AS001320, AS503100, AS503120, AS503140, AS501300, AS502100, AS501250	AS503260, AS511100, AS510500, AS505300, AS503290
Building Services									
AS503180	FS Installation - Conduits, Trunking, & Pipeworks	120	08-Apr-22	05-Aug-22	27-Jun-22	24-Oct-22	80	AS001220, AS503100, AS502100, AS509300	AS503200, AS507000, AS502300, AS504400a, AS509340
AS503200	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	90	06-Aug-22	03-Nov-22	22-Feb-23	22-May-23	200	AS503180	AS507100, AS509120, AS504410a, AS502320



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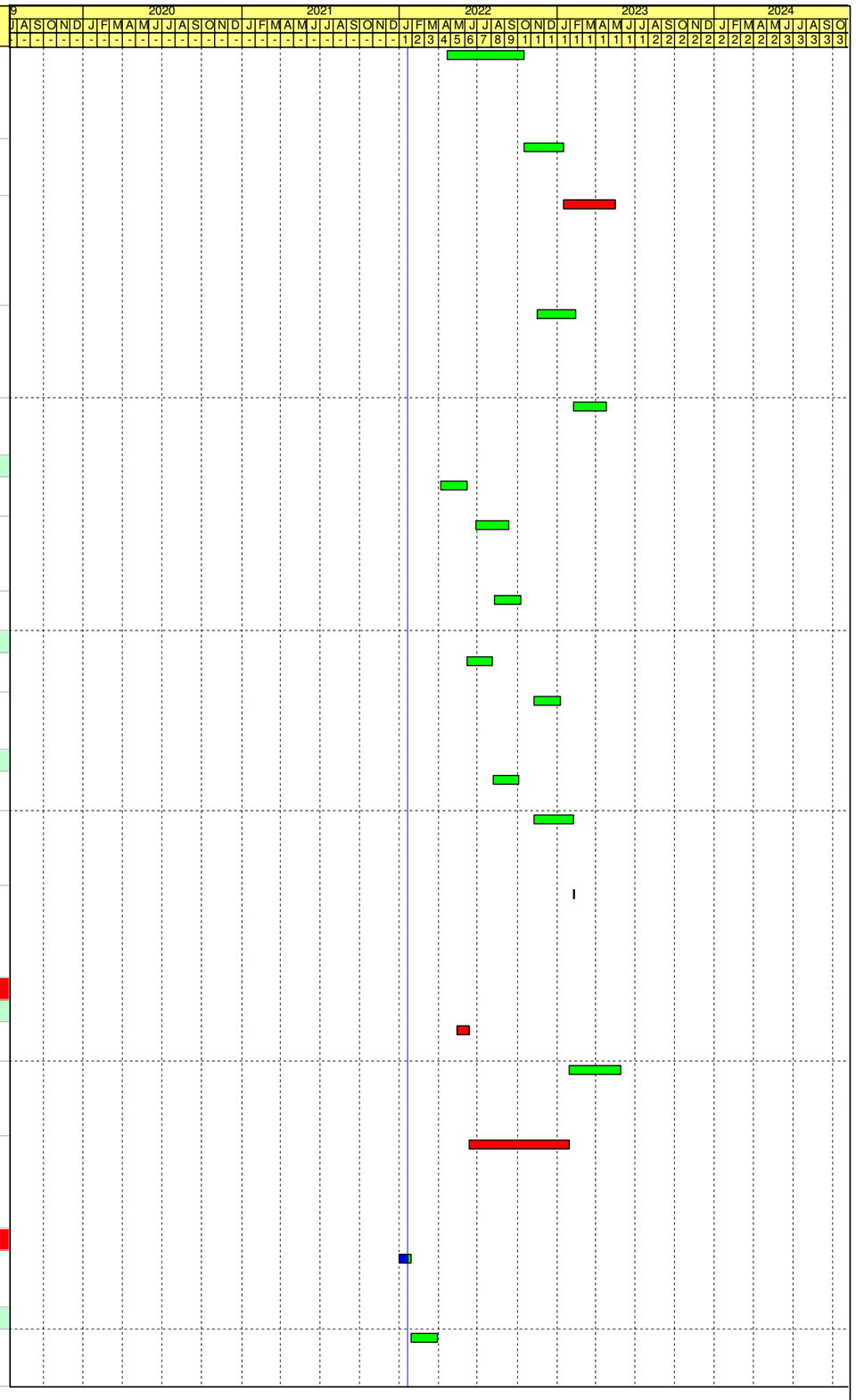
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS503220	BS Fitting Installation - Conduits, Trunking, & Ductworks	180	21-Apr-22	17-Oct-22	22-Jun-22	19-Dec-22	63	AS001220, AS503100, AS502100, AS509300, AS510090m	AS503240, AS504420a, AS509370f
AS503240	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	90	18-Oct-22	15-Jan-23	19-Dec-22	19-Mar-23	63	AS503220	AS503280, AS503290, AS504430a
AS503260	Installation of Control & Monitoring System	120	16-Jan-23	15-May-23	03-Jan-23	03-May-23	-13	AS503160, AS501720	AS507200, AS511100, AS512380f, AS512390f, AS512400f, AS512410f
AS503280	Installation of CCTV System	90	17-Nov-22	14-Feb-23	18-Jan-23	18-Apr-23	63	AS503240	AS507300, AS512380f, AS512390f, AS512400f, AS512410f
AS503290	Installation of Gas Detection System	75	09-Feb-23	24-Apr-23	17-Feb-23	03-May-23	9	AS503240, AS510080, AS503160	AS511100
11kV Switchroom									
AS503300	BS Fitting Installation	60	08-Apr-22	06-Jun-22	04-Jul-22	02-Sep-22	88	AS503100	AS503320, AS503360
AS503320	E&M Installation of 11kV Switchboard (S17)	75	28-Jun-22	10-Sep-22	19-Oct-22	02-Jan-23	114	AS503100, AS503300, AS501580, AS504240	AS503340, AS503440
AS503340	Main Cables Laying between 11kV SwitchRoom of CHP Bldg to Tx Rm of Workshop No.2	60	10-Aug-22	08-Oct-22	01-Dec-22	30-Jan-23	114	AS503320	AS511100, AS504300
Tx Rm									
AS503360	BS Fitting Installation	60	07-Jun-22	05-Aug-22	02-Sep-22	01-Nov-22	88	AS503100, AS503300	AS503400, AS503380
AS503380	E&M Installation of 11kV Transfomers (S17)	60	10-Nov-22	08-Jan-23	31-Dec-22	01-Mar-23	52	AS503360, AS501460, AS504300	AS503440, AS503420
LV Switchroom									
AS503400	BS Fitting Intallation	60	06-Aug-22	04-Oct-22	01-Nov-22	31-Dec-22	88	AS503100, AS503360	AS503420
AS503420	E&M Installation of LVSB at 1/F (S17)	90	10-Nov-22	07-Feb-23	31-Dec-22	31-Mar-23	52	AS503400, AS501640, AS502500, AS503380	AS503440
AS503440	Ready for Energisation	3	08-Feb-23	10-Feb-23	31-Mar-23	03-Apr-23	52	AS503420, AS503380, AS503320	AS511100, AS510500, AS510700, AS510100, AS511300b
Sludge Digesters & Distribution Chamber									
Sludge Digestion (SDi)									
AS503490m	Mobilisation	30	14-May-22	12-Jun-22	26-Apr-22	26-May-22	-18	AS001420	AS503600
AS503500	FRP Walkway / Cover Installation	120	29-Jan-23	28-May-23	01-Jul-23	29-Oct-23	154	AS001420, AS501150a, AS503600	AS003520, AS012340a, AS011540a, AS012140a
AS503600	E&M Installation of Sludge Digestion System (S5)	230	13-Jun-22	28-Jan-23	26-May-22	11-Jan-23	-18	AS001420, AS501140, AS503490m	AS510700, AS507700, AS506100, AS505200, AS503500
Workshop No. 2									
AS504000	Mobilisation	14	31-Dec-21 A	28-Jan-22	13-Mar-22	21-Mar-22	52	AS001620, AS509370b	AS504100, AS504200, AS504460
CLP Substation									
AS504100	BS Fitting Installation (at CLP Sub-station in Workshop No.2)	60	29-Jan-22	29-Mar-22	21-Mar-22	20-May-22	52	AS504000, AS001620	AS002060, AS509940a, AS504200



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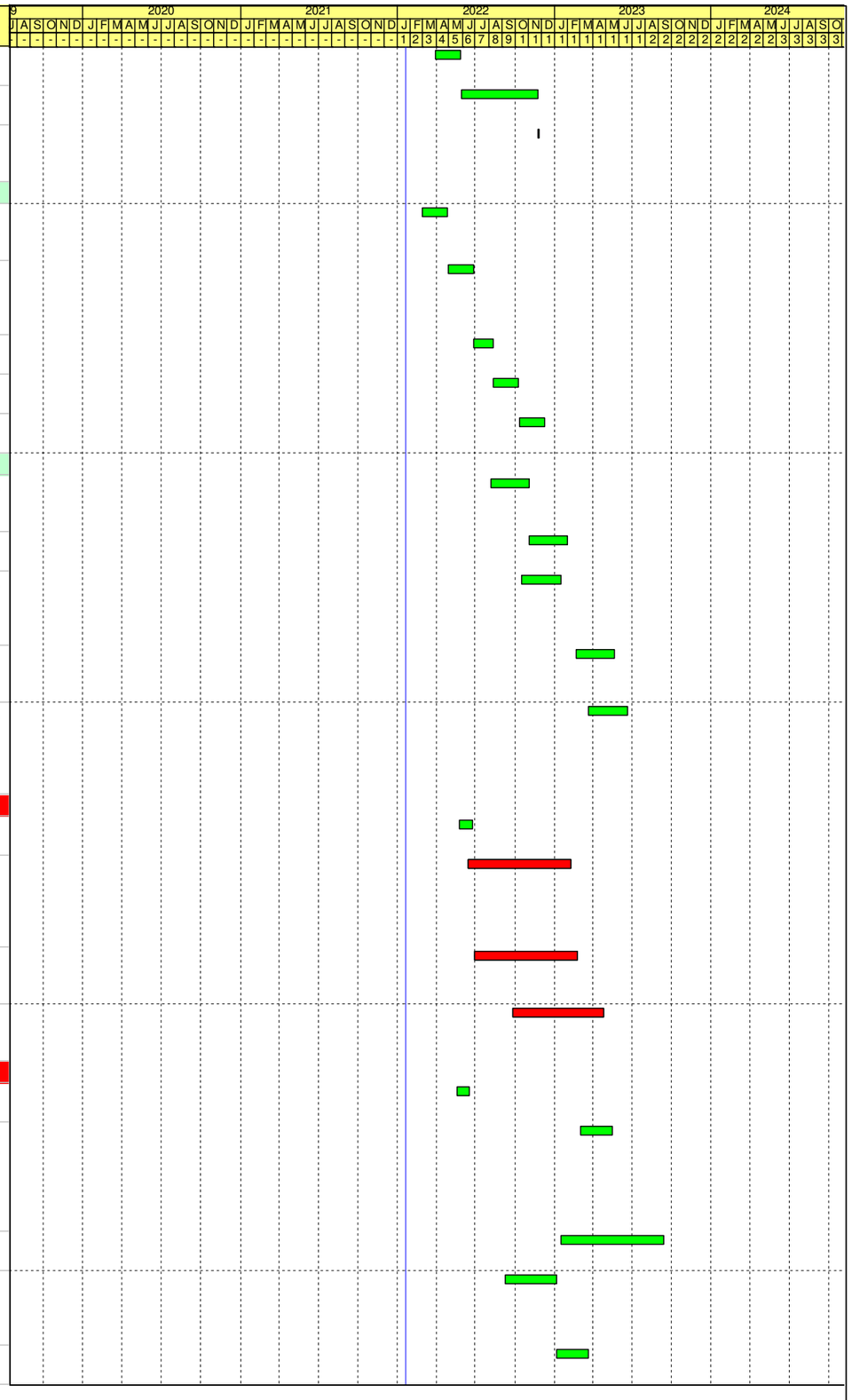
AS509940a	Inspections, Rectification & H/O to CLP	60	30-Mar-22	28-May-22	21-Jul-22	19-Sep-22	114	AS504100	AS509960
AS509960	E&M Installation of HV Transformer (By CLP)	180	29-May-22	24-Nov-22	19-Sep-22	18-Mar-23	114	AS509940a	AS509980
AS509980	Energisation (By CLP)	1	25-Nov-22	25-Nov-22	18-Mar-23	19-Mar-23	114	AS509960, AS504240, AS512375f	AS105180
11kV HV Switchroom									
AS504200	BS Fitting Intallation	60	28-Feb-22	28-Apr-22	20-Apr-22	19-Jun-22	52	AS504000, AS504100	AS504240, AS504420a, AS504400a
AS504240	E&M Installation of 11kV HVSB (at Workshop No.2)	60	29-Apr-22	27-Jun-22	19-Jun-22	18-Aug-22	52	AS504200, AS501580	AS504260, AS105180, AS503320, AS509980
AS504260	Main Cables Laying between Workshop No.2 & Tx Rm for UV System No.1	45	28-Jun-22	11-Aug-22	18-Aug-22	02-Oct-22	52	AS504240	AS105140, AS504280
AS504280	Main Cables Laying between Workshop No.2 & Tx Rm for Sludge Dewatering Bldg	60	12-Aug-22	10-Oct-22	02-Oct-22	01-Dec-22	52	AS504260	AS504300, AS502440
AS504300	Main Cables Laying between Workshop No.2 & Tx Rm for CHP Bldg	60	11-Oct-22	09-Dec-22	01-Dec-22	30-Jan-23	52	AS504280, AS503340	AS503380
Building Services									
AS504400a	FS Installation - Conduits, Trunking, & Pipeworks	90	06-Aug-22	03-Nov-22	23-Apr-23	21-Jul-23	260	AS504200, AS503180, AS509300	AS504410a, AS509340
AS504410a	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	90	04-Nov-22	01-Feb-23	22-Jul-23	19-Oct-23	260	AS504400a, AS503200	AS509120, AS507100
AS504420a	BS Fitting Installation - Conduits, Trunking, & Ductworks	90	18-Oct-22	15-Jan-23	20-Feb-23	21-May-23	126	AS504200, AS503220, AS509300, AS510090m	AS504430a, AS504460, AS509370f
AS504430a	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	90	20-Feb-23	20-May-23	27-Jul-23	25-Oct-23	158	AS504420a, AS503240, AS502360	AS504450
AS504450	Installation of CCTV System	90	22-Mar-23	19-Jun-23	26-Aug-23	24-Nov-23	158	AS504430a	AS513000a, AS512380f, AS512390f, AS512400f, AS512410f
Biogas Storage & Pre-Treatment (BSPT)									
AS504490m	Mobilisation	30	25-May-22	23-Jun-22	07-Jun-22	07-Jul-22	14	AS001520	AS504500
AS504500	E&M Installation of Biogas Storage Tank 1	240	14-Jun-22	08-Feb-23	07-Jun-22	02-Feb-23	-7	AS001520, AS501240, AS509400a, AS501230k, AS504490m	AS504520
AS504520	E&M Installation of Biogas Storage Tank 2	240	29-Jun-22	23-Feb-23	22-Jun-22	17-Feb-23	-7	AS001520, AS504500, AS501240	AS504540, AS505300
AS504540	E&M Installation of Biogas Storage Tank 3	210	27-Sep-22	24-Apr-23	20-Sep-22	18-Apr-23	-7	AS001520, AS504520, AS501240	AS510500, AS507900
Miscellaneous									
AS106180	E&M Installation of Lift-up Pumps & Associated Pipeworks / Valves	30	19-May-22*	17-Jun-22	15-Jun-22	15-Jul-22	28	AS106140, AS104140	AS506000
AS106300	Installation of Control & Monitoring System - UV	75	02-Mar-23	15-May-23	13-Apr-23	27-Jun-23	43	AS106160, AS104280, AS106200, AS106210, AS507200	AS513000a, AS512200a, AS512380f, AS512390f, AS512400f, AS512410f
AS504460	Installation of Lift	240	16-Jan-23	12-Sep-23	21-May-23	16-Jan-24	126	AS504000, AS504420a	AS003520, AS509450f
AS505000	E&M Installation of THP System (S4)	120	08-Sep-22	05-Jan-23	04-Nov-22	04-Mar-23	58	AS001520, AS501220, AS502280, AS509520a	AS505100, AS510100, AS507800, AS505300
AS505100	E&M Installation of Thickened Sludge Feed Pipe to THP System	75	06-Jan-23	21-Mar-23	02-Feb-23	18-Apr-23	28	AS505000, AS502280	AS510100



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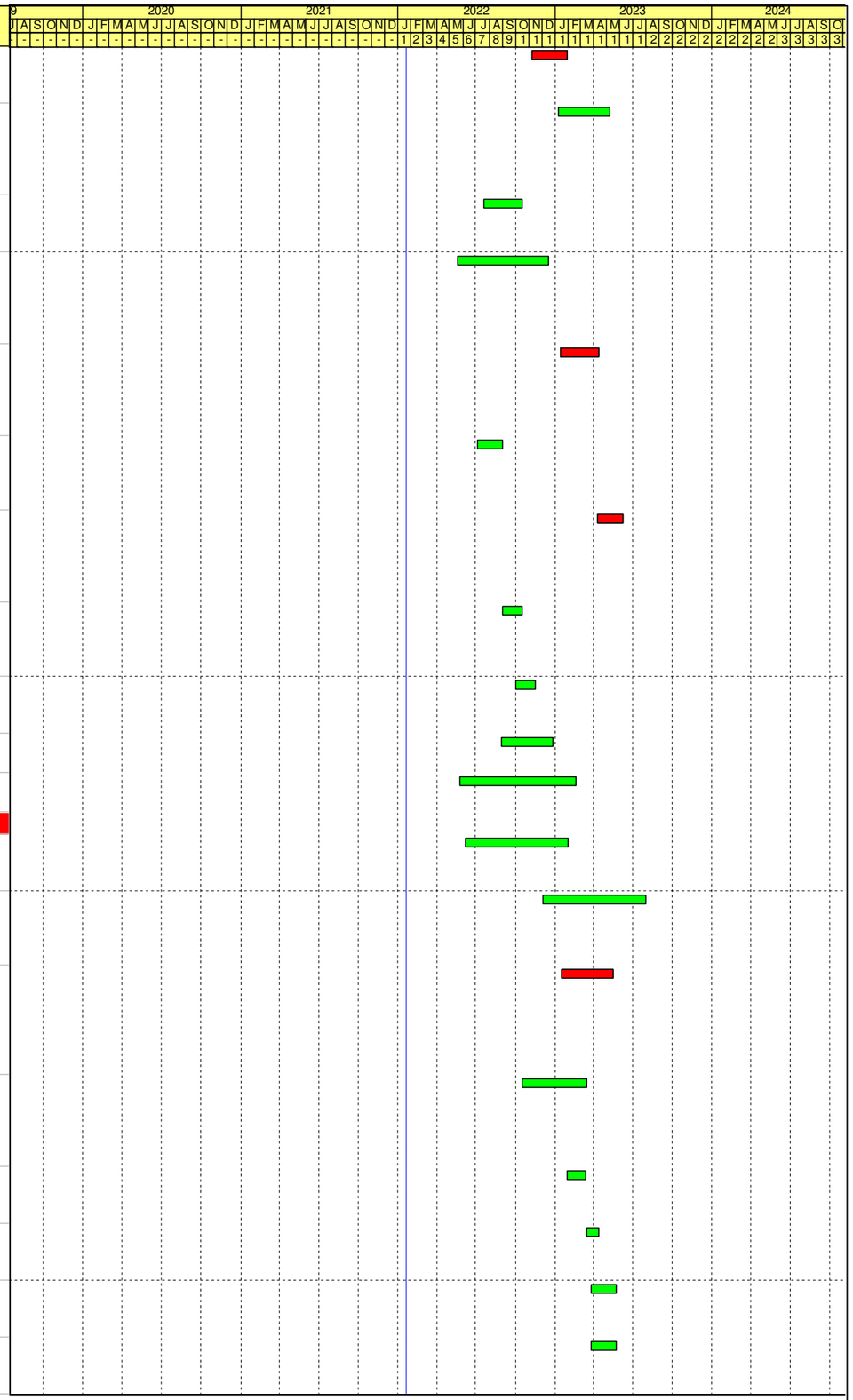
AS505200	E&M Installation of H2S Removal System (S7)	80	10-Nov-22	28-Jan-23	23-Oct-22	11-Jan-23	-18	AS001520, AS501780, AS503600	AS505700, AS511300b
AS505300	E&M Installation of Waste Gas Burning System (S9)	120	09-Jan-23	08-May-23	18-Jan-23	18-May-23	10	AS001520, AS501360, AS504520, AS505000, AS503160	AS510900
AS505400	E&M Installation of Plant Service Water System (S12)	90	20-Jul-22	17-Oct-22	17-Feb-23	18-May-23	213	AS001520, AS501380, AS502120	AS511300b
AS505600	E&M Installation of SAS Pumping System (S14)	210	21-May-22	16-Dec-22	31-May-22	27-Dec-22	11	AS001820, AS501400, CE000219b, AS501820, AS501840	AS511300b, AS505700
AS505700	E&M Installation of DO System (S21)	90	14-Jan-23	13-Apr-23	27-Dec-22	27-Mar-23	-18	AS001520, AS505200, AS501800, AS505600, AS506300	AS511300b, AS506100
AS506000	E&M Installation of Sewage Pump (S21)	60	04-Jul-22	01-Sep-22	15-Jul-22	13-Sep-22	12	AS001520, AS501860, AS106180	AS506200, AS506200, AS511300b, AS508000
AS506100	E&M Installation of THP Cooling Pump (S21)	60	10-Apr-23	08-Jun-23	23-Mar-23	22-May-23	-18	AS001520, AS501920, AS503600, AS505700, AS506300	AS511300b
AS506200	E&M Installation of Ferric Chloride Storage Tank (S21)	45	02-Sep-22	16-Oct-22	13-Sep-22	28-Oct-22	12	AS001520, AS506000, AS506000, AS501940	AS506300, AS511300b
AS506300	E&M Installation of Ferric Chloride Dosing Pump (S21)	45	02-Oct-22	15-Nov-22	13-Oct-22	27-Nov-22	12	AS001520, AS506200, AS501960	AS511300b, AS506100, AS505700
AS506500h	E&M Installation of Existing Consolidation House	120	31-Aug-22	28-Dec-22	03-Jan-23	03-May-23	126	CE000219d, AS501980	AS511300b, AS510400
AS506600j	E&M Installation of Pipe Trench No.1, No.2 & No.3	270	24-May-22	17-Feb-23	06-Aug-22	03-May-23	75	AS001520	AS510200a
Building Services									
AS507000	FS Installation - Conduits, Trunking, & Pipeworks	240	07-Jun-22	01-Feb-23	26-Aug-22	22-Apr-23	80	AS503180, AS509300	AS507100, AS509340, AS508110g
AS507100	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	240	04-Dec-22	31-Jul-23	22-Feb-23	19-Oct-23	80	AS507000, AS503200, AS504410a, AS502320	AS509120
AS507200	Installation of Control & Monitoring System	120	16-Jan-23	15-May-23	18-Jan-23	18-May-23	3	AS503260, AS501720	AS511300b, AS106300, AS512380f, AS512390f, AS512400f, AS512410f
AS507300	Installation of CCTV System	150	18-Oct-22	16-Mar-23	19-Dec-22	18-May-23	63	AS503280	AS511300b, AS512380f, AS512390f, AS512400f, AS512410f
AS507700	BS Installation for Sludge Digester	45	29-Jan-23	14-Mar-23	17-Feb-23	03-Apr-23	20	AS503600, AS509300, AS510090m	AS507800, AS510700, AS509370f
AS507800	BS Installation for THP Facilities	30	15-Mar-23	13-Apr-23	03-May-23	02-Jun-23	50	AS507700, AS505000, AS510090m	AS507900, AS509370f
AS507900	BS Installation for Biogas Holding Tanks	60	26-Mar-23	24-May-23	03-Apr-23	02-Jun-23	9	AS507800, AS504540, AS510090m	AS508000, AS509370f
AS508000	BS Installation for Sewage Pumping Station	60	26-Mar-23	24-May-23	03-Apr-23	02-Jun-23	9	AS507900, AS506000, AS510090m	AS508100, AS509370f



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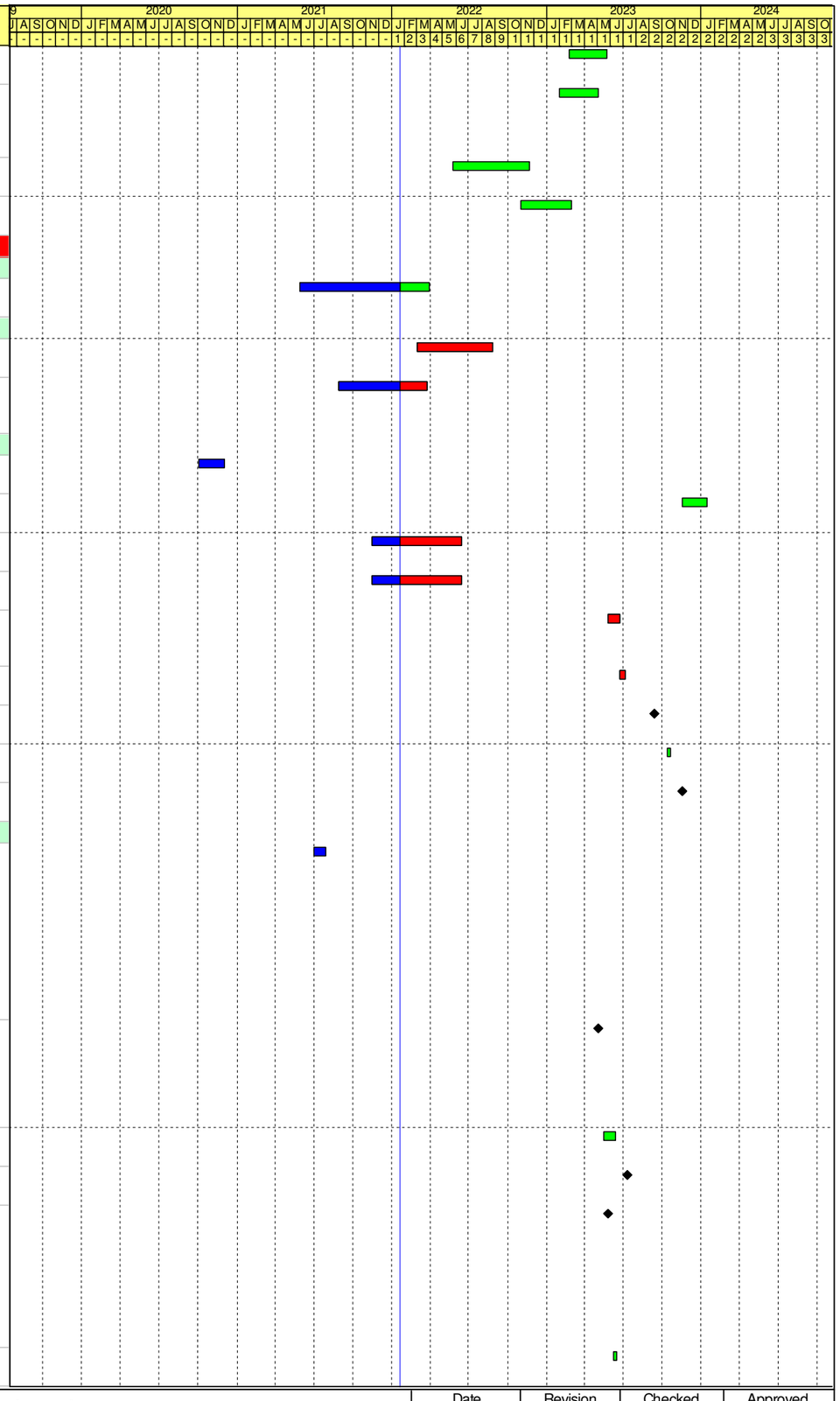
AS508100	BS Installation for Other Facilities	90	24-Feb-23	24-May-23	04-Mar-23	02-Jun-23	9	AS508000, AS510090m	AS511300b, AS509370f
AS508110g	BS Installation for Fire Hydrant and Booster Pump Room	90	02-Feb-23	02-May-23	13-May-23	10-Aug-23	100	AS507000, AS509300, AS001520, AS510090m	AS509340
AS508120g	Road Lighting Installation	180	25-May-22	20-Nov-22	23-Apr-23	19-Oct-23	333	AS001520	AS509120
AS508130g	Landscape Lighting Installation	120	01-Nov-22*	28-Feb-23	27-Feb-23	27-Jun-23	119		AS512380f
Statutory Submission / Inspection									
CLP Submission									
AS512375f	Submission & Approval of Electrical Schematic Wiring Diagram to CLP	275	30-May-21 A	31-Mar-22	09-Oct-22	18-Dec-22	262		AS509980
EPD Submission / Inspection									
AS509500a	EPD Submission & Approval for Air Pollution Control - Genset	180	02-Mar-22	28-Aug-22	08-Feb-22	07-Aug-22	-22	AS201100	AS506500b
AS509520a	EPD Submission & Approval for Air Pollution Control - CHP & THP	180	28-Aug-21 A	26-Mar-22	19-Jan-22	25-Mar-22	-2	AS082330	AS513000a, AS505000, AS503100
EMSD Submission / Inspection									
AS509370b	BEEO Stage one: Submit EE1 & EE-SU to EMSD	60	03-Oct-20 A	02-Dec-20 A	13-Mar-22	13-Mar-22		AS201500	AS504000
AS509375f	BEEO Stage two: Submit EE2 & EE-SU to EMSD	60	17-Nov-23	15-Jan-24	05-Feb-24	04-Apr-24	80	AS509200	AS003530
AS509380b	Application & Approval of the Zone Classification of Hazardous Area - including Fire Risk Assessment Report	180	15-Nov-21 A	13-Jun-22	14-Jan-22	07-Jun-22	-7	AS020170a	AS509420a, AS509400a
AS509400a	Application for Construction Approval of Notifiable Gas Installation (Form 104)	180	15-Nov-21 A	13-Jun-22	14-Jan-22	07-Jun-22	-7	AS020170a, AS509380b	AS509420a, AS504500
AS509420a	Application for Approval of Use of Notifiable Gas Installation (Form 105)	28	26-May-23	22-Jun-23	21-May-23	18-Jun-23	-5	AS509400a, AS510600, AS509380b	AS509440a
AS509440a	EMSD Inspection - Gas Holding Tanks	14	23-Jun-23	06-Jul-23	18-Jun-23	02-Jul-23	-5	AS509420a	AS512200a
AS509450f	Form 5 Submission to EMSD - Lift Installation	0	13-Sep-23		16-Jan-24		126	AS504460	AS509460f
AS509460f	EMSD Inspection - Lift Installation	7	13-Oct-23	19-Oct-23	15-Feb-24	22-Feb-24	126	AS509450f	AS509470f
AS509470f	Issuance of Form 6 - Lift Installation	0		18-Nov-23		23-Mar-24	126	AS509460f	AS003520
WSD Submission / Inspection									
AS509300	Submit WWO46 Part I / II to WSD (FS/PD)	30	01-Jul-21 A	30-Jul-21 A	22-Jun-22	22-Jun-22		AS201800, AS201100, AS201200, AS201300, AS201500, AS201700	AS509340, AS507000, AS503180, AS504400a, AS502300, AS502340, AS503220, AS504420a, AS507700, AS508110g
AS509340	Submit WWO46 Part IV to WSD (FS)	0	03-May-23		11-Aug-23		100	AS509300, AS507000, AS504400a, AS503180, AS502300, AS508110g	AS509360, AS509362b
AS509360	WSD Inspection (FS)	28	17-May-23	13-Jun-23	25-Aug-23	21-Sep-23	100	AS509340	AS509200, AS509362b
AS509362b	Issuance of FS Water Certificate	0		11-Jul-23		19-Oct-23	100	AS509340, AS509360	AS513000a, AS509120
AS509370f	Submit WWO46 Part IV to WSD (PD)	0	25-May-23		20-Dec-23		210	AS507700, AS507800, AS507900, AS508000, AS508100, AS504420a, AS503220, AS502340	AS509380f
AS509380f	WSD Inspection	7	08-Jun-23	14-Jun-23	03-Jan-24	10-Jan-24	210	AS509370f	AS509390f



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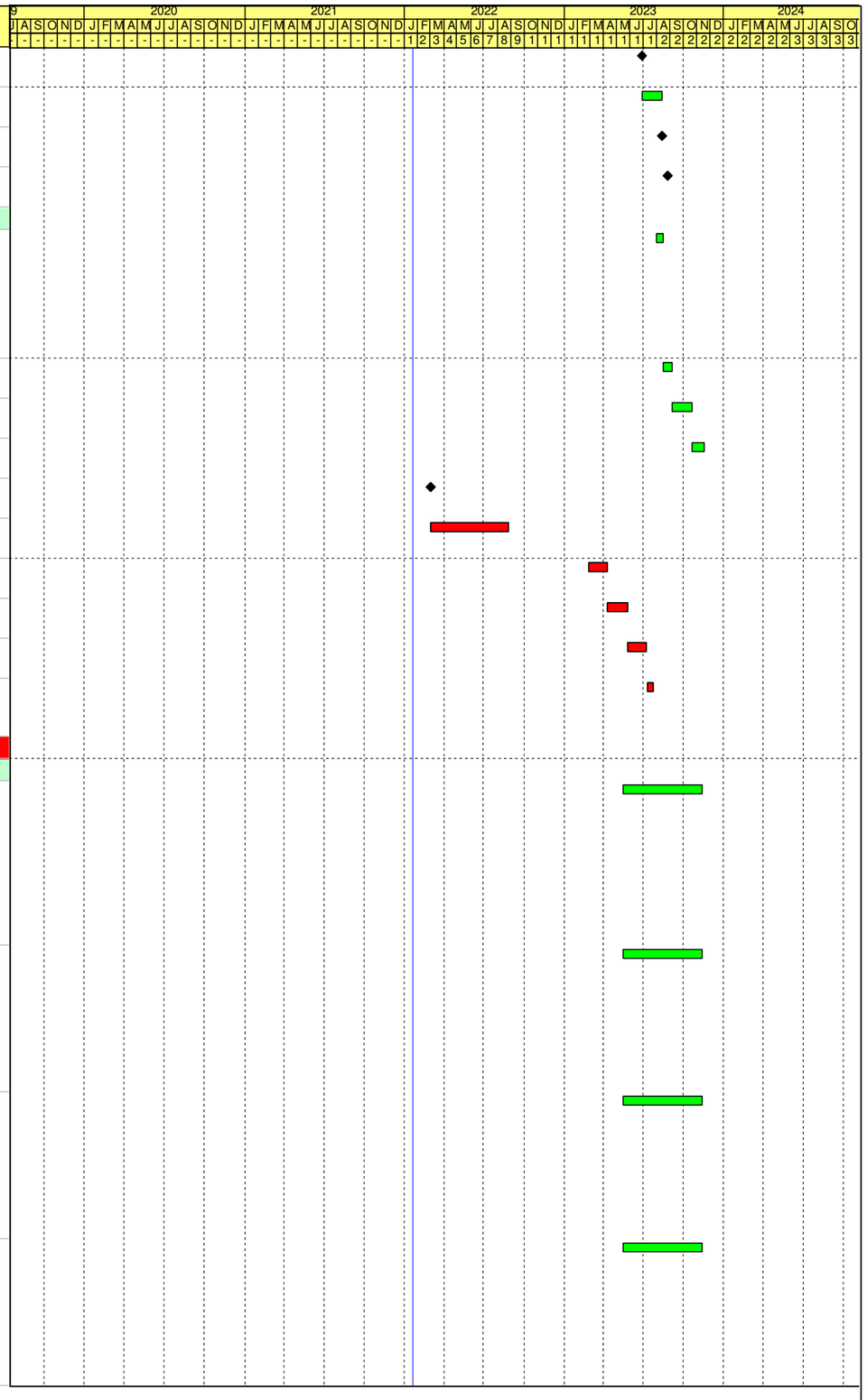
AS509390f	Issuance of Form WWO46 Part Va	0		28-Jun-23		24-Jan-24	210	AS509380f	AS509410f, AS509400f
AS509400f	System Flushing / Sampling	45	29-Jun-23	12-Aug-23	24-Jan-24	09-Mar-24	210	AS509390f	AS509410f
AS509410f	Issuance of Form WWO46 Part Vb	0		12-Aug-23		09-Mar-24	210	AS509390f, AS509400f	AS509420f
AS509420f	Issuance of Water Certificate	0		26-Aug-23		23-Mar-24	210	AS509410f	AS003520
FSD Submission / Inspection									
AS509120	Prepare & Submit FSI/314 & FSI/501	14	01-Aug-23	14-Aug-23	20-Oct-23	02-Nov-23	80	AS502320, AS503200, AS507100, AS504410a, AS509300b, AS509362b, AS508120g	AS509120a
AS509120a	FSD Review & Approval of FSI/314 & FSI/501	21	15-Aug-23	04-Sep-23	03-Nov-23	23-Nov-23	80	AS509120	AS509140a
AS509140a	F.S. Inspection, Defects Rectification & Re-inspection	45	05-Sep-23	19-Oct-23	24-Nov-23	07-Jan-24	80	AS509120a	AS509200
AS509200	Issuance of Acceptance Letter	28	20-Oct-23	16-Nov-23	08-Jan-24	04-Feb-24	80	AS509140a, AS509360	AS003520, AS509375f
AS509220	Application of D.G. Licence	0	02-Mar-22		08-Feb-22		-22	AS201100	AS509240
AS509240	Processing of D.G. Licence Application	180	02-Mar-22	28-Aug-22	08-Feb-22	07-Aug-22	-22	AS509220	AS509250b, AS506500b
AS509250b	Apply for D.G. Inspection	45	25-Feb-23	10-Apr-23	03-Feb-23	20-Mar-23	-22	AS509240, AS506500b	AS509300b, AS509260
AS509260	D.G. Inspection, Defects Rectification & Re-inspection (Ventilation Division)	45	11-Apr-23	25-May-23	20-Mar-23	04-May-23	-22	AS509250b	AS509300b, AS509280b
AS509280b	D.G. Inspection, Defects Rectification & Re-inspection (DG Division)	45	26-May-23	09-Jul-23	04-May-23	18-Jun-23	-22	AS509260	AS509300b
AS509300b	Issue D.G. Licence	14	10-Jul-23	23-Jul-23	18-Jun-23	02-Jul-23	-22	AS509260, AS509280b, AS509250b	AS509120, AS511200
Testing & Commissioning									
T&C of Control Monitoring System									
AS512380f	SAT of SCADA System	180	16-May-23	11-Nov-23	27-Jun-23	24-Dec-23	43	AS507200, AS507300, AS106300, AS504450, AS503280, AS503260, AS502400, AS502380, AS508130g	AS512420f
AS512390f	SAT of PMS	180	16-May-23	11-Nov-23	27-Jun-23	24-Dec-23	43	AS507200, AS507300, AS106300, AS504450, AS503280, AS503260, AS502400, AS502380	AS512420f
AS512400f	SAT of CMMS	180	16-May-23	11-Nov-23	27-Jun-23	24-Dec-23	43	AS507200, AS507300, AS106300, AS504450, AS503280, AS503260, AS502400, AS502380	AS512420f
AS512410f	SAT of IDMS	180	16-May-23	11-Nov-23	27-Jun-23	24-Dec-23	43	AS507200, AS507300, AS106300, AS504450, AS503280, AS503260, AS502400, AS502380	AS512420f

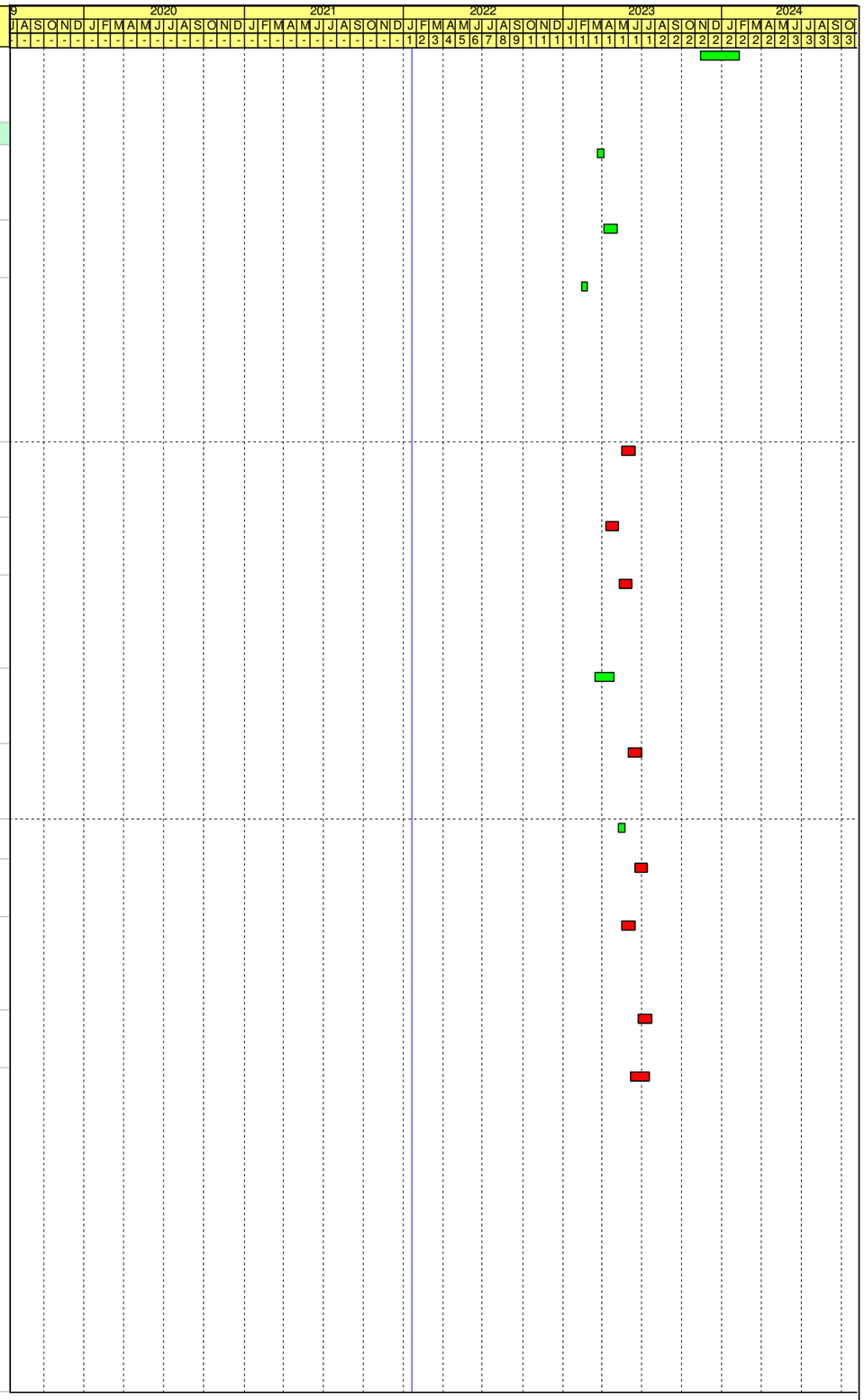


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Jan 2022

Date	Revision	Checked	Approved
30-Sep-21	Rev.14	LT	KM
31-Oct-21	Rev.15	LT	KM
30-Nov-21	Rev.16	LT	KM
31-Dec-21	Rev.17	LT	KM
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS512420f	Overall Testing for Whole System	90	12-Nov-23	09-Feb-24	24-Dec-23	23-Mar-24	43	AS512380f, AS512390f, AS512400f, AS512410f	AS003520
T&C of E&M Process									
AS510100	SAT of THP System	15	22-Mar-23	05-Apr-23	18-Apr-23	03-May-23	28	AS505000, AS505100, AS503440, AS105180	AS511300b, AS510200a
AS510200a	System Commissioning Tests for THP System	30	06-Apr-23	05-May-23	03-May-23	02-Jun-23	28	AS510100, AS506600j	AS512200a, AS510800, AS512100
AS510300	SAT for Sludge Dewatering System	15	13-Feb-23	27-Feb-23	19-Mar-23	03-Apr-23	35	AS502520, AS502120, AS105180, AS502140, AS502150, AS502160, AS502180, AS502260, AS502280	AS510400, AS510700
AS510400	System Commissioning Tests for Sludge Dewatering System	30	16-May-23	14-Jun-23	03-May-23	02-Jun-23	-13	AS510300, AS502400, AS502380, AS506500h	AS512200a, AS510800, AS512100, AS013440f
AS510500	SAT for Biogas Storage System	30	10-Apr-23	09-May-23	03-Apr-23	03-May-23	-7	AS503440, AS503160, AS504540	AS510600
AS510600	System Commissioning Tests for Biogas Storage System	30	10-May-23	08-Jun-23	03-May-23	02-Jun-23	-7	AS510500	AS512200a, AS510800, AS511000, AS512100, AS509420a
AS510700	SAT for Sludge Digestion System	45	15-Mar-23	28-Apr-23	03-Apr-23	18-May-23	20	AS503600, AS503440, AS510300, AS507700	AS510800
AS510800	System Commissioning Tests for Sludge Digestion System	30	31-May-23	29-Jun-23	18-May-23	17-Jun-23	-13	AS510700, AS510400, AS510600, AS510200a	AS512200a, AS511000, AS511200, AS512100
AS510900	SAT for Gas Burning System	15	09-May-23	23-May-23	18-May-23	02-Jun-23	10	AS505300	AS511000
AS511000	System Commissioning Tests for Gas Burning System	30	15-Jun-23	14-Jul-23	02-Jun-23	02-Jul-23	-13	AS510900, AS510600, AS510800	AS512200a, AS512100
AS511100	SAT for CHP System	30	16-May-23	14-Jun-23	03-May-23	02-Jun-23	-13	AS503440, AS503260, AS503160, AS503340, AS503290	AS511200
AS511200	System Commissioning Tests for CHP System	30	24-Jun-23	23-Jul-23	02-Jun-23	02-Jul-23	-22	AS511100, AS510800, AS509300b	AS512200a, AS512100, AS013480f
AS511300b	SAT & System Commissioning Tests for Other Facilities	45	05-Jun-23	19-Jul-23	18-May-23	02-Jul-23	-18	AS510100, AS505200, AS505700, AS506000, AS506100, AS506200, AS506300, AS505400, AS505600, AS508100, AS507200, AS507300, AS502220, AS503440, AS502520, AS506500b, AS506500h, AS501980	AS512200a, AS512100



Remaining Work
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Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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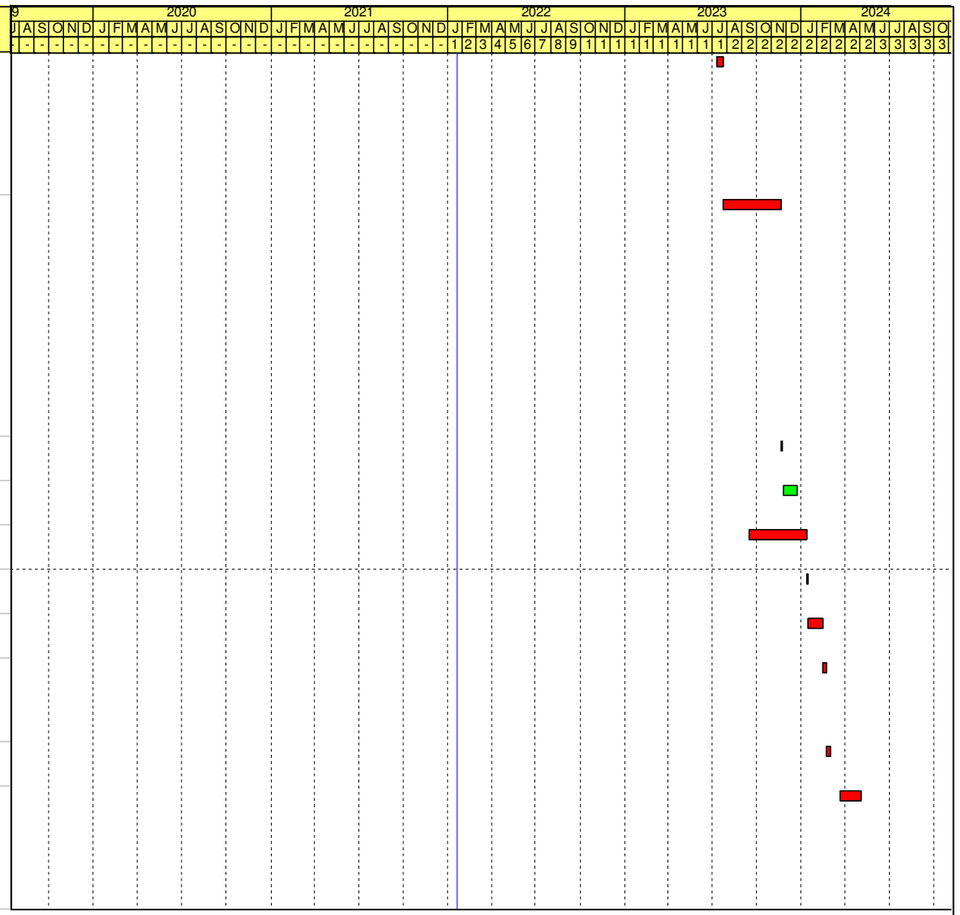
31-Jan-22	Rev.18	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
AS512100	Seeding	14	10-Jul-23	23-Jul-23	18-Jun-23	02-Jul-23	-22	AS511300b, AS511000, AS510600, AS510800, AS511200, AS510400, AS510200a	AS011540a, AS512200a
AS512200a	Process Start Up - Digester 1	120	24-Jul-23	20-Nov-23	02-Jul-23	30-Oct-23	-22	AS511300b, AS511000, AS510600, AS510800, AS511200, AS510400, AS510200a, AS512100, AS509440a, AS502360, AS502410, AS106300	AS512500a, AS512300a, AS012340a, AS155250e, AS155270e
AS512300a	Notice to Commence Phase 1 System Commissioning - Digester 1	3	21-Nov-23	23-Nov-23	22-Dec-23	25-Dec-23	32	AS512200a	AS512400a
AS512400a	Phase 1 System Commissioning - Digester 1	30	24-Nov-23	23-Dec-23	25-Dec-23	24-Jan-24	32	AS512300a	AS512800a
AS512500a	Process Start Up - Digester 2	120	15-Sep-23	12-Jan-24	24-Aug-23	22-Dec-23	-22	AS512200a	AS512600a
AS512600a	Notice to Commence Phase 1 System Commissioning - Digester 2	3	13-Jan-24	15-Jan-24	22-Dec-23	25-Dec-23	-22	AS512500a	AS512700a
AS512700a	Phase 1 System Commissioning - Digester 2	30	16-Jan-24	14-Feb-24	25-Dec-23	24-Jan-24	-22	AS512600a	AS512800a
AS512800a	Phase 2 System Commissioning - Digester 1 & 2	7	15-Feb-24	21-Feb-24	24-Jan-24	31-Jan-24	-22	AS512700a, AS512400a	AS512900a, AS011540a, AS012140a, AS155330e
AS512900a	Notice to Commence Plant Commissioning	7	22-Feb-24	28-Feb-24	31-Jan-24	07-Feb-24	-22	AS512800a	AS513000a
AS513000a	Plant Commissioning Tests	45	20-Mar-24	03-May-24	07-Feb-24	23-Mar-24	-42	AS512900a, AS509520a, AS106300, AS504450, AS509362b, AS155300	AS003520, AS011540a



Remaining Work
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Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- E&M Works for Sewage Treatment Facilities
3 Month Rolling Programme (From 02/01/2022 to 01/04/2022)

Updated on: **16-Mar-22**

Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
Drawing Submisssion for Key Dates												
KD1A: Submission of civil and dimensional requirement drawing, electrical schematic drawings, etc. from formation level up to +8mPD in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1A: Submission of Civil Requirement Drawing (Final)	8/28/2020	9/18/2020	11/5/2020	11/5/2020	Task Completed	no.	26	26	100%		
	KD1A: Submission of Electrical Schematic Drawing (Final)	7/15/2020	7/15/2020	11/5/2020	11/5/2020	Task Completed	no.	11	11	100%		
	KD1A: 6 November 2020											
KD1B: Submission of remaining civil and dimenssional requirement drawings, electrical schematic drawing, etc. in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1B: Submission of Civil Requirement Drawing (First Draft)	9/30/2020	9/28/2020	12/30/2020	3/31/2021	Task Completed	no.	47	47	100%		
	KD1B: Submission of Civil Requirement Drawing (Final)	11/6/2020	11/5/2020	6/4/2021	6/4/2021	Task Completed	no.	47	47	100%		All the CWR Drawings were submitted.
	KD1B: 4 June 2021											
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	KD3A: Testing and Comissioning	7/1/2020	7/3/2020	7/29/2020	7/29/2020	Task Completed				100%		First test was conducted on 3 July 2020. Remaining test would be subjected to completion of civil works. KD3A - 29 July 2020. Joint Site Inspection was conducted on 24 July 2020 and Notice of completion of work was submitted on 28 July 2020
	KD3A: 29 July 2020											
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: System Commissioning for PST No. 4 & 6	N/A	6/22/2021	N/A	9/3/2021	Task Completed				100%		Wet test (2nd) for PST#6 completed on 3 Sep 2021 and pre-handover inspection arranged on 30 Aug 2021. Defect list (final) received on 17 Sep 2021 and defect rectification was completed. Site training/ demonstration shall be conducted by end Feb and PMI modification work shall be completed by end March.
	KD3B: 9 June 2021											
Section 1 of Works (outstanding works list)												
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	12/1/2020	12/1/2020	8/8/2021	8/8/2021	Task Completed				-		"Filter Press Plates and Cloths" were handed over to DSD.
6B.2.16 Temporary Filtrate Equalisation System	Mechanical Installation	3/17/2021	3/30/2021	4/12/2021	5/14/2021	Task Completed				-		
	Electrical Installation	3/13/2021	3/29/2021	4/15/2021	12/10/2021	Task Completed				-		PLC programme for water spray system (stage 1) is on-going, motorized gate valve for stage 2 under PMI is being fabricated and the delivery lead time is by end November.
	Testing and Comissioning	4/15/2021	4/22/2021	5/1/2021	3/31/2022	96%				-		Site Acceptance Test shall be completed by 31 Mar 2022.
6B.2.1 Inlet Works	Submission of Contractor's Design for Inlet Works No. 1	9/6/2020	11/16/2020	5/14/2021	3/31/2022	97%				-	Bestwise	All finalized design calculations for Inlet Works no.1 shall be submitted by 31 Mar 2022.
	Submission of P&M Submission	9/6/2020	9/7/2020	5/14/2021	3/31/2022	97%						P&M0022 - Inlet Pumps (status: B) P&M0003 - Coarse Screens & Fine Screens (status: B) P&M0085 - Grit Traps (status: B) P&M0084 - Screw Compactor (status: B) P&M0042 - Screw Conveyors for Coarse Screens and Fine Screens (under AECOM review) All P&M for Inlet Works no.1 shall be submitted by 31 Mar 2022.
	Submission of P&ID Drawing	9/6/2020	9/6/2020	5/14/2021	12/29/2020	Task Completed						PID (rev.B) submitted on 13 Nov 2020. AECOM accepted subject to comments on 29 Dec 2020.
	Submission of GA Drawing	9/6/2020	1/5/2021	5/14/2021	3/31/2022	97%						E&M GA submission DWG0082 resubmitted on 9 July 2021. AECOM commented on 19 Feb 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. Electrical GA DWG0095 resubmitted on 3 July 2021. AECOM commented on 21 Apr 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. All finalized drawings for Inlet Works no.1 shall be submitted by 31 Mar 2022.

	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	3/31/2022	97%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for Inlet Works no.1 shall be submitted by 31 Mar 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	4/30/2022	87%				-		
6B.2.2 Primary Sedimentation Tank No. 1-4	Submission of Contractor's Design for Primary Sedimentation Tanks No. 1-4	9/6/2020	12/28/2020	5/14/2021	4/30/2022	91%				-	Bestwise	PFD (rev.B) under DWG0004 submitted on 22 June 2021. Finalized design calculations for PST shall be submitted by 30 Apr 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	4/30/2022	91%						P&M0058 - Lamella Plate Settler (under AECOM review) P&M0097 - Scum Skimmer and Scum Collection Pipe (status: C) P&M0086 - Sludge Bottom Scraper (status: C) P&M0051 - Drain Pump (status: C) P&M0044 - Primary Sludge Pump (status: B) Finalized material submissions for PST shall be submitted by 30 Apr 2022.
	Submission of P&ID Drawing	9/6/2020	10/2/2020	5/14/2021	6/24/2021	Task Completed						PID under DWG0037 (rev.1) submitted on 24 June 2021 and is accepted by AECOM.
	Submission of GA Drawing	9/6/2020	2/3/2021	5/14/2021	4/30/2022	90%						Mechanical GA was submitted on 19 Jun 2021. Electrical GA under DWG0103 (rev.1) was submitted on 6 Jul 2021 and is accepted by AECOM. Finalized drawings for PST shall be submitted by 30 Apr 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	4/30/2022	90%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for PST shall be submitted by 30 Apr 2022.
	Acceptance of submission	5/15/2021	4/2/2021	5/29/2021	6/30/2022	77%				-		Refer to outstanding list under "Certificate of completion no.1 - section 1 of the works".
6B.2.3 Chemical Storage and Dosing System	Submission of Contractor's Design for Chemical Dosing System (CDS006)	9/6/2020	1/7/2021	5/14/2021	10/29/2021	Task Completed				-	Bestwise	Design calculation (rev.0) of CHS1 and TCHS submitted on 2 Sep 2020 and 28 Aug 2020, AECOM commented on 24 Sep and 6 Oct 2020, Bestwise submitted CDS0060 on 15 Jul 2021 and CDS0044 on 19 Jul 2021. Finalized design calculation for chemical systems was submitted on 29 Oct 2021.
	Submission of P&M Submission	9/6/2020	9/6/2020	5/14/2021	10/30/2021	Task Completed						Finalized material submissions for chemical system was submitted on 30 Oct 2021.
	Submission of P&ID Drawing	9/6/2020	12/11/2020	5/14/2021	6/29/2021	Task Completed						PID resubmitted under DWG0053 (rev.1) on 28 Jun 2021, DWG0057 (rev.1) on 29 Jun 2021 and DWG0058 (rev.1) on 29 Jun 2021.
	Submission of GA Drawing	9/6/2020	2/8/2021	5/14/2021	3/31/2022	96%						Electrical GA drawings for CS1 under DWG0096 submitted on 10 April 2021. AECOM accepted subject to comments on 17 Apr 2021. Mechanical GA drawings for CS1 submitted on 1 April 2021. AECOM commented on 24 April 2021. Bestwise resubmitted DWG0093 (rev.1) on 30 Jun 2021 and is accepted by AECOM. Mechanical GA for Temp CS submitted on 12 Jun 2021. All finalized drawings for chemical systems shall be submitted by 31 Mar 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	3/31/2022	97%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for chemical system shall be submitted by 31 Mar 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	4/30/2022	87%				-		
6B.2.4 Membrane Bioreactor (MBR) System - Bio Reactor 2A and 2B	Submission of Contractor's Design for Bioreactor 2A and 2B (CDS004)	9/6/2020	1/12/2021	5/14/2021	4/30/2022	90%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 7 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Electrical CDS submitted on 23 Jun 2021. Finalized design calculations shall be submitted by 18 Feb 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	4/30/2022	91%						P&M0060 - Pre-treatment Fine Screen (status: C) P&M0053 - MLR Pump (status: B) P&M0118 - Scum Skimmer & Scum Pump (under AECOM review) P&M0088 - Fine Bubble Air Diffuser (status: B) P&M0xxx - Wash Compactor (to be submitted) P&M0041 - Submersible Mixer (status: C) Finalized material submission shall be submitted by 30 Apr 2022.
	Submission of P&ID Drawing	9/6/2020	11/2/2020	5/14/2021	7/2/2021	Task Completed						PID (Rev.1) under DWG0042 resubmitted on 6 July 2021.
	Submission of GA Drawing	9/6/2020	2/17/2021	5/14/2021	4/30/2022	90%						Mechanical GA under DWG0132 submitted on 26 Jun 2021 and is accepted by AECOM. Electrical GA submitted on 23 Jun 2021. Finalized drawing shall be submitted by 30 Apr 2022.

	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	4/30/2022	90%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 Apr 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	6/30/2022	74%				-		Refer to outstanding list under "Certificate of completion no.1 - section 1 of the works".
6B.2.4 Membrane Bioreactor (MBR) System - Membrane Filtration System No. 2 (MFB No. 2)	Submission of Contractor's Design for Membrane Filtration System (CDS005)	9/6/2020	1/11/2021	5/14/2021	4/30/2022	91%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 10 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Finalized design calculations shall be submitted by 30 Apr 2022.
	Submission of P&M Submission	9/6/2020	11/19/2020	5/14/2021	4/30/2022	91%						P&M0072 - Membrane Module (status: B) P&M0069 - Permeate Pump (status: B) P&M0047 - RAS Pump (status: B) P&M0050 - Drain Pump (status: B) P&M0074 - Air Scour Blower (status: C) P&M0073 - Aeration Blower (status: C) P&M0093 - Air Compressor (status: C) P&M0091 - Chemical Pump (status: C) P&M0xxx - Chemical Tank (to be submitted) Finalized material submission shall be submitted by 30 Apr 2022.
	Submission of P&ID Drawing	9/6/2020	10/30/2020	5/14/2021	7/2/2021	Task Completed						DWG0049 (Rev.1) was resubmitted on 2 Jul 2021.
	Submission of GA Drawing	3/31/2021	2/18/2021	5/14/2021	4/30/2022	90%						DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 Apr 2022.
	Submission of Electrical Drawing	4/15/2021	1/15/2021	5/14/2021	4/30/2022	90%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Electrical GA under DWG0079 (rev.1) was resubmitted on 8 Jul 2021. Finalized drawings shall be submitted by 30 Apr 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	6/30/2022	74%				-		
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender award (C11)	4/25/2020	4/25/2020	5/12/2020	5/12/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 13 May 2020. AECOM commented on 23 July 2020, Bestwise to resubmit.
	Acceptance of tender award (C11)	5/13/2020	5/13/2020	5/21/2020	5/21/2020	Task Completed				100%		
	Submission of Contractor's Design for Deodorisation System , DOU No. 1 (CDS0019 & CDS0045)	9/6/2020	9/6/2020	5/14/2021	12/31/2021	Task Completed				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0045 on 3 June 2021. Finalized design was completed.
	Submission of P&ID Drawing of DOU No. 1	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 1	9/6/2020	9/6/2020	5/14/2021	3/31/2022	97%						GA submitted on 21 Jun 2021 Finalized drawings shall be submitted by 31 Mar 2022.
	Submission of Electrical Drawing of DOU No. 1	3/21/2021	1/30/2021	5/14/2021	3/31/2022	96%						Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 31 Mar 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	4/30/2022	87%				-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 2A (CDS0019 & CDS0048)	9/6/2020	9/6/2020	5/14/2021	12/10/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0048: Design Calculation on DOU2A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 2A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 2A	9/6/2020	8/3/2020	5/14/2021	3/31/2022	98%				-	Bestwise	Bestwise submitted (rev.1) on 30 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise to resubmit. Finalized drawings shall be submitted by 31 Mar 2022.
	Submission of Electrical Drawing of DOU No. 2A	3/21/2021	1/26/2021	5/14/2021	3/31/2022	97%						Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 31 Mar 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	5/31/2022	80%				-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 3A (CDS0019 & CDS0055)	9/6/2020	9/6/2020	5/14/2021	12/10/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0055: Design Calculation on DOU3A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 3A	9/6/2020	7/8/2020	5/14/2021	3/31/2022	98%				-	Bestwise	Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commeneted on 16 Dec 2020. Bestwise resubmitted on 24 June 2021. Finalized drawings shall be submitted by 31 Mar 2022.
	Submission of Electrical Drawing of DOU No. 3A	3/21/2021	2/26/2021	5/14/2021	3/31/2022	96%						Bestwise submitted on 17 Apr 2021. AECOM commented on 27 Apr 2021. Bestwise to resubmit. GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 31 Mar 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	4/30/2022	87%						

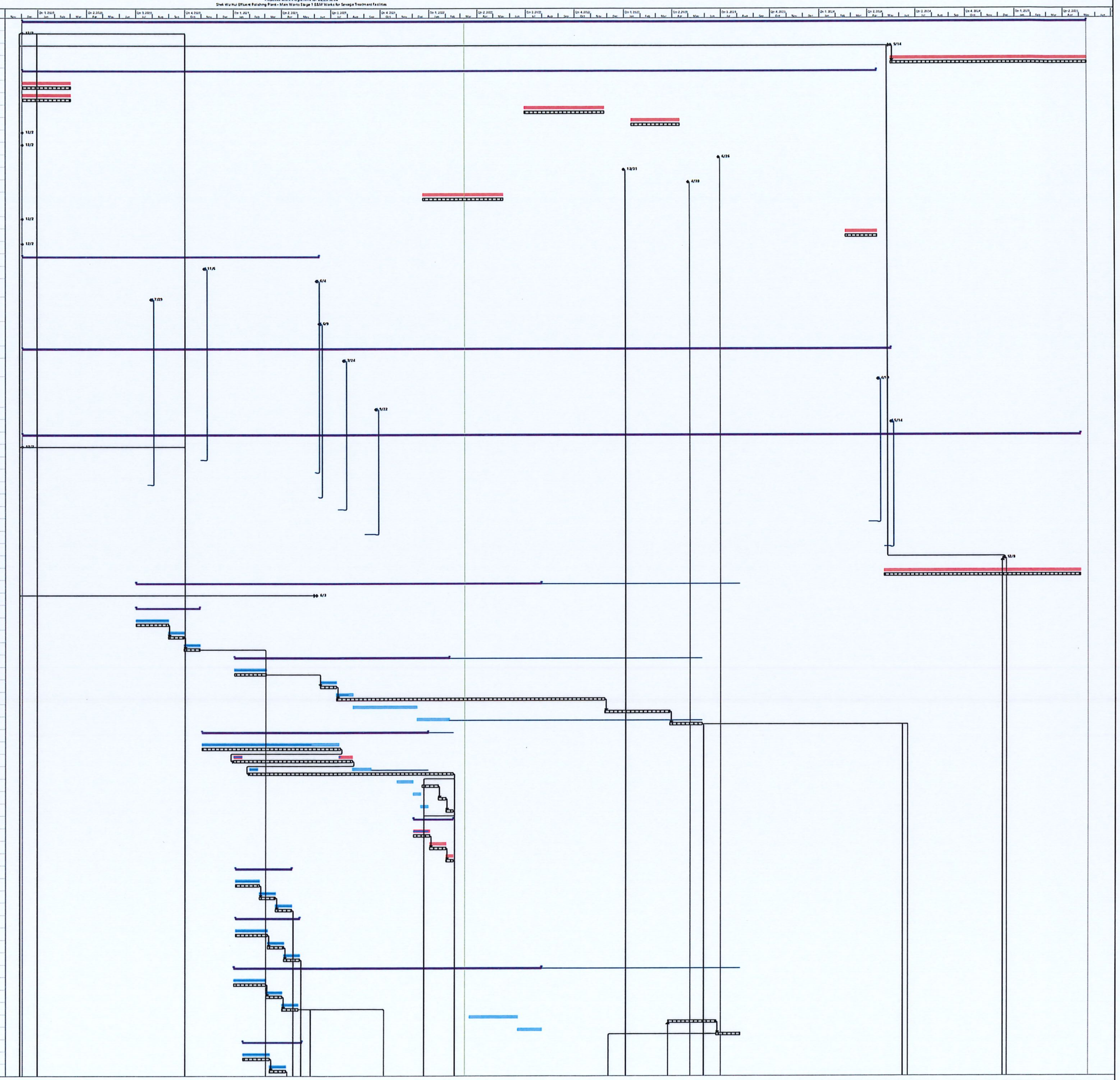
	Submission of Contractor's Design for Deodorisation System , DOU No. 3B (CDS0019 & CDS0049)	9/6/2020	9/6/2020	5/14/2021	12/10/2021	Task Completed						CDS0019: Design Calculation for Deodorisation System (status: B) CDS0049: Design Calculation on DOU3B - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3B	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 3B	9/6/2020	9/6/2020	5/14/2021	3/31/2022	97%						Bestwise submitted DWG0081 (rev.0) on 5 Feb 2021. AECOM commeneted on 12 Mar 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 31 Mar 2022.
	Submission of Electrical Drawing of DOU No. 3B	3/21/2021	2/22/2021	5/14/2021	3/31/2022	96%						GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 31 Mar 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	5/31/2022	80%				-		
04SC008 - Design, Supply and Installation of detailed design for lifting appliances	Acceptance of tender award (C9)	-	-	-	7/6/2020	Task Completed				100%	-	AECOM accepted tender report on 6 July 2020.
	Submission of detailed design for lifting appliances for Inlet Works No. 1 (CDS050-1)	9/6/2020	12/5/2020	9/6/2020	3/31/2022	97%						DWG 0055 (Rev.0) was submitted on 13 Mar 2021. AECOM commented on 20 Apr 2021. Bestwise to resubmit. Bestwise submitted P&M0025 on 15 June 2021. Finalized design shall be submitted by 31 Mar 2022.
	Submission of detailed design for lifting appliances for Primary Sedimentation Tanks (CDS050-2)	9/6/2020	12/5/2020	9/6/2020	3/31/2022	97%						DWG 0054 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 Mar 2022.
	Submission of detailed design for lifting appliances for BR 2A and 2B (CDS050-3)	9/6/2020	12/5/2020	9/6/2020	3/31/2022	97%						DWG 0065 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. P&M-0026 (Rev.1) received status B. Finalized design calculation shall be submitted by 31 Mar 2022.
	Submission of detailed design for lifting appliances for MFB (CDS050-4)	9/6/2020	12/5/2020	9/6/2020	3/31/2022	97%						DWG 0066 (Rev.1) was submitted on 1 Mar 2021. AECOM commented on 5 Mar 2021. Bestwise to resubmit. P&M-0027 (Rev.1) received status B. Finalized design calculation shall be submitted by 31 Mar 2022.
	Submission of detailed design for lifting appliances for Temporary Filtration Tank (CDS050-5)	9/6/2020	12/5/2020	9/6/2020	5/21/2021	Task Completed						DWG 0051 (Rev.2) was resubmitted on 7 May 2021 and acceptance by AECOM subject to condition on 21 May 2021. Bestwise submitted P&M0021 on 21 June 2021.
Building Services System	Submission for MVAC system	N/A	12/10/2020	N/A	4/30/2022	91%						Design calculations and drawings for inlet works was submitted on 16 Dec 2020. AECOM commented on 15 Jan 2021 and 20 Jan 2021. Design calculations and drawings for PST was submitted on 30 Dec 2020. AECOM commented on 22 Jan 2021 and 26 Jan 2021. Design calculations and drawings for MFB2 was submitted on 29 Jan 2021. AECOM commented on 26 Mar 2021. Subletting package resubmitted by 18 Mar 2021. AECOM accepted on 19 Mar 2021. Finalized design shall be submitted by 8 Apr 2022.
	Submission for Fire Services System	N/A	3/15/2021	N/A	3/31/2022	96%						Subletting Package to be resubmitted by 31 Mar 2021. AECOM accepted on 9 Apr 2021. Drawings: Inlet Works: submitted on 8 June 2021. PST 1-4: submitted on 23 Jun 2021 BR2A &2B: submitted on 8 Jun 2021 MFB 2: submitted on 8 Jun 2021 Finalized design shall be submitted by 31 Mar 2022.
	Submission for Plumbing and Drainage System	N/A	3/15/2021	N/A	3/31/2022	96%						Subletting Package resubmitted by 10 Mar 2021. AECOM accepted on 12 Mar 2021. Tender invitation was conducted on 15 Mar 2021 and closed on 26 Mar 2021. Finalized design shall be submitted by 31 Mar 2022.
	Submission for Electrical Services System	N/A	12/10/2020	N/A	3/31/2022	97%						GA for lighting was submitted on 18 Dec 2020. AECOM commented on 6 Jan 2021. Bestwise to resubmit. GA for small power system was submitted in 8 Feb 2021. AECOM commented on 3 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 Mar 2022.
	Submission of ELV system	N/A	1/8/2021	N/A	5/31/2022	85%						GA for CCTV was resubmitted on 16 Mar 2021. AECOM commented on 30 Mar 2021. Bestwise resubmitted on 25 Jun 2021. Finalized design shall be submitted by 31 May 2022.
	Submission for PV system	N/A	3/15/2021	N/A	3/31/2022	96%						Tender package was submitted to AECOM. Finalized design shall be submitted by 31 Mar 2022.
SCADA System & PMS	Submission for SCADA system	N/A	2/11/2021	N/A	4/30/2022	90%						Revised SCADA structure was provided via email on 9 Apr 2021 and tender package is under preparation. Finalized design shall be submitted by 31 Mar 2022.
	Submission for PMS system	N/A	3/8/2021	N/A	4/30/2022	89%						Tender package to be resubmitted on 29 June 2021. Finalized design shall be submitted by 31 Mar 2022.
	Submission for CMMS & IDMS system	N/A	6/1/2021	N/A	4/30/2022	86%						Finalized design shall be submitted by 31 Mar 2022.
Section 2 of Works												
Lightning Protection System for DOU3A (underground)	Submission and Acceptance for Lightning Protection System Design	12/6/2021	12/6/2021	1/31/2022	1/31/2022							

	Material Delivery	2/7/2022	2/7/2022	2/28/2022	2/28/2022								Material Delivery was by End Feb 2022.
	Installation Work	3/31/2022	3/31/2022	12/31/2022	12/31/2022								Underground works subject to site coordination with JV and shall be start by End March 2022.
	Testing & Commissioning	1/7/2023	1/7/2023	1/31/2023	1/31/2023								
Lightning Protection System for Inlet Works (underground)	Submission and Acceptance for Lightning Protection System Design	12/20/2021	12/20/2021	1/31/2022	1/31/2022								
	Material Delivery	12/15/2022	12/15/2022	3/31/2022	3/31/2022								
	Installation Work	3/15/2022	3/15/2022	10/30/2022	10/30/2022								Underground works subject to site coordination with JV.
	Testing & Commissioning	11/1/2022	11/1/2022	11/15/2022	11/15/2022								
Section 3 of Works													
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	12/1/2020	12/1/2020	8/8/2021	7/13/2021	Task Completed				-			Handed over to DSD.
	Completion Date of Section 3: 22 September 2021												
Subcontracting													
Temporary Primary Sludge Thickener and its accessories (Sub-programme was provided by Bestwise)	Testing and Comissioning	15/11/2020 -> 15/01/2021*	5/8/2021	22/11/2020 -> 22/01/2021*	3/31/2022	95%				-			The installation of mixing pipe and bypass pipe was completed on 25 Oct 2021. The thickener system has been trial run on 29 Oct 2021 and the commissioning shall be conducted subject to mixing; the installation of FRP maintenance platform was completed. Improvement works under PMI are on-going.
Plant and Materials (Marking Scheme)													
PS Clause no. 6B.2.1 Inlet Pump	Tender award	6/5/2020	9/19/2020	10/5/2020	10/7/2020	Task Completed				100%			Technical Submission Evaluation Report was submitted on 5 Oct 2020, Tender report was submitted on 7 Oct 2020. AECOM noted on 8 Oct 2020.
	Acceptance of tender award	6/19/2020	10/17/2020	10/19/2020	11/15/2020	Task Completed				-			
PS Clause no. 6B.2.4 MBR Pre-treatment Screen	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed				100%			AECOM accepted on 1 Sep 2020
	Tender invitation	5/29/2020	11/20/2020	9/29/2020	12/11/2020	Task Completed				100%			Tender invitation was conducted on 20 Nov 2020 and returned on 11 Dec 2020. Tender
	Tender award	6/5/2020	12/13/2020	10/5/2020	3/3/2021	Task Completed				100%			Technical Submission Evaluation Report was submitted on 12 Jan 2021. AECOM noted on 22 Jan 2021. Tender Report was submitted on 4 Feb 2021, AECOM commented on 19 Feb 2021, Bestwise submitted supplementary information on 26 Feb 2021. AECOM noted on 3 Mar
PS Clause no. 6B.2.4 Air Diffusion System	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed				100%			AECOM accepted on 1 Sep 2020, subject to conditions.
	Tender invitation	5/29/2020	2/17/2021	9/29/2020	3/12/2021	Task Completed				100%			Procurement package would follow the approved format (i.e. aeration blower) Tender invitation was conducted on 17 Feb 2021. Addendum No. 1 was issued on 18 Feb 2021. Tender return date was extended from 26 Feb 2021 to 12 Mar 2021. Tender returned on 12 Mar 2021
	Tender award	6/5/2020	3/18/2021	10/5/2020	4/20/2021	Task Completed				-			Technical Submission Evaluation Report was submitted on 18 Mar 2021. AECOM noted on 30 Mar 2021. Tender Report was submitted on 8 Apr 2021. LOI was issued to supplier.
	Acceptance of tender award	6/19/2020	2/20/2021	10/19/2020	3/12/2021	Task Completed				-			
PS Clause no. 6B.2.4 BR Aeration Blower	Acceptance of marking scheme by the PM	5/28/2020	8/20/2020	9/28/2020	9/1/2020	Task Completed				100%			AECOM accepted on 1 Sep 2020
	Tender invitation	6/11/2020	2/3/2021	10/12/2020	3/3/2021	Task Completed				100%			Procurement package was submitted to AECOM under CGS-066. AECOM replied on 29 Jan 2021. Tender invitation was conducted on 3 Feb 2021. Tender returned on 3 Mar 2021
	Tender award	6/18/2020	3/4/2021	10/19/2020	4/12/2021	Task Completed				-			Technical Submission Evaluation Report was submitted on 10 Mar 2021. AECOM noted on 19 Mar 2021. Tender Report was submitted on 24 Mar 2021. LOI was issued to supplier.
	Acceptance of tender award	7/2/2020	3/4/2021	11/2/2020	3/25/2021	Task Completed				-			AECOM accepted on 1 Sep 2020, subject to conditions.
PS Clause no. 6B.2.4 Membrane Modules, Cassettes / Racks	Tender award	6/18/2020	10/6/2020	10/19/2020	11/2/2020	Task Completed				100%			Technical Submission Evaluation Report was submitted on 14 Oct 2020, Tender report was submitted on 2 Nov 2020. AECOM noted on 4 Nov 2020.
	Acceptance of tender award	7/2/2020	11/3/2020	11/2/2020	11/24/2020	Task Completed				-			
PS Clause no. 6B.2.4 RAS Pump	Tender award	6/18/2020	10/30/2020	10/19/2020	12/2/2020	Task Completed				100%			Technical Submission Evaluation Report was submitted on 6 Nov 2020. Tender report was submitted on 24 Nov 2020, AECOM noted on 2 Dec 2020.
	Acceptance of tender award	7/2/2020	11/21/2020	11/2/2020	12/12/2020	Task Completed				-			

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1	1	1	**DE/2018/04 - Contract Master Programme**	**1991 days**	**Dec 2 '19**	**May 14 '25**	**Dec 2 '19**	**May 14 '25**	**0 days**			
2	2	1.1	Starting Date	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days		3SS+1625 edays	
3	3	1.2	Completion Date	0 days	May 14 '24	May 14 '24	May 14 '24	May 14 '24	0 days	2SS+1625 edays,39	4	
4	4	1.3	Defect Dates with respect to Completion Date	365 days	May 15 '24	May 14 '25	May 15 '24	May 14 '25	0 days	3		
5	5	2	**Access Dates**	**1599 days**	**Dec 2 '19**	**Apr 18 '24**	**Dec 2 '19**	**Apr 18 '24**	**0 days**			
6	6	2.1	Access Date for Works Area WA1-C	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
7	7	2.2	Access Date for Works Area WA2-C	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
8	8	2.3	Access Date for Portion B-2, Inlet Works No. 1	150 edays	Jun 28 '22	Nov 25 '22	Jun 28 '22	Nov 25 '22	0 edays			
9	9	2.4	Access Date for Portion B-3, PST No. 1~4	90 edays	Jan 14 '23	Apr 14 '23	Jan 14 '23	Apr 14 '23	0 edays			
10	10	2.5	Access Date for Portion B-3A, Existing PST No. 4 and No. 6	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days			
11	11	2.6	Access Date for Portion B-3B, Temporary Filtrate Lifting Well and Eq. Tank	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days			
12	12	2.7	Access Date for Portion B-4, BR 2A & 2B	0 edays	Jun 26 '23	Jun 26 '23	Jun 26 '23	Jun 26 '23	0 edays		618	
13	13	2.8	Access Date for Portion B-5A, MFB No. 2 below 1st floor level	0 edays	Dec 31 '22	Dec 31 '22	Dec 31 '22	Dec 31 '22	0 edays		811	
14	14	2.9	Access Date for Portion B-5B, MFB No. 2 remaining portion	0 edays	Apr 30 '23	Apr 30 '23	Apr 30 '23	Apr 30 '23	0 edays		846	
15	15	2.10	Access Date for Portion B-7 & 7B, Chemical Dosing, Concrete Plinth for DOs, Chemical Sys 1 & 2, FS & sprinkler pump room, Genset, FS hydrant and booster pump room, flowmeter chambers	150 edays	Dec 20 '21	May 19 '22	Dec 20 '21	May 19 '22	0 edays			
16	16	2.11	Access Date for Portion B-7A & 7B, area for modification of existing emergency generator electrical works	0 edays	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 edays			
17	17	2.12	Access Date for Portion B-9B, underground pipework	60 edays	Feb 18 '24	Apr 18 '24	Feb 18 '24	Apr 18 '24	0 edays			
18	18	2.13	Access Date for B-10, existing sludge thickening building	0 edays	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 edays			
19	19	3	**Key Dates**	**555 days**	**Dec 2 '19**	**Jun 9 '21**	**Dec 2 '19**	**Jun 9 '21**	**0 days**			
20	20	3.1	KD1A - Submission of civil and dimensional requirement drawings, electrical schematic drawings etc. Part 1	340 edays	Dec 2 '19	Nov 6 '20	Dec 2 '19	Nov 6 '20	0 edays	31FF		
21	21	3.2	KD1B - Submission of remaining civil and dimensional requirement drawings, electrical schematic drawings etc. Part 2	550 edays	Dec 2 '19	Jun 4 '21	Dec 2 '19	Jun 4 '21	0 edays	32FF		
22	22	3.3	KD3A - Completion of E&M Installation works of existing power house in Portions B-7A and B-7B of the Site necessary for the contractor of Contract No. DC/2018/07 to carry out civil alternation works for existing power house therein.	240 edays	Dec 2 '19	Jul 29 '20	Dec 2 '19	Jul 29 '20	0 edays	33FF		
23	23	3.4	KD3B - Completion of all work for reprovision of the existing Primary Sedimentation Tanks No. 4 & 6 and associated systems including testing and commissioning and obtaining the relevantory statutory approval.	555 edays	Dec 2 '19	Jun 9 '21	Dec 2 '19	Jun 9 '21	0 edays	34FF		
24	24	4	**Sectional Completion Dates**	**1625 days**	**Dec 2 '19**	**May 14 '24**	**Dec 2 '19**	**May 14 '24**	**0 days**			
25	25	4.1	Section 1 - Completion of the design of E&M Works for all works as defined in WI_GP Cl. 10.1(a) of the Works (600 days after starting date)	600 edays	Dec 2 '19	Jul 24 '21	Dec 2 '19	Jul 24 '21	0 edays	35FF		
26	26	4.2	Section 2 - Completion of all works for Inlet Works, PST No. 1~4, BR No. 2A & 2B, MFB No. 2, temporary chemical dosing system, deodorization systems, chemical system no. 1 & no. 2, FS and sprinkler pump room, ... etc as define (1600d after starting date)	1600 edays	Dec 2 '19	Apr 19 '24	Dec 2 '19	Apr 19 '24	0 edays	36FF		
27	27	4.3	Section 3 - Completion of all works for retrofitting of the existing PST ... etc (660 days after starting date)	660 edays	Dec 2 '19	Sep 22 '21	Dec 2 '19	Sep 22 '21	0 edays	37FF		
28	28	4.4	Section 4 - Completion of Work for remainder of the works (1625 days after starting date)	1625 edays	Dec 2 '19	May 14 '24	Dec 2 '19	May 14 '24	0 edays	38FF		
29	29	5	**DE/2018/04 - the Contractor's Programme (w/ Defects Date of Planned Completion Date)**	**1977 days?**	**Dec 2 '19**	**Apr 30 '25**	**Dec 2 '19**	**Apr 30 '25**	**0 days?**			
30	30	5.1	Starting Date	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days		688,210SS+30 e	
31	31	5.2	Planned Key Date Completion Date - KD1A	0 days	Oct 30 '20	Oct 30 '20	Nov 6 '20	Nov 6 '20	7 days		20FF	
32	32	5.3	Planned Key Date Completion Date - KD1B	0 days	Jun 1 '21	Jun 1 '21	Jun 4 '21	Jun 4 '21	3 days		21FF	
33	33	5.4	Planned Key Date Completion Date - KD3A	0 days	Jul 22 '20	Jul 22 '20	Jul 29 '20	Jul 29 '20	7 days		22FF	
34	34	5.5	Planned Key Date Completion Date - KD3B	0 days	Jun 7 '21	Jun 7 '21	Jun 9 '21	Jun 9 '21	2 days		23FF	
35	35	5.6	Planned Sectional Completion Date - Section 1	0 days	Jul 12 '21	Jul 12 '21	Jul 24 '21	Jul 24 '21	11 days		25FF	
36	36	5.7	Planned Sectional Completion Date - Section 2	0 days	Apr 1 '24	Apr 1 '24	Apr 19 '24	Apr 19 '24	18 days		26FF	
37	37	5.8	Planned Sectional Completion Date - Section 3	0 days	Sep 1 '21	Sep 1 '21	Sep 22 '21	Sep 22 '21	21 days		27FF	
38	38	5.9	Planned Sectional Completion Date - Section 4	0 days	May 1 '24	May 1 '24	May 14 '24	May 14 '24	13 days		28FF	
39	39	5.10	Planned Completion Date	0 days	Dec 8 '24	Dec 8 '24	May 14 '24	May 14 '24	0 days	1362,1363,1364,1365,1366,	3	
40	40	5.11	Defect Dates with respect to planned completion date	365 days	May 1 '24	Apr 30 '25	May 1 '24	Apr 30 '25	0 days			
41	41	5.12	**Part A: Procurement and Delivery of Major Plant and Materials (for multi buildings)**	**758 days**	**Jul 1 '20**	**Jul 28 '22**	**Jul 1 '20**	**Aug 3 '23**	**371 days**			
42	42	5.12.1	Planned Completion Date for Procurement of major plant and materials	0 days	Jun 3 '21	Jun 3 '21	Jun 3 '21	Jun 3 '21	0 days	30SS+550 days		
43	43	5.12.2	**General - stoplogs and penstocks, C11, EQT013**	**120 days**	**Jul 1 '20**	**Oct 28 '20**	**Jul 1 '20**	**Oct 28 '20**	**0 days**			
44	44	5.12.2.1	Submission for acceptance of purchasing package	60 days	Jul 1 '20	Aug 29 '20	Jul 1 '20	Aug 29 '20	0 days		45	
45	45	5.12.2.2	Invitation of quotations for purchasing package	30 days	Aug 30 '20	Sep 28 '20	Aug 30 '20	Sep 28 '20	0 days	44	46	
46	46	5.12.2.3	Acceptance of conforming quotation (Completed)	30 days	Sep 29 '20	Oct 28 '20	Sep 29 '20	Oct 28 '20	0 days	45	261	
47	47	5.12.3	**General - Instrumentations except use at BR, C11, EQT035-1**	**401 days**	**Jan 2 '21**	**Feb 6 '22**	**Jan 2 '21**	**May 24 '23**	**472 days**			
48	48	5.12.3.1	Submission for acceptance of purchasing package	60 days	Jan 2 '21	Mar 2 '21	Jan 2 '21	Mar 2 '21	0 days		49	
49	49	5.12.3.2	Invitation of quotations for purchasing package (Rev. 10)	30 days	Jun 11 '21	Jul 10 '21	Jun 11 '21	Jul 10 '21	0 days	48	50	
50	50	5.12.3.3	Acceptance of conforming quotation (Rev. 10)	30 days	Jul 11 '21	Aug 9 '21	Jul 11 '21	Nov 24 '22	0 days	49	51	
51	51	5.12.3.4	Manufacturing and Factory Acceptance Test of Plant (Rev. 10)	121 days	Aug 10 '21	Dec 8 '21	Nov 25 '22	Mar 25 '23	0 days	50	52	
52	52	5.12.3.5	Shipping and Delivery of Plant (Rev. 10)	60 days	Dec 9 '21	Feb 6 '22	Mar 26 '23	May 24 '23	472 days	51	349,494,873	
53	53	5.12.4	**General - pipework and valves, C11, ref. EQT036 (Rev. 11)**	**422 days**	**Nov 2 '20**	**Dec 28 '21**	**Nov 2 '20**	**Feb 13 '22**	**47 days**			
54	54	5.12.4.1	Submission for acceptance of purchasing package (Rev. 11)	255 days	Nov 2 '20	Jul 14 '21	Nov 2 '20	Jul 17 '21	0 days		55	
55	55	5.12.4.2	Invitation of quotations for purchasing package (Rev. 11)	40 days	Jan 1 '21	Aug 8 '21	Jan 1 '21	Aug 8 '21	0 days	54	56	
56	56	5.12.4.3	Acceptance of conforming quotation (Rev. 11)	50 days	Jan 31 '21	Sep 12 '21	Jan 31 '21	Feb 13 '22	107 days	55	286,282,451,59	
57	57	5.12.4.4	Submission for acceptance of purchasing package for remaining pipework and valves (Rev. 13)	30 days	Nov 1 '21	Nov 30 '21	Dec 18 '21	Jan 16 '22	0 days		58	
58	58	5.12.4.5	Invitation of quotations for purchasing package (Rev. 13)	14 days	Dec 1 '21	Dec 14 '21	Jan 17 '22	Jan 30 '22	0 days	57	59	
59	59	5.12.4.6	Acceptance of conforming quotation (Rev. 13)	14 days	Dec 15 '21	Dec 28 '21	Jan 31 '22	Feb 13 '22	0 days	58	286,282,451,59	
60	60	5.12.5	**General - Electric actuators for valves, C11, ref. EQT072 (Rev. 11)**	**74 days**	**Dec 2 '21**	**Feb 13 '22**	**Dec 2 '21**	**Feb 13 '22**	**0 days**			
61	61	5.12.5.1	Submission for acceptance of purchasing package (Rev. 11)	30 days	Dec 2 '21	Dec 31 '21	Dec 2 '21	Dec 31 '21	0 days		62	
62	62	5.12.5.2	Invitation of quotations for purchasing package (Rev. 11)	30 days	Jan 1 '22	Jan 30 '22	Jan 1 '22	Jan 30 '22	0 days	61	63	
63	63	5.12.5.3	Acceptance of conforming quotation (Rev. 11)	14 days	Jan 31 '22	Feb 13 '22	Jan 31 '22	Feb 13 '22	0 days	62	292,451,591,76	
64	64	5.12.6	**General - HV Switchboards, C9, ref. 04SC012 (Rev. 14)**	**105 days**	**Jan 4 '21**	**Apr 18 '21**	**Jan 4 '21**	**Apr 18 '21**	**0 days**			
65	65	5.12.6.1	Submission for acceptance of purchasing package	45 days	Jan 4 '21	Feb 17 '21	Jan 4 '21	Feb 17 '21	0 days		66	
66	66	5.12.6.2	Invitation of quotations for purchasing package	30 days	Feb 18 '21	Mar 19 '21	Feb 18 '21	Mar 19 '21	0 days	65	67	
67	67	5.12.6.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Mar 20 '21	Apr 18 '21	Mar 20 '21	Apr 18 '21	0 days	66	725	
68	68	5.12.7	**General - LV Switchboards, C9, ref. 04SC013 (Rev. 14)**	**120 days**	**Jan 4 '21**	**May 3 '21**	**Jan 4 '21**	**May 3 '21**	**0 days**			
69	69	5.12.7.1	Submission for acceptance of purchasing package	60 days	Jan 4 '21	Mar 4 '21	Jan 4 '21	Mar 4 '21	0 days		70	
70	70	5.12.7.2	Invitation of quotations for purchasing package	30 days	Mar 5 '21	Apr 3 '21	Mar 5 '21	Apr 3 '21	0 days	69	71	
71	71	5.12.7.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Apr 4 '21	May 3 '21	Apr 4 '21	May 3 '21	0 days	70	264,565,424,72	
72	72	5.12.8	**General - VSDs & Passive Type Harmonic Filters, C11, ref. EQT034 (Rev. 5)**	**574 days**	**Jan 1 '21**	**Jul 28 '22**	**Jan 1 '21**	**Aug 3 '23**	**371 days**			
73	73	5.12.8.1	Submission for acceptance of purchasing package	60 days	Jan 1 '21	Mar 1 '21	Jan 1 '21	Mar 1 '21	0 days		74	
74	74	5.12.8.2	Invitation of quotations for purchasing package	30 days	Mar 2 '21	Mar 31 '21	Mar 2 '21	Mar 31 '21	0 days	73	75	
75	75	5.12.8.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Apr 1 '21	Apr 30 '21	Apr 1 '21	Apr 30 '21	0 days	74	262,422,563,72	
76	76	5.12.8.4	Manufacturing and Factory Acceptance Test of Plant	90 days	Mar 16 '22	Jun 13 '22	Mar 22 '23	Jun 19 '23	0 days	262,422,563,720	77	
77	77	5.12.8.5	Shipping and Delivery of Plant to LVSB Sub-Contractor	45 days	Jun 14 '22	Jul 28 '22	Jun 20 '23	Aug 3 '23	0 days	76	299SS+90 edays	
78	78	5.12.9	**General - 11kV/380V Stepdown Power Transformers, C11, EQT032 (Rev. 5)**	**110 days**	**Jan 18 '21**	**May 7 '21**	**Jan 18 '21**	**May 7 '21**	**0 days**			
79	79	5.12.9.1	Submission for acceptance of purchasing package	50 days	Jan 18 '21	Mar 8 '21	Jan 18 '21	Mar 8 '21	0 days		80	
80	80	5.12.9.2	Invitation of quotations for purchasing package	30 days	Mar 9 '21	Apr 7 '21	Mar 9 '21	Apr 7 '21	0 days	79	81	



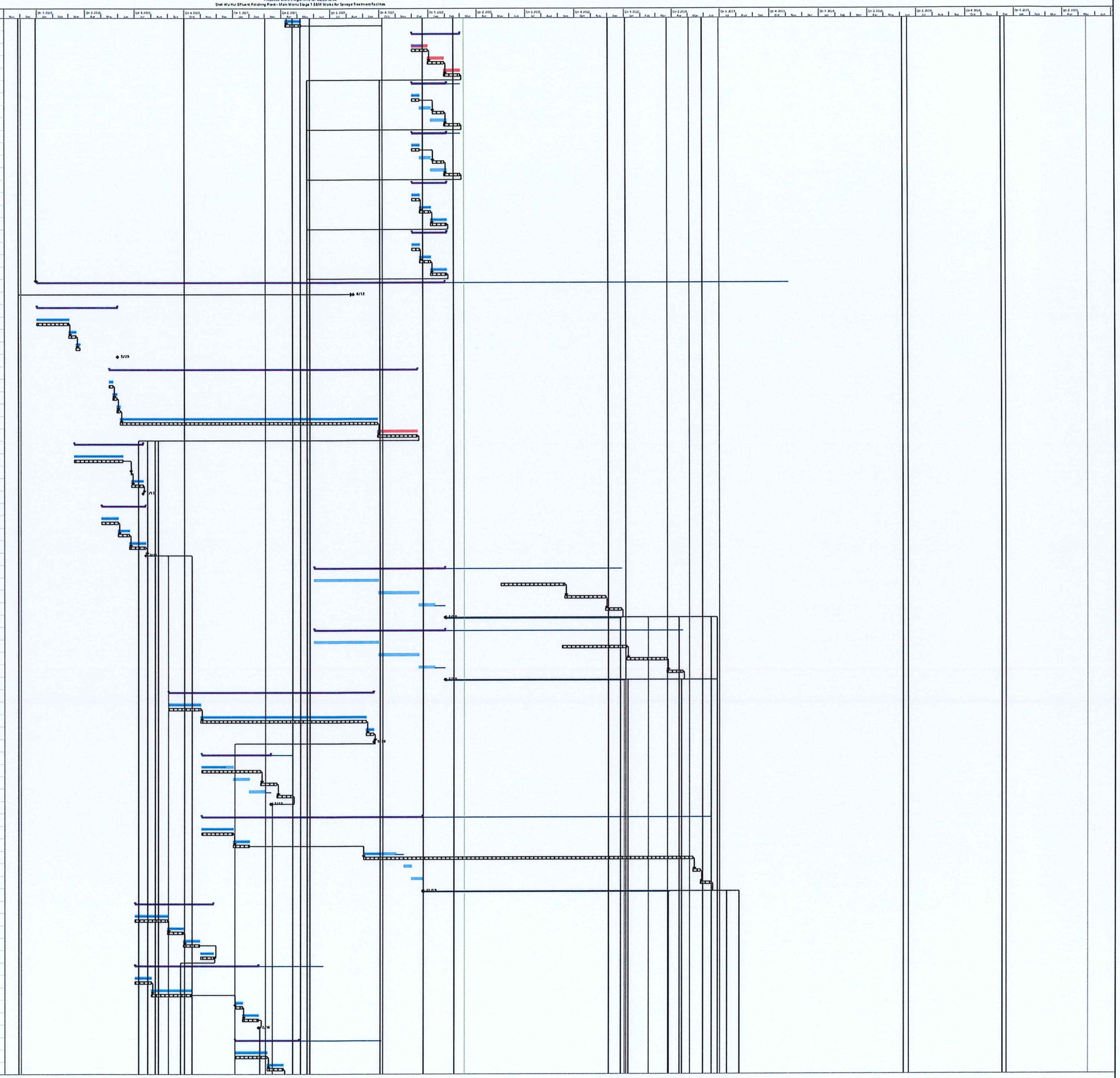
Project: DE/2018/04
Date: Mar 8 '22

Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Proposed Work Programme for DE/2018/04

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
81	81	5.12.9.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Apr 8 '21	May 7 '21	Apr 8 '21	May 7 '21	0 days	80	262,720	
82	82	5.12.10	**General - UPS, C11, EQT039A (Rev. 14)**	**90 days**	**Dec 1 '21**	**Feb 28 '22**	**Dec 1 '21**	**Feb 28 '22**	**0 days**			
83	83	5.12.10.1	Submission for acceptance of purchasing package (Rev. 13)	30 days	Dec 1 '21	Dec 30 '21	Dec 1 '21	Dec 30 '21	0 days		84	
84	84	5.12.10.2	Invitation of quotations for purchasing package (Rev. 13)	30 days	Dec 31 '21	Jan 29 '22	Dec 31 '21	Jan 29 '22	0 days	83	85	
85	85	5.12.10.3	Acceptance of conforming quotation (Rev. 13)	30 days	Jan 30 '22	Feb 28 '22	Jan 30 '22	Feb 28 '22	0 days	84	262,422,563,72	
86	86	5.12.11	**General - HV Cables, C11, EQT041 (Rev. 13)**	**65 days**	**Dec 1 '21**	**Feb 3 '22**	**Dec 1 '21**	**Feb 28 '22**	**25 days**			
87	87	5.12.11.1	Submission for acceptance of purchasing package	14 days	Dec 1 '21	Dec 14 '21	Dec 1 '21	Dec 14 '21	0 days		88	
88	88	5.12.11.2	Invitation of quotations for purchasing package	21 days	Dec 15 '21	Jan 4 '22	Jan 9 '22	Jan 29 '22	0 days	87	89	
89	89	5.12.11.3	Acceptance of conforming quotation	30 days	Jan 5 '22	Feb 3 '22	Jan 30 '22	Feb 28 '22	0 days	88	262,720	
90	90	5.12.12	**General - LV Cables, C11, EQT042 (Rev. 13)**	**65 days**	**Dec 1 '21**	**Feb 3 '22**	**Dec 1 '21**	**Feb 28 '22**	**25 days**			
91	91	5.12.12.1	Submission for acceptance of purchasing package	14 days	Dec 1 '21	Dec 14 '21	Dec 1 '21	Dec 14 '21	0 days		92	
92	92	5.12.12.2	Invitation of quotations for purchasing package	21 days	Dec 15 '21	Jan 4 '22	Jan 9 '22	Jan 29 '22	0 days	91	93	
93	93	5.12.12.3	Acceptance of conforming quotation	30 days	Jan 5 '22	Feb 3 '22	Jan 30 '22	Feb 28 '22	0 days	92	262,422,563,72	
94	94	5.12.12.4	**General - FRP Covers & Walkways & Platform & Ladders, EQT050 (Rev.18)**	**65 days**	**Dec 1 '21**	**Feb 3 '22**	**Dec 1 '21**	**Feb 3 '22**	**0 days**			
95	95	5.12.12.4.1	Submission for acceptance of purchasing package	14 days	Dec 1 '21	Dec 14 '21	Dec 1 '21	Dec 14 '21	0 days		96	
96	96	5.12.12.4.2	Invitation of quotations for purchasing package	21 days	Dec 15 '21	Jan 4 '22	Dec 15 '21	Jan 4 '22	0 days	95	97	
97	97	5.12.12.4.3	Acceptance of conforming quotation	30 days	Jan 5 '22	Feb 3 '22	Jan 5 '22	Feb 3 '22	0 days	96	262,422,563,72	
98	98	5.12.13	**General - Gas Detection System, C11, EQT051 (Rev. 16)**	**65 days**	**Dec 1 '21**	**Feb 3 '22**	**Dec 1 '21**	**Feb 3 '22**	**0 days**			
99	99	5.12.13.1	Submission for acceptance of purchasing package	14 days	Dec 1 '21	Dec 14 '21	Dec 1 '21	Dec 14 '21	0 days		100	
100	100	5.12.13.2	Invitation of quotations for purchasing package	21 days	Dec 15 '21	Jan 4 '22	Dec 15 '21	Jan 4 '22	0 days	99	101	
101	101	5.12.13.3	Acceptance of conforming quotation (Completed)	30 days	Jan 5 '22	Feb 3 '22	Jan 5 '22	Feb 3 '22	0 days	100	262,422,563,72	
102	102	5.13	**Part B: Subletting of major sub-contract works**	**761 days**	**Jan 1 '20**	**Jan 30 '22**	**Jan 1 '20**	**Nov 4 '23**	**642 days**	2,30		
103	103	5.13.1	Planned Completion Date for major sub-contract works	0 days	Aug 12 '21	Aug 12 '21	Aug 12 '21	Aug 12 '21	0 days	255+620 days,305S+620 days		
104	104	5.13.2	**General - Independent BEAM Plus Consultant (04SC007)**	**150 days**	**Jan 1 '20**	**May 29 '20**	**Jan 1 '20**	**May 29 '20**	**0 days**			
105	105	5.13.2.1	Submission for acceptance of proposed Independent BEAM Plus Consultant	60 edays	Jan 1 '20	Mar 1 '20	Jan 1 '20	Mar 1 '20	0 edays		106	
106	106	5.13.2.2	Acceptance of proposed Independent BEAM Plus Consultant	14 edays	Mar 1 '20	Mar 15 '20	Mar 1 '20	Mar 15 '20	0 edays	105	107	
107	107	5.13.2.3	Engagement with an Independent BEAM Plus Consultant	7 days	Mar 15 '20	Mar 21 '20	Mar 15 '20	Mar 21 '20	0 days	106		
108	108	5.13.2.4	Actual Date for engagement with an independent BEAM Plus Consultant (Completed)	0 days	May 29 '20	May 29 '20	May 29 '20	May 29 '20	0 days			
109	109	5.13.3	**General - Conduction of Pump sump physical model test 04SC015**	**575 days**	**May 15 '20**	**Dec 10 '21**	**May 15 '20**	**Dec 10 '21**	**0 days**			
110	110	5.13.3.1	Submission for acceptance of proposed hydraulic laboratory to conduct the test	7 edays	May 15 '20	May 22 '20	May 15 '20	May 22 '20	0 edays		111	
111	111	5.13.3.2	Invitation to quotations for provision of service	7 edays	May 22 '20	May 29 '20	May 22 '20	May 29 '20	0 edays	110	112	
112	112	5.13.3.3	Acceptance of proposed hydraulic laboratory	6 days	May 29 '20	Jun 3 '20	May 29 '20	Jun 3 '20	0 days	111	113	
113	113	5.13.3.4	Commencement of detailed proposal and conduction of test (Rev 15)	480 days	Jun 4 '20	Sep 26 '21	Jun 4 '20	Sep 26 '21	0 days	112	114	
114	114	5.13.3.5	Acceptance of hydraulic Report (Rev 16)	75 days	Sep 27 '21	Dec 10 '21	Sep 27 '21	Dec 10 '21	0 days	113	257,417,558,71	
115	115	5.13.4	**General - Independent Checking Engineer (04SC004)**	**127 days**	**Mar 11 '20**	**Jul 15 '20**	**Mar 11 '20**	**Jul 15 '20**	**0 days**			
116	116	5.13.4.1	Submission for acceptance of proposed Independent Checking Engineer	90 edays	Mar 11 '20	Jun 9 '20	Mar 11 '20	Jun 9 '20	0 edays		117	
117	117	5.13.4.2	Acceptance of proposed Independent Checking Engineer	1 eday	Jun 24 '20	Jun 25 '20	Jun 24 '20	Jun 25 '20	0 edays	116	118	
118	118	5.13.4.3	Engagement with an Independent Checking Engineer	21 days	Jun 25 '20	Jul 15 '20	Jun 25 '20	Jul 15 '20	0 days	117	119	
119	119	5.13.4.4	Actual Date for engagement with an ICE (Completed)	0 days	Jul 15 '20	Jul 15 '20	Jul 15 '20	Jul 15 '20	0 days	118		
120	120	5.13.5	**General - Lifting Appliances (04SC008)**	**81 days**	**May 1 '20**	**Jul 21 '20**	**May 1 '20**	**Jul 21 '20**	**0 days**			
121	121	5.13.5.1	Submission for acceptance of subcontract works package	30 edays	May 1 '20	May 31 '20	May 1 '20	May 31 '20	0 edays		122	
122	122	5.13.5.2	Invitation of tender for subcontract works	21 edays	May 31 '20	Jun 21 '20	May 31 '20	Jun 21 '20	0 edays	121	123	
123	123	5.13.5.3	Acceptance of conforming tender	30 edays	Jun 21 '20	Jul 21 '20	Jun 21 '20	Jul 21 '20	0 edays	122	124	
124	124	5.13.5.4	Sub-contract work commencement date (Completed)	0 days	Jul 21 '20	Jul 21 '20	Jul 21 '20	Jul 21 '20	0 days	123	265,425,568,72	
125	125	5.13.6	**General - Mechanical Installations**	**244 days**	**Jun 1 '21**	**Jan 30 '22**	**May 15 '22**	**Dec 25 '22**	**329 days**			
126	126	5.13.6.1	Submission for acceptance of subcontract works package	120 days	Jun 1 '21	Sep 28 '21	May 15 '22	Sep 11 '22	0 days		127	
127	127	5.13.6.2	Invitation of tender for subcontract works	75 days	Sep 29 '21	Dec 12 '21	Sep 12 '22	Nov 25 '22	0 days	126	128	
128	128	5.13.6.3	Acceptance of conforming tender	30 days	Dec 13 '21	Jan 11 '22	Nov 26 '22	Dec 25 '22	19 days	127	129FF	
129	129	5.13.6.4	Sub-contract work commencement date	1 day	Jan 30 '22	Jan 30 '22	Dec 25 '22	Dec 25 '22	329 days	128FF	337,454,628,82	
130	130	5.13.7	**General - Electrical Installations**	**244 days**	**Jun 1 '21**	**Jan 30 '22**	**Sep 6 '22**	**Apr 19 '23**	**444 days**			
131	131	5.13.7.1	Submission for acceptance of subcontract works package	120 edays	Jun 1 '21	Sep 29 '21	Sep 6 '22	Jan 4 '23	0 edays		132	
132	132	5.13.7.2	Invitation of tender for subcontract works	75 edays	Sep 29 '21	Dec 13 '21	Jan 4 '23	Mar 20 '23	0 edays	131	133	
133	133	5.13.7.3	Acceptance of conforming tender	30 edays	Dec 13 '21	Jan 12 '22	Mar 20 '23	Apr 19 '23	18.38 edays	132	134FF	
134	134	5.13.7.4	Sub-contract work commencement date	1 day	Jan 30 '22	Jan 30 '22	Apr 19 '23	Apr 19 '23	315 days	133FF	352,487,651,84	
135	135	5.13.8	**General - Facility Computerized Systems (SCADA, CMMS, FMS, IDMS) (Rev. 13) 04SC018**	**384 days**	**Sep 1 '20**	**Sep 20 '21**	**Sep 1 '20**	**Sep 20 '21**	**0 days**			
136	136	5.13.8.1	Submission for acceptance of subcontract works package	60 edays	Sep 1 '20	Oct 31 '20	Sep 1 '20	Oct 31 '20	0 edays		137	
137	137	5.13.8.2	Invitation of tender for subcontract works	310 edays	Oct 31 '20	Sep 6 '21	Oct 31 '20	Sep 6 '21	0 edays	136	138	
138	138	5.13.8.3	Acceptance of conforming tender (Completed)	14 edays	Sep 6 '21	Sep 20 '21	Sep 6 '21	Sep 20 '21	0 edays	137	139	
139	139	5.13.8.4	Sub contract work commencement date	0 days	Sep 20 '21	Sep 20 '21	Sep 20 '21	Sep 20 '21	0 days	138	198	
140	140	5.13.9	**General - Building Services Installations**	**130 days**	**Nov 2 '20**	**Mar 12 '21**	**Nov 2 '20**	**Apr 21 '21**	**41 days**			
141	141	5.13.9.1	Submission for acceptance of subcontract works package (Rev. 15)	60 edays	Nov 2 '20	Jan 1 '21	Nov 2 '20	Feb 20 '21	0 edays		142	
142	142	5.13.9.2	Invitation of tender for subcontract works	30 edays	Jan 1 '21	Jan 31 '21	Feb 20 '21	Mar 22 '21	0 edays	141	143	
143	143	5.13.9.3	Acceptance of conforming tender	30 edays	Jan 31 '21	Mar 2 '21	Mar 22 '21	Apr 21 '21	10 edays	142	144FF	
144	144	5.13.9.4	Sub contract work commencement date	0 days	Mar 12 '21	Mar 12 '21	Apr 21 '21	Apr 21 '21	0 days	143FF	263,423,564,72	
145	145	5.13.10	**General - Mechanical Ventilation and Air Conditioning Installation (Rev. 13) (04SC020)**	**413 days**	**Nov 2 '20**	**Dec 19 '21**	**Nov 2 '20**	**Jun 13 '23**	**540 days**			
146	146	5.13.10.1	Submission for acceptance of subcontract works package	60 days	Nov 2 '20	Dec 31 '20	Nov 2 '20	Dec 31 '20	0 days		147	
147	147	5.13.10.2	Invitation of tender for subcontract works	30 edays	Dec 31 '20	Jan 30 '21	Dec 31 '20	Jan 30 '21	0 edays	146	148	
148	148	5.13.10.3	Submission for acceptance of revised subcontract works package (Rev. 13)	60 days	Sep 1 '21	Oct 30 '21	Sep 1 '21	May 8 '23	15 days	147	149	
149	149	5.13.10.4	Invitation of tender for subcontract works (Rev. 15)	14 days	Nov 15 '21	Nov 28 '21	May 9 '23	May 22 '23	0 days	148	150	
150	150	5.13.10.5	Acceptance of conforming tender (Rev 13)	21 days	Nov 29 '21	Dec 19 '21	May 23 '23	Jun 12 '23	0 days	149	151FF	
151	151	5.13.10.6	Sub-contract work commencement date	0 days	Dec 19 '21	Dec 19 '21	Jun 13 '23	Jun 13 '23	461 days	150FF	640,360,505	
152	152	5.13.11	**General - Emergency Power Generator Set (04SC006)**	**146 days**	**Jul 1 '20**	**Nov 23 '20**	**Jul 1 '20**	**Nov 23 '20**	**0 days**			
153	153	5.13.11.1	Submission for acceptance of subcontract works package	60 edays	Jul 1 '20	Aug 30 '20	Jul 1 '20	Aug 30 '20	0 edays		154	
154	154	5.13.11.2	Invitation of tender for subcontract works	30 edays	Aug 30 '20	Sep 29 '20	Aug 30 '20	Sep 29 '20	0 edays	153	155	
155	155	5.13.11.3	Acceptance of conforming tender	30 edays	Sep 29 '20	Oct 29 '20	Sep 29 '20	Oct 29 '20	0 edays	154	156FF	
156	156	5.13.11.4	Sub-contract work commencement date (Completed)	24 days	Oct 31 '20	Nov 23 '20	Oct 31 '20	Nov 23 '20	0 days	155FF	1012	
157	157	5.13.12	**General - Plumbing Installation (Rev. 5) (04SC021)**	**231 days**	**Jul 1 '20**	**Feb 16 '21**	**Jul 1 '20**	**Jun 17 '21**	**120 days**			
158	158	5.13.12.1	Submission for acceptance of subcontract works package	30 edays	Jul 1 '20	Jul 31 '20	Jul 1 '20	Jul 31 '20	0 edays		159	
159	159	5.13.12.2	Invitation of tender for subcontract works	75 edays	Jul 31 '20	Oct 14 '20	Jul 31 '20	Oct 14 '20	0 edays	158	160	
160	160	5.13.12.3	Retender of subcontract works (Rev. 5)	14 days	Jan 4 '21	Jan 17 '21	Jan 4 '21	Jan 17 '21	0 days	159	161	
161	161	5.13.12.4	Acceptance of conforming tender (Completed)	30 edays	Jan 17 '21	Feb 16 '21	Jan 17 '21	Feb 16 '21	0 edays	160	162FF	
162	162	5.13.12.5	Sub-contract work commencement date (Extended)	0 days	Feb 16 '21	Feb 16 '21	Jun 17 '21	Jun 17 '21	0 days	161FF	1335	
163	163	5.13.13	**General - Fire Services Installation (Rev. 5) (04SC019)**	**120 days**	**Jan 4 '21**	**May 3 '21**	**Jan 4 '21**	**Oct 3 '21**	**153 days**			
164	164	5.13.13.1	Submission for acceptance of subcontract works package	60 days	Jan 4 '21	Mar 4 '21	Jan 4 '21	Mar 4 '21	0 days		165	
165	165	5.13.13.2	Invitation of tender for subcontract works	30 days	Mar 5 '21	Apr 3 '21	Mar 5 '21	Apr 3 '21	0 days	164	166	



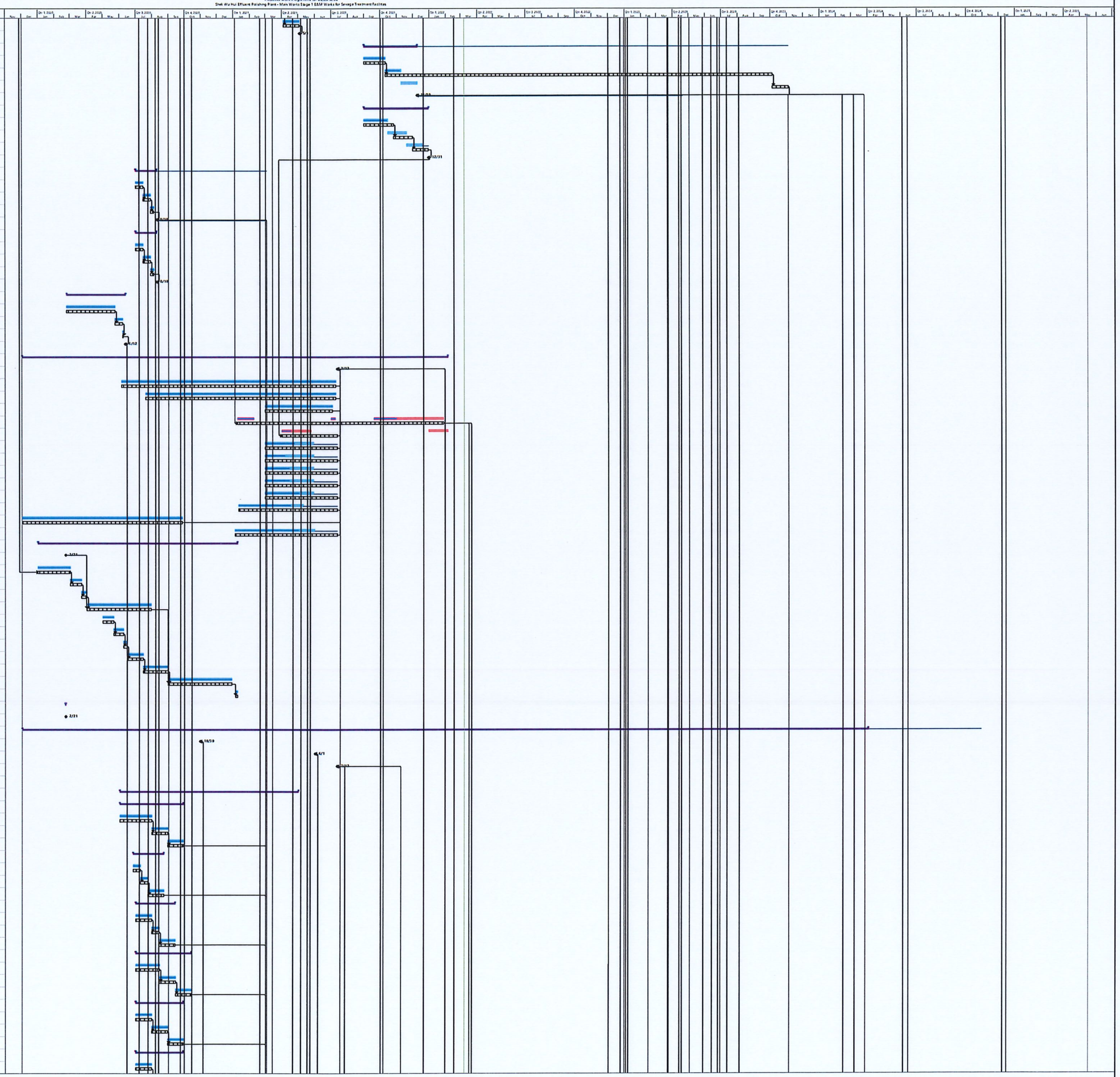
Task · Milestone · Milestone · Summary · Project Summary · Manual Summary · Critical · Progress · Manual Progress · Slack

Project: DE/2018/04
Date: Mar 8 '22

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
166	166	5.13.13.3	Acceptance of conforming tender (Completed)	30 days	Apr 4 '21	May 3 '21	Apr 4 '21	May 3 '21	0 days	165	167FF	
167	167	5.13.13.4	Sub-contract work commencement date	0 days	May 3 '21	May 3 '21	Oct 3 '21	Oct 3 '21	0 days	166FF	1206	
168	168	5.13.14	**General - Lightning Protection System (Rev. 15) (04SC017)**	**100 days**	**Sep 1 '21**	**Dec 10 '21**	**Sep 1 '21**	**Nov 4 '23**	**694 days**			
169	169	5.13.14.1	Submission for acceptance of subcontract works package (Rev. 13)	40 edays	Sep 1 '21	Oct 11 '21	Sep 1 '21	Oct 11 '21	0 edays		170	
170	170	5.13.14.2	Invitation of tender for subcontract works (Rev. 15)	30 edays	Oct 11 '21	Nov 10 '21	Oct 11 '21	Oct 5 '23	0 edays	169	171	
171	171	5.13.14.3	Acceptance of conforming tender (Rev. 15)	30 edays	Nov 10 '21	Dec 10 '21	Oct 5 '23	Nov 4 '23	0 edays	170	172FF	
172	172	5.13.14.4	Sub-contract work commencement date (Rev. 15)	0 days	Dec 10 '21	Dec 10 '21	Nov 4 '23	Nov 4 '23	496 days	171FF	911,645,366,51	
173	173	5.13.15	**General - CCTV Installation (Rev. 13) (04SC016)**	**121 days**	**Sep 1 '21**	**Dec 31 '21**	**Sep 1 '21**	**Dec 31 '21**	**0 days**			
174	174	5.13.15.1	Submission for acceptance of subcontract works package	45 edays	Sep 1 '21	Oct 16 '21	Sep 1 '21	Oct 27 '21	0 edays		175	
175	175	5.13.15.2	Invitation of tender for subcontract works	35 edays	Oct 16 '21	Nov 20 '21	Oct 27 '21	Dec 1 '21	0 edays	174	176	
176	176	5.13.15.3	Acceptance of conforming tender	30 edays	Nov 20 '21	Dec 20 '21	Dec 1 '21	Dec 31 '21	11 edays	175	177FF	
177	177	5.13.15.4	Sub contract work commencement date	0 days	Dec 31 '21	Dec 31 '21	Dec 31 '21	Dec 31 '21	0 days	176FF	199	
178	178	5.13.16	**General - Civil Construction Work for underground pipework (04SC005)**	**40 days**	**Jul 1 '20**	**Aug 10 '20**	**Jul 1 '20**	**Mar 3 '21**	**206 days**			
179	179	5.13.16.1	Submission for acceptance of subcontract works package	14 days	Jul 1 '20	Jul 14 '20	Jul 1 '20	Jul 14 '20	0 days		180	
180	180	5.13.16.2	Invitation of tender for subcontract works	14 days	Jul 15 '20	Jul 28 '20	Jul 15 '20	Jul 28 '20	0 days	179	181	
181	181	5.13.16.3	Acceptance of conforming tender	7 days	Jul 29 '20	Aug 4 '20	Jul 29 '20	Aug 4 '20	0 days	180	182FF	
182	182	5.13.16.4	Sub-contract work commencement date (Completed)	0 days	Aug 10 '20	Aug 10 '20	Mar 3 '21	Mar 3 '21	203 days	181FF	1109	
183	183	5.13.17	**General - Civil Construction Work for Temp. Filtrate Eq. System (04SC005)**	**40 days**	**Jul 1 '20**	**Aug 10 '20**	**Jul 1 '20**	**Aug 10 '20**	**0 days**			
184	184	5.13.17.1	Submission for acceptance of subcontract works package	14 days	Jul 1 '20	Jul 14 '20	Jul 1 '20	Jul 14 '20	0 days		185	
185	185	5.13.17.2	Invitation of tender for subcontract works	14 days	Jul 15 '20	Jul 28 '20	Jul 15 '20	Jul 28 '20	0 days	184	186	
186	186	5.13.17.3	Acceptance of conforming tender	7 days	Jul 29 '20	Aug 4 '20	Jul 29 '20	Aug 4 '20	0 days	185	187FF	
187	187	5.13.17.4	Sub-contract work commencement date (Completed)	0 days	Aug 10 '20	Aug 10 '20	Aug 10 '20	Aug 10 '20	0 days	186FF		
188	188	5.13.18	**Mis - Modification of existing power house (04SC010)**	**109 days**	**Feb 24 '20**	**Jun 12 '20**	**Feb 24 '20**	**Jun 12 '20**	**0 days**			
189	189	5.13.18.1	Submission for acceptance of subcontract works package	90 days	Feb 24 '20	May 23 '20	Feb 24 '20	May 23 '20	0 days		190	
190	190	5.13.18.2	Invitation of tender for subcontract works	14 days	May 24 '20	Jun 6 '20	May 24 '20	Jun 6 '20	0 days	189	191	
191	191	5.13.18.3	Acceptance of conforming tender	1 day	Jun 7 '20	Jun 7 '20	Jun 7 '20	Jun 7 '20	0 days	190	192FF	
192	192	5.13.18.4	Sub-contract work commencement date (Completed)	0 days	Jun 12 '20	Jun 12 '20	Jun 12 '20	Jun 12 '20	0 days	191FF	1257	
193	193	5.14	**Part C: General Design Submissions**	**796 days**	**Dec 2 '19**	**Feb 5 '22**	**Dec 2 '19**	**Jan 27 '22**	**0 days**			
194	194	5.14.1	Planned Sectional Completion Date - Section 1	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	195FF,196FF,197FF,198FF,1		
195	195	5.14.2	CDS001 - General Design Parameters (Rev. 11)	400 edays	Jun 5 '20	Jul 10 '21	Jun 5 '20	Jul 10 '21	0 edays		194FF	
196	196	5.14.3	CDS020 - Electrical Installation Typical Details	355 edays	Jul 20 '20	Jul 10 '21	Jul 20 '20	Jul 10 '21	0 edays		194FF	
197	197	5.14.4	CDS009 - Detailed Design for Plant Service Water System	125 edays	Mar 1 '21	Jul 4 '21	Mar 1 '21	Jul 4 '21	0 edays		194FF	
198	198	5.14.5	CDS012 - Detailed Design for SCADA System	333.4 edays	Jan 9 '21	Jan 27 '22	Jan 9 '21	Jan 27 '22	0 edays	139	194FF,262FF,42	
199	199	5.14.6	CDS13-1 - Detailed Design for CCTV System	310 edays	Apr 1 '21	Feb 5 '22	Apr 1 '21	Jul 12 '21	0 edays	177	194FF	
200	200	5.14.7	CDS13-2 - Detailed Design for Gas Detection and Monitoring System	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	Jul 12 '21	43.38 edays		194FF	
201	201	5.14.8	CDS14-1 - Detailed Design for Power monitoring system (PMS)	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	Jul 12 '21	43.38 edays		194FF	
202	202	5.14.9	CDS14-2 - Detailed Design for Computerized maintenance and management (CMMS)	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	Jul 12 '21	43.38 edays		194FF	
203	203	5.14.10	CDS14-3 - Detailed Design for Information and documents management system (IDMS)	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	Jul 12 '21	43.38 edays		194FF	
204	204	5.14.11	CDS031 - Detailed Design for MVAC System	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	Jul 12 '21	43.38 edays		194FF	
205	205	5.14.12	CDS042 - Detailed Design for Lightning Protection System	120 edays	Jan 11 '21	May 11 '21	Jan 11 '21	Jul 12 '21	62.38 edays		194FF	
206	206	5.14.13	Design submissions for E&M installation works of existing sludge thickening building	300 edays	Dec 2 '19	Sep 27 '20	Dec 2 '19	Sep 27 '20	0 edays		194FF	
207	207	5.14.14	Design Submission for Earthing and Lightning (Rev. 8)	147.38 edays	Jan 4 '21	May 31 '21	Jan 4 '21	Jul 12 '21	42 edays		194FF	
208	208	5.15	**Works Area WA1-C**	**374 days**	**Jan 1 '20**	**Jan 8 '21**	**Jan 1 '20**	**Jan 8 '21**	**0 days**			
209	209	5.15.1	Actual Access / Handover Date	1 day	Feb 21 '20	Feb 21 '20	Feb 21 '20	Feb 21 '20	0 days		213	
210	210	5.15.2	Submission for acceptance of subcontract works package (Site Office) (04SC003)	60 days	Jan 1 '20	Feb 29 '20	Jan 1 '20	Feb 29 '20	0 days	255+30 edays,305S+30 edays	211	
211	211	5.15.3	Invitation of quotations for subcontract works (Site Office)	21 days	Mar 1 '20	Mar 21 '20	Mar 1 '20	Mar 21 '20	0 days	210	212	
212	212	5.15.4	Acceptance of conforming quotation (Site Office)	10 days	Mar 22 '20	Mar 31 '20	Mar 22 '20	Mar 31 '20	0 days	211	213	
213	213	5.15.5	Design and Fabrication of the Contractor's Site Accommodations	120 days	Apr 1 '20	Jul 29 '20	Apr 1 '20	Jul 29 '20	0 days	209,212	219	
214	214	5.15.6	Submission for acceptance of subcontract works package (Site Office Foundation)	20 days	May 1 '20	May 20 '20	May 1 '20	May 20 '20	0 days		215	
215	215	5.15.7	Invitation of quotations for subcontract works (Site Office Foundation)	18 days	May 21 '20	Jun 7 '20	May 21 '20	Jun 7 '20	0 days	214	216	
216	216	5.15.8	Acceptance of conforming quotation (Site foundation)	7 days	Jun 8 '20	Jun 14 '20	Jun 8 '20	Jun 14 '20	0 days	215	217	
217	217	5.15.9	Design and Construction of the Contractor's Site Office foundation	30 days	Jun 15 '20	Jul 14 '20	Jun 15 '20	Jul 14 '20	0 days	216	218	
218	218	5.15.10	Construction of Contractor's Site Office foundation (Completed)	47 days	Jul 15 '20	Aug 30 '20	Jul 15 '20	Aug 30 '20	0 days	217	219	
219	219	5.15.11	Site Installation of the Contractor's Site Accommodations (MiC) (Rev. 5)	120 days	Aug 31 '20	Dec 28 '20	Aug 31 '20	Dec 28 '20	0 days	213,218	220	
220	220	5.15.12	Anticipated date of working at site (Rev. 5) (Completed)	4 days	Jan 5 '21	Jan 8 '21	Jan 5 '21	Jan 8 '21	0 days	219		
221	221	5.16	**Works Area WA2-C**	**1 day**	**Feb 21 '20**	**Feb 21 '20**	**Feb 21 '20**	**Feb 21 '20**	**0 days**			
222	222	5.16.1	Actual Access / Handover Date	1 day	Feb 21 '20	Feb 21 '20	Feb 21 '20	Feb 21 '20	0 days			
223	223	5.17	**Inlet Works No. 1, Portion B-2 (PS 68.2.1)**	**1582 days**	**Dec 2 '19**	**Apr 1 '24**	**Jun 1 '20**	**Oct 27 '24**	**210 days**			
224	224	5.17.1	Planned Key Date Completion Date - KD1A, IW	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	258FF,259FF		
225	225	5.17.2	Planned Key Date Completion Date - KD1B, IW	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	260FF		
226	226	5.17.3	Planned Sectional Completion Date - Section 1, IW	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	261FF,262FF,263FF,265FF,2		
227	227	5.17.4	Planned Sectional Completion Date - Section 2, IW	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
228	228	5.17.5	**Selection of Suppliers for major plant and materials for Inlet Works No. 1**	**335 days**	**Jun 1 '20**	**May 1 '21**	**Jun 1 '20**	**May 1 '21**	**0 days**			
229	229	5.17.5.1	Inlet Works - Inlet Pumps (Marking Scheme Approach), C11, ref. EQT006	120 days	Jun 1 '20	Sep 28 '20	Jun 1 '20	Sep 28 '20	0 days			
230	230	5.17.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Jun 1 '20	Jul 30 '20	Jun 1 '20	Jul 30 '20	0 days		231	
231	231	5.17.5.1.2	Invitation of quotations for purchasing package	30 days	Jul 31 '20	Aug 29 '20	Jul 31 '20	Aug 29 '20	0 days	230	232	
232	232	5.17.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Aug 30 '20	Sep 28 '20	Aug 30 '20	Sep 28 '20	0 days	231	261	
233	233	5.17.5.2	Inlet Works - mechanical raked bar screens, C11, ref. EQT052	58 days	Jun 26 '20	Aug 22 '20	Jun 26 '20	Aug 22 '20	0 days			
234	234	5.17.5.2.1	Submission for acceptance of purchasing package	14 days	Jun 26 '20	Jul 9 '20	Jun 26 '20	Jul 9 '20	0 days		235	
235	235	5.17.5.2.2	Invitation of quotations for purchasing package	14 days	Jul 10 '20	Jul 23 '20	Jul 10 '20	Jul 23 '20	0 days	234	236	
236	236	5.17.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Jul 24 '20	Aug 22 '20	Jul 24 '20	Aug 22 '20	0 days	235	261	
237	237	5.17.5.3	Inlet Works - screening conveyors and Diverters, C11, ref. EQT053	74 days	Jul 1 '20	Sep 12 '20	Jul 1 '20	Sep 12 '20	0 days			
238	238	5.17.5.3.1	Submission for acceptance of purchasing package	30 days	Jul 1 '20	Jul 30 '20	Jul 1 '20	Jul 30 '20	0 days		239	
239	239	5.17.5.3.2	Invitation of quotations for purchasing package	14 days	Jul 31 '20	Aug 13 '20	Jul 31 '20	Aug 13 '20	0 days	238	240	
240	240	5.17.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Aug 14 '20	Sep 12 '20	Aug 14 '20	Sep 12 '20	0 days	239	261	
241	241	5.17.5.4	Inlet Works - screening screw type compactors, C11, ref. EQT003	105 days	Jul 1 '20	Oct 13 '20	Jul 1 '20	Oct 13 '20	0 days			
242	242	5.17.5.4.1	Submission for acceptance of purchasing package	45 days	Jul 1 '20	Aug 14 '20	Jul 1 '20	Aug 14 '20	0 days		243	
243	243	5.17.5.4.2	Invitation of quotations for purchasing package	30 days	Aug 15 '20	Sep 13 '20	Aug 15 '20	Sep 13 '20	0 days	242	244	
244	244	5.17.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Sep 14 '20	Oct 13 '20	Sep 14 '20	Oct 13 '20	0 days	243	261	
245	245	5.17.5.5	Inlet Works - grit removal system, C11, ref. EQT004	90 days	Jul 1 '20	Sep 28 '20	Jul 1 '20	Sep 28 '20	0 days			
246	246	5.17.5.5.1	Submission for acceptance of purchasing package	30 days	Jul 1 '20	Jul 30 '20	Jul 1 '20	Jul 30 '20	0 days		247	
247	247	5.17.5.5.2	Invitation of quotations for purchasing package	30 days	Jul 31 '20	Aug 29 '20	Jul 31 '20	Aug 29 '20	0 days	246	248	
248	248	5.17.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Aug 30 '20	Sep 28 '20	Aug 30 '20	Sep 28 '20	0 days	247	261	
249	249	5.17.5.6	Inlet Works - grit classifiers, C11, ref. EQT005	90 days	Jul 1 '20	Sep 28 '20	Jul 1 '20	Sep 28 '20	0 days			
250	250	5.17.5.6.1	Submission for acceptance of purchasing package	30 days	Jul 1 '20	Jul 30 '20	Jul 1 '20	Jul 30 '20	0 days		251	



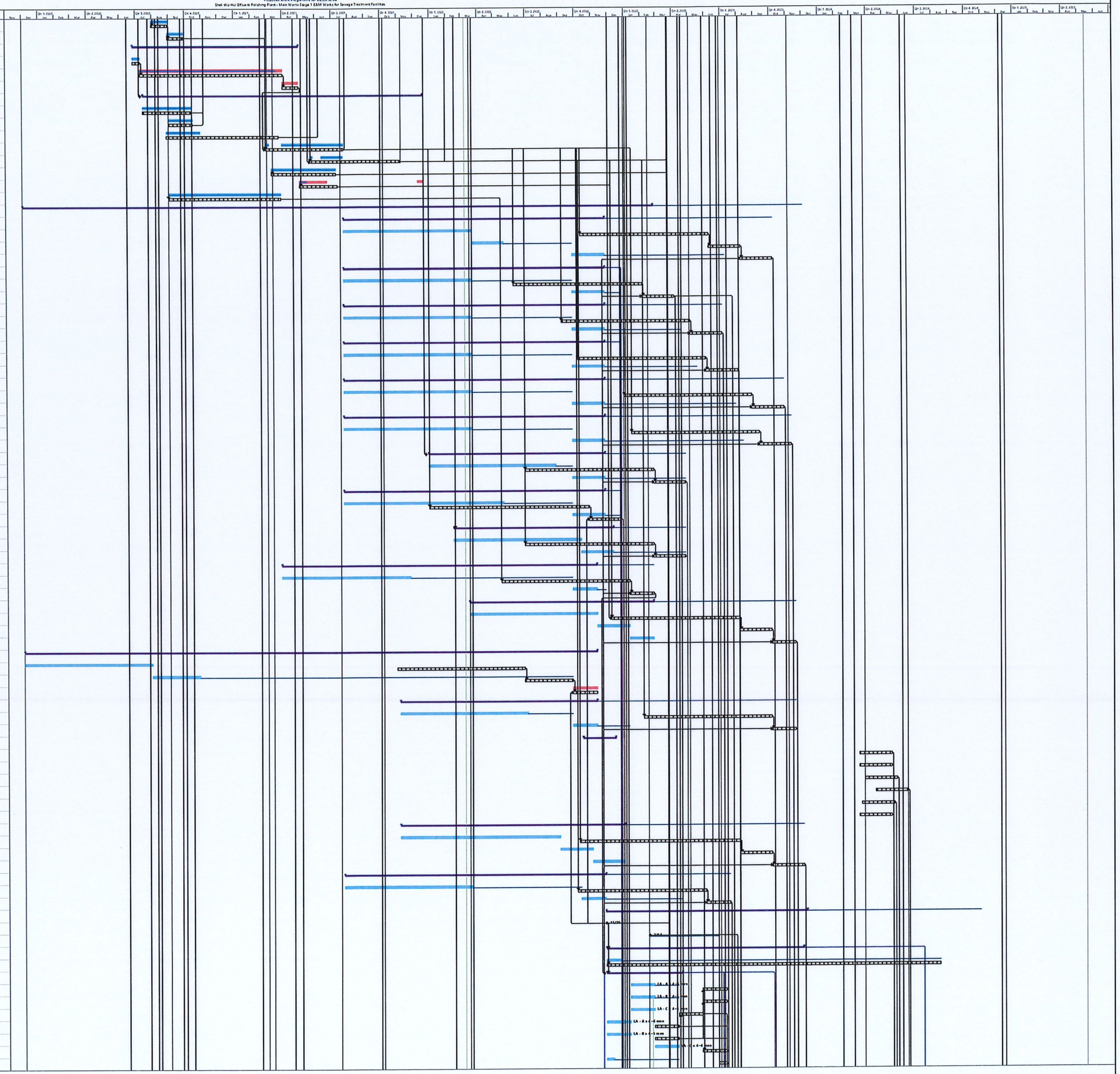
Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Project: DE/2018/04
Date: Mar 8 '22

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
251	251	5.17.5.6.2	Invitation of quotations for purchasing package	30 days	Jul 31 '20	Aug 29 '20	Jul 31 '20	Aug 29 '20	0 days	250	252	
252	252	5.17.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Aug 30 '20	Sep 28 '20	Aug 30 '20	Sep 28 '20	0 days	251	261	
253	253	5.17.5.7	**Inlet Works - Fixed Bar Screen, C1.1, ref. EQT046 (Rev. 10)**	**310 days**	**Jun 26 '20**	**May 1 '21**	**Jun 26 '20**	**May 1 '21**	**0 days**			
254	254	5.17.5.7.1	Submission for acceptance of purchasing package	14 days	Jun 26 '20	Jul 9 '20	Jun 26 '20	Jul 9 '20	0 days		255	
255	255	5.17.5.7.2	Invitation of quotations for purchasing package	266 days	Jul 10 '20	Apr 1 '21	Jul 10 '20	Apr 1 '21	0 days	254	256	
256	256	5.17.5.7.3	Acceptance of conforming quotation (Rev. 10)	30 days	Apr 2 '21	May 1 '21	Apr 2 '21	May 1 '21	0 days	255	261	
257	257	5.17.6	**Design Submissions for IW**	**523 days**	**Jul 15 '20**	**Dec 19 '21**	**Jul 15 '20**	**Nov 6 '21**	**0 days**	**114**		
258	258	5.17.6.1	Electrical schematic drawings for Inlet Works No. 1	90 days	Jul 15 '20	Oct 12 '20	Jul 15 '20	Oct 12 '20	0 days		224FF	
259	259	5.17.6.2	CDS080-1 - Civil and dimensional requirements drawings for Inlet Works No. 1 up to +8.0 mPD	45 days	Sep 1 '20	Oct 15 '20	Sep 1 '20	Oct 15 '20	0 days		224FF	
260	260	5.17.6.3	CDS081-1 - Civil and dimensional requirements drawings for Inlet Works No. 1	210 days	Aug 28 '20	Mar 25 '21	Aug 28 '20	Mar 25 '21	0 days		225FF	
261	261	5.17.6.4	CDS002 - Detailed Design for Inlet Works No. 1	144 edays	Mar 1 '21	Jul 23 '21	Mar 1 '21	Jul 23 '21	0 edays	236,240,232,248,252,244,25	268,280,275,27	
262	262	5.17.6.5	CDS021 - Detailed Design for Electrical Installations for Inlet Works No. 1	166.63 edays	May 23 '21	Nov 6 '21	May 23 '21	Nov 6 '21	0 edays	75,81,85,89,93,198FF,101,9	76,307,299,317	
263	263	5.17.6.6	CDS034-1 - Detailed Design for Electrical Installations BS at Inlet Works No. 1	120 edays	Mar 12 '21	Jul 10 '21	Mar 12 '21	Jul 10 '21	0 edays	144	226FF,360	
264	264	5.17.6.7	CDS025-1 - Detailed Design for LV Switchboards for Inlet Works No. 1	250 edays	May 3 '21	Dec 19 '21	May 3 '21	Jul 12 '21	0 edays	71	299,226FF	
265	265	5.17.6.8	CDS050-1 - Detailed Design for Lifting Appliances - Inlet Works No. 1	210 edays	Sep 1 '20	Mar 30 '21	Sep 1 '20	Mar 30 '21	0 edays	124	296,226FF	
266	266	5.17.7	**Manufacturing and Delivery of Plant & Materials**	**1180 days**	**Dec 2 '19**	**Feb 23 '23**	**Oct 31 '21**	**Dec 1 '23**	**281 days**			
267	267	5.17.7.1	**Inlet Pumps, EQT006**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Oct 11 '22**	**Oct 5 '23**	**315 days**			
268	268	5.17.7.1.1	Manufacturing of Inlet Pumps, EQT006	240 days	Jul 24 '21	Mar 20 '22	Oct 11 '22	Jun 7 '23	0 days	261	269	
269	269	5.17.7.1.2	Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Mar 21 '22	May 19 '22	Jun 8 '23	Aug 6 '23	129 days	268	270	
270	270	5.17.7.1.3	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	Aug 7 '23	Oct 5 '23	225 days	269,324SS-60 edays	342	
271	271	5.17.7.2	**Mechanical Raked Bar Screen, EQT052**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Jun 8 '22**	**Apr 3 '23**	**31 days**		338	
272	272	5.17.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Jul 24 '21	Mar 20 '22	Jun 8 '22	Feb 2 '23	189 days	261	273	
273	273	5.17.7.2.2	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	Feb 3 '23	Apr 3 '23	31 days	272,324SS-60 edays	340,343	
274	274	5.17.7.3	**Screening Conveyors and Diverters, EQT053**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Sep 6 '22**	**Jul 2 '23**	**220 days**			
275	275	5.17.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Jul 24 '21	Mar 20 '22	Sep 6 '22	May 3 '23	189 days	261	276	
276	276	5.17.7.3.2	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	May 4 '23	Jul 2 '23	143 days	275,324SS-60 edays	341	
277	277	5.17.7.4	**Screening Screw Type Compactors, EQT003**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Oct 6 '22**	**Aug 1 '23**	**31 days**		338	
278	278	5.17.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Jul 24 '21	Mar 20 '22	Oct 6 '22	Jun 2 '23	189 days	261	279	
279	279	5.17.7.4.2	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	Jun 3 '23	Aug 1 '23	173 days	278,324SS-60 edays	346	
280	280	5.17.7.5	**Grit Removal System, EQT004**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Dec 31 '22**	**Oct 26 '23**	**336 days**			
281	281	5.17.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Jul 24 '21	Mar 20 '22	Dec 31 '22	Aug 27 '23	189 days	261	282	
282	282	5.17.7.5.2	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	Aug 28 '23	Oct 26 '23	246 days	281,324SS-60 edays	344	
283	283	5.17.7.6	**Grit Classifiers, EQT005**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Jan 14 '23**	**Nov 9 '23**	**350 days**			
284	284	5.17.7.6.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Jul 24 '21	Mar 20 '22	Jan 14 '23	Sep 10 '23	189 days	261	285	
285	285	5.17.7.6.2	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	Sep 11 '23	Nov 9 '23	260 days	284,324SS-60 edays	345	
286	286	5.17.7.7	**Pipework, EQT036 (Rev. 11)**	**331 days**	**Dec 29 '21**	**Nov 24 '22**	**Jun 29 '22**	**Apr 24 '23**	**151 days**	**56,59**		
287	287	5.17.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Jun 29 '22	Feb 23 '23	31 days	261	288	
288	288	5.17.7.7.2	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	Feb 24 '23	Apr 24 '23	151 days	287,324SS-60 edays	347	
289	289	5.17.7.8	**Stoplogs and Penstocks, EQT013**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Dec 31 '21**	**Dec 25 '22**	**31 days**			
290	290	5.17.7.8.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Jul 24 '21	May 19 '22	Dec 31 '21	Oct 26 '22	129 days	261	291	
291	291	5.17.7.8.2	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Nov 24 '22	Oct 27 '22	Dec 25 '22	31 days	290,324SS-60 edays	338	
292	292	5.17.7.9	**Valves and Actuators, EQT036 (Rev. 11)**	**300 days**	**Feb 14 '22**	**Dec 10 '22**	**Jun 29 '22**	**Apr 24 '23**	**135 days**	**56,63,59**		
293	293	5.17.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Feb 14 '22	Oct 11 '22	Jun 29 '22	Feb 23 '23	0 days	261	294	
294	294	5.17.7.9.2	Shipping and Delivery of Plant to site	60 days	Oct 12 '22	Dec 10 '22	Feb 24 '23	Apr 24 '23	135 days	293,324SS-60 edays	347	
295	295	5.17.7.10	**Lifting Appliances**	**590 days**	**Mar 30 '21**	**Nov 9 '22**	**May 15 '22**	**Feb 23 '23**	**106 days**			
296	296	5.17.7.10.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mar 30 '21	Nov 24 '21	May 15 '22	Jan 9 '23	305 days	265	297	
297	297	5.17.7.10.2	Shipping and Delivery of Plant to site	45 days	Sep 26 '22	Nov 9 '22	Jan 10 '23	Feb 23 '23	16 days	296,324SS-60 edays	328	
298	298	5.17.7.11	**LV Switchboards**	**345 days**	**Mar 16 '22**	**Feb 23 '23**	**Dec 7 '22**	**Nov 16 '23**	**266 days**			
299	299	5.17.7.11.1	IW - Manufacturing of Plant	240 days	Mar 16 '22	Nov 10 '22	Dec 7 '22	Aug 3 '23	0 days	262,264,77SS-90 edays	300	
300	300	5.17.7.11.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Nov 11 '22	Jan 9 '23	Aug 4 '23	Oct 2 '23	0 days	299	301	
301	301	5.17.7.11.3	IW - Shipping and Delivery of Plant to site	45 days	Jan 10 '23	Feb 23 '23	Oct 3 '23	Nov 16 '23	0 days	324SS-60 edays,300	353	
302	302	5.17.7.12	**HV Switchboards, EQT031**	**1074 days**	**Dec 2 '19**	**Nov 9 '22**	**Oct 31 '21**	**Nov 9 '22**	**0 days**			
303	303	5.17.7.12.1	IW - Manufacturing of Plant	240 days	Dec 2 '19	Jul 28 '20	Oct 31 '21	Jun 27 '22	0 days		304	
304	304	5.17.7.12.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Jul 29 '20	Oct 26 '20	Jun 28 '22	Sep 25 '22	699 days	303	305	
305	305	5.17.7.12.3	IW - Shipping and Delivery of Plant to site	45 days	Sep 26 '22	Nov 9 '22	Sep 26 '22	Nov 9 '22	0 days	304,324SS-60 edays		
306	306	5.17.7.13	**11kV/380V Stepdown Power Transformers, EQT032**	**369 days**	**Nov 6 '21**	**Nov 9 '22**	**Feb 5 '23**	**Nov 16 '23**	**372 days**			
307	307	5.17.7.13.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Nov 6 '21	Jul 3 '22	Feb 5 '23	Oct 2 '23	84 days	262	308	
308	308	5.17.7.13.2	IW - Shipping and Delivery of Plant to site	45 days	Sep 26 '22	Nov 9 '22	Oct 3 '23	Nov 16 '23	60 days	307,324SS-60 edays	354	
309	309	5.17.7.14	**Building Services**	**60 days**	**Oct 15 '22**	**Dec 13 '22**	**Oct 15 '22**	**Dec 13 '22**	**0 days**			
310	310	5.17.7.14.1	Equipment Delivery for Mechanical Ventilation and Air Conditioning System	60 days	Oct 15 '22	Dec 13 '22	Mar 16 '24	May 15 '24	0 days		373	
311	311	5.17.7.14.2	Equipment Delivery for Lighting and Power Distribution System	60 days	Oct 15 '22	Dec 13 '22	Mar 16 '24	May 15 '24	0 days		374	
312	312	5.17.7.14.3	Equipment Delivery for Plumbing Installation	60 days	Oct 15 '22	Dec 13 '22	Mar 26 '24	May 25 '24	0 days		375	
313	313	5.17.7.14.4	Equipment Delivery for CCTV Installation	60 days	Oct 15 '22	Dec 13 '22	Apr 15 '24	Jun 14 '24	0 days		376	
314	314	5.17.7.14.5	Equipment Delivery for Fire Services Installation	60 days	Oct 15 '22	Dec 13 '22	Mar 21 '24	May 20 '24	0 days		377	
315	315	5.17.7.14.6	Equipment Delivery for Earthing and Lightning Protection System	60 days	Oct 15 '22	Dec 13 '22	Mar 16 '24	May 15 '24	0 days		378	
316	316	5.17.7.15	**PLC System**	**420 days**	**Nov 6 '21**	**Dec 30 '22**	**Oct 8 '22**	**Dec 1 '23**	**336 days**			
317	317	5.17.7.15.1	Manufacturing of Plant, PLC for IW	300 days	Nov 6 '21	Sep 1 '22	Oct 8 '22	Aug 3 '23	0 days	262	318	
318	318	5.17.7.15.2	Factory Acceptance Test of Plant, PLC for IW (To be witnessed by PM)	60 days	Sep 2 '22	Oct 31 '22	Aug 4 '23	Oct 2 '23	0 days	317	319	
319	319	5.17.7.15.3	Shipping and Delivery of Plant to site	60 days	Nov 1 '22	Dec 30 '22	Oct 3 '23	Dec 1 '23	0 days	324SS-60 edays,318	369	
320	320	5.17.7.16	**Fixed Bar Screen, EQT046**	**489 days**	**Jul 24 '21**	**Nov 24 '22**	**Oct 4 '22**	**Jul 15 '23**	**233 days**			
321	321	5.17.7.16.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Jul 24 '21	Mar 20 '22	Oct 4 '22	May 31 '23	204 days	261	322	
322	322	5.17.7.16.2	IW - Shipping and Delivery of Plant to site	45 days	Oct 11 '22	Nov 24 '22	Jun 1 '23	Jul 15 '23	143 days	321,324SS-45 edays	339	
323	323	5.17.8	**Site Installation Work**	**378 days**	**Nov 25 '22**	**Dec 7 '23**	**Nov 25 '22**	**Oct 27 '24**	**325 days**			
324	324	5.17.8.1	Tentative Civil Handover Date, Portion B-2, Inlet Works No. 1 (Rev. 5)	1 day	Nov 25 '22	Nov 25 '22	Nov 25 '22	Nov 25 '22	0 days		328,326,327,27 edays,308SS-60	
325	325	5.17.8.2	Tentative Civil Handover Date, HV cables draw pits from MFB2 to IW	1 day	Feb 14 '23	Feb 14 '23	Mar 15 '24	Mar 15 '24	129 days		353FF+30 days	
326	326	5.17.8.3	**Commencement of E&M Installation at Inlet Works No. 1**	**370 days**	**Nov 26 '22**	**Nov 30 '23**	**Nov 26 '22**	**Oct 27 '24**	**0 days**	**324**	**380FS-30 days**	
327	327	5.17.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc., IW	30 days	Nov 26 '22	Dec 25 '22	Nov 26 '22	Aug 12 '24	596 days	324		
328	328	5.17.8.3.2	**Installation of Lifting Appliances at Inlet Works No. 1**	**142 days**	**Nov 26 '22**	**Apr 16 '23**	**Feb 24 '23**	**Jul 15 '23**	**0 days**	**324,297**	**337SS+30 days**	
329	329	5.17.8.3.2.	1/F EOT Crane LA-01-01 SWL 5t	45 days	Jan 10 '23	Feb 23 '23	May 25 '23	Jul 8 '23	45 days	332,333	336	LA - A x 4~6 men
330	330	5.17.8.3.2.	1/F EOT Crane LA-01-02 SWL 5t	45 days	Jan 10 '23	Feb 23 '23	May 25 '23	Jul 8 '23	45 days	332,333	336	LA - B x 4~6 men
331	331	5.17.8.3.2.	1/F EOT Crane LA-01-03 SWL 5t	45 days	Jan 10 '23	Feb 23 '23	Apr 10 '23	May 24 '23	0 days	332,333	334,336	LA - C x 4~6 men
332	332	5.17.8.3.2.	UG EOT Crane LA-01-04 SWL 10t	45 days	Nov 26 '22	Jan 9 '23	Feb 24 '23	Apr 9 '23	0 days		329,330,331,33	LA - A x 4~6 men
333	333	5.17.8.3.2.	UG EOT Crane LA-01-05 SWL 10t	45 days	Nov 26 '22	Jan 9 '23	Feb 24 '23	Apr 9 '23	0 days		329,330,331,33	LA - B x 4~6 men
334	334	5.17.8.3.2.	1/F Retractable Crane LA-01-06 SWL 10t	45 days	Feb 24 '23	Apr 9 '23	May 25 '23	Jul 8 '23	0 days	331	336	LA - C x 4~6 men
335	335	5.17.8.3.2.	Submission of T&C Plan and Procedures of LA for acceptance	14 days	Nov 26 '22	Dec 9 '22	Jun 25 '23	Jul 8 '23	121 days		336	



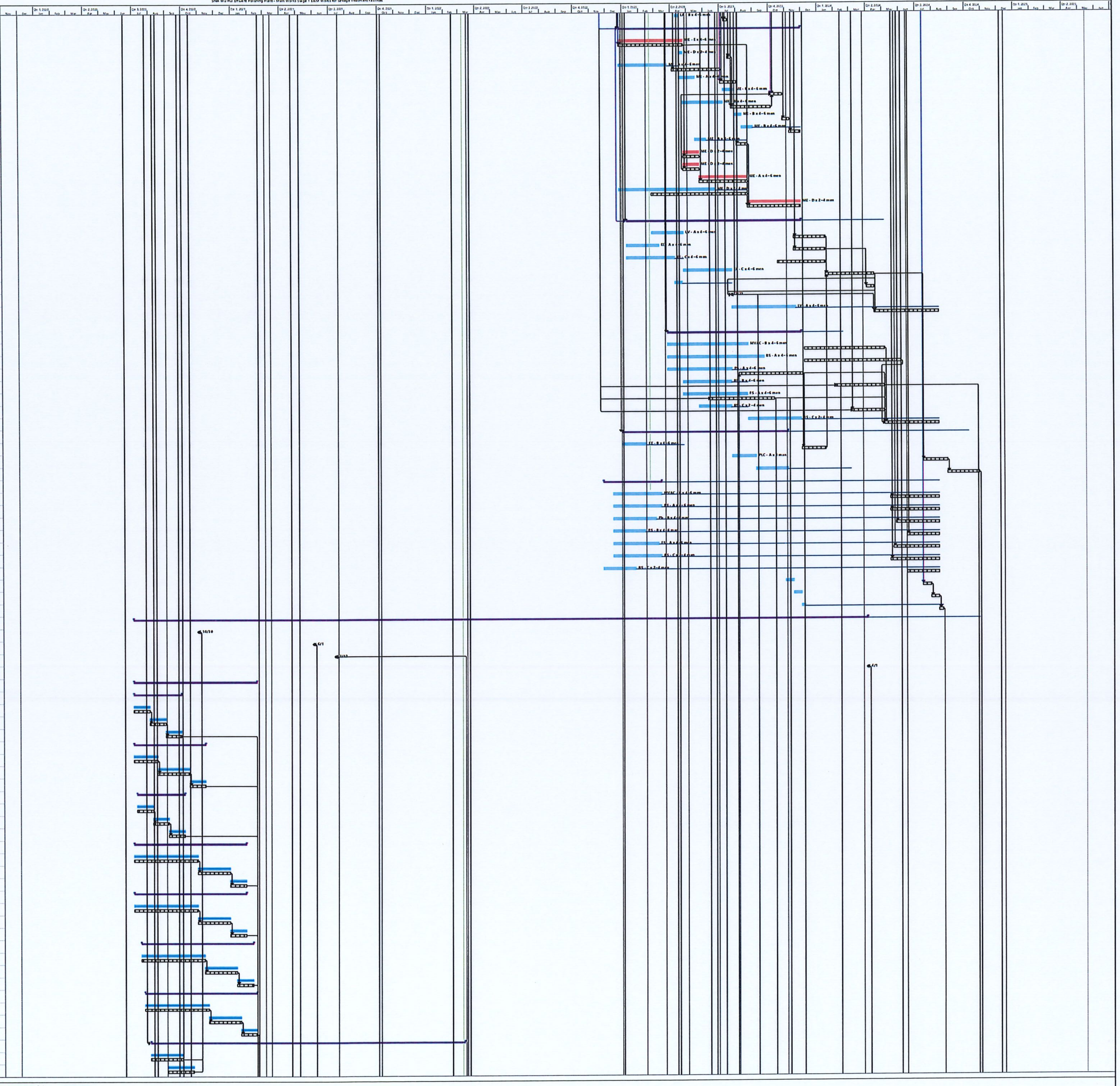
Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Project: DE/2018/04
Date: Mar 8 '22

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
336	336	5.17.8.3.2…	T&C, Loading Test for Lifting Appliances	7 days	Apr 10 '23	Apr 16 '23	Jul 9 '23	Jul 15 '23	0 days	329,330,331,332,333,334,3…	339	LA - B x 4~6 men
337	337	5.17.8.3.3	**Mechanical Installations for Inlet Works No. 1**	**340 days**	**Dec 26 '22**	**Nov 30 '23**	**Dec 26 '22**	**Nov 30 '23**	**0 days**	**328SS+30 days,129**	**352SS+14 days**	
338	338	5.17.8.3.3…	Installation of penstocks and stoplogs (Penstock 35nos, Stoplogs 37 nos), EQT013	120 days	Dec 26 '22	Apr 24 '23	Dec 26 '22	Apr 24 '23	0 days	277,271,291	347,348,351	ME - E x 4~6 men
339	339	5.17.8.3.3…	Installation of fixed bar screen (x1), EQT046	7 days	Apr 17 '23	Apr 23 '23	Jul 16 '23	Jul 22 '23	0 days	336,322	343	ME - D x 2~4 men
340	340	5.17.8.3.3…	Installation of mechanical raked coarse bar screens (x4), EQT052	90 days	Dec 26 '22	Mar 25 '23	Apr 4 '23	Jul 2 '23	22 days	273	341	ME - A x 4~6 men
341	341	5.17.8.3.3…	Installation of screening conveyors (x6), EQT053	30 days	Apr 17 '23	May 16 '23	Jul 3 '23	Aug 1 '23	0 days	328,340,276	346	ME - A x 4~6 men
342	342	5.17.8.3.3…	Installation of inlet pumps (x5), EQT006	21 days	Jul 8 '23	Jul 28 '23	Oct 6 '23	Oct 26 '23	0 days	328,347SS+14 days,343,348…	344	ME - B x 4~6 men
343	343	5.17.8.3.3…	Installation of mechanical raked fine bar screens (x5), EQT052	75 days	Apr 24 '23	Jul 7 '23	Jul 23 '23	Oct 5 '23	0 days	339,273	342	ME - B x 4~6 men
344	344	5.17.8.3.3…	Installation of grit removal system (x3), EQT004	14 days	Jul 29 '23	Aug 11 '23	Oct 27 '23	Nov 9 '23	0 days	342,282	345	ME - B x 4~6 men
345	345	5.17.8.3.3…	Installation of grit classifiers (x2), EQT005	21 days	Aug 12 '23	Sep 1 '23	Nov 10 '23	Nov 30 '23	90 days	344,285		ME - B x 4~6 men
346	346	5.17.8.3.3…	Installation of compactors (x2), EQT003	21 days	May 17 '23	Jun 6 '23	Aug 2 '23	Aug 22 '23	77 days	341,279	351	ME - A x 4~6 men
347	347	5.17.8.3.3…	Installation of pipework and valves, EQT036	30 days	Apr 25 '23	May 24 '23	Apr 25 '23	May 24 '23	0 days	338,288,294	342SS+14 days,	ME - D x 2~4 men
348	348	5.17.8.3.3…	Pipework pressure tests	30 days	Apr 25 '23	May 24 '23	Apr 25 '23	May 24 '23	0 days	338	342SS+14 days,	ME - D x 2~4 men
349	349	5.17.8.3.3…	Installation of instrumentations, EQT035-1	90 days	May 25 '23	Aug 22 '23	May 25 '23	Aug 22 '23	0 days	347,348,52	351	ME - A x 4~6 men
350	350	5.17.8.3.3…	Installation of Platforms, Covers etc, EQT050	180 days	Dec 26 '22	Jun 23 '23	Feb 24 '23	Aug 22 '23	60 days		351	ME - D x 2~4 men
351	351	5.17.8.3.3…	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	100 days	Aug 23 '23	Nov 30 '23	Aug 23 '23	Nov 30 '23	0 days	338,346,349,350		ME - D x 2~4 men
352	352	5.17.8.3.4	**Electrical Installations for Inlet Works No. 1**	**326 days**	**Jan 9 '23**	**Nov 30 '23**	**Jun 13 '23**	**Aug 12 '24**	**155 days**	**337SS+14 days,134**		
353	353	5.17.8.3.4…	Installation of LV Switchboards, IW	60 days	Feb 24 '23	Apr 24 '23	Nov 17 '23	Jan 15 '24	0 days	301	356	LV - A x 4~6 men
354	354	5.17.8.3.4…	Installation of Transformer, IW, EQT032	60 days	Jan 9 '23	Mar 9 '23	Nov 17 '23	Jan 15 '24	0 days	308	356,357FS+30 …	EE - A x 4~6 men
355	355	5.17.8.3.4…	Installation of cable trays and cable containments	90 days	Jan 9 '23	Apr 8 '23	Oct 18 '23	Jan 15 '24	16 days		356	EE - C x 4~6 men
356	356	5.17.8.3.4…	Cables laying and terminations	90 days	Apr 25 '23	Jul 23 '23	Jan 16 '24	Apr 14 '24	0 days	353,354,355,369	358,370,359	EE - C x 4~6 men
357	357	5.17.8.3.4…	Energisation of Transformer, IW	14 days	Apr 9 '23	Apr 22 '23	Apr 1 '24	Apr 14 '24	92 days	354FS+30 days	358	
358	358	5.17.8.3.4…	Energisation of LV Switchboards, IW	0 days	Jul 23 '23	Jul 23 '23	Apr 15 '24	Apr 15 '24	0 days	356,325FF+30 days,357	359,509	LV - A x 4~6 men
359	359	5.17.8.3.4…	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.	120 days	Jul 24 '23	Nov 20 '23	Apr 15 '24	Aug 12 '24	266 days	356,358		LV - A x 4~6 men
360	360	5.17.8.3.4…	**Building Services Installations for Inlet Works No. 1**	**250 days**	**Mar 26 '23**	**Nov 30 '23**	**Jun 13 '23**	**Aug 12 '24**	**79 days**	**324FS+120 days,263,151**		
361	361	5.17.8.3.4…	Mechanical Ventilation and Air Conditioning System, IW	150 days	Mar 26 '23	Aug 22 '23	Dec 7 '23	May 4 '24	0 days		367	MVAC - B x 4~6 men
362	362	5.17.8.3.4…	Lighting and Power Distribution System, IW	180 days	Mar 26 '23	Sep 21 '23	Dec 7 '23	Jun 3 '24	0 days		367FS-30 days	BS - A x 4~6 men
363	363	5.17.8.3.4…	Plumbing Installation, IW	120 days	Mar 26 '23	Jul 23 '23	Aug 6 '23	Dec 3 '23	30 days	1339	1341,367	Pb - A x 4~6 men
364	364	5.17.8.3.4…	CCTV Installation (5 indoor +5 outdoor Cameras), IW	90 days	Apr 24 '23	Jul 22 '23	Feb 5 '24	May 4 '24	31 days	324SS+150 days	367,1351	BS - B x 4~6 men
365	365	5.17.8.3.4…	Fire Services Installation, IW	120 days	Apr 24 '23	Aug 21 '23	Jun 13 '23	Oct 10 '23	1 day	324SS+150 days	1292,1304,130…	FS - A x 4~6 men
366	366	5.17.8.3.4…	Earthing and Lightning Protection System, IW	60 days	May 24 '23	Jul 22 '23	Mar 6 '24	May 4 '24	31 days	324SS+180 days,172	367	BS - C x 2~4 men
367	367	5.17.8.3.4…	Testing and Commissioning of Building Services Installations, IW	100 days	Aug 23 '23	Nov 30 '23	May 5 '24	Aug 12 '24	256 days	361,362FS-30 days,363,364,365,366		BS - C x 2~4 men
368	368	5.17.8.3.5	**SCADA Systems, Inlet Works**	**310 days**	**Dec 31 '22**	**Nov 5 '23**	**Dec 2 '23**	**Oct 27 '24**	**336 days**	**324**		
369	369	5.17.8.3.5…	Installation of PLC Panels, IW	45 days	Dec 31 '22	Feb 13 '23	Dec 2 '23	Jan 15 '24	70 days	319	356	EE - B x 4~6 men
370	370	5.17.8.3.5…	Configuration of PLC System, IW	45 days	Jul 24 '23	Sep 6 '23	Jul 15 '24	Aug 28 '24	0 days	356	371	PLC - A x 1 man
371	371	5.17.8.3.5…	Site Acceptance Test for PLC System at Inlet Works No. 1	60 days	Sep 7 '23	Nov 5 '23	Aug 29 '24	Oct 27 '24	119 days	370	1352	
372	372	5.17.8.3.6	**Building Services Installations, Inlet Works No.1**	**108 days**	**Nov 26 '22**	**Mar 13 '23**	**May 15 '24**	**Aug 12 '24**	**518 days**			
373	373	5.17.8.3.6…	Mechanical Ventilation and Air Conditioning System	90 days	Dec 14 '22	Mar 13 '23	May 15 '24	Aug 12 '24	518 days	310		MVAC - B x 4~6 men
374	374	5.17.8.3.6…	Lighting and Power Distribution System	90 days	Dec 14 '22	Mar 13 '23	May 15 '24	Aug 12 '24	518 days	311		BS - A x 4~6 men
375	375	5.17.8.3.6…	Plumbing Installation	80 days	Dec 14 '22	Mar 3 '23	May 25 '24	Aug 12 '24	528 days	312		Pb - B x 4~6 men
376	376	5.17.8.3.6…	CCTV Installation	60 days	Dec 14 '22	Feb 11 '23	Jun 14 '24	Aug 12 '24	548 days	313		BS - B x 4~6 men
377	377	5.17.8.3.6…	Fire Services Installation	85 days	Dec 14 '22	Mar 8 '23	May 20 '24	Aug 12 '24	523 days	314		FS - A x 4~6 men
378	378	5.17.8.3.6…	Earthing and Lightning Protection System	90 days	Dec 14 '22	Mar 13 '23	May 15 '24	Aug 12 '24	518 days	315		BS - C x 2~4 men
379	379	5.17.8.3.6…	Testing and Commissioning of Building Services Installations	60 days	Nov 26 '22	Jan 24 '23	Jun 14 '24	Aug 12 '24	566 days			BS - C x 2~4 men
380	380	5.17.8.4	**Site Acceptance Test for E&M Equip & Instrumentations calibration, IW**	**15 days**	**Nov 1 '23**	**Nov 15 '23**	**Jul 14 '24**	**Jul 28 '24**	**0 days**	**326FS-30 days**	**381**	
381	381	5.17.8.5	**System Commissioning for E&M Equip at Inlet Works No. 1**	**15 edays**	**Nov 15 '23**	**Nov 30 '23**	**Jul 29 '24**	**Aug 13 '24**	**0 edays**	**380**	**382**	
382	382	5.17.8.6	**Risk Allowances for completion of Processing Plant at Inlet Works No. 1**	**7 edays**	**Nov 30 '23**	**Dec 7 '23**	**Aug 13 '24**	**Aug 20 '24**	**256.63 edays**	**381**	**1348**	
383	383	5.18	**Primary Sedimentation Tanks No. 1 ~ 4, Portion B-3 (PS 6B2.2)**	**1371 days**	**Jul 1 '20**	**Apr 1 '24**	**Jul 1 '20**	**Oct 27 '24**	**209 days**			
384	384	5.18.1	Planned Key Date Completion Date - KD1A, PST No. 1~4	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	418FF,419FF		
385	385	5.18.2	Planned Key Date Completion Date - KD1B, PST No. 1~4	1 day	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	420FF		
386	386	5.18.3	Planned Sectional Completion Date - Section 1, PST No. 1~4	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	423FF,422FF,421FF,424FF,4…		
387	387	5.18.4	Planned Sectional Completion Date - Section 2, PST No. 1~4	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days	512FF		
388	388	5.18.5	**Selection of Suppliers for major plant and materials for PST No. 1~4**	**230 days**	**Jul 1 '20**	**Feb 15 '21**	**Jul 1 '20**	**Feb 15 '21**	**0 days**			
389	389	5.18.5.1	PST - lamella plate settlers, C11, ref. EQT014	90 days	Jul 1 '20	Sep 28 '20	Jul 1 '20	Sep 28 '20	0 days			
390	390	5.18.5.1.1	Submission for acceptance of purchasing package	30 days	Jul 1 '20	Jul 30 '20	Jul 1 '20	Jul 30 '20	0 days		391	
391	391	5.18.5.1.2	Invitation of quotations for purchasing package	30 days	Jul 31 '20	Aug 29 '20	Jul 31 '20	Aug 29 '20	0 days	390	392	
392	392	5.18.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Aug 30 '20	Sep 28 '20	Aug 30 '20	Sep 28 '20	0 days	391	421	
393	393	5.18.5.2	PST - reciprocating type bottom scrapers, C11, ref. EQT014	135 days	Jul 1 '20	Nov 12 '20	Jul 1 '20	Nov 12 '20	0 days			
394	394	5.18.5.2.1	Submission for acceptance of purchasing package	45 days	Jul 1 '20	Aug 14 '20	Jul 1 '20	Aug 14 '20	0 days		395	
395	395	5.18.5.2.2	Invitation of quotations for purchasing package	60 days	Aug 15 '20	Oct 13 '20	Aug 15 '20	Oct 13 '20	0 days	394	396	
396	396	5.18.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Oct 14 '20	Nov 12 '20	Oct 14 '20	Nov 12 '20	0 days	395	421	
397	397	5.18.5.3	PST - surface scum skimmers, C11, ref. EQT015	90 days	Jul 7 '20	Oct 4 '20	Jul 7 '20	Oct 4 '20	0 days			
398	398	5.18.5.3.1	Submission for acceptance of purchasing package	30 days	Jul 7 '20	Aug 5 '20	Jul 7 '20	Aug 5 '20	0 days		399	
399	399	5.18.5.3.2	Invitation of quotations for purchasing package	30 days	Aug 6 '20	Sep 4 '20	Aug 6 '20	Sep 4 '20	0 days	398	400	
400	400	5.18.5.3.3	Acceptance of conforming quotation	30 days	Sep 5 '20	Oct 4 '20	Sep 5 '20	Oct 4 '20	0 days	399	421	
401	401	5.18.5.4	PST - scum collector pipes, C11, ref. EQT015	210 days	Jul 1 '20	Jan 26 '21	Jul 1 '20	Jan 26 '21	0 days			
402	402	5.18.5.4.1	Submission for acceptance of purchasing package	120 days	Jul 1 '20	Oct 28 '20	Jul 1 '20	Oct 28 '20	0 days		403	
403	403	5.18.5.4.2	Invitation of quotations for purchasing package	60 days	Oct 29 '20	Dec 27 '20	Oct 29 '20	Dec 27 '20	0 days	402	404	
404	404	5.18.5.4.3	Acceptance of conforming quotation	30 days	Dec 28 '20	Jan 26 '21	Dec 28 '20	Jan 26 '21	0 days	403	421	
405	405	5.18.5.5	PST - piston type primary sludge pumps, C11, ref. EQT016	210 days	Jul 1 '20	Jan 26 '21	Jul 1 '20	Jan 26 '21	0 days			
406	406	5.18.5.5.1	Submission for acceptance of purchasing package	120 days	Jul 1 '20	Oct 28 '20	Jul 1 '20	Oct 28 '20	0 days		407	
407	407	5.18.5.5.2	Invitation of quotations for purchasing package	60 days	Oct 29 '20	Dec 27 '20	Oct 29 '20	Dec 27 '20	0 days	406	408	
408	408	5.18.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Dec 28 '20	Jan 26 '21	Dec 28 '20	Jan 26 '21	0 days	407	421	
409	409	5.18.5.6	PST - drain pumps, C11, ref. EQT007	210 days	Jul 14 '20	Feb 8 '21	Jul 14 '20	Feb 8 '21	0 days			
410	410	5.18.5.6.1	Submission for acceptance of purchasing package	120 days	Jul 14 '20	Nov 10 '20	Jul 14 '20	Nov 10 '20	0 days		411	
411	411	5.18.5.6.2	Invitation of quotations for purchasing package	60 days	Nov 11 '20	Jan 9 '21	Nov 11 '20	Jan 9 '21	0 days	410	412	
412	412	5.18.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Jan 10 '21	Feb 8 '21	Jan 10 '21	Feb 8 '21	0 days	411	421	
413	413	5.18.5.7	PST - air blowers, C11, ref. EQT018	210 days	Jul 21 '20	Feb 15 '21	Jul 21 '20	Feb 15 '21	0 days			
414	414	5.18.5.7.1	Submission for acceptance of purchasing package	120 days	Jul 21 '20	Nov 17 '20	Jul 21 '20	Nov 17 '20	0 days		415	
415	415	5.18.5.7.2	Invitation of quotations for purchasing package	60 days	Nov 18 '20	Jan 16 '21	Nov 18 '20	Jan 16 '21	0 days	414	416	
416	416	5.18.5.7.3	Acceptance of conforming quotation	30 days	Jan 17 '21	Feb 15 '21	Jan 17 '21	Feb 15 '21	0 days	415	421	
417	417	5.18.6	**Design Submissions for PST No. 1~ 4**	**587 days**	**Aug 1 '20**	**Mar 11 '22**	**Aug 1 '20**	**Mar 11 '22**	**0 days**	**114**		
418	418	5.18.6.1	Electrical schematic drawings for PST No. 1~4	60 days	Aug 1 '20	Sep 29 '20	Aug 1 '20	Sep 29 '20	0 days		384FF	
419	419	5.18.6.2	CDS080-2 - Civil and dimensional requirements drawings for PST No. 1~4 up to +8.0 mPD	50 days	Sep 1 '20	Oct 20 '20	Sep 1 '20	Oct 20 '20	0 days		384FF	

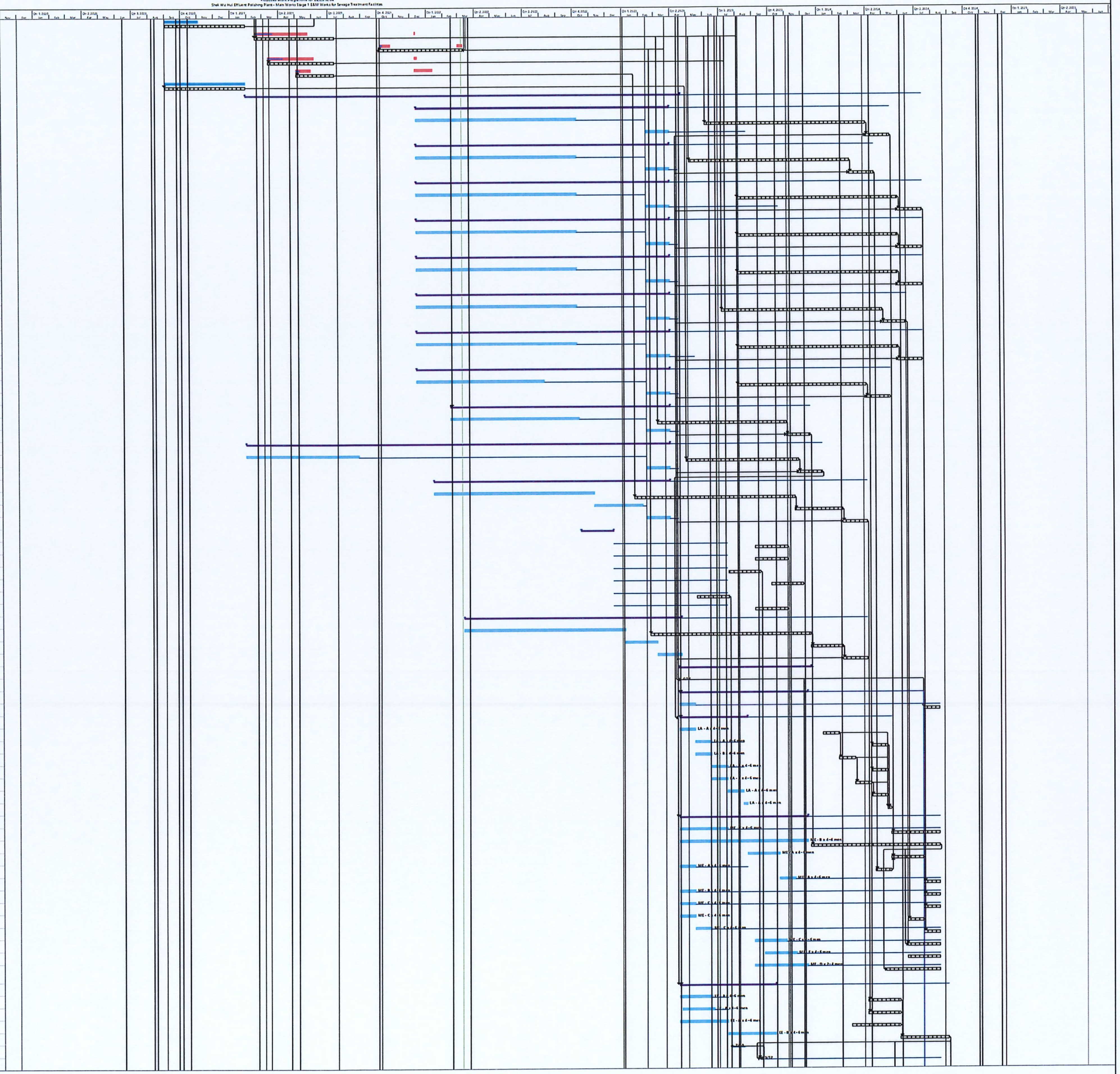


Project: DE/2018/04
Date: Mar 8 '22

Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
420	420	5.18.6.3	CDS031-2 - Civil and dimensional requirements drawings for PST No. 1 ~ 4	150 days	Sep 1 '20	Jan 28 '21	Sep 1 '20	Jan 28 '21	0 days		385FF	
421	421	5.18.6.4	CDS003 - Detailed Design for Primary Sedimentation Tanks No. 1~4	299.2 edays	Feb 15 '21	Dec 11 '21	Feb 15 '21	Jul 12 '21	0 edays	392,396,400,404,408,412,43	428,431,434,43	
422	422	5.18.6.5	CDS022 - Detailed Design for Electrical Installations for PST No. 1~4	154.88 edays	Oct 7 '21	Mar 11 '22	Oct 7 '21	Mar 11 '22	0 edays	75,85,93,198FF,101,97	76,469,386FF	
423	423	5.18.6.6	CDS034-2 - Detailed Design for Electrical Installations ES at PST No. 1~4	277.88 edays	Mar 12 '21	Dec 15 '21	Mar 12 '21	Jul 12 '21	0 edays	144	386FF,505	
424	424	5.18.6.7	CDS025-2 - Detailed Design for LV Switchboards for PST No. 1~4	254 edays	May 3 '21	Jan 12 '22	May 3 '21	Jul 12 '21	0 edays	71	458,386FF	
425	425	5.18.6.8	CDS050-2 - Detailed Design for Lifting Appliances - PST No. 1 ~ 4	150 edays	Sep 1 '20	Jan 29 '21	Sep 1 '20	Jan 29 '21	0 edays	124	455,386FF	
426	426	5.18.7	**Manufacturing and Delivery of Plant & Materials**	**811 days**	**Jan 29 '21**	**Apr 19 '23**	**Oct 15 '22**	**Jul 13 '24**	**451 days**			
427	427	5.18.7.1	**Lamella Plate Settlers, EQT014**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Jun 5 '23**	**May 14 '24**	**412 days**			
428	428	5.18.7.1.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Jun 5 '23	Mar 30 '24	128 days	421	429	
429	429	5.18.7.1.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Mar 31 '24	May 14 '24	143 days	428,473SS-60 edays	487	
430	430	5.18.7.2	**Reciprocating Type Bottom Scrappers, EQT014**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**May 6 '23**	**Apr 14 '24**	**382 days**			
431	431	5.18.7.2.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	May 6 '23	Feb 29 '24	128 days	421	432	
432	432	5.18.7.2.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Mar 1 '24	Apr 14 '24	16 days	431,473SS-60 edays	488	
433	433	5.18.7.3	**Surface Scum Skimmers, EQT015**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Aug 4 '23**	**Jul 13 '24**	**472 days**			
434	434	5.18.7.3.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Aug 4 '23	May 29 '24	128 days	421	435	
435	435	5.18.7.3.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	May 30 '24	Jul 13 '24	203 days	434,473SS-60 edays	489	
436	436	5.18.7.4	**Surface Scum Collection Pipes, EQT015**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Aug 4 '23**	**Jul 13 '24**	**472 days**			
437	437	5.18.7.4.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Aug 4 '23	May 29 '24	128 days	421	438	
438	438	5.18.7.4.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	May 30 '24	Jul 13 '24	16 days	437,473SS-60 edays	490	
439	439	5.18.7.5	**Piston Type Primary Sludge Pumps, EQT016**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Aug 4 '23**	**Jul 13 '24**	**472 days**			
440	440	5.18.7.5.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Aug 4 '23	May 29 '24	128 days	421	441	
441	441	5.18.7.5.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	May 30 '24	Jul 13 '24	16 days	440,473SS-60 edays	491	
442	442	5.18.7.6	**Drain Pumps, EQT007**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Jul 5 '23**	**Jun 13 '24**	**442 days**			
443	443	5.18.7.6.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Jul 5 '23	Apr 29 '24	128 days	421	444	
444	444	5.18.7.6.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Apr 30 '24	Jun 13 '24	16 days	443,473SS-60 edays	492	
445	445	5.18.7.7	**Air Blower, EQT018**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Aug 4 '23**	**Jul 13 '24**	**472 days**			
446	446	5.18.7.7.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Aug 4 '23	May 29 '24	128 days	421	447	
447	447	5.18.7.7.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	May 30 '24	Jul 13 '24	46 days	446,473SS-60 edays	493	
448	448	5.18.7.8	**Stoplogs and Penstocks, EQT013**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Aug 4 '23**	**May 14 '24**	**412 days**			
449	449	5.18.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 12 '21	Aug 8 '22	Aug 4 '23	Mar 30 '24	188 days	421	450	
450	450	5.18.7.8.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Mar 31 '24	May 14 '24	16 days	473SS-60 edays,449	485	
451	451	5.18.7.9	**Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)**	**409 days**	**Feb 14 '22**	**Mar 29 '23**	**Mar 7 '23**	**Dec 16 '23**	**262 days**	**56,63,59**		
452	452	5.18.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Feb 14 '22	Oct 11 '22	Mar 7 '23	Nov 1 '23	124 days	421	453	
453	453	5.18.7.9.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Nov 2 '23	Dec 16 '23	16 days	452,473SS-60 edays	486	
454	454	5.18.7.10	**Lifting Appliances**	**790 days**	**Jan 29 '21**	**Mar 29 '23**	**Apr 29 '23**	**Jan 8 '24**	**285 days**			
455	455	5.18.7.10.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Jan 29 '21	Aug 26 '21	Apr 29 '23	Nov 24 '23	535 days	425	456	
456	456	5.18.7.10.2	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Nov 25 '23	Jan 8 '24	16 days	455,473SS-60 edays	476	
457	457	5.18.7.11	**LV Switchboards**	**441 days**	**Jan 13 '22**	**Mar 29 '23**	**Jan 22 '23**	**Mar 31 '24**	**368 days**			
458	458	5.18.7.11.1	PST - Manufacturing of Plant	300 days	Jan 13 '22	Nov 8 '22	Jan 22 '23	Nov 17 '23	0 days	424	459	
459	459	5.18.7.11.2	PST - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Nov 9 '22	Feb 6 '23	Nov 18 '23	Feb 15 '24	6 days	458	460	
460	460	5.18.7.11.3	PST - Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Feb 16 '24	Mar 31 '24	16 days	459,473SS-60 edays	498	
461	461	5.18.7.12	**Building Services**	**60 days**	**Oct 15 '22**	**Dec 13 '22**	**Oct 15 '22**	**Dec 13 '22**	**0 days**			
462	462	5.18.7.12.1	Equipment Delivery for Mechanical Ventilation and Air Conditioning System	60 days	Oct 15 '22	Dec 13 '22	Sep 5 '23	Nov 4 '23	212 days		506	
463	463	5.18.7.12.2	Equipment Delivery for Lighting and Power Distribution System	60 days	Oct 15 '22	Dec 13 '22	Sep 5 '23	Nov 4 '23	212 days		507	
464	464	5.18.7.12.3	Equipment Delivery for Plumbing Installation	60 days	Oct 15 '22	Dec 13 '22	Jul 17 '23	Sep 15 '23	212 days		508	
465	465	5.18.7.12.4	Equipment Delivery for CCTV Installation (8 indoor + 2 outdoor Cameras)	60 days	Oct 15 '22	Dec 13 '22	Oct 5 '23	Dec 4 '23	212 days		509	
466	466	5.18.7.12.5	Equipment Delivery for Fire Services Installation	60 days	Oct 15 '22	Dec 13 '22	May 19 '23	Jul 18 '23	212 days		510	
467	467	5.18.7.12.6	Equipment Delivery for Earthing and Lightning Protection System	60 days	Oct 15 '22	Dec 13 '22	Sep 5 '23	Nov 4 '23	212 days		511	
468	468	5.18.7.13	**PLC System**	**405 days**	**Mar 11 '22**	**Apr 19 '23**	**Feb 21 '23**	**Mar 31 '24**	**347 days**			
469	469	5.18.7.13.1	Manufacturing of Plant, PLC for PST	300 days	Mar 11 '22	Jan 4 '23	Feb 21 '23	Dec 17 '23	0 days	422	470	
470	470	5.18.7.13.2	Factory Acceptance Test of Plant, PLC for PST (To be witnessed by PM)	60 days	Jan 5 '23	Mar 5 '23	Dec 18 '23	Feb 15 '24	0 days	469	471	
471	471	5.18.7.13.3	Shipping and Delivery of Plant to site	45 days	Mar 6 '23	Apr 19 '23	Feb 16 '24	Mar 31 '24	0 days	470,473SS-60 edays	499	
472	472	5.18.8	**Site Installation Work**	**248 days**	**Apr 14 '23**	**Dec 17 '23**	**Apr 18 '23**	**Oct 27 '24**	**4 days**			
473	473	5.18.8.1	Tentative Civil Handover Date, Portion B-3, PST No. 1~4 (Rev. 5)	1 day	Apr 14 '23	Apr 14 '23	Apr 18 '23	Apr 18 '23	0 days		476,474,497,47 edays,429SS-60	
474	474	5.18.8.2	**Commencement of E&M Installation at PST No. 1~4**	**240 days**	**Apr 15 '23**	**Dec 10 '23**	**Jul 18 '23**	**Oct 27 '24**	**0 days**	**473**	**516FS-30 days**	**403**
475	475	5.18.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting Welfare facilities etc., PST	30 days	Apr 15 '23	May 14 '23	Jul 14 '24	Aug 12 '24	456 days	473		
476	476	5.18.8.2.2	**Installation of Lifting Appliances at PST No. 1~4**	**127 days**	**Apr 15 '23**	**Aug 19 '23**	**Jan 9 '24**	**May 14 '24**	**269 days**	**473,456**		
477	477	5.18.8.2.2.	Basement EOT Crane LA-02-01 SWL 10t	30 days	Apr 15 '23	May 14 '23	Jan 9 '24	Feb 7 '24	0 days		478,479,483	LA - A x 4~6 men
478	478	5.18.8.2.2.	Coping Level EOT Crane LA-02-02 SWL 5t	30 days	May 15 '23	Jun 13 '23	Apr 8 '24	May 7 '24	60 days	477	483	LA - A x 4~6 men
479	479	5.18.8.2.2.	Coping Level EOT Crane LA-02-03 SWL 5t	30 days	May 15 '23	Jun 13 '23	Feb 8 '24	Mar 8 '24	0 days	477	480,481,483	LA - B x 4~6 men
480	480	5.18.8.2.2.	Coping Level EOT Crane LA-02-04 SWL 5t	30 days	Jun 14 '23	Jul 13 '23	Apr 8 '24	May 7 '24	30 days	479	483	LA - A x 4~6 men
481	481	5.18.8.2.2.	Coping Level EOT Crane LA-02-05 SWL 5t	30 days	Jun 14 '23	Jul 13 '23	Mar 9 '24	Apr 7 '24	0 days	479	482,483	LA - B x 4~6 men
482	482	5.18.8.2.2.	Coping Level EOT Crane LA-02-06 SWL 2t	30 days	Jul 14 '23	Aug 12 '23	Apr 8 '24	May 7 '24	0 days	481	483	LA - A x 4~6 men
483	483	5.18.8.2.2.	T&C, Loading Test for Lifting Appliances at PST No. 1~4	7 days	Aug 13 '23	Aug 19 '23	May 8 '24	May 14 '24	0 days	477,478,479,480,481,482	487	LA - A x 4~6 men
484	484	5.18.8.2.3	**Mechanical Installations at PST No. 1~4**	**240 days**	**Apr 15 '23**	**Dec 10 '23**	**Dec 17 '23**	**Aug 12 '24**	**246 days**	**129**		
485	485	5.18.8.2.3.	Installation of penstocks and stoplogs (Penstock 18nos, Stoplogs 14 nos), EQT013	90 days	Apr 15 '23	Jul 13 '23	May 15 '24	Aug 12 '24	396 days	450		ME - E x 4~6 men
486	486	5.18.8.2.3.	Installation of pipework and valves, EQT036	240 days	Apr 15 '23	Dec 10 '23	Dec 17 '23	Aug 12 '24	0 days	453	496FS-100 days	ME - B x 4~6 men
487	487	5.18.8.2.3.	Installation of lamella plate settlers (x4), EQT014	60 days	Aug 20 '23	Oct 18 '23	May 15 '24	Jul 13 '24	0 days	488,483,429	489	ME - A x 4~6 men
488	488	5.18.8.2.3.	Installation of reciprocating type bottom scrapers (x4), EQT014	30 days	Apr 15 '23	May 14 '23	Apr 15 '24	May 14 '24	97 days	432	487	ME - A x 4~6 men
489	489	5.18.8.2.3.	Installation of surface scum skimmers (x1), EQT015	30 days	Oct 19 '23	Nov 17 '23	Jul 14 '24	Aug 12 '24	269 days	487,435		ME - A x 4~6 men
490	490	5.18.8.2.3.	Installation of scum collector pipes (x1), EQT015	30 days	Apr 15 '23	May 14 '23	Jul 14 '24	Aug 12 '24	456 days	438		ME - B x 4~6 men
491	491	5.18.8.2.3.	Installation of piston type primary sludge pumps (x3), EQT016	30 days	Apr 15 '23	May 14 '23	Jul 14 '24	Aug 12 '24	456 days	441		ME - C x 4~6 men
492	492	5.18.8.2.3.	Installation of drain pumps (x1), EQT007	30 days	Apr 15 '23	May 14 '23	Jun 14 '24	Jul 13 '24	0 days	444	493	ME - C x 4~6 men
493	493	5.18.8.2.3.	Installation of air blowers (x2), EQT018	30 days	May 15 '23	Jun 13 '23	Jul 14 '24	Aug 12 '24	426 days	492,447		ME - C x 4~6 men
494	494	5.18.8.2.3.	Installation of instrumentations, EQT035-1	60 days	Sep 2 '23	Oct 31 '23	Jun 14 '24	Aug 12 '24	286 days	52,486FS-100 days		ME - C x 4~6 men
495	495	5.18.8.2.3.	Installation of Platforms, Covers etc., PST, EQT050	60 days	Sep 21 '23	Nov 19 '23	Jun 14 '24	Aug 12 '24	267 days			ME - F x 4~6 men
496	496	5.18.8.2.3.	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	100 days	Sep 2 '23	Dec 10 '23	May 5 '24	Aug 12 '24	246 days	486FS-100 days		ME - D x 2~4 men
497	497	5.18.8.2.4	**Electrical Installations for PST No. 1~4**	**180 days**	**Apr 15 '23**	**Oct 11 '23**	**Mar 2 '24**	**Aug 28 '24**	**322 days**	**473,134**		
498	498	5.18.8.2.4.	Installation of LV Switchboards, PST	60 days	Apr 15 '23	Jun 13 '23	Apr 1 '24	May 30 '24	30 days	460	501	LV - A x 4~6 men
499	499	5.18.8.2.4.	Installation of PLC Panel, PST	60 days	Apr 20 '23	Jun 18 '23	Apr 1 '24	May 30 '24	25 days	471	501	EE - A x 4~6 men
500	500	5.18.8.2.4.	Installation of cable trays and cable containments, PST	90 days	Apr 15 '23	Jul 13 '23	Mar 2 '24	May 30 '24	0 days		501	EE - A x 4~6 men
501	501	5.18.8.2.4.	Cables laying and terminations, PST	90 days	Jul 14 '23	Oct 11 '23	May 31 '24	Aug 28 '24	0 days	498,499,500	503FS-30 days,5	EE - B x 4~6 men
502	502	5.18.8.2.4.	Tentative Civil Handover Date, LV cables draw pits from IW to PST	1 day	Jul 20 '23	Jul 20 '23	Jul 13 '24	Jul 13 '24	24 days		503FF-30 days	
503	503	5.18.8.2.4.	Energisation of LV Switchboards, PST	1 day	Sep 12 '23	Sep 12 '23	Aug 12 '24	Aug 12 '24	335 days	501FS-30 days,502FF-30 da		LV - A x 4~6 men



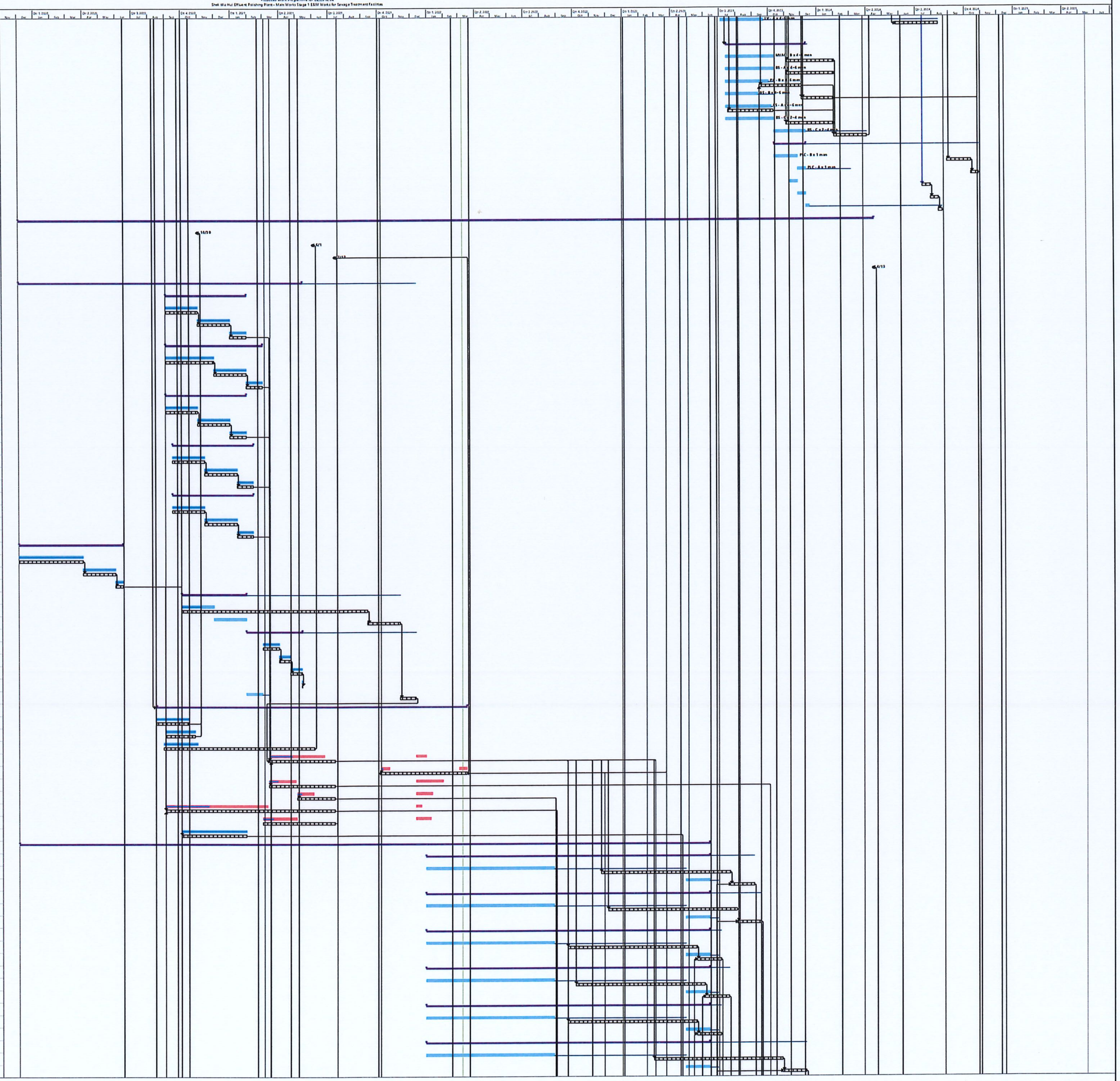
Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Drainage Services Department

Proposed Work Programme for DE/2018/04

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
504	504	5.18.8.2.4	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.	80 days	Jul 4 '23	Sep 21 '23	May 25 '24	Aug 12 '24	326 days	503FS-100 days		LV - A x 4~6 men
505	505	5.18.8.2.5	**Building Services Installations for PST No. 1~4**	**150 days**	**Jul 14 '23**	**Dec 10 '23**	**Jul 18 '23**	**Apr 1 '24**	**4 days**	**473FS+90 days,423,151**		
506	506	5.18.8.2.5.	Mechanical Ventilation and Air Conditioning System, PST	90 days	Jul 14 '23	Oct 11 '23	Nov 4 '23	Feb 1 '24	0 days	462	512	MVAC - B x 4~6 men
507	507	5.18.8.2.5.	Lighting and Power Distribution System, PST	90 days	Jul 14 '23	Oct 11 '23	Nov 4 '23	Feb 1 '24	0 days	463	512	BS - A x 4~6 men
508	508	5.18.8.2.5.	Plumbing Installation, PST	80 days	Jul 14 '23	Oct 1 '23	Sep 15 '23	Dec 3 '23	10 days	1339,464	1341,512	Pb - B x 4~6 men
509	509	5.18.8.2.5.	CCTV Installation (9 indoor + 2 outdoor Cameras), PST	60 days	Jul 14 '23	Sep 11 '23	Dec 4 '23	Feb 1 '24	30 days	473FS-60 days,465	512,1351	BS - B x 4~6 men
510	510	5.18.8.2.5.	Fire Services Installation, PST	85 days	Jul 14 '23	Oct 6 '23	Jul 18 '23	Oct 10 '23	4 days	466	1292,1304,130	FS - A x 4~6 men
511	511	5.18.8.2.5.	Earthing and Lightning Protection System, PST	90 days	Jul 14 '23	Oct 11 '23	Nov 4 '23	Feb 1 '24	0 days	172,467	512	BS - C x 2~4 men
512	512	5.18.8.2.5.	Testing and Commissioning of Building Services Installations, PST	60 days	Oct 12 '23	Dec 10 '23	Feb 2 '24	Apr 1 '24	113 days	506,507,508,509,510,511	387FF	BS - C x 2~4 men
513	513	5.18.8.2.6	**SCADA Systems, PST No. 1~4**	**60 days**	**Oct 12 '23**	**Dec 10 '23**	**Aug 29 '24**	**Oct 27 '24**	**322 days**			
514	514	5.18.8.2.6.	Configuration of PLC System	45 days	Oct 12 '23	Nov 25 '23	Aug 29 '24	Oct 12 '24	0 days	501	515	PLC - B x 1 man
515	515	5.18.8.2.6.	Site Acceptance Test for PLC System at PST No. 1~4	15 days	Nov 26 '23	Dec 10 '23	Oct 13 '24	Oct 27 '24	84 days	514	1352	PLC - A x 1 man
516	516	5.18.8.3	Site Acceptance Test for E&M Equip and Instrumentations calibrations at PST No. 1~4	15 edays	Nov 11 '23	Nov 26 '23	Jul 14 '24	Jul 29 '24	0 edays	474FS-30 days	517	
517	517	5.18.8.4	System Commissioning for E&M Equip at PST No. 1~4	15 days	Nov 26 '23	Dec 10 '23	Jul 29 '24	Aug 12 '24	0 days	516	518	
518	518	5.18.8.5	Risk Allowances for Completion of Processing Plant at PST No. 1~4	7 edays	Dec 10 '23	Dec 17 '23	Aug 13 '24	Aug 20 '24	246.63 edays	517	1348	
519	519	5.19	**Bioreactors No. 2A & 2B & DOU2A, Portion B-4 (PS 6B2.4)**	**1595 days?**	**Dec 2 '19**	**Apr 13 '24**	**Dec 2 '19**	**Apr 13 '24**	**0 days?**			
520	520	5.19.1	Planned Key Date Completion Date - KD1A, BR 2A & 2B & DOU2A	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	559FF,560FF		
521	521	5.19.2	Planned Key Date Completion Date - KD1B, BR 2A & 2B & DOU2A	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	561FF		
522	522	5.19.3	Planned Sectional Completion Date - Section 1, BR 2A & 2B & DOU2A	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	562FF,563FF,564FF,565FF,5(		
523	523	5.19.4	Planned Sectional Completion Date - Section 2, BR 2A & 2B & DOU2A	0 days	Apr 13 '24	Apr 13 '24	Apr 13 '24	Apr 13 '24	0 days	645FF,646FF,650FF		
524	524	5.19.5	**Selection of Suppliers for major plant and materials for BR 2A & 2B & DOU2A**	**528 days**	**Dec 2 '19**	**May 12 '21**	**Dec 2 '19**	**Dec 10 '21**	**212 days**			
525	525	5.19.5.1	BR - pre-treatment fine screens (Marking Scheme Approach), EQT019	150 days	Sep 1 '20	Jan 28 '21	Sep 1 '20	Jan 28 '21	0 days			
526	526	5.19.5.1.1	Submission for acceptance of purchasing package	60 days	Sep 1 '20	Oct 30 '20	Sep 1 '20	Oct 30 '20	0 days		527	
527	527	5.19.5.1.2	Invitation of quotations for purchasing package	60 days	Oct 31 '20	Dec 29 '20	Oct 31 '20	Dec 29 '20	0 days	526	528	
528	528	5.19.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Dec 30 '20	Jan 28 '21	Dec 30 '20	Jan 28 '21	0 days	527	562	
529	529	5.19.5.2	BR - air diffusion system (Marking Scheme Approach), EQT017	180 days	Sep 1 '20	Feb 27 '21	Sep 1 '20	Feb 27 '21	0 days			
530	530	5.19.5.2.1	Submission for acceptance of purchasing package including proposed marking scheme	90 days	Sep 1 '20	Nov 29 '20	Sep 1 '20	Nov 29 '20	0 days		531	
531	531	5.19.5.2.2	Invitation of quotations for purchasing package	60 days	Nov 30 '20	Jan 28 '21	Nov 30 '20	Jan 28 '21	0 days	530	532	
532	532	5.19.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Jan 29 '21	Feb 27 '21	Jan 29 '21	Feb 27 '21	0 days	531	562	
533	533	5.19.5.3	BR - submersible mixers, C11, EQT020	150 days	Sep 1 '20	Jan 28 '21	Sep 1 '20	Jan 28 '21	0 days			
534	534	5.19.5.3.1	Submission for acceptance of purchasing package	60 days	Sep 1 '20	Oct 30 '20	Sep 1 '20	Oct 30 '20	0 days		535	
535	535	5.19.5.3.2	Invitation of quotations for purchasing package	60 days	Oct 31 '20	Dec 29 '20	Oct 31 '20	Dec 29 '20	0 days	534	536	
536	536	5.19.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Dec 30 '20	Jan 28 '21	Dec 30 '20	Jan 28 '21	0 days	535	562	
537	537	5.19.5.4	BR - mixed liquor return pumps, C11, EQT008	150 days	Sep 14 '20	Feb 10 '21	Sep 14 '20	Feb 10 '21	0 days			
538	538	5.19.5.4.1	Submission for acceptance of purchasing package	60 days	Sep 14 '20	Nov 12 '20	Sep 14 '20	Nov 12 '20	0 days		539	
539	539	5.19.5.4.2	Invitation of quotations for purchasing package	60 days	Nov 13 '20	Jan 11 '21	Nov 13 '20	Jan 11 '21	0 days	538	540	
540	540	5.19.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Jan 12 '21	Feb 10 '21	Jan 12 '21	Feb 10 '21	0 days	539	562	
541	541	5.19.5.5	BR - scum removal systems, C11, EQT021, EQT022	150 days	Sep 14 '20	Feb 10 '21	Sep 14 '20	Feb 10 '21	0 days			
542	542	5.19.5.5.1	Submission for acceptance of purchasing package	60 days	Sep 14 '20	Nov 12 '20	Sep 14 '20	Nov 12 '20	0 days		543	
543	543	5.19.5.5.2	Invitation of quotations for purchasing package	60 days	Nov 13 '20	Jan 11 '21	Nov 13 '20	Jan 11 '21	0 days	542	544	
544	544	5.19.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Jan 12 '21	Feb 10 '21	Jan 12 '21	Feb 10 '21	0 days	543	562	
545	545	5.19.5.6	DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. EQT028	194 days	Dec 2 '19	Jun 12 '20	Dec 2 '19	Jun 12 '20	0 days			
546	546	5.19.5.6.1	Submission for acceptance of purchasing package	120 days	Dec 2 '19	Mar 30 '20	Dec 2 '19	Mar 30 '20	0 days		547	
547	547	5.19.5.6.2	Invitation of quotations for purchasing package	60 days	Mar 31 '20	May 29 '20	Mar 31 '20	May 29 '20	0 days	546	548	
548	548	5.19.5.6.3	Acceptance of conforming quotation (Completed)	14 days	May 30 '20	Jun 12 '20	May 30 '20	Jun 12 '20	0 days	547	566,722	
549	549	5.19.5.7	BR - Instrumentations, C11, EQT035-2	120 days	Oct 1 '20	Jan 28 '21	Oct 1 '20	Nov 10 '21	285 days			
550	550	5.19.5.7.1	Submission for acceptance of purchasing package	60 days	Oct 1 '20	Nov 29 '20	Oct 1 '20	Sep 11 '21	0 days		551	
551	551	5.19.5.7.2	Invitation of quotations for purchasing package	60 days	Nov 30 '20	Jan 28 '21	Sep 12 '21	Nov 10 '21	0 days	550	557	
552	552	5.19.5.8	PV System (EQT041)	104 days	Jan 29 '21	May 12 '21	Mar 1 '21	Dec 10 '21	212 days			
553	553	5.19.5.8.1	Submission for acceptance of purchasing package	30 days	Mar 1 '21	Mar 30 '21	Mar 1 '21	Mar 30 '21	0 days		554	
554	554	5.19.5.8.2	Invitation of quotations for purchasing package	21 days	Mar 31 '21	Apr 20 '21	Mar 31 '21	Apr 20 '21	0 days	553	555	
555	555	5.19.5.8.3	Acceptance of conforming quotation	21 days	Apr 21 '21	May 11 '21	Apr 21 '21	May 11 '21	0 days	554	556	
556	556	5.19.5.8.4	Commencement of Design Work	1 day	May 12 '21	May 12 '21	May 12 '21	May 12 '21	0 days	555		
557	557	5.19.5.8.5	Acceptance of conforming quotation	30 days	Jan 29 '21	Feb 27 '21	Nov 11 '21	Dec 10 '21	13 days	551	562	
558	558	5.19.6	**Design Submissions for BR 2A & 2B**	**578 days**	**Aug 15 '20**	**Mar 15 '22**	**Aug 15 '20**	**Mar 15 '22**	**0 days**	**114**		
559	559	5.19.6.1	Electrical schematic drawings for BR No. 2A & 2B	60 days	Aug 15 '20	Oct 13 '20	Aug 15 '20	Oct 13 '20	0 days		520FF	
560	560	5.19.6.2	CDS080-3 - Civil and dimensional requirements drawings for BR 2A&2B up to +8.0 mPD	55 days	Sep 1 '20	Oct 25 '20	Sep 1 '20	Oct 25 '20	0 days		520FF	
561	561	5.19.6.3	CDS081-3 - Civil and dimensional requirements drawings for BR 2A & 2B	231 days	Aug 28 '20	Jun 4 '21	Aug 28 '20	Jun 4 '21	0 days		521FF	
562	562	5.19.6.4	CDS004 - Detailed Design for Bioreactor 2A and 2B	291 edays	Mar 12 '21	Dec 28 '21	Mar 12 '21	Jul 12 '21	0 edays	528,532,536,540,544,557,7(	571,574,577,58	
563	563	5.19.6.5	CDS023 - Detailed Design for Electrical Installations for BR No. 2A & 2B	159.38 edays	Oct 7 '21	Mar 15 '22	Oct 7 '21	Mar 15 '22	0 edays	75,85,93,138FF,101,97	76,522FF,804	
564	564	5.19.6.6	CDS034-3 - Detailed Design for Electrical Installations BS at BR No. 2A & 2B	323.38 edays	Mar 12 '21	Jan 29 '22	Mar 12 '21	Jul 12 '21	0 edays	144	522FF,640,641	
565	565	5.19.6.7	CDS025-3 - Detailed Design for LV Switchboards for BR 2A and 2B	251 edays	May 3 '21	Jan 9 '22	May 3 '21	Jul 12 '21	0 edays	71	790,522FF	
566	566	5.19.6.8	CDS007-2 - Detailed Design for Deodorisation System, DOU No. 2A	475.38 edays	Sep 1 '20	Dec 20 '21	Sep 1 '20	Jul 12 '21	0 edays	548,706	522FF,598,601	
567	567	5.19.6.9	CDS041 - Detailed Design for MVAC System	311.38 edays	Mar 1 '21	Jan 6 '22	Mar 1 '21	Jul 12 '21	0 edays		194FF	
568	568	5.19.6.10	CDS050-3 - Detailed Design for Lifting Appliances - BR 2A & 2B	120 edays	Oct 1 '20	Jan 29 '21	Oct 1 '20	Jan 29 '21	0 edays	124	615,522FF	
569	569	5.19.7	**Manufacturing and Delivery of Plant & Materials**	**1287 days?**	**Dec 2 '19**	**Jun 10 '23**	**Dec 2 '19**	**Dec 31 '23**	**0 days?**			
570	570	5.19.7.1	**Pre-treatment Fine Screens, EQT019**	**529 days**	**Dec 29 '21**	**Jun 10 '23**	**Nov 21 '22**	**Sep 1 '23**	**83 days**			
571	571	5.19.7.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Nov 21 '22	Jul 18 '23	244 days	562	572	
572	572	5.19.7.1.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	Jul 19 '23	Sep 1 '23	16 days	571,618SS-60 edays	630	
573	573	5.19.7.2	**Air Diffusion System, EQT017**	**529 days**	**Dec 29 '21**	**Jun 10 '23**	**Dec 4 '22**	**Sep 14 '23**	**96 days**			
574	574	5.19.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Dec 4 '22	Jul 31 '23	244 days	562	575	
575	575	5.19.7.2.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	Aug 1 '23	Sep 14 '23	15 days	574,618SS-60 edays	631	
576	576	5.19.7.3	**Submersible Mixer, EQT020**	**529 days**	**Dec 29 '21**	**Jun 10 '23**	**Sep 20 '22**	**Jul 1 '23**	**21 days**			
577	577	5.19.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Sep 20 '22	May 17 '23	244 days	562	578	
578	578	5.19.7.3.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	May 18 '23	Jul 1 '23	16 days	577,618SS-60 edays	632	
579	579	5.19.7.4	**Mixed Liquor Return Pumps, EQT008**	**529 days**	**Dec 29 '21**	**Jun 10 '23**	**Oct 5 '22**	**Jul 16 '23**	**36 days**			
580	580	5.19.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Oct 5 '22	Jun 1 '23	244 days	562	581	
581	581	5.19.7.4.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	Jun 2 '23	Jul 16 '23	16 days	580,618SS-60 edays	633	
582	582	5.19.7.5	**Scum Removal System, EQT021, EQT022**	**529 days**	**Dec 29 '21**	**Jun 10 '23**	**Sep 20 '22**	**Jul 1 '23**	**21 days**			
583	583	5.19.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Sep 20 '22	May 17 '23	244 days	562	584	
584	584	5.19.7.5.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	May 18 '23	Jul 1 '23	16 days	583,618SS-60 edays	634	
585	585	5.19.7.6	**Instrumentations, EQT035-2**	**529 days**	**Dec 29 '21**	**Jun 10 '23**	**Feb 27 '23**	**Dec 8 '23**	**181 days**			
586	586	5.19.7.6.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Feb 27 '23	Oct 24 '23	244 days	562	587	
587	587	5.19.7.6.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	Oct 25 '23	Dec 8 '23	16 days	586,618SS-60 edays	638	

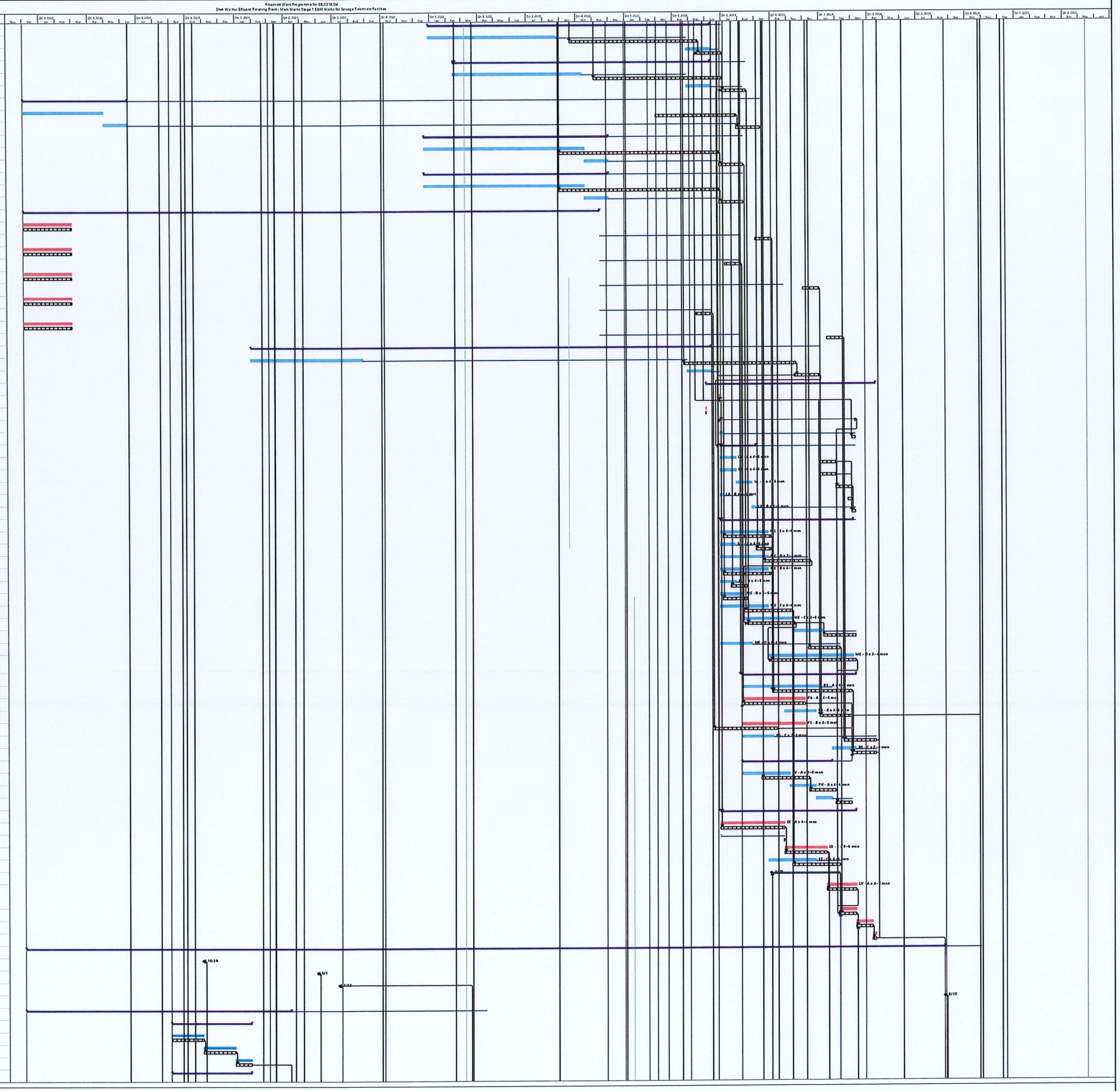


Project: DE/2018/04
Date: Mar 8 '22

Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
588	588	5.19.7.7	**Stoplogs and Penstocks, EQT013**	529 days	Dec 29 '21	Jun 10 '23	Sep 20 '22	Jul 1 '23	21 days			
589	589	5.19.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 29 '21	Aug 25 '22	Sep 20 '22	May 17 '23	244 days	562	590	
590	590	5.19.7.7.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	May 18 '23	Jul 1 '23	16 days	589,618SS-60 edays	629	
591	591	5.19.7.8	**Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)**	482 days	Feb 14 '22	Jun 10 '23	Nov 4 '22	Aug 15 '23	66 days	56,63,59		
592	592	5.19.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Feb 14 '22	Oct 11 '22	Nov 4 '22	Jul 1 '23	197 days	562	593	
593	593	5.19.7.8.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	Jul 2 '23	Aug 15 '23	61 days	592,618SS-60 edays	636	
594	594	5.19.7.9	**Photovoltaic Power System**	195 days	Dec 2 '19	Jun 13 '20	Mar 1 '23	Sep 11 '23	1185 days			
595	595	5.19.7.9.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Dec 2 '19	Apr 29 '20	Mar 1 '23	Jul 28 '23	0 days		596	
596	596	5.19.7.9.2	Shipping and Delivery of Plant to site	45 days	Apr 30 '20	Jun 13 '20	Jul 29 '23	Sep 11 '23	1148 days	595	648	
597	597	5.19.7.10	**DOU 2A**	345 days	Dec 21 '21	Nov 30 '22	Aug 31 '22	Aug 10 '23	253 days			
598	598	5.19.7.10.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 21 '21	Oct 16 '22	Aug 31 '22	Jun 26 '23	0 days	566	599	
599	599	5.19.7.10.2	Shipping and Delivery of Plant to site	45 days	Oct 17 '22	Nov 30 '22	Jun 27 '23	Aug 10 '23	208 days	598	635	
600	600	5.19.7.11	**FRP Air Ductwork for DOU2A**	345 days	Dec 21 '21	Nov 30 '22	Aug 31 '22	Aug 10 '23	253 days			
601	601	5.19.7.11.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 21 '21	Oct 16 '22	Aug 31 '22	Jun 26 '23	0 days	566	602	
602	602	5.19.7.11.2	Shipping and Delivery of Plant to site	45 days	Oct 17 '22	Nov 30 '22	Jun 27 '23	Aug 10 '23	208 days	601	615	
603	603	5.19.7.12	**Building Services**	1078 days?	Dec 2 '19	Nov 13 '22	Dec 2 '19	Nov 13 '22	0 days?			
604	604	5.19.7.12.1	Manufacturing and FAT for Lighting and Power Distribution System Equipment	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
605	605	5.19.7.12.2	Shipping and Delivery for Lighting and Power Distribution System Equipment	30 days	Oct 15 '22	Nov 13 '22	Sep 2 '23	Oct 2 '23	265 days		641	
606	606	5.19.7.12.3	Manufacturing and FAT for Plumbing Equipment	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
607	607	5.19.7.12.4	Shipping and Delivery for Plumbing Equipment	30 days	Oct 15 '22	Nov 13 '22	Jul 7 '23	Aug 6 '23	265 days		642	
608	608	5.19.7.12.5	Manufacturing and FAT for CCTV Equipment	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
609	609	5.19.7.12.6	Shipping and Delivery for CCTV Equipment (7 indoor + 2 outdoor Cameras)	30 days	Oct 15 '22	Nov 13 '22	Dec 1 '23	Dec 31 '23	345 days		643	
610	610	5.19.7.12.7	Manufacturing and FAT for Fire Services Equipment	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
611	611	5.19.7.12.8	Shipping and Delivery for Fire Services Equipment	30 days	Oct 15 '22	Nov 13 '22	May 14 '23	Jun 13 '23	211 days		644	
612	612	5.19.7.12.9	Manufacturing and FAT for Earthing and Lightning Protection System Equipment	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
613	613	5.19.7.12.1	Shipping and Delivery for Earthing and Lightning Protection System Equipment	30 days	Oct 15 '22	Nov 13 '22	Jan 15 '24	Feb 14 '24	265 days		645	
614	614	5.19.7.13	**Lifting Appliances**	863 days	Jan 29 '21	Jun 10 '23	Apr 21 '23	Dec 31 '23	204 days			
615	615	5.19.7.13.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Jan 29 '21	Aug 26 '21	Apr 21 '23	Nov 16 '23	608 days	568	616	
616	616	5.19.7.13.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	Nov 17 '23	Dec 31 '23	16 days	615,618SS-60 edays	622	
617	617	5.19.8	**Site Installation Work**	318 days?	Jun 1 '23	Apr 13 '24	Jun 1 '23	Apr 13 '24	0 days?			
618	618	5.19.8.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B & DOU2A (Rev. 5)	1 day	Jun 26 '23	Jun 26 '23	Jun 26 '23	Jun 26 '23	0 days	12	622,628,651,65 edays,572SS-60	
619	619	5.19.8.2	Tentative Civil Handover Date, LV cables draw pits from MFB2 to BR2	1 day	Jun 1 '23	Jun 1 '23	Jun 1 '23	Jun 1 '23	0 days			
620	620	5.19.8.3	**Commencement of E&M Installation at Bioreactor No. 2A & 2B**	255 days?	Jun 26 '23	Mar 7 '24	Jun 26 '23	Apr 13 '24	0 days?	618	658FS-30 days	
621	621	5.19.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc., BR 2A&2B	7 days	Jun 27 '23	Jul 3 '23	Mar 1 '24	Mar 7 '24	248 days	618		
622	622	5.19.8.3.2	**Installation of Lifting Appliances at BR 2A & 2B**	67 days	Jun 27 '23	Sep 1 '23	Jan 1 '24	Mar 7 '24	188 days	618,616		
623	623	5.19.8.3.2.	Coping Level EOT Crane LA-03-01 SWL 5t	30 days	Jun 27 '23	Jul 26 '23	Jan 1 '24	Jan 30 '24	0 days		625,627	LA - A x 4~6 men
624	624	5.19.8.3.2.	Coping Level EOT Crane LA-03-02 SWL 5t	30 days	Jun 27 '23	Jul 26 '23	Jan 1 '24	Jan 30 '24	0 days		625,627	LA - B x 4~6 men
625	625	5.19.8.3.2.	Coping Level EOT Crane LA-03-03 SWL 5t	30 days	Jul 27 '23	Aug 25 '23	Jan 31 '24	Feb 29 '24	0 days	623,624	627	LA - A x 4~6 men
626	626	5.19.8.3.2.	Coping Level Mobile A-frame LA-03-04 SWL 4t	7 days	Jun 27 '23	Jul 3 '23	Feb 23 '24	Feb 29 '24	53 days		627	LA - B x 4~6 men
627	627	5.19.8.3.2.	T&C, Loading Test for Lifting Appliances at Bioreactor No. 2A & 2B	7 days	Aug 26 '23	Sep 1 '23	Mar 1 '24	Mar 7 '24	188 days	623,624,625,626		LA - B x 4~6 men
628	628	5.19.8.3.3	**Mechanical Installations for E&M Equip at BR 2A & 2B**	250 days	Jun 26 '23	Mar 2 '24	Jul 2 '23	Mar 7 '24	5 days	618,129		
629	629	5.19.8.3.3.	Installation of penstocks and stoplogs (Penstocks 8nos, Stoplogs 8nos), EQT013	90 days	Jun 27 '23	Sep 24 '23	Jul 2 '23	Sep 29 '23	0 days	590	639	ME - E x 4~6 men
630	630	5.19.8.3.3.	Installation of pre-treatment fine screens (x4) and wash compactor (x4)	28 days	Jun 27 '23	Jul 24 '23	Sep 2 '23	Sep 29 '23	62 days	572	639	ME - A x 4~6 men
631	631	5.19.8.3.3.	Installation of air diffusion system (x2), EQT017	90 days	Jun 27 '23	Sep 24 '23	Sep 15 '23	Dec 13 '23	75 days	575	638FS-120 days	ME - D x 2~4 men
632	632	5.19.8.3.3.	Installation of submersible mixers (x16), EQT020	90 days	Jun 27 '23	Sep 24 '23	Jul 2 '23	Sep 29 '23	0 days	578	639	ME - B x 4~6 men
633	633	5.19.8.3.3.	Installation of mixed liquor return pumps (x6), EQT008	30 days	Jun 27 '23	Jul 26 '23	Jul 17 '23	Aug 15 '23	15 days	581	636	ME - A x 4~6 men
634	634	5.19.8.3.3.	Installation of scum removal systems (x2), EQT022	45 days	Jun 27 '23	Aug 10 '23	Jul 2 '23	Aug 15 '23	0 days	584	636	ME - B x 4~6 men
635	635	5.19.8.3.3.	Mechanical Installations for DOU 2A	90 edays	Jun 26 '23	Sep 24 '23	Aug 11 '23	Nov 9 '23	0 edays	599,602	655	ME - F x 4~6 men
636	636	5.19.8.3.3.	Installation of pipework and valves, EQT036	90 days	Aug 11 '23	Nov 8 '23	Aug 16 '23	Nov 13 '23	0 days	593,631FS-120 days,633,634	639FS-45 days,(	ME - C x 4~6 men
637	637	5.19.8.3.3.	Installation of FRP covers, walkways, platforms and ladders, EQT050 (Rev 18)	60 days	Nov 9 '23	Jan 7 '24	Jan 8 '24	Mar 7 '24	60 days	636		
638	638	5.19.8.3.3.	Installation of instrumentations, EQT035-2	60 days	Jun 27 '23	Aug 25 '23	Dec 9 '23	Feb 6 '24	165 days	587	658	ME - D x 2~4 men
639	639	5.19.8.3.3.	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	160 days	Sep 25 '23	Mar 2 '24	Sep 30 '23	Mar 7 '24	0 days	629,630,636FS-45 days,632	658FS-30 days	ME - D x 2~4 men
640	640	5.19.8.3.4	**Building Services Installations for BR 2A & 2B**	215 days	Aug 6 '23	Mar 7 '24	Jun 13 '23	Apr 13 '24	0 days	618FS+40 days,564,151		
641	641	5.19.8.3.4.	Lighting and Power Distribution System, BR2	150 days	Aug 6 '23	Jan 2 '24	Oct 2 '23	Feb 28 '24	20 days	564,605	646	BS - A x 4~6 men
642	642	5.19.8.3.4.	Plumbing installation, BR2	120 days	Aug 6 '23	Dec 3 '23	Aug 6 '23	Dec 3 '23	0 days	1319,607	1341,646	Pb - A x 4~6 men
643	643	5.19.8.3.4.	CCTV Installation (7 indoor + 2 outdoor Cameras), BR2	60 days	Oct 25 '23	Dec 23 '23	Dec 31 '23	Feb 28 '24	0 days	618FS+120 days,609	646,1351	BS - B x 4~6 men
644	644	5.19.8.3.4.	Fire Services Installation, BR2	120 days	Aug 6 '23	Dec 3 '23	Jun 13 '23	Oct 10 '23	0 days	611	1292,1304,130	FS - B x 4~6 men
645	645	5.19.8.3.4.	Lightning Protection System, BR2	60 days	Aug 6 '23	Oct 4 '23	Feb 14 '24	Apr 13 '24	192 days	172,613	523FF	BS - C x 2~4 men
646	646	5.19.8.3.4.	Testing and Commissioning of Building Services Installations, BR2	45 days	Jan 23 '24	Mar 7 '24	Feb 29 '24	Apr 13 '24	37 days	641,642,643,644,647	523FF	BS - C x 2~4 men
647	647	5.19.8.3.4.	Photovoltaic Power System (PS 6B 6.11)	170 days	Aug 6 '23	Jan 22 '24	Sep 12 '23	Feb 28 '24	0 days		646	
648	648	5.19.8.3.4.	Commencement of Site Installation Work	90 days	Aug 6 '23	Nov 3 '23	Sep 12 '23	Dec 10 '23	0 days	596	649	PV - A x 4~6 men
649	649	5.19.8.3.4.	Technical Assessment, System Test and Installation	50 days	Nov 4 '23	Dec 23 '23	Dec 11 '23	Jan 29 '24	0 days	648	650	PV - A x 4~6 men
650	650	5.19.8.3.4.	CLP's smart meter installation and Final on-grid test with CLP	30 days	Dec 24 '23	Jan 22 '24	Jan 30 '24	Feb 28 '24	37 days	649		
651	651	5.19.8.3.5	**Electrical Installations for E&M Equip at BR 2A & 2B**	255 days?	Jun 27 '23	Mar 7 '24	Jun 27 '23	Mar 7 '24	0 days?	618,134		
652	652	5.19.8.3.5.	Installation of cable trays and cable containments	120 days	Jun 27 '23	Oct 24 '23	Jun 27 '23	Oct 24 '23	0 days	618	654	EE - A x 4~6 men
653	653	5.19.8.3.5.	Tentative Civil Handover Date LV cable draw pits from MFB No.2 to BR2A2B	1 day?	Jun 27 '23	Jun 27 '23	Oct 24 '23	Oct 24 '23	119 days?		654	
654	654	5.19.8.3.5.	Cables laying and terminations	80 days	Oct 25 '23	Jan 12 '24	Oct 25 '23	Jan 12 '24	0 days	652,653	657,901	EE - C x 4~6 men
655	655	5.19.8.3.5.	Electrical Installations for DOU 2A	90 edays	Sep 24 '23	Dec 23 '23	Nov 9 '23	Feb 7 '24	45.63 edays	635	658	EE - C x 4~6 men
656	656	5.19.8.3.5.	Energisation of LV Switchboards, BR2	1 day	Sep 29 '23	Sep 29 '23	Feb 6 '24	Feb 6 '24	130 days	897	658	LV - A x 4~6 men
657	657	5.19.8.3.5.	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.	55 days	Jan 13 '24	Mar 7 '24	Jan 13 '24	Mar 7 '24	0 days	654	658FS-30 days	LV - A x 4~6 men
658	658	5.19.8.4	Site Acceptance Test for E&M Equip at BR 2A & 2B & DOU2A	30 edays	Feb 7 '24	Mar 8 '24	Feb 7 '24	Mar 8 '24	0 edays	638,639FS-30 days,656,620FS	659	
659	659	5.19.8.5	System Commissioning for E&M Equip at BR 2A & 2B & DOU2A	30 days	Mar 8 '24	Apr 6 '24	Mar 8 '24	Apr 6 '24	0 days	658,903	660	
660	660	5.19.8.6	Risk Allowances for Completion of Processing Plant at BR 2A & 2B	7 edays	Apr 6 '24	Apr 13 '24	Apr 6 '24	Apr 13 '24	0 edays	659	1348,523FF	
661	661	5.20	**Membrane Facilities Building & DOU3B, Portion B-5 (PS 6B 2.4)**	1723 days?	Dec 2 '19	Aug 19 '24	Dec 2 '19	Oct 27 '24	69 days?			
662	662	5.20.1	Planned Key Date Completion Date - KD1A, MFB No. 2	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	719FF,717FF		
663	663	5.20.2	Planned Key Date Completion Date - KD1B, MFB No. 2 & DOU3B	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	719FF		
664	664	5.20.3	Planned Sectional Completion Date - Section 1, MFB No. 2 & DOU3B	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	719FF,720FF,721FF,723FF,7		
665	665	5.20.4	Planned Sectional Completion Date - Section 2, MFB No. 2 & DOU3B	0 days	Aug 19 '24	Aug 19 '24	Aug 19 '24	Aug 19 '24	0 days	915FF		
666	666	5.20.5	**Selection of Suppliers for major plant and materials for MFB**	498 days	Dec 2 '19	Apr 12 '21	Dec 2 '19	Apr 14 '22	367 days			
667	667	5.20.5.1	MFS - hollow fibre membrane modules (Marking Scheme Approach), ref. EQT023	150 days	Sep 1 '20	Jan 28 '21	Sep 1 '20	Jan 28 '21	0 days			
668	668	5.20.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Sep 1 '20	Oct 30 '20	Sep 1 '20	Oct 30 '20	0 days		669	
669	669	5.20.5.1.2	Invitation of quotations for purchasing package	60 days	Oct 31 '20	Dec 29 '20	Oct 31 '20	Dec 29 '20	0 days	668	670	
670	670	5.20.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Dec 30 '20	Jan 28 '21	Dec 30 '20	Jan 28 '21	0 days	669	719	
671	671	5.20.5.2	MFS - air scour blowers, C11, ref. EQT040	150 days	Sep 1 '20	Jan 28 '21	Sep 1 '20	Jan 28 '21	0 days			



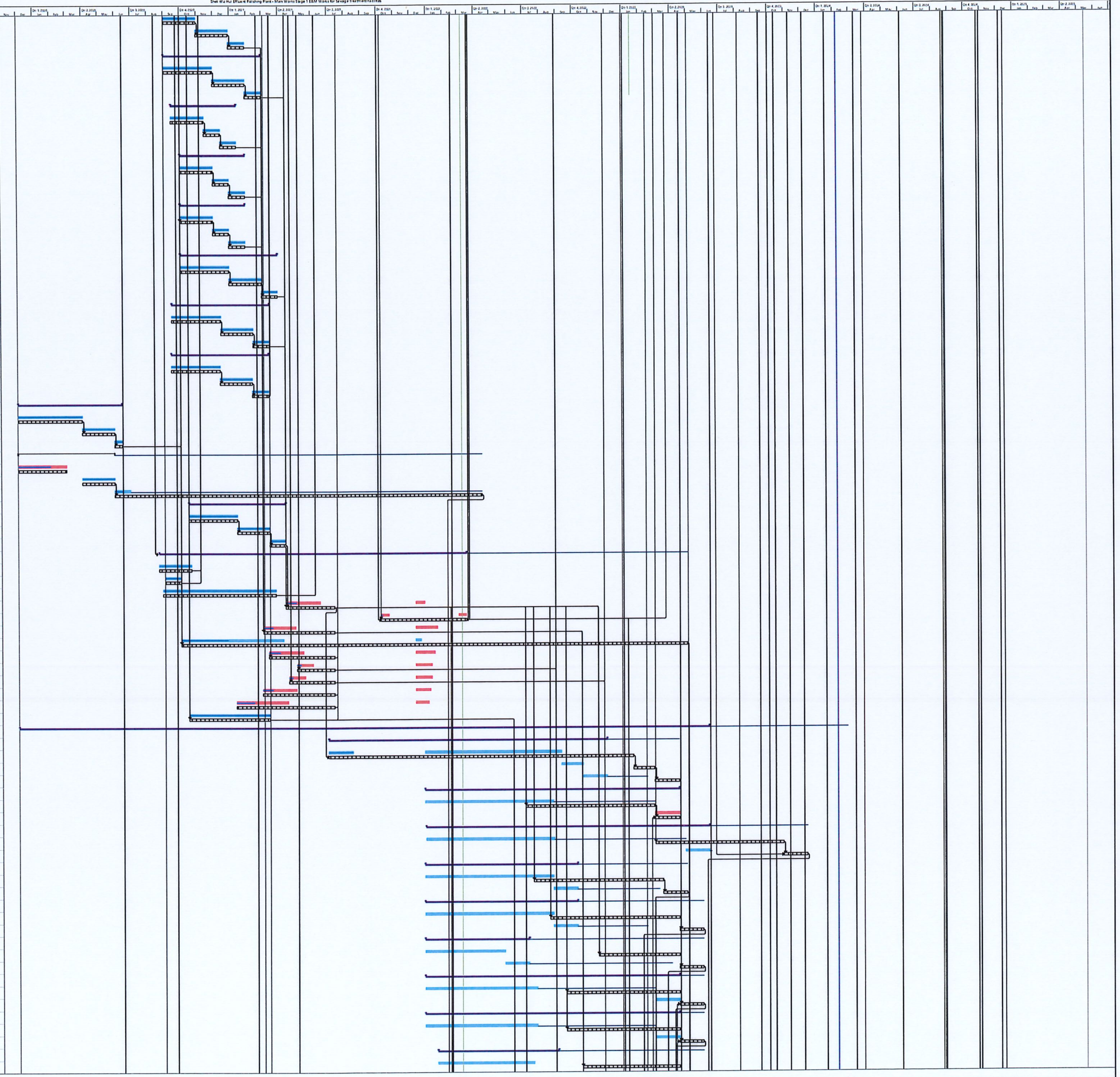
Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Project: DE/2018/04
Date: Mar 8 '22

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
672	672	5.20.5.2.1	Submission for acceptance of purchasing package	60 days	Sep 1 '20	Oct 30 '20	Sep 1 '20	Oct 30 '20	0 days		673	
673	673	5.20.5.2.2	Invitation of quotations for purchasing package	60 days	Oct 31 '20	Dec 29 '20	Oct 31 '20	Dec 29 '20	0 days	672	674	
674	674	5.20.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Dec 30 '20	Jan 28 '21	Dec 30 '20	Jan 28 '21	0 days	673	721	
675	675	5.20.5.3	MFS - permeate pumps, C11, ref. EQT024	180 days	Sep 1 '20	Feb 27 '21	Sep 1 '20	Feb 27 '21	0 days			
676	676	5.20.5.3.1	Submission for acceptance of purchasing package	90 days	Sep 1 '20	Nov 29 '20	Sep 1 '20	Nov 29 '20	0 days		677	
677	677	5.20.5.3.2	Invitation of quotations for purchasing package	60 days	Nov 30 '20	Jan 28 '21	Nov 30 '20	Jan 28 '21	0 days	676	678	
678	678	5.20.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Jan 29 '21	Feb 27 '21	Jan 29 '21	Feb 27 '21	0 days	677	719	
679	679	5.20.5.4	MFS - compressed air system, C11, ref. EQT029	120 days	Sep 15 '20	Jan 12 '21	Sep 15 '20	Jan 12 '21	0 days			
680	680	5.20.5.4.1	Submission for acceptance of purchasing package	60 days	Sep 15 '20	Nov 13 '20	Sep 15 '20	Nov 13 '20	0 days		681	
681	681	5.20.5.4.2	Invitation of quotations for purchasing package	30 days	Nov 14 '20	Dec 13 '20	Nov 14 '20	Dec 13 '20	0 days	680	682	
682	682	5.20.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Dec 14 '20	Jan 12 '21	Dec 14 '20	Jan 12 '21	0 days	681	721	
683	683	5.20.5.5	MFS - chemical storage tanks, C11, ref. EQT091	120 days	Oct 1 '20	Jan 28 '21	Oct 1 '20	Jan 28 '21	0 days			
684	684	5.20.5.5.1	Submission for acceptance of purchasing package	60 days	Oct 1 '20	Nov 29 '20	Oct 1 '20	Nov 29 '20	0 days		685	
685	685	5.20.5.5.2	Invitation of quotations for purchasing package	30 days	Nov 30 '20	Dec 29 '20	Nov 30 '20	Dec 29 '20	0 days	684	686	
686	686	5.20.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Dec 30 '20	Jan 28 '21	Dec 30 '20	Jan 28 '21	0 days	685	721	
687	687	5.20.5.6	MFS - chemical dosing & transfer pumps, C11, ref. EQT090	120 days	Oct 1 '20	Jan 28 '21	Oct 1 '20	Jan 28 '21	0 days			
688	688	5.20.5.6.1	Submission for acceptance of purchasing package	60 days	Oct 1 '20	Nov 29 '20	Oct 1 '20	Nov 29 '20	0 days	2,30	689	
689	689	5.20.5.6.2	Invitation of quotations for purchasing package	30 days	Nov 30 '20	Dec 29 '20	Nov 30 '20	Dec 29 '20	0 days	688	690	
690	690	5.20.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Dec 30 '20	Jan 28 '21	Dec 30 '20	Jan 28 '21	0 days	689	721	
691	691	5.20.5.7	MFS - return activated sludge pumps (Marking Scheme Approach), ref. EQT010	180 days	Oct 1 '20	Mar 29 '21	Oct 1 '20	Mar 29 '21	0 days			
692	692	5.20.5.7.1	Submission for acceptance of purchasing package	90 days	Oct 1 '20	Dec 29 '20	Oct 1 '20	Dec 29 '20	0 days		693	
693	693	5.20.5.7.2	Invitation of quotations for purchasing package	60 days	Dec 30 '20	Feb 27 '21	Dec 30 '20	Feb 27 '21	0 days	692	694	
694	694	5.20.5.7.3	Acceptance of conforming quotation (Completed)	30 days	Feb 28 '21	Mar 29 '21	Feb 28 '21	Mar 29 '21	0 days	693	719	
695	695	5.20.5.8	MFS - membrane tank drain pumps, C11, ref. EQT009	180 days	Sep 15 '20	Mar 13 '21	Sep 15 '20	Mar 13 '21	0 days			
696	696	5.20.5.8.1	Submission for acceptance of purchasing package	90 days	Sep 15 '20	Dec 13 '20	Sep 15 '20	Dec 13 '20	0 days		697	
697	697	5.20.5.8.2	Invitation of quotations for purchasing package	60 days	Dec 14 '20	Feb 11 '21	Dec 14 '20	Feb 11 '21	0 days	696	698	
698	698	5.20.5.8.3	Acceptance of conforming quotation (Completed)	30 days	Feb 12 '21	Mar 13 '21	Feb 12 '21	Mar 13 '21	0 days	697	719	
699	699	5.20.5.9	ER - aeration blowers (Marking Scheme Approach), EQT039	180 days	Sep 14 '20	Mar 12 '21	Sep 14 '20	Mar 12 '21	0 days			
700	700	5.20.5.9.1	Submission for acceptance of purchasing package including proposed marking scheme	90 days	Sep 14 '20	Dec 12 '20	Sep 14 '20	Dec 12 '20	0 days		701	
701	701	5.20.5.9.2	Invitation of quotations for purchasing package	60 days	Dec 13 '20	Feb 10 '21	Dec 13 '20	Feb 10 '21	0 days	700	702	
702	702	5.20.5.9.3	Acceptance of conforming quotation (Completed)	30 days	Feb 11 '21	Mar 12 '21	Feb 11 '21	Mar 12 '21	0 days	701	562	
703	703	5.20.5.10	DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. EQT028	194 days	Dec 2 '19	Jun 12 '20	Dec 2 '19	Jun 12 '20	0 days			
704	704	5.20.5.10.1	Submission for acceptance of purchasing package	120 days	Dec 2 '19	Mar 30 '20	Dec 2 '19	Mar 30 '20	0 days		705	
705	705	5.20.5.10.2	Invitation of quotations for purchasing package	60 days	Mar 31 '20	May 29 '20	Mar 31 '20	May 29 '20	0 days	704	706	
706	706	5.20.5.10.3	Acceptance of conforming quotation (Completed)	14 days	May 30 '20	Jun 12 '20	May 30 '20	Jun 12 '20	0 days	705	566,722	
707	707	5.20.5.11	Pipeworks and valves, C11, ref. EQT036	180 days	Dec 2 '19	May 29 '20	Dec 2 '19	Apr 14 '22	685 days			
708	708	5.20.5.11.1	Submission for acceptance of purchasing package	90 days	Dec 2 '19	Feb 29 '20	Dec 2 '19	Feb 29 '20	0 days			
709	709	5.20.5.11.2	Invitation of quotations for purchasing package	60 days	Mar 31 '20	May 29 '20	Mar 31 '20	May 29 '20	0 days		710	
710	710	5.20.5.11.3	Acceptance of conforming quotation	30 days	May 30 '20	Jun 28 '20	May 30 '20	Apr 14 '22	655 days	709	765FS-60 days	
711	711	5.20.5.12	Plant Service Water System - booster pumps & hydro-pneumatic pressure tanks, C11, ref. EQT030	180 days	Oct 15 '20	Apr 12 '21	Oct 15 '20	Apr 12 '21	0 days			
712	712	5.20.5.12.1	Submission for acceptance of purchasing package	90 days	Oct 15 '20	Jan 12 '21	Oct 15 '20	Jan 12 '21	0 days		713	
713	713	5.20.5.12.2	Invitation of quotations for purchasing package	60 days	Jan 13 '21	Mar 13 '21	Jan 13 '21	Mar 13 '21	0 days	712	714	
714	714	5.20.5.12.3	Acceptance of conforming quotation (Completed)	30 days	Mar 14 '21	Apr 12 '21	Mar 14 '21	Apr 12 '21	0 days	713	719	
715	715	5.20.6	**Design Submissions for MFB No. 2**	**572 days**	**Aug 21 '20**	**Mar 15 '22**	**Aug 21 '20**	**May 1 '23**	**411 days**	**114**		
716	716	5.20.6.1	Electrical schematic drawings for MFB No. 2	60 days	Aug 21 '20	Oct 19 '20	Aug 21 '20	Oct 19 '20	0 days		662FF	
717	717	5.20.6.2	CDS080-4 - Civil and dimensional requirements drawings for MFB no. 2 up to +8.0 mPD	30 days	Sep 1 '20	Sep 30 '20	Sep 1 '20	Sep 30 '20	0 days		662FF	
718	718	5.20.6.3	CDS081-4 - Civil and dimensional requirements drawings for MFB No 2	210 days	Aug 28 '20	Mar 25 '21	Aug 28 '20	Mar 25 '21	0 days		663FF	
719	719	5.20.6.4	CDS005 - Detailed Design for Membrane Filtration System, Pumps and Membrane Modules	258 edays	Apr 12 '21	Dec 26 '21	Apr 12 '21	Jul 12 '21	0 edays	670,678,694,698,714	731,735,741,75	
720	720	5.20.6.5	CDS024 - Detailed Design for Electrical Installations for MFB No 2	159.38 edays	Oct 7 '21	Mar 15 '22	Oct 7 '21	Mar 15 '22	0 edays	75,85,81,89,93,198FF,101,97	76,801,807,664	
721	721	5.20.6.6	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers, Dosing Systems etc	324 edays	Mar 1 '21	Jan 19 '22	Mar 1 '21	Jul 12 '21	0 edays	674,682,686,690	756,759,664FF	
722	722	5.20.6.7	CDS007-3 - Detailed Design for Deodorisation System, DOU No 3B	445.38 edays	Oct 1 '20	Dec 20 '21	Oct 1 '20	May 1 '23	0 edays	548,706	768,771	
723	723	5.20.6.8	CDS034-4 - Detailed Design for Electrical Installations 85 at MFB No. 2	308.38 edays	Mar 12 '21	Jan 14 '22	Mar 12 '21	Jul 12 '21	0 edays	144	664FF	
724	724	5.20.6.9	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtration System	251 edays	May 3 '21	Jan 9 '22	May 3 '21	Jul 12 '21	0 edays	71	793,664FF	
725	725	5.20.6.10	CDS026-2 - Detailed Design for HV Switchboards for MFB No. 2	266 edays	Apr 18 '21	Jan 9 '22	Apr 18 '21	Jul 12 '21	0 edays	67	664FF,797	
726	726	5.20.6.11	CDS031 - Detailed Design for MVAC System	311.38 edays	Mar 1 '21	Jan 6 '22	Mar 1 '21	Jul 12 '21	0 edays		194FF	
727	727	5.20.6.12	CDS042 - Detailed Design for Lightning Protection System	357.38 edays	Jan 11 '21	Jan 3 '22	Jan 11 '21	Jul 12 '21	0 edays		194FF	
728	728	5.20.6.13	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	150 edays	Oct 15 '20	Mar 14 '21	Oct 15 '20	Mar 14 '21	0 edays	124	787,664FF	
729	729	5.20.7	**Manufacturing and Delivery of Plant & Materials**	**1287 days**	**Dec 2 '19**	**Jun 10 '23**	**Dec 2 '19**	**Feb 24 '24**	**259 days**			
730	730	5.20.7.1	**Hollow Fibre Membrane Modules, EQT023**	**518 days**	**Jul 2 '21**	**Dec 1 '22**	**Jul 2 '21**	**Apr 14 '23**	**134 days**			
731	731	5.20.7.1.1	MFS - Manufacturing of Plant (M.I. issued)	300 days	Jul 2 '21	Sep 7 '22	Jul 2 '21	Jan 19 '23	0 days	719	732	
732	732	5.20.7.1.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days	Sep 8 '22	Oct 17 '22	Jan 20 '23	Feb 28 '23	0 days	731	733	
733	733	5.20.7.1.3	MFS - Shipping and Delivery of Plant to site	45 days	Oct 18 '22	Dec 1 '22	Mar 1 '23	Apr 14 '23	75 days	732	822	
734	734	5.20.7.2	**Air Scour Blowers, EQT040**	**474 days**	**Dec 27 '21**	**Apr 14 '23**	**Jul 4 '22**	**Apr 14 '23**	**0 days**			
735	735	5.20.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 27 '21	Aug 23 '22	Jul 4 '22	Feb 28 '23	189 days	719	736	
736	736	5.20.7.2.2	Shipping and Delivery of Plant to site	45 days	Mar 1 '23	Apr 14 '23	Mar 1 '23	Apr 14 '23	0 days	735,846SS-60 edays		
737	737	5.20.7.3	**Aeration Blowers, EQT039**	**529 days**	**Dec 29 '21**	**Jun 10 '23**	**Mar 2 '23**	**Dec 11 '23**	**184 days**			
738	738	5.20.7.3.1	Manufacturing and Factory Acceptance Test of Plant (to be witnessed by PM)	240 days	Dec 29 '21	Aug 25 '22	Mar 2 '23	Oct 27 '23	244 days	562	739	
739	739	5.20.7.3.2	Shipping and Delivery of Plant to site	45 days	Apr 27 '23	Jun 10 '23	Oct 28 '23	Dec 11 '23	4 days	738,618SS-60 edays	867	
740	740	5.20.7.4	**Permeate Pump, EQT024**	**285 days**	**Dec 27 '21**	**Oct 7 '22**	**Jul 19 '22**	**Apr 29 '23**	**204 days**			
741	741	5.20.7.4.1	Manufacturing and Factory Acceptance Test of Plant (M.I. issued)	240 days	Dec 27 '21	Aug 23 '22	Jul 19 '22	Mar 15 '23	0 days	719	742	
742	742	5.20.7.4.2	Shipping and Delivery of Plant to site	45 days	Aug 24 '22	Oct 7 '22	Mar 16 '23	Apr 29 '23	152 days	741	826	
743	743	5.20.7.5	**Return Activated Sludge Pump, EQT010**	**285 days**	**Dec 27 '21**	**Oct 7 '22**	**Aug 18 '22**	**May 29 '23**	**234 days**			
744	744	5.20.7.5.1	Manufacturing and Factory Acceptance Test of Plant (M.I. issued)	240 days	Dec 27 '21	Aug 23 '22	Aug 18 '22	Apr 14 '23	0 days	719	745	
745	745	5.20.7.5.2	Shipping and Delivery of Plant to site	45 days	Aug 24 '22	Oct 7 '22	Apr 15 '23	May 29 '23	130 days	744	829	
746	746	5.20.7.6	**Membrane Tank Drain Pump, EQT009**	**195 days**	**Dec 27 '21**	**Jul 9 '22**	**Nov 16 '22**	**May 29 '23**	**324 days**			
747	747	5.20.7.6.1	Manufacturing and Factory Acceptance Test of Plant (M.I. issued)	150 days	Dec 27 '21	May 25 '22	Nov 16 '22	Apr 14 '23	0 days	719	748	
748	748	5.20.7.6.2	Shipping and Delivery of Plant to site	45 days	May 26 '22	Jul 9 '22	Apr 15 '23	May 29 '23	265 days	747	832	
749	749	5.20.7.7	**Plant Service Water System, EQT030**	**474 days**	**Dec 27 '21**	**Apr 14 '23**	**Sep 17 '22**	**May 29 '23**	**45 days**			
750	750	5.20.7.7.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Dec 27 '21	Jul 24 '22	Sep 17 '22	Apr 14 '23	219 days	719	751	
751	751	5.20.7.7.2	Shipping and Delivery of Plant to site	45 days	Mar 1 '23	Apr 14 '23	Apr 15 '23	May 29 '23	0 days	750,846SS-60 edays	839	
752	752	5.20.7.8	**Compressed Air System, EQT029**	**474 days**	**Dec 27 '21**	**Apr 14 '23**	**Sep 17 '22**	**May 29 '23**	**45 days**			
753	753	5.20.7.8.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Dec 27 '21	Jul 24 '22	Sep 17 '22	Apr 14 '23	219 days	719	754	
754	754	5.20.7.8.2	Shipping and Delivery of Plant to site	45 days	Mar 1 '23	Apr 14 '23	Apr 15 '23	May 29 '23	0 days	753,846SS-60 edays	823	
755	755	5.20.7.9	**Chemical Storage Tanks, EQT025**	**225 days**	**Jan 20 '22**	**Sep 1 '22**	**Oct 17 '22**	**May 29 '23**	**270 days**			
756	756	5.20.7.9.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Jan 20 '22	Jul 18 '22	Oct 17 '22	Apr 14 '23	0 days	721	757	



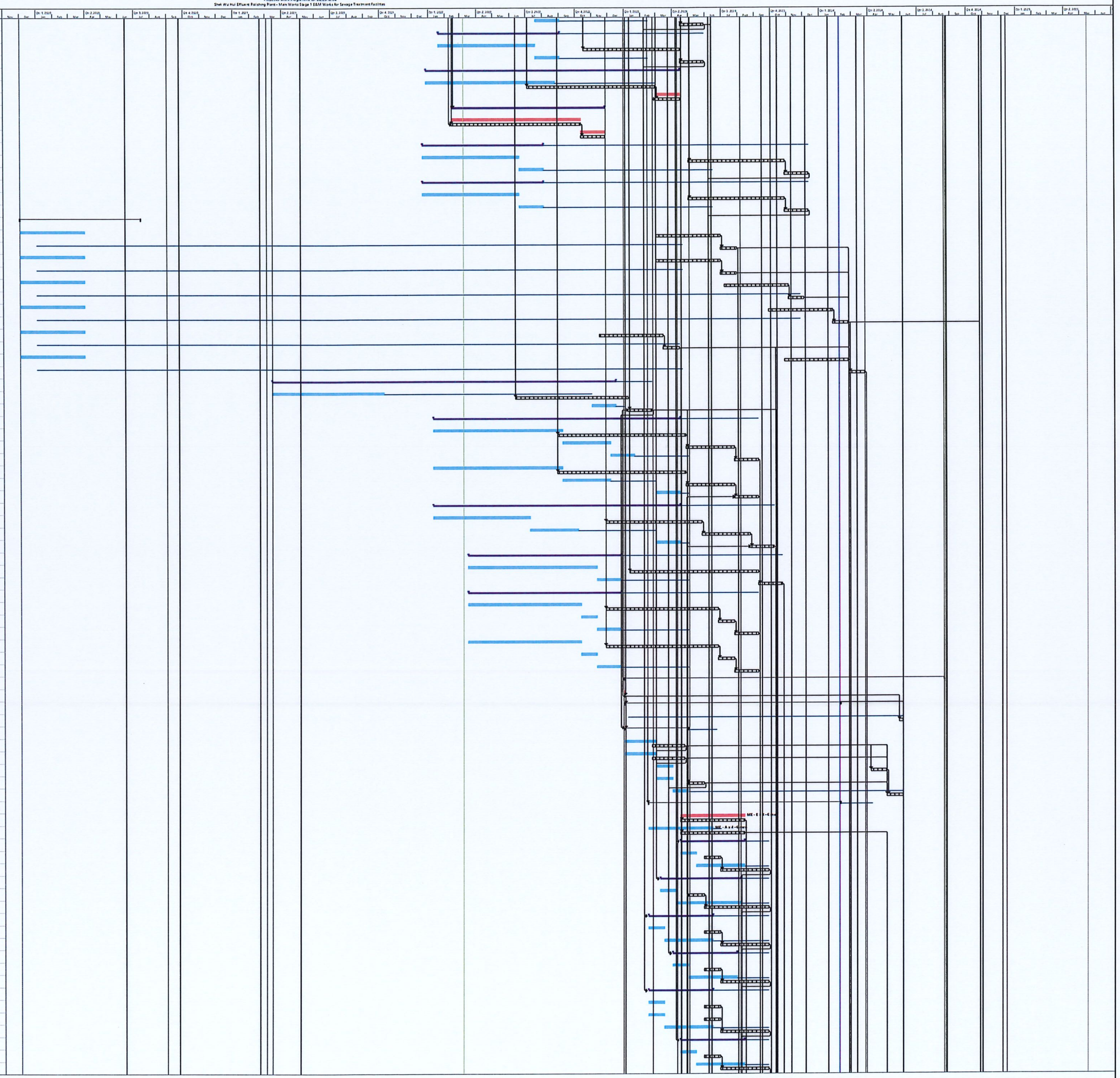
Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Project: DE/2018/04
Date: Mar 8 '22

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
757	757	5.20.7.9.2	Shipping and Delivery of Plant to site	45 days	Jul 19 '22	Sep 1 '22	Apr 15 '23	May 29 '23	166 days	756	835,860	
758	758	**5.20.7.10**	**Chemical Dosing and Transfer Pumps, EQT026**	**225 days**	**Jan 20 '22**	**Sep 1 '22**	**Oct 17 '22**	**May 29 '23**	**270 days**			
759	759	5.20.7.10.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Jan 20 '22	Jul 18 '22	Oct 17 '22	Apr 14 '23	0 days	721	760	
760	760	5.20.7.10.2	Shipping and Delivery of Plant to site	45 days	Jul 19 '22	Sep 1 '22	Apr 15 '23	May 29 '23	166 days	759	835	
761	761	**5.20.7.11**	**Stoplogs and Penstocks, EQT013**	**474 days**	**Dec 27 '21**	**Apr 14 '23**	**Jul 4 '22**	**Apr 14 '23**	**0 days**			
762	762	5.20.7.11.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Dec 27 '21	Aug 23 '22	Jul 4 '22	Feb 28 '23	189 days	719	763	
763	763	5.20.7.11.2	Shipping and Delivery of Plant to site	45 days	Mar 1 '23	Apr 14 '23	Mar 1 '23	Apr 14 '23	0 days	762,846SS-60 edays	821	
764	764	**5.20.7.12**	**Pipework, Valves and Electric Actuators, EQT036 (Rev. 11)**	**285 days**	**Feb 14 '22**	**Nov 25 '22**	**Feb 14 '22**	**Nov 25 '22**	**0 days**	**56,63,59**		
765	765	5.20.7.12.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Feb 14 '22	Oct 11 '22	Feb 14 '22	Oct 11 '22	0 days	719,710FS-60 days	766	
766	766	5.20.7.12.2	Shipping and Delivery of Plant to site	45 days	Oct 12 '22	Nov 25 '22	Oct 12 '22	Nov 25 '22	0 days	765		
767	767	**5.20.7.13**	**DOU 3B**	**225 days**	**Dec 20 '21**	**Aug 2 '22**	**May 1 '23**	**Dec 12 '23**	**496 days**			
768	768	5.20.7.13.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Dec 20 '21	Jun 18 '22	May 1 '23	Oct 28 '23	0 edays	722	769	
769	769	5.20.7.13.2	Shipping and Delivery of Plant to Site	45 edays	Jun 18 '22	Aug 2 '22	Oct 28 '23	Dec 12 '23	316.63 ed…	768	870	
770	770	**5.20.7.14**	**FRP Air Ductwork for DOU3B**	**225 days**	**Dec 20 '21**	**Aug 2 '22**	**May 1 '23**	**Dec 12 '23**	**496 days**			
771	771	5.20.7.14.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Dec 20 '21	Jun 18 '22	May 1 '23	Oct 28 '23	0 edays	722	772	
772	772	5.20.7.14.2	Shipping and Delivery of Plant to Site	45 edays	Jun 18 '22	Aug 2 '22	Oct 28 '23	Dec 12 '23	316.63 ed…	771	870	
773	773	**5.20.7.15**	**Building Services**	**225 days**	**Dec 2 '19**	**Jul 13 '20**	**Dec 3 '19**	**Feb 24 '24**	**1 day**			
774	774	5.20.7.15.1	Manufacturing and FAT for MVAC Equipment	120 days	Dec 2 '19	Mar 30 '20	Mar 2 '23	Jun 29 '23	0 days		775	
775	775	5.20.7.15.2	Shipping and Delivery for MVAC Equipment	30 days	Dec 3 '19	Jan 1 '20	Jun 30 '23	Jul 30 '23	1204 days	774	912,906	
776	776	5.20.7.15.3	Manufacturing and FAT for Lighting and Power Distribution System Equipment	120 days	Dec 2 '19	Mar 30 '20	Mar 2 '23	Jun 29 '23	0 days		777	
777	777	5.20.7.15.4	Shipping and Delivery for Lighting and Power Distribution System Equipment	30 days	Dec 3 '19	Jan 1 '20	Jun 30 '23	Jul 30 '23	1204 days	776	912,907	
778	778	5.20.7.15.5	Manufacturing and FAT for Plumbing Equipment	120 days	Dec 2 '19	Mar 30 '20	Jul 7 '23	Nov 3 '23	0 days		779	
779	779	5.20.7.15.6	Shipping and Delivery for Plumbing Equipment	30 days	Dec 3 '19	Jan 1 '20	Nov 4 '23	Dec 4 '23	1425 days	778	1341,912	
780	780	5.20.7.15.7	Manufacturing and FAT for CCTV Equipment	120 days	Dec 2 '19	Mar 30 '20	Sep 28 '23	Jan 25 '24	0 days		781	
781	781	5.20.7.15.8	Shipping and Delivery for CCTV Equipment (10 indoor + 3 outdoor Cameras)	30 days	Dec 3 '19	Jan 1 '20	Jan 26 '24	Feb 25 '24	1425 days	780	912,1351	
782	782	5.20.7.15.9	Manufacturing and FAT for Fire Services Equipment	120 days	Dec 2 '19	Mar 30 '20	Nov 15 '22	Mar 14 '23	0 days		783	
783	783	5.20.7.15.1	Equipment Delivery for Fire Services Equipment	30 days	Dec 3 '19	Jan 1 '20	Mar 15 '23	Apr 14 '23	1198 days	782	1292,1304,130	
784	784	5.20.7.15.1	Manufacturing and FAT for Earthing and Lightning Protection System Equipment	120 days	Dec 2 '19	Mar 30 '20	Oct 28 '23	Feb 24 '24	0 days		785	
785	785	5.20.7.15.1	Equipment Delivery for Earthing and Lightning Protection System Equipment	30 days	Dec 3 '19	Jan 1 '20	Feb 25 '24	Mar 26 '24	1204 days	784	911	
786	786	**5.20.7.16**	**Lifting Appliances**	**642 days**	**Mar 14 '21**	**Dec 15 '22**	**Jun 12 '22**	**Feb 21 '23**	**68 days**			
787	787	5.20.7.16.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Mar 14 '21	Oct 9 '21	Jun 12 '22	Jan 7 '23	387 days	728	788	
788	788	5.20.7.16.2	Shipping and Delivery of Plant to site	45 days	Nov 1 '22	Dec 15 '22	Jan 8 '23	Feb 21 '23	16 days	787,811SS-60 edays	814,849,856	
789	789	**5.20.7.17**	**LV Switchboards**	**460 days**	**Jan 10 '22**	**Apr 14 '23**	**Aug 29 '22**	**Sep 7 '23**	**146 days**			
790	790	5.20.7.17.1	BR - Manufacturing of Plant	240 days	Jan 10 '22	Sep 6 '22	Aug 29 '22	Apr 25 '23	0 days	565	791	
791	791	5.20.7.17.2	BR - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Sep 7 '22	Dec 5 '22	Apr 26 '23	Jul 24 '23	0 days	790	792	
792	792	5.20.7.17.3	BR - Shipping and Delivery of Plant to site	45 days	Dec 6 '22	Jan 19 '23	Jul 25 '23	Sep 7 '23	101 days	791	877	
793	793	5.20.7.17.4	MFS - Manufacturing of Plant	240 days	Jan 10 '22	Sep 6 '22	Aug 29 '22	Apr 25 '23	0 days	724	794	
794	794	5.20.7.17.5	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Sep 7 '22	Dec 5 '22	Apr 26 '23	Jul 24 '23	85 days	793	795	
795	795	5.20.7.17.6	MFS - Shipping and Delivery of Plant to site	45 days	Mar 1 '23	Apr 14 '23	Jul 25 '23	Sep 7 '23	16 days	794,846SS-60 edays	878	
796	796	**5.20.7.18**	**HV Switchboards, EQT031**	**460 days**	**Jan 10 '22**	**Apr 14 '23**	**Nov 27 '22**	**Oct 7 '23**	**176 days**			
797	797	5.20.7.18.1	MFS - Manufacturing of Plant	180 days	Jan 10 '22	Jul 8 '22	Nov 27 '22	May 25 '23	0 days	725	798	
798	798	5.20.7.18.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Jul 9 '22	Oct 6 '22	May 26 '23	Aug 23 '23	145 days	797	799	
799	799	5.20.7.18.3	MFS - Shipping and Delivery of Plant to site	45 days	Mar 1 '23	Apr 14 '23	Aug 24 '23	Oct 7 '23	16 days	798,846SS-60 edays	881	
800	800	**5.20.7.19**	**11kV/380V Stepdown Power Transformers, EQT032**	**285 days**	**Mar 16 '22**	**Dec 25 '22**	**Jan 11 '23**	**Oct 22 '23**	**301 days**			
801	801	5.20.7.19.1	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days	Mar 16 '22	Nov 10 '22	Jan 11 '23	Sep 7 '23	0 days	720	802	
802	802	5.20.7.19.2	MFS - Shipping and Delivery of Plant to site	45 days	Nov 11 '22	Dec 25 '22	Sep 8 '23	Oct 22 '23	126 days	801	882	
803	803	**5.20.7.20**	**PLC System**	**285 days**	**Mar 16 '22**	**Dec 25 '22**	**Nov 27 '22**	**Sep 7 '23**	**256 days**			
804	804	5.20.7.20.1	Manufacturing of Plant, PLC for 6R2A &B	210 days	Mar 16 '22	Oct 11 '22	Nov 27 '22	Jun 24 '23	0 days	563	805	
805	805	5.20.7.20.2	Factory Acceptance Test of Plant, PLC for 6R2A &B (To be witnessed by PM)	30 days	Oct 12 '22	Nov 10 '22	Jun 25 '23	Jul 24 '23	0 days	804	806	
806	806	5.20.7.20.3	Shipping and Delivery of Plant to site	45 days	Nov 11 '22	Dec 25 '22	Jul 25 '23	Sep 7 '23	126 days	805	879	
807	807	5.20.7.20.4	Manufacturing of Plant, PLC for MFB2	210 days	Mar 16 '22	Oct 11 '22	Nov 27 '22	Jun 24 '23	0 days	720	808	
808	808	5.20.7.20.5	Factory Acceptance Test of Plant, PLC for MFB2 (To be witnessed by PM)	30 days	Oct 12 '22	Nov 10 '22	Jun 25 '23	Jul 24 '23	0 days	807	809	
809	809	5.20.7.20.6	Shipping and Delivery of Plant to site	45 days	Nov 11 '22	Dec 25 '22	Jul 25 '23	Sep 7 '23	126 days	808	880	
810	810	**5.20.8**	**Site Installation Work**	**598 days?**	**Dec 31 '22**	**Aug 19 '24**	**Dec 31 '22**	**Oct 27 '24**	**0 days**			
811	811	5.20.8.1	Tentative Civil Handover Date, Portion 8-5A, MFB No. 2	1 day	Dec 31 '22	Dec 31 '22	Dec 31 '22	Jan 1 '23	0 days	13	814,820FS+45 e	
812	812	**5.20.8.2**	**Commencement of E&M Installation at MFB No. 2 Lower Part**	**404 days**	**Jan 1 '23**	**Feb 8 '24**	**Jan 1 '23**	**Jun 3 '24**	**0 days**	**811**	913	
813	813	5.20.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc., MFB2	7 days	Jan 1 '23	Jan 7 '23	May 28 '24	Jun 4 '24	513 days	811		
814	814	**5.20.8.2.2**	**Installation of Lifting Appliances at MFB No. 2**	**120 days**	**Jan 1 '23**	**Apr 30 '23**	**Feb 22 '23**	**Jun 3 '24**	**52 days**	**811,788**		
815	815	5.20.8.2.2.1	B2 EOT Crane LA-04-01 SWL 5t	60 days	Jan 1 '23	Mar 1 '23	Feb 22 '23	Apr 22 '23	0 days		817,818,819,82	
816	816	5.20.8.2.2.2	B2 EOT Crane LA-04-02 SWL 5t	60 days	Jan 1 '23	Mar 1 '23	Feb 22 '23	Apr 22 '23	0 days		817,818,819,82	
817	817	5.20.8.2.2.3	B2 MR LA-04-03 SWL 5t	30 days	Mar 2 '23	Mar 31 '23	Apr 5 '24	May 4 '24	0 days	815,816	819	
818	818	5.20.8.2.2.4	B1 MR LA-04-04 SWL 3t	30 days	Mar 2 '23	Mar 31 '23	Apr 30 '23	May 29 '23	0 days	815,816	819,82	
819	819	5.20.8.2.2.5	T&C, Loading Test for Lifting Appliances	30 days	Apr 1 '23	Apr 30 '23	May 5 '24	Jun 3 '24	400 days	815,816,817,818		
820	820	**5.20.8.2.3**	**Mechanical Installations for E&M Equip. at MFB No. 2 Lower Part**	**359 days**	**Feb 15 '23**	**Feb 8 '24**	**Apr 15 '23**	**Jun 3 '24**	**59 days**	**811FS+45 edays,129**		
821	821	5.20.8.2.3.1	Installation of penstocks and stoplogs (Penstocks 18nos, Stoplogs 11nos), EQT013	120 days	Apr 15 '23	Aug 12 '23	Apr 15 '23	Aug 12 '23	0 days	763	843	ME - E x 4-6 men
822	822	5.20.8.2.3.2	Installation of hollow fibre membrane modules rack (x9), EQT023	120 days	Feb 15 '23	Jun 14 '23	Apr 15 '23	Aug 12 '23	15 days	733	843,859	ME - A x 4-6 men
823	823	5.20.8.2.3.3	Installation of compressed air system	120 days	Apr 15 '23	Aug 12 '23	May 30 '23	Sep 26 '23	45 days	754		ME - B x 4-6 men
824	824	5.20.8.2.3.3.1	Installation of compressor, air dryer & air receiver (x2)	30 days	Apr 15 '23	May 14 '23	May 30 '23	Jun 28 '23	0 days		825	
825	825	5.20.8.2.3.3.2	Installation of pipework and valves, EQT036	90 days	May 15 '23	Aug 12 '23	Jun 29 '23	Sep 26 '23	45 days	824	843FS-45 days	
826	826	5.20.8.2.3.4	Installation of permeate pumping system	150 days	Mar 9 '23	Aug 5 '23	Apr 30 '23	Sep 26 '23	52 days	742,815FS-7 days,816FS+7 c		ME - A x 4-6 men
827	827	5.20.8.2.3.4.1	Installation of permeate pumps (x10), EQT024	30 days	Mar 9 '23	Apr 7 '23	Apr 30 '23	May 29 '23	0 days		828	
828	828	5.20.8.2.3.4.2	Installation of pipework and valves, EQT036	120 days	Apr 8 '23	Aug 5 '23	May 30 '23	Sep 26 '23	52 days	827	843FS-45 days	
829	829	5.20.8.2.3.5	Installation of return activated sludge pumping system	120 days	Feb 15 '23	Jun 14 '23	May 30 '23	Sep 26 '23	104 days	745		ME - B x 4-6 men
830	830	5.20.8.2.3.5.1	Installation of RAS pump (x5), EQT010	30 days	Feb 15 '23	Mar 16 '23	May 30 '23	Jun 28 '23	0 days		831	
831	831	5.20.8.2.3.5.2	Installation of pipework and valves, EQT036	90 days	Mar 17 '23	Jun 14 '23	Jun 29 '23	Sep 26 '23	104 days	830	843FS-45 days	
832	832	5.20.8.2.3.6	Installation of membrane tank drain pumping system	120 days	Apr 1 '23	Jul 29 '23	May 30 '23	Sep 26 '23	59 days	818,748		ME - C x 4-6 men
833	833	5.20.8.2.3.6.1	Installation of drain pump (x2), EQT009	30 days	Apr 1 '23	Apr 30 '23	May 30 '23	Jun 28 '23	0 days		834	
834	834	5.20.8.2.3.6.2	Installation of pipework and valves, EQT036	90 days	May 1 '23	Jul 29 '23	Jun 29 '23	Sep 26 '23	59 days	833	843FS-45 days	
835	835	5.20.8.2.3.7	Installation of chemical system	120 days	Feb 15 '23	Jun 14 '23	May 30 '23	Sep 26 '23	104 days	757,760		ME - D x 2-4 men
836	836	5.20.8.2.3.7.1	Installation of storage tank (x2), EQT091	30 days	Feb 15 '23	Mar 16 '23	May 30 '23	Jun 28 '23	0 days		838	
837	837	5.20.8.2.3.7.2	Installation of dosing pump (x2), EQT090	30 days	Feb 15 '23	Mar 16 '23	May 30 '23	Jun 28 '23	0 days		838	
838	838	5.20.8.2.3.7.3	Installation of pipework and valves, EQT036	90 days	Mar 17 '23	Jun 14 '23	Jun 29 '23	Sep 26 '23	104 days	836,837	843FS-45 days	
839	839	5.20.8.2.3.8	Installation of plant service water system	120 days	Apr 15 '23	Aug 12 '23	May 30 '23	Sep 26 '23	45 days	751		ME - C x 4-6 men
840	840	5.20.8.2.3.8.1	Installation of pump (x4), pressure tank (x2), EQT030	30 days	Apr 15 '23	May 14 '23	May 30 '23	Jun 28 '23	0 days		841	
841	841	5.20.8.2.3.8.2	Installation of pipework and valves, EQT036	90 days	May 15 '23	Aug 12 '23	Jun 29 '23	Sep 26 '23	45 days	840	843FS-45 days	



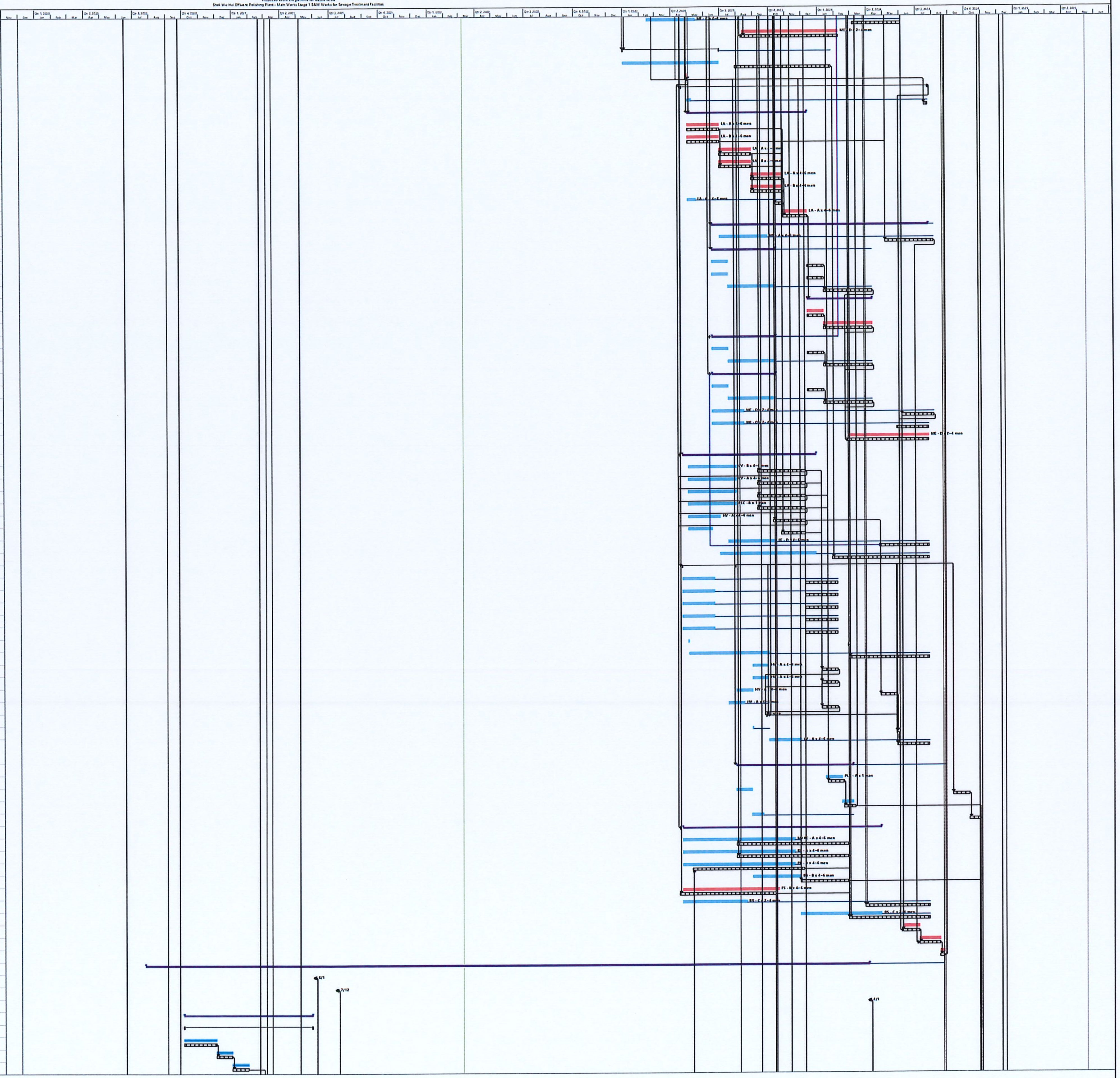
Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Project: DE/2018/04
Date: Mar 8 '22

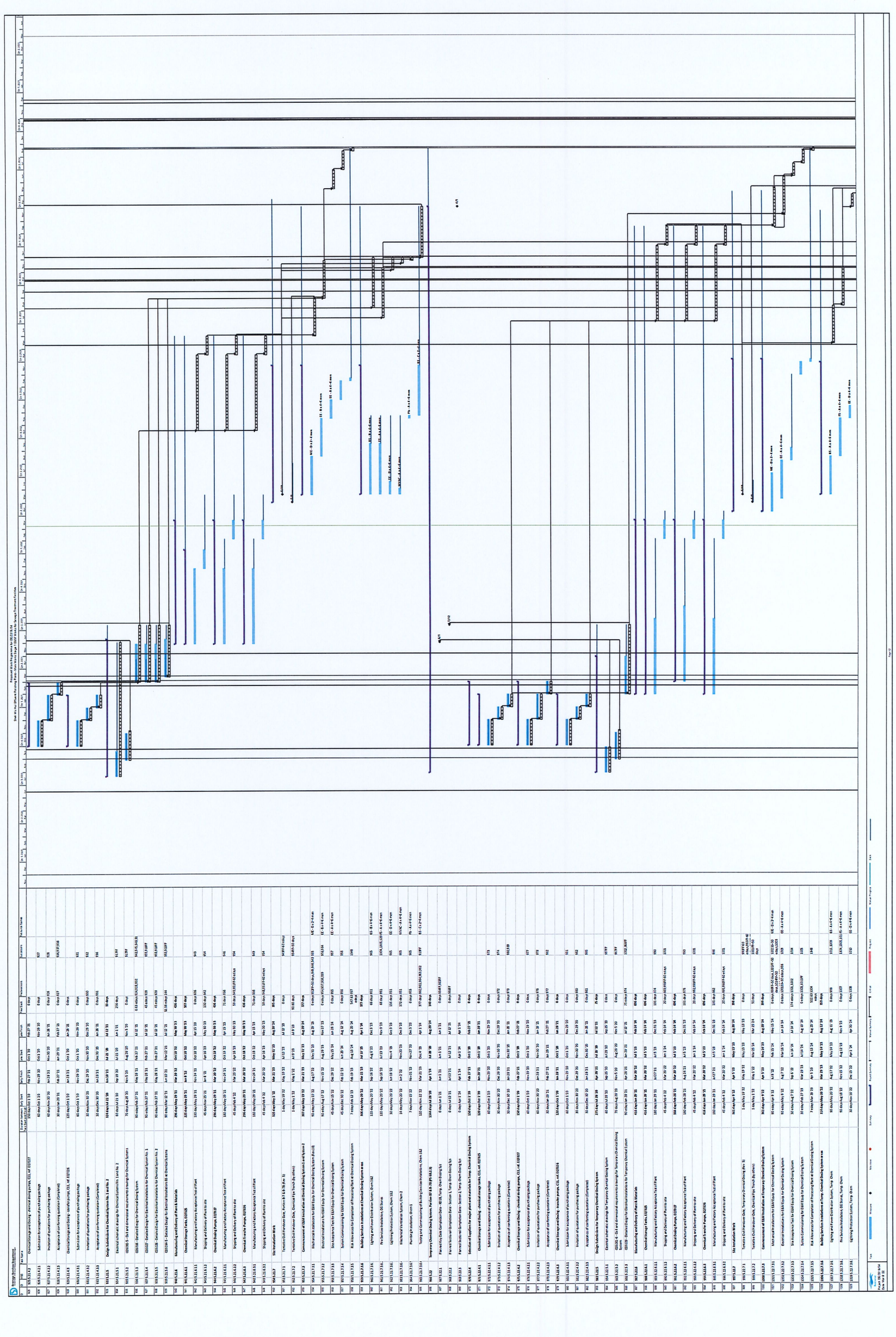
Proposed Work Programme for DE/2018/04

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
842	842	5.20.8.2.3.1	Installation of FRP covers, walkways, platforms and ladders, EQT050 (Rev 18)	90 days	Feb 15 '23	May 15 '23	Mar 6 '24	Jun 3 '24	315 days			ME - C x 4~6 men
843	843	5.20.8.2.3.	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	180 days	Aug 13 '23	Feb 8 '24	Aug 13 '23	Feb 8 '24	0 days	821,822,825FS-45 days,828FS-45 days,831FS-45		ME - D x 2~4 men
844	844	5.20.8.2.4	**Electrical Installations for E&M Equip. at MFB No. 2 Lower Part**	180 days	Jan 1 '23	Jun 29 '23	Jul 30 '23	Jan 25 '24	210 days	134,811		
845	845	5.20.8.2.4.	Installation of cable trays and cable containments	180 days	Jan 1 '23	Jun 29 '23	Jul 30 '23	Jan 25 '24	0 days		844	
846	846	5.20.8.3	**Tentative Civil Handover Date, Portion B-5B, MFB No. 2 remaining portion (Rev. 5)**	1 day	Apr 30 '23	Apr 30 '23	Apr 30 '23	Apr 30 '23	0 days	14	849,858FS-45 edays,848,847,	
847	847	5.20.8.4	**Commencement of E&M installation at MFB No. 2 Upper Part**	461 days?	Apr 20 '23	Jul 23 '24	Apr 20 '23	Oct 27 '24	0 days?	846	913FS-50 days	
848	848	5.20.8.4.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc., MFB2	7 days	May 1 '23	May 7 '23	Jul 17 '24	Jul 23 '24	443 days	846		
849	849	5.20.8.4.2	**Installation of Lifting Appliances at MFB No. 2**	225 days	May 1 '23	Dec 11 '23	May 1 '23	Dec 11 '23	0 days	846,788		
850	850	5.20.8.4.2.	GF EOT Crane LA-04-05 SWL 5t	60 days	May 1 '23	Jun 29 '23	May 1 '23	Jun 29 '23	0 days		852,853,857	LA - A x 4~6 men
851	851	5.20.8.4.2.	GF Gantry Crane LA-04-06 SWL 6t	60 days	May 1 '23	Jun 29 '23	May 1 '23	Jun 29 '23	0 days		852,853,857,85	LA - B x 4~6 men
852	852	5.20.8.4.2.	1F EOT Crane LA-04-07 SWL 15t	60 days	Jun 30 '23	Aug 28 '23	Jun 30 '23	Aug 28 '23	0 days	850,851	854,855,857	LA - A x 4~6 men
853	853	5.20.8.4.2.	1F EOT Crane LA-04-08 SWL 15t	60 days	Jun 30 '23	Aug 28 '23	Jun 30 '23	Aug 28 '23	0 days	850,851	854,855,857	LA - B x 4~6 men
854	854	5.20.8.4.2.	RF EOT Crane LA-04-09 SWL 2t	60 days	Aug 29 '23	Oct 27 '23	Aug 29 '23	Oct 27 '23	0 days	852,853	857	LA - A x 4~6 men
855	855	5.20.8.4.2.	RF Retractable MR LA-04-10 SWL 2t	60 days	Aug 29 '23	Oct 27 '23	Aug 29 '23	Oct 27 '23	0 days	852,853	857	LA - B x 4~6 men
856	856	5.20.8.4.2.	Mobile A-frame LA-04-11 SWL 2t	15 days	May 1 '23	May 15 '23	Oct 13 '23	Oct 27 '23	165 days	788	857	LA - C x 4~6 men
857	857	5.20.8.4.2.	T&C, Loading Test for Lifting Appliances	45 days	Oct 28 '23	Dec 11 '23	Oct 28 '23	Dec 11 '23	0 days	850,851,852,853,854,855,85	864	LA - A x 4~6 men
858	858	5.20.8.4.3	**Mechanical Installations for E&M Equip. at MFB No. 2 Upper Part**	405 days	Jun 15 '23	Jul 23 '24	Dec 12 '23	Aug 2 '24	10 days	846FS-45 edays,129		
859	859	5.20.8.4.3.	Installation of hollow fibre membrane modules (x8), EQT023	90 days	Jun 30 '23	Sep 27 '23	May 5 '24	Aug 2 '24	310 days	822,851	914FS-30 days	ME - A x 4~6 men
860	860	5.20.8.4.3.	Installation of chemical system	120 days	Jun 15 '23	Oct 12 '23	Dec 12 '23	Apr 9 '24	180 days	757		ME - D x 2~4 men
861	861	5.20.8.4.3.	Installation of storage tank, EQT091	30 days	Jun 15 '23	Jul 14 '23	Dec 12 '23	Jan 10 '24	0 days		863	
862	862	5.20.8.4.3.	Installation of dosing pump (x4) and transfer pump (x4), EQT090	30 days	Jun 15 '23	Jul 14 '23	Dec 12 '23	Jan 10 '24	0 days		863	
863	863	5.20.8.4.3.	Installation of pipework and valves, EQT036	90 days	Jul 15 '23	Oct 12 '23	Jan 11 '24	Apr 9 '24	180 days	861,862	875FS-45 days	
864	864	5.20.8.4.3.	Installation of air scour blower system	120 days	Dec 12 '23	Apr 9 '24	Dec 12 '23	Apr 9 '24	0 days	857		ME - A x 4~6 men
865	865	5.20.8.4.3.	Installation of blowers (x3), EQT040	30 days	Dec 12 '23	Jan 10 '24	Dec 12 '23	Jan 10 '24	0 days		866	
866	866	5.20.8.4.3.	Installation of pipework and valves, EQT036	90 days	Jan 11 '24	Apr 9 '24	Jan 11 '24	Apr 9 '24	0 days	865	875FS-45 days	
867	867	5.20.8.4.3.	Installation of aeration blower system	120 days	Jun 15 '23	Oct 12 '23	Dec 12 '23	Apr 9 '24	117 days	739	658	ME - D x 2~4 men
868	868	5.20.8.4.3.	Installation of blowers (x4), EQT039	30 days	Jun 15 '23	Jul 14 '23	Dec 12 '23	Jan 10 '24	0 days		869	
869	869	5.20.8.4.3.	Installation of pipework and valves, EQT036	90 days	Jul 15 '23	Oct 12 '23	Jan 11 '24	Apr 9 '24	180 days	868	875FS-45 days	
870	870	5.20.8.4.3.	Mechanical Installations for DOU 3B	120 days	Jun 15 '23	Oct 12 '23	Dec 12 '23	Apr 9 '24	0 days	769,772	883SS+30 eday	ME - F x 4~6 men
871	871	5.20.8.4.3.	Installation of extraction fan, filter, dehumidifier	30 days	Jun 15 '23	Jul 14 '23	Dec 12 '23	Jan 10 '24	0 days		872	
872	872	5.20.8.4.3.	Installation of FRP ductwork	90 days	Jul 15 '23	Oct 12 '23	Jan 11 '24	Apr 9 '24	180 days	871	875FS-45 days	
873	873	5.20.8.4.3.	Installation of instrumentations, EQT055-1	60 days	Jun 15 '23	Aug 13 '23	Jun 4 '24	Aug 2 '24	355 days	52	913FS-60 days	ME - D x 2~4 men
874	874	5.20.8.4.3.	Installation of FRP covers, walkways, platforms and ladders, EQT050	60 days	Jun 15 '23	Aug 13 '23	May 25 '24	Jul 23 '24	345 days			ME - D x 2~4 men
875	875	5.20.8.4.3.	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	150 days	Feb 25 '24	Jul 23 '24	Feb 25 '24	Jul 23 '24	0 days	863FS-45 days,866FS-45 days,869FS-45 days,872FS-45 days		ME - D x 2~4 men
876	876	5.20.8.4.4	**Electrical Installations for E&M Equip. at MFB No. 2 Upper Part**	251 days?	Apr 20 '23	Dec 26 '23	Apr 20 '23	Jul 23 '24	0 days?	134,846		
877	877	5.20.8.4.4.	Installation of LV Switchboards, BR2	90 days	May 1 '23	Jul 29 '23	Sep 8 '23	Dec 6 '23	0 days	792	894FS+30 days	LV - B x 4~6 men
878	878	5.20.8.4.4.	Installation of LV Switchboards, MFB No. 2	90 days	May 1 '23	Jul 29 '23	Sep 8 '23	Dec 6 '23	0 days	795	893FS+30 days	LV - A x 4~6 men
879	879	5.20.8.4.4.	Installation of PLC Panels, BR2	90 days	May 1 '23	Jul 29 '23	Sep 8 '23	Dec 6 '23	0 days	806	901,885	
880	880	5.20.8.4.4.	Installation of PLC Panels, MFB No. 2	90 days	May 1 '23	Jul 29 '23	Sep 8 '23	Dec 6 '23	0 days	809	901,885	PLC - B x 1 man
881	881	5.20.8.4.4.	Installation of HV Switchboards, MFB No. 2	60 days	May 1 '23	Jun 29 '23	Oct 8 '23	Dec 6 '23	0 days	799	895FS+30 days	HV - A x 4~6 men
882	882	5.20.8.4.4.	Installation of transformer, MFB No. 2, EQT032	45 days	May 1 '23	Jun 14 '23	Oct 23 '23	Dec 6 '23	0 days	802	896FS+30 days	
883	883	5.20.8.4.4.	Electrical Installations for DOU 3B	90 edays	Jul 15 '23	Oct 13 '23	Apr 24 '24	Jul 23 '24	284.38 ed...	870SS+30 edays		EE - D x 4~6 men
884	884	5.20.8.4.4.	Installation of cable trays and cable containments	180 days	Jun 30 '23	Dec 26 '23	Jan 26 '24	Jul 23 '24	210 days	845		
885	885	5.20.8.4.4.	**Cables laying and terminations**	100 days	Apr 20 '23	Jul 28 '23	Dec 7 '23	Feb 4 '24	0 days	877,878,879,881,880	902,899,897,8	
886	886	5.20.8.4.4.	LV and control cables in MFB no.2	60 days	Apr 20 '23	Jun 18 '23	Dec 7 '23	Feb 4 '24	231 days			
887	887	5.20.8.4.4.	HV and control cables in MFB no.2	60 days	Apr 20 '23	Jun 18 '23	Dec 7 '23	Feb 4 '24	231 days			
888	888	5.20.8.4.4.	HV cables between MFB no.1 and MFB no.2	60 days	Apr 20 '23	Jun 18 '23	Dec 7 '23	Feb 4 '24	231 days			
889	889	5.20.8.4.4.	LV and control cables between MFB no.2 and BR2	60 days	Apr 20 '23	Jun 18 '23	Dec 7 '23	Feb 4 '24	231 days			
890	890	5.20.8.4.4.	LV and control cables between MFB no.2 and Emergency Genset House	60 days	Apr 20 '23	Jun 18 '23	Dec 7 '23	Feb 4 '24	231 days			
891	891	5.20.8.4.4.	**Tentative Civil Handover Date HV cable draw pits from MFB No.2 to DE/2018/03 (Rev. 18)**	1 day?	May 1 '23	May 1 '23	Feb 24 '24	Feb 24 '24	0 days?		892	
892	892	5.20.8.4.4.	Cable provision and laying between buildings for DE/2018/03 Sidestream Building Facility (Rev. 17)	150 days	May 2 '23	Sep 28 '23	Feb 25 '24	Jul 23 '24	299 days	891		
893	893	5.20.8.4.4.	Testing of LV Switchboards, MFB No. 2	30 days	Aug 29 '23	Sep 27 '23	Jan 6 '24	Feb 4 '24	0 days	878FS+30 days	897	HV - A x 4~6 men
894	894	5.20.8.4.4.	Testing of LV Switchboards, BR2	30 days	Aug 29 '23	Sep 27 '23	Jan 6 '24	Feb 4 '24	0 days	877FS+30 days	897	HV - A x 4~6 men
895	895	5.20.8.4.4.	Testing of HV Switchboards, MFB No. 2	30 days	Jul 30 '23	Aug 28 '23	Apr 24 '24	May 23 '24	0 days	881FS+30 days	898	HV - A x 4~6 men
896	896	5.20.8.4.4.	Testing of Transformers, MFB No. 2	30 days	Jul 15 '23	Aug 13 '23	Jan 6 '24	Feb 4 '24	45 days	882FS+30 days	897	HV - A x 4~6 men
897	897	5.20.8.4.4.	Energisation of LV Switchboards, MFB No. 2 (Rev. 17)	1 day	Sep 28 '23	Sep 28 '23	Feb 5 '24	Feb 5 '24	0 days	893,894,896,885	899,656	LA - A x 4~6 men
898	898	5.20.8.4.4.	Energisation of HV Switchboards, MFB No.2 (Rev. 17)	1 day	Aug 29 '23	Aug 29 '23	May 24 '24	May 24 '24	30 days	895,885	899	
899	899	5.20.8.4.4.	Site Acceptance Tests - Electrical aspects including voltage and current tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.	60 days	Sep 29 '23	Nov 27 '23	May 25 '24	Jul 23 '24	239 days	885,897,898		LV - A x 4~6 men
900	900	5.20.8.4.5	**SCADA Systems, BR No. 1 & No. 2, MFB No. 2**	219 days	Jul 29 '23	Mar 3 '24	Jan 17 '24	Oct 27 '24	172 days	846		
901	901	5.20.8.4.5.	Configuration of PLC System for BR No. 2A&B	30 days	Jan 13 '24	Feb 11 '24	Jan 17 '24	Feb 15 '24	0 days	879,654,880	903	PLC - A x 1 man
902	902	5.20.8.4.5.	Configuration of PLC System for MFB No. 2	30 days	Jul 29 '23	Aug 27 '23	Sep 7 '24	Oct 6 '24	0 days	885	904	
903	903	5.20.8.4.5.	Site Acceptance Test for PLC System at BR 2A&B	21 days	Feb 12 '24	Mar 3 '24	Feb 16 '24	Mar 7 '24	0 days	901	659,1352	
904	904	5.20.8.4.5.	Site Acceptance Test for PLC System at MFB No. 2	21 days	Aug 28 '23	Sep 17 '23	Oct 7 '24	Oct 27 '24	168 days	902	1352	
905	905	5.20.8.4.6	**Building Services Installations for MFB No. 2**	371 days	Apr 20 '23	Apr 24 '24	Apr 14 '23	Jul 23 '24	0 days	846FS-30 days		
906	906	5.20.8.4.6.	Mechanical Ventilation and Air Conditioning System, MFB No. 2	210 days	Apr 20 '23	Nov 15 '23	Jul 30 '23	Feb 24 '24	11 days	775	912	MVAC - A x 4~6 men
907	907	5.20.8.4.6.	Lighting and Power Distribution System, MFB No. 2	210 days	Apr 20 '23	Nov 15 '23	Jul 30 '23	Feb 24 '24	11 days	777	912	BS - A x 4~6 men
908	908	5.20.8.4.6.	Plumbing Installation, MFB No. 2	210 days	Apr 20 '23	Nov 15 '23	May 8 '23	Dec 3 '23	11 days	1339	1341,912	Pb - B x 4~6 men
909	909	5.20.8.4.6.	CCTV Installation (10 indoor + 3 outdoor Cameras), MFB No. 2	90 days	Aug 29 '23	Nov 26 '23	Nov 27 '23	Feb 24 '24	0 days	846FS-120 days	912,1351	BS - B x 4~6 men
910	910	5.20.8.4.6.	Fire Services Installation, MFB No. 2	180 days	Apr 20 '23	Oct 16 '23	Apr 14 '23	Oct 10 '23	0 days	783	1292,1304,130	FS - B x 4~6 men
911	911	5.20.8.4.6.	Earthing and Lightning Protection System, MFB No. 2	120 days	Apr 20 '23	Aug 17 '23	Mar 26 '24	Jul 23 '24	341 days	172,785		BS - C x 2~4 men
912	912	5.20.8.4.6.	Testing and Commissioning of Building Services Installations, MFB No. 2	150 days	Nov 27 '23	Apr 24 '24	Feb 25 '24	Jul 23 '24	90 days	906,907,908,909,910,775,77		BS - C x 2~4 men
913	913	5.20.8.5	**Site Acceptance Test for E&M Equip at MFB No. 2**	30 days	Jun 4 '24	Jul 3 '24	Jun 4 '24	Jul 4 '24	0 days	812,847FS-50 days,873FS-60	914	
914	914	5.20.8.6	**System Commissioning for E&M Equip at MFB No. 2**	40 days	Jul 4 '24	Aug 12 '24	Jul 4 '24	Aug 12 '24	0 days	913,859FS-30 days	915	
915	915	5.20.8.7	**Risk Allowances for Completion of Processing Plant at MFB No. 2**	7 edays	Aug 12 '24	Aug 19 '24	Aug 12 '24	Aug 19 '24	0 edays	914	1348,665FF	
916	916	5.21	**Chemical System No. 1 and No. 2, Portion B-7 & B-7B (PS 68.2.3)**	1351 days	Jul 21 '20	Apr 1 '24	Jul 21 '20	Aug 20 '24	140 days			
917	917	5.21.1	Planned Key Date Completion Date - KD1B, Chem Sys No. 1 & 2	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	934FF,935FF		
918	918	5.21.2	Planned Sectional Completion Date - Section 1, Chem Sys No. 1 & 2	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	936FF,937FF,938FF,939FF		
919	919	5.21.3	Planned Sectional Completion Date - Section 2, Chem Sys No. 1 & 2	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days	965FF		
920	920	5.21.4	**Selection of Suppliers for major plant and materials for Chemical Systems**	240 days	Oct 1 '20	May 28 '21	Oct 1 '20	May 28 '21	0 days			
921	921	5.21.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025	240 days	Oct 1 '20	May 28 '21	Oct 1 '20	May 28 '21	0 days			
922	922	5.21.4.1.1	Submission for acceptance of purchasing package	60 days	Oct 1 '20	Nov 29 '20	Oct 1 '20	Nov 29 '20	0 days		923	
923	923	5.21.4.1.2	Invitation of quotations for purchasing package	30 days	Nov 30 '20	Dec 29 '20	Nov 30 '20	Dec 29 '20	0 days	922	924	
924	924	5.21.4.1.3	Acceptance of conforming quotation (Completed)	30 days	Dec 30 '20	Jan 28 '21	Dec 30 '20	Jan 28 '21	0 days	923	936	



Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack



Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1010	1010	5.22.7.3.6	Mechanical Ventilation System, Temp. Chem	14 days	Dec 16 '22	Dec 29 '22	May 1 '24	May 14 '24	0 days	1009	1011	MVAC - A x 4~6 men
1011	1011	5.22.7.3.6	Testing and Commissioning of Building Services Installations, Temp. Chem	90 days	Dec 30 '22	Mar 29 '23	May 15 '24	Aug 12 '24	0 days	1007,1008,1010	1004FF	BS - C x 2~4 men
1012	1012	5.23	Emergency Generator House, Portion 87 & 8-78 (PS 68.6.6)	1279 days	Oct 1 '20	Apr 1 '24	Oct 1 '20	Apr 1 '24	0 days	156		
1013	1013	5.23.1	Planned Key Date Completion Date - KD18, Emergency Generator House	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1017FF		
1014	1014	5.23.2	Planned Sectional Completion Date - Section 1, Emergency Generator House	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1018FF,1019FF		
1015	1015	5.23.3	Planned Sectional Completion Date - Section 2, Emergency Generator House	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days	1032FF		
1016	1016	5.23.4	Design Submissions for Emergency Generator Set	252 days	Oct 1 '20	Jun 10 '21	Oct 1 '20	Jul 12 '21	33 days			
1017	1017	5.23.4.1	CDS081-10 - Civil and dimensional requirements drawings for Emergency Generator House	90 days	Jan 1 '21	Mar 31 '21	Jan 1 '21	Mar 31 '21	0 days		1013FF	
1018	1018	5.23.4.2	CDS061 - Detailed Design for Emergency Generator Set	150 edays	Oct 1 '20	Feb 28 '21	Oct 1 '20	Jul 12 '21	134.38 ed...		1014FF	
1019	1019	5.23.4.3	CDS034-6 - Detailed Design for Electrical Installations BS at Emergency Generator House, FS and Sprinkler Pump Room, Street Fire Hydrant Pump Room	90 edays	Mar 12 '21	Jun 10 '21	Mar 12 '21	Jul 12 '21	0 edays	144	1021,1026,101	
1020	1020	5.23.5	Manufacturing and Delivery of Plant & Materials	285 days	Jun 10 '21	Mar 21 '22	Feb 16 '23	Nov 27 '23	616 days			
1021	1021	5.23.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Jun 10 '21	Feb 4 '22	Feb 16 '23	Oct 13 '23	0 days	1019	1022	
1022	1022	5.23.5.2	Shipping and Delivery of Plant to Site	45 days	Feb 5 '22	Mar 21 '22	Oct 14 '23	Nov 27 '23	589 days	1021,1024FF-60 edays	1027	
1023	1023	5.23.6	Site Installation Work	826 days	Dec 1 '21	Mar 5 '24	Dec 1 '21	Apr 1 '24	27 days			
1024	1024	5.23.6.1	Tentative Civil Handover Date, Emergency Generator House (Rev. 5)	1 day	May 19 '22	May 19 '22	Jan 26 '24	Jan 26 '24	1 day		1001FF+50 days,1022FF-60	
1025	1025	5.23.6.2	Commencement of E&M Installation at Emergency Generator House	826 days	Dec 1 '21	Mar 5 '24	Dec 1 '21	Apr 1 '24	27 days			
1026	1026	5.23.6.2.1	Application for EPD's Approval for Installation of Diesel Engine Generator	60 days	Dec 1 '21	Jan 29 '22	Dec 1 '21	Nov 27 '23	640 days	1019	1027	
1027	1027	5.23.6.2.2	Installation and SAT of Emergency Power Generator and associated work, GH	60 days	Nov 1 '23	Dec 30 '23	Nov 28 '23	Jan 26 '24	0 days	1026,1022	1029	GS - A x 4 men
1028	1028	5.23.6.2.3	Building Services Installation at Emergency Generator House	66 days	Dec 31 '23	Mar 5 '24	Jan 27 '24	Apr 1 '24	27 days			
1029	1029	5.23.6.2.3.1	Fire Services Installation, GH	30 days	Dec 31 '23	Jan 29 '24	Jan 27 '24	Feb 25 '24	0 days	1027	1030	FS - A x 4~6 men
1030	1030	5.23.6.2.3.2	Mechanical Ventilation System, GH	14 days	Jan 30 '24	Feb 12 '24	Feb 26 '24	Mar 10 '24	0 days	1029	1031	MVAC - A x 4~6 men
1031	1031	5.23.6.2.3.3	Lightning Protection System, GH	15 days	Feb 13 '24	Feb 27 '24	Mar 11 '24	Mar 25 '24	0 days	1030	1032	EE - D x 4~6 men
1032	1032	5.23.6.2.3.4	Testing and Commissioning of Building Services Installation, GH	7 days	Feb 28 '24	Mar 5 '24	Mar 26 '24	Apr 1 '24	27 days	1031	1015FF	BS - A x 4~6 men
1033	1033	5.24	Deodorization System, DOU 1, Portion 87 & 8-78 (PS 68.2.6)	1583 days	Dec 2 '19	Apr 1 '24	Dec 2 '19	Aug 20 '24	140 days			
1034	1034	5.24.1	Planned Key Date Completion Date - KD18, DOU 1	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1047FF,1048FF		
1035	1035	5.24.2	Planned Sectional Completion Date - Section 1, DOU 1	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1049FF		
1036	1036	5.24.3	Planned Sectional Completion Date - Section 2, DOU 1	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1037	1037	5.24.4	Selection of Plant and Materials	485 days	Dec 2 '19	Mar 30 '21	Dec 2 '19	Jun 28 '21	90 days			
1038	1038	5.24.4.1	DOU - biotrickling filter (DOU No. 1), C11, ref. EQT001	194 days	Dec 2 '19	Jun 12 '20	Dec 2 '19	Jun 12 '20	0 days			
1039	1039	5.24.4.1.1	Submission for acceptance of purchasing package	120 days	Dec 2 '19	Mar 30 '20	Dec 2 '19	Mar 30 '20	0 days		1040	
1040	1040	5.24.4.1.2	Invitation of quotations for purchasing package	60 days	Mar 31 '20	May 29 '20	Mar 31 '20	May 29 '20	0 days	1039	1041	
1041	1041	5.24.4.1.3	Acceptance of conforming quotation (Completed)	14 days	May 30 '20	Jun 12 '20	May 30 '20	Jun 12 '20	0 days	1040	1049	
1042	1042	5.24.4.2	DOU - FRP air ductwork, C11, EQT047	120 days	Dec 1 '20	Mar 30 '21	Dec 1 '20	Jun 28 '21	90 days			
1043	1043	5.24.4.2.1	Submission for acceptance of purchasing package	60 days	Dec 1 '20	Jan 29 '21	Dec 1 '20	Apr 29 '21	0 days		1044	
1044	1044	5.24.4.2.2	Invitation of quotations for purchasing package	30 days	Jan 30 '21	Feb 28 '21	Apr 30 '21	May 29 '21	0 days	1043	1045	
1045	1045	5.24.4.2.3	Acceptance of conforming quotation	30 days	Mar 1 '21	Mar 30 '21	May 30 '21	Jun 28 '21	0 days	1044	1049	
1046	1046	5.24.5	Design Submissions for DOU No. 1	359 days	Jul 15 '20	Jul 8 '21	Jul 15 '20	Jul 12 '21	4 days			
1047	1047	5.24.5.1	Electrical schematic drawings for Deodorisation Systems	90 days	Jul 15 '20	Oct 12 '20	Jul 15 '20	Oct 12 '20	0 days		1034FF	
1048	1048	5.24.5.2	CDS081-7 - Civil and dimensional requirements drawings for DOU No. 1	70 days	Aug 28 '20	Nov 5 '20	Aug 28 '20	Nov 5 '20	0 days		1034FF	
1049	1049	5.24.5.3	CDS007-1 - Detailed Design for Deodorisation System, DOU No. 1	100 edays	Mar 30 '21	Jul 8 '21	Mar 30 '21	Jul 12 '21	0.63 edays	1041,1045	1052,1055,103	
1050	1050	5.24.6	Manufacturing and Delivery of Plant & Materials	299 days	Jul 9 '21	May 3 '22	Sep 6 '21	Jun 17 '22	45 days			
1051	1051	5.24.6.1	DOU 1	299 days	Jul 9 '21	May 3 '22	Sep 6 '21	Jun 17 '22	45 days			
1052	1052	5.24.6.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Jul 9 '21	Mar 5 '22	Sep 6 '21	May 3 '22	14 days	1049	1053	
1053	1053	5.24.6.1.2	Shipping and Delivery of Plant to site	45 days	Mar 20 '22	May 3 '22	May 4 '22	Jun 17 '22	45 days	1052,1058SS-60 edays	1061	
1054	1054	5.24.6.2	FRP Air Ductwork	299 days	Jul 9 '21	May 3 '22	Oct 16 '21	Jun 17 '22	45 days			
1055	1055	5.24.6.2.1	Manufacturing and Factory Acceptance Test of Plant	200 days	Jul 9 '21	Jan 24 '22	Oct 16 '21	May 3 '22	54 days	1049	1056	
1056	1056	5.24.6.2.2	Shipping and Delivery of Plant to Site	45 days	Mar 20 '22	May 3 '22	May 4 '22	Jun 17 '22	45 days	1055,1058SS-60 edays	1061	
1057	1057	5.24.7	Site Installation Work	201 days	May 19 '22	Dec 5 '22	Jun 17 '22	Aug 20 '24	29 days			
1058	1058	5.24.7.1	Tentative Civil Handover, DOU 1 (Rev. 5)	1 day	May 19 '22	May 19 '22	Jun 17 '22	Jun 17 '22	0 days		1061FF+45 day	
1059	1059	5.24.7.2	Tentative Civil Handover Date, underground air pipework for DOU 1 (by others)	1 day	Aug 1 '22	Aug 1 '22	Aug 1 '22	Aug 1 '22	0 days		1061FF+45 days	
1060	1060	5.24.7.3	Commencement of E&M Installation at DOU 1	171 days	Jun 17 '22	Dec 5 '22	Jun 18 '22	Aug 20 '24	0 days			
1061	1061	5.24.7.3.1	Mechanical Installations for DOU 1	90 edays	Jun 17 '22	Sep 15 '22	Jun 18 '22	Sep 16 '22	0 edays	1059FF+45 days,1058FF+45	1062SS+30 eda	ME - F x 4~6 men
1062	1062	5.24.7.3.2	Electrical Installations for DOU 1	90 edays	Jul 17 '22	Oct 15 '22	Jul 18 '22	Oct 16 '22	0 edays	1061SS+30 edays	1064,1063	EE - C x 4~6 men
1063	1063	5.24.7.3.3	Installation of FRP covers, walkways, platforms and ladders, EQT050 (Rev.19)	30 days	Oct 16 '22	Nov 14 '22	Oct 16 '22	Nov 14 '22	0 days	1061,1062		
1064	1064	5.24.7.3.4	Site Acceptance Test for DOU1	30 edays	Oct 15 '22	Nov 14 '22	Jun 30 '24	Jul 30 '24	0 edays	1061,1062	1065	
1065	1065	5.24.7.3.5	System Commissioning for DOU 1	21 edays	Nov 14 '22	Dec 5 '22	Jul 30 '24	Aug 20 '24	623.63 ed...	1064	1348	
1066	1066	5.25	Deodorization System, DOU 3A, Portion 87 & 8-78 (PS 68.2.6)	1313 days	Aug 28 '20	Apr 1 '24	Aug 28 '20	Apr 1 '24	0 days			
1067	1067	5.25.1	Planned Key Date Completion Date - KD18, DOU 3A	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1071FF		
1068	1068	5.25.2	Planned Sectional Completion Date - Section 1, DOU 3A	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1072FF		
1069	1069	5.25.3	Planned Sectional Completion Date - Section 2, DOU 3A	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1070	1070	5.25.4	Design Submissions for DOU No. 3A	234 days	Aug 28 '20	Apr 19 '21	Aug 28 '20	Apr 19 '21	0 days			
1071	1071	5.25.4.1	CDS081-8 - Civil and dimensional requirements drawings for DOU No 3A	200 days	Aug 28 '20	Mar 15 '21	Aug 28 '20	Mar 15 '21	0 days		1067FF	
1072	1072	5.25.4.2	CDS007-3 - Detailed Design for Deodorisation System, DOU No. 3A	200 edays	Oct 1 '20	Apr 19 '21	Oct 1 '20	Apr 19 '21	0 edays		1068FF,1075,1(	
1073	1073	5.25.5	Manufacturing and Delivery of Plant & Materials	225 days	Apr 19 '21	Nov 30 '21	Apr 19 '21	Nov 30 '21	0 days			
1074	1074	5.25.5.1	DOU 3A	225 days	Apr 19 '21	Nov 30 '21	Apr 19 '21	Nov 30 '21	0 days			
1075	1075	5.25.5.1.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Apr 19 '21	Oct 16 '21	Apr 19 '21	Oct 16 '21	0 edays	1072	1076	
1076	1076	5.25.5.1.2	Shipping and Delivery of Plant to Site	45 edays	Oct 16 '21	Nov 30 '21	Oct 16 '21	Nov 30 '21	0 edays	1075	1083	
1077	1077	5.25.5.2	FRP Air Ductwork	225 days	Apr 19 '21	Nov 30 '21	Apr 19 '21	Nov 30 '21	0 days			
1078	1078	5.25.5.2.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Apr 19 '21	Oct 16 '21	Apr 19 '21	Oct 16 '21	0 edays	1072	1079	
1079	1079	5.25.5.2.2	Shipping and Delivery of Plant to Site	45 edays	Oct 16 '21	Nov 30 '21	Oct 16 '21	Nov 30 '21	0 edays	1078	1083	
1080	1080	5.25.6	Tentative Civil Handover, DOU 3A (Rev. 5)	1 day	May 19 '22	May 19 '22	May 19 '22	May 19 '22	0 days			
1081	1081	5.25.7	Site Installation Work	171 days	Nov 30 '21	May 20 '22	Nov 30 '21	May 20 '22	0 days			
1082	1082	5.25.7.1	Commencement of E&M Installation at DOU 3A	171 days	Nov 30 '21	May 20 '22	Nov 30 '21	May 20 '22	0 days			
1083	1083	5.25.7.1.1	Mechanical Installations for DOU 3A	120 edays	Nov 30 '21	Mar 30 '22	Nov 30 '21	Mar 30 '22	0 edays	1076,1079	1084SS+30 eda	ME - F x 4~6 men
1084	1084	5.25.7.1.2	Electrical Installations for DOU 3A	90 edays	Dec 30 '21	Mar 30 '22	Dec 30 '21	Mar 30 '22	0 edays	1083SS+30 edays	1086,1085	EE - D x 4~6 men
1085	1085	5.25.7.1.3	Installation of FRP covers, walkways, platforms and ladders, EQT050 (Rev.19)	30 days	Mar 30 '22	Apr 28 '22	Mar 30 '22	Apr 28 '22	0 days	1083,1084		
1086	1086	5.25.7.1.4	Site Acceptance Test for E&M Equip for DOU 3A	30 edays	Mar 30 '22	Apr 29 '22	Mar 30 '22	Apr 29 '22	0 edays	1083,1084	1087	
1087	1087	5.25.7.1.5	System Commissioning Test for DOU 3A	21 edays	Apr 29 '22	May 20 '22	Apr 29 '22	May 20 '22	0 edays	1086		
1088	1088	5.26	Flowmeter and Valve Chambers, Portion 87 & 8-78 (PS 68.2.13)	1278 days	Nov 1 '20	May 1 '24	Nov 1 '20	Aug 19 '24	110 days			
1089	1089	5.26.1	Planned Key Date Completion Date - KD18, Chambers	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1094FF		
1090	1090	5.26.2	Planned Sectional Completion Date - Section 1, Chambers	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1095FF		
1091	1091	5.26.3	Planned Sectional Completion Date - Section 2, Chambers	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1092	1092	5.26.4	Planned Sectional Completion Date - Section 4, Chambers	0 days	May 1 '24	May 1 '24	May 1 '24	May 1 '24	0 days			
1093	1093	5.26.5	Design Submissions for Valve and Flowmeter Chambers	210 days	Nov 1 '20	May 29 '21	Nov 1 '20	May 29 '21	0 days			
1094	1094	5.26.5.1	CDS081-9 - Civil and dimensional requirements drawings for Valve and Flowmeter Chambers	90 days	Mar 1 '21	May 29 '21	Mar 1 '21	May 29 '21	0 days		1089FF	

Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Project | Manual Progress | Slack

Drainage Services Department

Proposed Work Programme for DE/2018/04

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	WBS	Task Name	Duration between Early Start Para Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1094	1094 5.26.5.2	CDS01B - Detailed Design for Flowmeter and Valve Chambers	90 edays	Nov 1 '20	Jan 30 '21	Nov 1 '20	Jan 30 '21	0 edays		1097,1098FF	
1095	1095 5.26.6	Manufacturing and Delivery of Plant & Materials	225 days	Jun 30 '21	Sep 11 '23	Aug 11 '23	Mar 22 '24	523 days			
1096	1096 5.26.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Jun 30 '21	Jul 28 '21	Aug 11 '23	Feb 6 '24	0 days	1095	1098	
1097	1097 5.26.6.2	Shipping and Delivery of Plant to Site	45 days	Jul 29 '21	Sep 11 '23	Feb 7 '24	Mar 22 '24	0 days	1097	1132	
1098	1098 5.26.7	Tentative Civil Handover, Chambers (Rev 5)	1 day	May 19 '22	May 19 '22	May 19 '22	May 19 '22	0 days			
1100	1100 5.26.8	Site Installation Work	150 days	Sep 12 '21	Feb 8 '22	Mar 23 '24	Aug 19 '24	523 days			
1101	1101 5.26.8.1	Commencement of Valves and Flowmeters Installation at Chambers	150 days	Sep 12 '21	Feb 8 '22	Mar 23 '24	Aug 19 '24	523 days			
1102	1102 5.26.8.1.1	Installation of valves and flowmeters	90 days	Sep 12 '21	Dec 10 '21	Mar 23 '24	Jun 20 '24	0 days	1098	1103	ME - C x 4~6 men
1103	1103 5.26.8.1.2	cables laying and terminations	60 days	Dec 11 '21	Feb 8 '22	Jun 21 '24	Aug 19 '24	523 days	1102	1345	EE - A x 4~6 men
1104	1104 5.27	Underground Pipework, Modification and Connection Works, Portion B 9B (PS 68.2.22)	1161 days	Mar 1 '21	May 4 '24	Mar 1 '21	May 1 '24	0 days			
1105	1105 5.27.1	Planned Key Date Completion Date - 1D1B, UU	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1125FF		
1106	1106 5.27.2	Planned Sectional Completion Date - Section 1, Underground Pipework	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1132FF		
1107	1107 5.27.3	Planned Sectional Completion Date - Section 4, Underground Pipework	0 days	May 1 '24	May 1 '24	May 1 '24	May 1 '24	0 days	1122FF		
1108	1108 5.27.4	Design Submissions	90 days	Mar 1 '21	May 30 '21	Mar 1 '21	Jul 13 '21	3 days			
1109	1109 5.27.4.1	CDS01S - Detailed Design for Underground Pipework Modification and Connection with the existing Bioreactor 1, 3 & 4 (Rev 8)	90 edays	Mar 1 '21	May 30 '21	Mar 3 '21	Jun 1 '21	2.38 edays	1132	1125FF	
1110	1110 5.27.4.2	CDS01K - Detailed Design for Temporary Pumping System for maintaining the existing Bioreactors 1, 3 and 4 operation (Rev 8)	50 edays	Mar 1 '21	Apr 20 '21	May 29 '21	Jul 12 '21	0 edays		1112,1126FF	
1111	1111 5.27.5	Manufacturing and Delivery of Plant & Materials	1079 days	Apr 20 '21	Apr 2 '24	Sep 7 '23	Apr 18 '24	16 days			
1112	1112 5.27.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Apr 20 '21	Oct 16 '21	Sep 7 '23	Mar 4 '24	454 days	1110	1113	
1113	1113 5.27.5.2	Shipping and Delivery of Plant to Site	45 days	Feb 18 '24	Apr 2 '24	Mar 5 '24	Apr 18 '24	16 edays	1112,1114,15-60 edays	1118	
1114	1114 5.27.6	Tentative Civil Handover, Road (Rev 5)	1 day	Apr 18 '24	Apr 18 '24	Apr 15 '24	Apr 15 '24	0 days		1113,15-60 eda	
1115	1115 5.27.7	Site Installation	16 days	Apr 19 '24	May 4 '24	Apr 16 '24	May 1 '24	0 days			
1116	1116 5.27.7.1	Commencement of underground pipework modification and connection works	16 days	Apr 19 '24	May 4 '24	Apr 16 '24	May 1 '24	0 days			
1117	1117 5.27.7.1.1	Temporary Flow Diversion and Road Excavation Work	3 days	Apr 19 '24	Apr 21 '24	Apr 16 '24	Apr 18 '24	0 days	1114	1118	
1118	1118 5.27.7.1.2	Pipe Laying and connection works	7 days	Apr 22 '24	Apr 28 '24	Apr 19 '24	Apr 25 '24	0 days	1117,1113	1119	
1119	1119 5.27.7.1.3	Pressure Tests	3 days	Apr 29 '24	May 1 '24	Apr 26 '24	Apr 28 '24	0 days	1118	1120	
1120	1120 5.27.7.1.4	Make Good	3 days	May 2 '24	May 4 '24	Apr 29 '24	May 1 '24	0 days	1119	1107FF	
1121	1121 5.28	Temporary Filtrate Lifting Well and Eq. Tank, Portion B 3B (PS 68.2.36)	450 days	Mar 2 '20	May 25 '21	Mar 2 '20	May 25 '21	0 days			
1122	1122 5.28.1	Selection of Suppliers for major plant and materials and Civil Subcontractor for Temporary Filtrate Lifting Well and Eq. Tank	196 days	Mar 2 '20	Sep 13 '20	Mar 2 '20	Sep 13 '20	0 days			
1123	1123 5.28.1.1	M& - filtrate lift pumps and filtrate transfer pumps, C11, ref. ECF011	73 days	Mar 2 '20	May 13 '20	Mar 2 '20	May 13 '20	0 days			
1124	1124 5.28.1.1.1	Submission for acceptance of purchasing package	29 days	Mar 2 '20	Mar 30 '20	Mar 2 '20	Mar 30 '20	0 days		1125	
1125	1125 5.28.1.1.2	Invitation of quotations for purchasing package	30 days	Mar 31 '20	Apr 29 '20	Mar 31 '20	Apr 29 '20	0 days	1124	1126	
1126	1126 5.28.1.1.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	14 days	Apr 30 '20	May 13 '20	Apr 30 '20	May 13 '20	0 days	1125	1145, 1148	
1127	1127 5.28.1.2	M& - Instrumentations	73 days	Mar 2 '20	May 13 '20	Mar 2 '20	May 13 '20	0 days			
1128	1128 5.28.1.2.1	Submission for acceptance of purchasing package	29 days	Mar 2 '20	Mar 30 '20	Mar 2 '20	Mar 30 '20	0 days		1129	
1129	1129 5.28.1.2.2	Invitation of quotations for purchasing package	30 days	Mar 31 '20	Apr 29 '20	Mar 31 '20	Apr 29 '20	0 days	1128	1130	
1130	1130 5.28.1.2.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	14 days	Apr 30 '20	May 13 '20	Apr 30 '20	May 13 '20	0 days	1129	1145, 1151	
1131	1131 5.28.1.3	M& - Pipework (To be provided by Mechanical Sub-Contractor)	42 days	Aug 3 '20	Sep 13 '20	Aug 3 '20	Sep 13 '20	0 days			
1132	1132 5.28.1.3.1	Submission for acceptance of purchasing package	7 days	Aug 3 '20	Aug 9 '20	Aug 3 '20	Aug 9 '20	0 days		1133	
1133	1133 5.28.1.3.2	Invitation of quotations for purchasing package	14 days	Aug 10 '20	Aug 23 '20	Aug 10 '20	Aug 23 '20	0 days	1132	1134	
1134	1134 5.28.1.3.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	21 days	Aug 24 '20	Sep 13 '20	Aug 24 '20	Sep 13 '20	0 days	1133	1145, 1154	
1135	1135 5.28.1.4	M& - Valve (To be provided by Mechanical Sub-Contractor)	42 days	Aug 3 '20	Sep 13 '20	Aug 3 '20	Sep 13 '20	0 days			
1136	1136 5.28.1.4.1	Submission for acceptance of purchasing package	7 days	Aug 3 '20	Aug 9 '20	Aug 3 '20	Aug 9 '20	0 days		1137	
1137	1137 5.28.1.4.2	Invitation of quotations for purchasing package	14 days	Aug 10 '20	Aug 23 '20	Aug 10 '20	Aug 23 '20	0 days	1136	1138	
1138	1138 5.28.1.4.3	Acceptance of conforming quotation and acceptance for Manufacture (Completed)	21 days	Aug 24 '20	Sep 13 '20	Aug 24 '20	Sep 13 '20	0 days	1137	1145, 1157	
1139	1139 5.28.1.5	Civil Work Subletting Package (Repeated WBS 5.13.17)	19 days	Jul 14 '20	Aug 1 '20	Jul 14 '20	Aug 1 '20	0 days			
1140	1140 5.28.1.5.1	Submission for acceptance of subletting package	3 days	Jul 14 '20	Jul 16 '20	Jul 14 '20	Jul 16 '20	0 days		1141	
1141	1141 5.28.1.5.2	Invitation of tender for subletting package	14 days	Jul 17 '20	Jul 30 '20	Jul 17 '20	Jul 30 '20	0 days	1140	1142	
1142	1142 5.28.1.5.3	Acceptance of conforming quotation and acceptance for Manufacture	2 days	Jul 31 '20	Aug 1 '20	Jul 31 '20	Aug 1 '20	0 days	1141	1145, 1151, 115	
1143	1143 5.28.2	Design Submissions for Temporary Filtrate Lifting Well and Eq. Tank	34 days	Sep 1 '20	Oct 4 '20	Sep 1 '20	Oct 4 '20	0 days			
1144	1144 5.28.2.1	CDS25D-S - Detailed Design for Lifting Appliances -Temp. Filtrate Eq. System, Existing Sludge Press House	30 edays	Sep 1 '20	Oct 1 '20	Sep 1 '20	Oct 1 '20	0 edays	114	1173	
1145	1145 5.28.2.2	Design submission for E&M Installation works for temp. filtrate eq. system	21 days	Sep 14 '20	Oct 4 '20	Sep 14 '20	Oct 4 '20	0 days	1126,1130,1134,1138	1147,1153,115	
1146	1146 5.28.3	Manufacturing and Delivery of Plant & Materials	165 days	Oct 5 '20	Mar 18 '21	Oct 5 '20	Mar 18 '21	0 days			
1147	1147 5.28.3.1	Filtrate Lift Pumps and Filtrate Transfer Pumps, ECF011	165 days	Oct 5 '20	Mar 18 '21	Oct 5 '20	Mar 18 '21	0 days	1145		
1148	1148 5.28.3.1.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Oct 5 '20	Feb 1 '21	Oct 5 '20	Feb 1 '21	0 days	1142,1126	1149	
1149	1149 5.28.3.1.2	Shipping and Delivery of Plant to site (Delivered)	45 days	Feb 2 '21	Mar 18 '21	Feb 2 '21	Mar 18 '21	0 days	1148	1178	
1150	1150 5.28.3.2	Instrumentations	165 days	Oct 5 '20	Mar 18 '21	Oct 5 '20	Mar 18 '21	0 days	1145		
1151	1151 5.28.3.2.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Oct 5 '20	Feb 1 '21	Oct 5 '20	Feb 1 '21	0 days	1142,1130	1152	
1152	1152 5.28.3.2.2	Shipping and Delivery of Plant to site	45 days	Feb 2 '21	Mar 18 '21	Feb 2 '21	Mar 18 '21	0 days	1151	1179	
1153	1153 5.28.3.3	Pipework	165 days	Oct 5 '20	Mar 18 '21	Oct 5 '20	Mar 18 '21	0 days	1145		
1154	1154 5.28.3.3.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Oct 5 '20	Feb 1 '21	Oct 5 '20	Feb 1 '21	0 days	1142,1134	1155	
1155	1155 5.28.3.3.2	Shipping and Delivery of Plant to site	45 days	Feb 2 '21	Mar 18 '21	Feb 2 '21	Mar 18 '21	0 days	1154	1177	
1156	1156 5.28.3.4	Valve	165 days	Oct 5 '20	Mar 18 '21	Oct 5 '20	Mar 18 '21	0 days	1145		
1157	1157 5.28.3.4.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Oct 5 '20	Feb 1 '21	Oct 5 '20	Feb 1 '21	0 days	1142,1138	1158	
1158	1158 5.28.3.4.2	Shipping and Delivery of Plant to site	45 days	Feb 2 '21	Mar 18 '21	Feb 2 '21	Mar 18 '21	0 days	1157	1177	
1159	1159 5.28.4	Site Installation Work	297 days	Aug 1 '20	May 25 '21	Aug 1 '20	May 25 '21	0 days			
1160	1160 5.28.4.1	Commencement of Civil Construction and E&M Installation at Temp. Filtrate Lifting Well and Eq. Tank	297 days	Aug 1 '20	May 25 '21	Aug 1 '20	May 25 '21	0 days			
1161	1161 5.28.4.1.1	Civil Construction Work	297 days	Aug 1 '20	May 25 '21	Aug 1 '20	May 25 '21	0 days			
1162	1162 5.28.4.1.1.1	Civil on-site survey and report submission for acceptance	5 edays	Aug 1 '20	Aug 6 '20	Aug 1 '20	Aug 6 '20	0 edays	1142	1163,1164	
1163	1163 5.28.4.1.1.2	Civil structural design and drawing submission for acceptance	30 days	Aug 7 '20	Sep 5 '20	Aug 7 '20	Sep 5 '20	0 days	1162	1165	
1164	1164 5.28.4.1.1.3	Site Clearance, UU diversion and construction of U-channel	21 days	Aug 7 '20	Aug 27 '20	Aug 7 '20	Aug 27 '20	0 days	1162	1165	
1165	1165 5.28.4.1.1.4	ELS (Shoring and Excavation)	60 days	Sep 6 '20	Nov 4 '20	Sep 6 '20	Nov 4 '20	0 days	1164,1163	1166	
1166	1166 5.28.4.1.1.5	Grouting Works	60 days	Nov 5 '20	Jan 3 '21	Nov 5 '20	Jan 3 '21	0 days	1165	1167	
1167	1167 5.28.4.1.1.6	RC structure works including cast-in items	60 days	Jan 4 '21	Mar 4 '21	Jan 4 '21	Mar 4 '21	0 days	1166	1170, 1173, 116	
1168	1168 5.28.4.1.1.7	Removal Formwork and Piecework	8 days	Mar 5 '21	Mar 12 '21	Mar 5 '21	Mar 12 '21	0 days	1167	1170, 1174, 117	
1169	1169 5.28.4.1.1.8	Waterproofing	14 days	Mar 13 '21	Mar 26 '21	Mar 13 '21	Mar 26 '21	0 days	1168	1170	
1170	1170 5.28.4.1.1.9	Other architectual works and finishing works	60 days	Mar 27 '21	May 25 '21	Mar 27 '21	May 25 '21	0 days	1169	1171FF	
1171	1171 5.28.4.1.2	E&M Installation Work	34 days	Mar 13 '21	Apr 15 '21	Mar 13 '21	May 1 '21	16 days			
1172	1172 5.28.4.1.2.1	Installation of Lifting Appliances at Temporary Filtrate Lifting Well and Eq. Tank	10 days	Mar 13 '21	Mar 22 '21	Mar 13 '21	May 1 '21	40 days			
1173	1173 5.28.4.1.2.2	GF M/E LA-C09-01 SWL 1t	7 days	Mar 13 '21	Mar 19 '21	Mar 13 '21	Apr 28 '21	0 days	1167,1144,1168	1175	LA - A x 4~6 men
1174	1174 5.28.4.1.2.3	GF M/E LA-C09-02 SWL 1t	7 days	Mar 13 '21	Mar 19 '21	Mar 13 '21	Apr 28 '21	0 days	1168	1175	LA - A x 4~6 men
1175	1175 5.28.4.1.2.4	Site Acceptance test and loading test of LA	3 days	Mar 20 '21	Mar 22 '21	Apr 29 '21	May 1 '21	40 days	1173,1174	1210FF	LA - A x 4~6 men
1176	1176 5.28.4.1.2.5	Mechanical Installations for Temp. Filtrate Lifting Well and Eq. Tank	21 days	Mar 13 '21	Apr 8 '21	Mar 13 '21	Apr 8 '21	0 days	1167	1180FS-30 days	
1177	1177 5.28.4.1.2.6	Installation of pipework, chemical pipework and valves, ECF056	14 days	Mar 18 '21	Apr 1 '21	Mar 13 '21	Apr 1 '21	0 days	1168,1155,1158	1178	M/E - A x 4~6 men
1178	1178 5.28.4.1.2.7	Installation of pumps	7 days	Apr 2 '21	Apr 8 '21	Apr 2 '21	Apr 8 '21	0 days	1177,1149	1182	M/E - A x 4~6 men

Task | Measure | Milestone | Summary | Rolled Summary | Manual Summary | Critical | Progress | Manual Progress | Data

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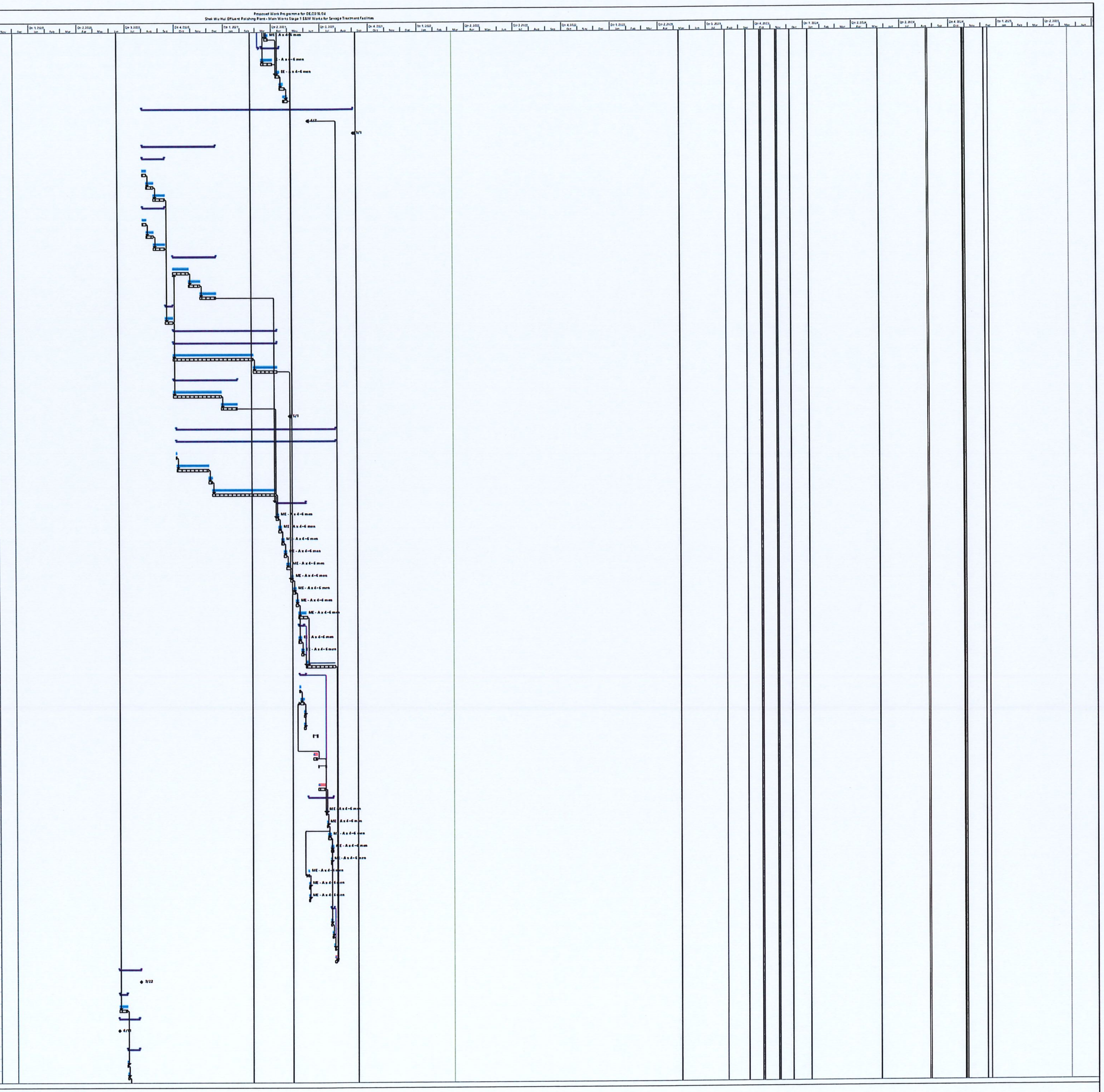
Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1179	1179	5.28.4.1.2.:	Installation of instrumentations, EQT035-3	7 days	Mar 19 '21	Mar 25 '21	Mar 19 '21	Mar 25 '21	0 days	1168,1152	1182	ME - A x 4~6 men
1180	1180	5.28.4.1.2.	**Electrical Installations for Temp. Filtrate Lifting Well and Eq. Tank**	34 days	Mar 13 '21	Apr 15 '21	Mar 13 '21	Apr 15 '21	0 days	1176FS-30 days		
1181	1181	5.28.4.1.2.:	Installation of cable trays and cable containments	21 days	Mar 13 '21	Apr 2 '21	Mar 13 '21	Apr 2 '21	0 days	1168	1182	EE - A x 4~6 men
1182	1182	5.28.4.1.2.:	Cables laying and terminations	7 days	Apr 9 '21	Apr 15 '21	Apr 9 '21	Apr 15 '21	0 days	1181,1178,1179	1183	EE - A x 4~6 men
1183	1183	5.28.4.1.3	Site Acceptance Test for E&M Equip at Filtrate Lifting Well and Eq. Tank	7 days	Apr 16 '21	Apr 22 '21	Apr 16 '21	Apr 26 '21	0 days	1182	1184	
1184	1184	5.28.4.1.4	System Commissioning for E&M Equip at Temp. Filtrate Lifting Well and Eq. Tank	7 days	Apr 23 '21	Apr 29 '21	Apr 23 '21	May 1 '21	2 days	1183	1210FF	
1185	1185	5.29	**Existing PST No. 4 and No. 6, Portion B-3A (PS 6B.2.15)**	397 days	Aug 1 '20	Sep 1 '21	Aug 1 '20	Sep 1 '21	0 days			
1186	1186	5.29.1	Planned Key Date Completion Date - KD3B	0 days	Jun 7 '21	Jun 7 '21	Jun 7 '21	Jun 7 '21	0 days	1253FF		
1187	1187	5.29.2	Planned Sectional Completion Date - Section 3, PST No. 4 and No. 6	0 days	Sep 1 '21	Sep 1 '21	Sep 1 '21	Sep 1 '21	0 days	1170FF,1275FF		
1188	1188	5.29.3	**Selection of Suppliers for major plant and materials and Subcontractor for PST No. 4 and No. 6**	137 days	Aug 1 '20	Dec 15 '20	Aug 1 '20	Dec 15 '20	0 days			
1189	1189	5.29.3.1	**MSs - Rotating Bridge Scrapers and associated materials, C11, ref. EQT037-1**	42 days	Aug 1 '20	Sep 11 '20	Aug 1 '20	Sep 11 '20	0 days			
1190	1190	5.29.3.1.1	Submission for acceptance of purchasing package	7 days	Aug 1 '20	Aug 7 '20	Aug 1 '20	Aug 7 '20	0 days		1191	
1191	1191	5.29.3.1.2	Invitation of quotations for purchasing package	14 days	Aug 8 '20	Aug 21 '20	Aug 8 '20	Aug 21 '20	0 days	1190	1192	
1192	1192	5.29.3.1.3	Acceptance of conforming quotation (Completed)	21 days	Aug 22 '20	Sep 11 '20	Aug 22 '20	Sep 11 '20	0 days	1191	1202	
1193	1193	5.29.3.2	**MSs - Pipework, C11, ref. EQT037-2**	42 days	Aug 1 '20	Sep 11 '20	Aug 1 '20	Sep 11 '20	0 days			
1194	1194	5.29.3.2.1	Submission for acceptance of purchasing package	7 days	Aug 1 '20	Aug 7 '20	Aug 1 '20	Aug 7 '20	0 days		1195	
1195	1195	5.29.3.2.2	Invitation of quotations for purchasing package	14 days	Aug 8 '20	Aug 21 '20	Aug 8 '20	Aug 21 '20	0 days	1194	1196	
1196	1196	5.29.3.2.3	Acceptance of conforming quotation (Completed)	21 days	Aug 22 '20	Sep 11 '20	Aug 22 '20	Sep 11 '20	0 days	1195	1202	
1197	1197	5.29.3.3	**Subletting of Electrical and Mechanical Installation Work w/ supply of LCP**	81 days	Sep 26 '20	Dec 15 '20	Sep 26 '20	Dec 15 '20	0 days			
1198	1198	5.29.3.3.1	Submission for Subletting Package	30 days	Sep 26 '20	Oct 25 '20	Sep 26 '20	Oct 25 '20	0 days	1202	1199	
1199	1199	5.29.3.3.2	Invitation to tender	21 days	Oct 26 '20	Nov 15 '20	Oct 26 '20	Nov 15 '20	0 days	1198	1200	
1200	1200	5.29.3.3.3	Acceptance of conforming tender (Completed)	30 days	Nov 16 '20	Dec 15 '20	Nov 16 '20	Dec 15 '20	0 days	1199	1217	
1201	1201	5.29.4	**Design Submissions**	14 days	Sep 12 '20	Sep 25 '20	Sep 12 '20	Sep 25 '20	0 days			
1202	1202	5.29.4.1	Design submissions for retrofitting the existing PST No. 4 and No. 6	14 days	Sep 12 '20	Sep 25 '20	Sep 12 '20	Sep 25 '20	0 days	1192,1196	1205,1208,119	
1203	1203	5.29.5	**Manufacturing and Delivery of Plant & Materials**	195 days	Sep 26 '20	Apr 8 '21	Sep 26 '20	Apr 8 '21	0 days			
1204	1204	5.29.5.1	**Rotating Bridge Scrapers and associated materials**	195 days	Sep 26 '20	Apr 8 '21	Sep 26 '20	Apr 8 '21	0 days			
1205	1205	5.29.5.1.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Sep 26 '20	Feb 22 '21	Sep 26 '20	Feb 22 '21	0 days	1202	1206	
1206	1206	5.29.5.1.2	Shipping and Delivery of Plant to site (Rev. 8)	45 days	Feb 23 '21	Apr 8 '21	Feb 23 '21	Apr 8 '21	0 days	1205	1223	
1207	1207	5.29.5.2	**Pipework**	120 days	Sep 26 '20	Jan 23 '21	Sep 26 '20	Jan 23 '21	0 days			
1208	1208	5.29.5.2.1	Manufacturing and Factory Acceptance Test of Plant	90 days	Sep 26 '20	Dec 24 '20	Sep 26 '20	Dec 24 '20	0 days	1202	1209	
1209	1209	5.29.5.2.2	Shipping and Delivery of Plant to site	30 days	Dec 25 '20	Jan 23 '21	Dec 25 '20	Jan 23 '21	0 days	1208	1218	
1210	1210	5.29.6	Tentative Civil Handover, Filtrate Lifting Well and Eq. Tank (Completion of work)	1 day	May 1 '21	May 1 '21	May 1 '21	May 1 '21	0 days	1184FF,1175FF		
1211	1211	5.29.7	**Site Installation Work**	300 days	Oct 1 '20	Jul 27 '21	Oct 1 '20	Jul 27 '21	0 days			
1212	1212	5.29.7.1	**Commencement of retrofitting the existing PST No. 4 and No. 6**	300 days	Oct 1 '20	Jul 27 '21	Oct 1 '20	Jul 27 '21	0 days			
1213	1213	5.29.7.1.1	Temporary flow diversion of Filtrate from PST No. 4,	1 day	Oct 1 '20	Oct 1 '20	Oct 1 '20	Oct 1 '20	0 days		1214	
1214	1214	5.29.7.1.2	Dismantle and Removal of E&M Equipment at PST No. 6	60 days	Oct 2 '20	Nov 30 '20	Oct 2 '20	Nov 30 '20	0 days	1213	1215	
1215	1215	5.29.7.1.3	Temporary flow diversion of Filtrate from PST No. 6	7 days	Dec 1 '20	Dec 7 '20	Dec 1 '20	Dec 7 '20	0 days	1214	1216	
1216	1216	5.29.7.1.4	Dismantle and Removal of E&M Equipment at PST No. 4	119 days	Dec 8 '20	Apr 5 '21	Dec 8 '20	Apr 5 '21	0 days	1215	1218	
1217	1217	5.29.7.1.5	**Mechanical Installations of existing PSTs No. 4 (Completed)**	56 days	Apr 6 '21	May 31 '21	Apr 6 '21	Jun 3 '21	2.5 days	1200		
1218	1218	5.29.7.1.5.:	Installation of PST influent feed pipe	5 days	Apr 6 '21	Apr 10 '21	Apr 6 '21	Apr 10 '21	0 days	1216,1209	1219	ME - A x 4~6 men
1219	1219	5.29.7.1.5.:	Installation of circular baffle diffuser box	5 days	Apr 11 '21	Apr 15 '21	Apr 11 '21	Apr 15 '21	0 days	1218	1220	ME - A x 4~6 men
1220	1220	5.29.7.1.5.:	Installation of scum baffle plates	5 days	Apr 16 '21	Apr 20 '21	Apr 16 '21	Apr 20 '21	0 days	1219	1221	ME - A x 4~6 men
1221	1221	5.29.7.1.5.:	Installation of scum box with collection valve and pipework	5 days	Apr 21 '21	Apr 25 '21	Apr 21 '21	Apr 25 '21	0 days	1220	1222	ME - A x 4~6 men
1222	1222	5.29.7.1.5.:	Installation of v-notched weir plate	7 days	Apr 26 '21	May 2 '21	Apr 26 '21	May 2 '21	0 days	1221	1223	ME - A x 4~6 men
1223	1223	5.29.7.1.5.:	Installation of center bearing and slip ring assembly for rotating bridge	5 days	May 3 '21	May 7 '21	May 3 '21	May 7 '21	0 days	1222,1206	1224	ME - A x 4~6 men
1224	1224	5.29.7.1.5.:	Installation of motor and gearbox assembly for rotating bridge	5 days	May 8 '21	May 12 '21	May 8 '21	May 12 '21	0 days	1223	1225	ME - A x 4~6 men
1225	1225	5.29.7.1.5.:	Installation of rotating bridge sludge and scum scraper assembly	5 days	May 13 '21	May 17 '21	May 13 '21	May 17 '21	0 days	1224	1226,1228	ME - A x 4~6 men
1226	1226	5.29.7.1.5.:	Installation of removable FRP covers for effluent channel	14 days	May 18 '21	May 31 '21	May 18 '21	Jun 3 '21	0 days	1225	1230	ME - A x 4~6 men
1227	1227	5.29.7.1.6	**Electrical Installations of existing PST No. 4**	10 days	May 18 '21	May 27 '21	May 18 '21	May 27 '21	0 days		1230	
1228	1228	5.29.7.1.6.:	Installation of local control panels	5 days	May 18 '21	May 22 '21	May 18 '21	May 22 '21	0 days	1225	1229	EE - A x 4~6 men
1229	1229	5.29.7.1.6.:	cable laying and terminations	5 days	May 23 '21	May 27 '21	May 23 '21	May 27 '21	0 days	1228	1230	EE - A x 4~6 men
1230	1230	5.29.7.1.7	Site Acceptance Test for E&M Equip at existing PST No. 4	5 days	Jun 1 '21	Jun 5 '21	Jun 1 '21	Jul 26 '21	49 days	1227,1226,1229	1253	
1231	1231	5.29.7.1.8	**CVE-0229 - Removal of accumulated sludge inside PST No. 6**	12 days	May 19 '21	May 30 '21	May 19 '21	May 30 '21	0 days		1241	
1232	1232	5.29.7.1.8.:	Filtrate diversion to Temporary Filtrate Equalisation Tank	2 days	May 19 '21	May 20 '21	May 19 '21	May 20 '21	0 days		1233	
1233	1233	5.29.7.1.8.:	Removal of floating scum / sludge inside PST No. 6	7 days	May 21 '21	May 27 '21	May 21 '21	May 27 '21	0 days	1232,1237	1234,1235	
1234	1234	5.29.7.1.8.:	Clearance of blockage of PST No. 6 drain pipe	3 days	May 28 '21	May 30 '21	May 28 '21	May 30 '21	0 days	1233		
1235	1235	5.29.7.1.8.:	Retrofitting Concrete Structure of PST No. 6	3 days	May 28 '21	May 30 '21	May 28 '21	May 30 '21	0 days	1233		
1236	1236	5.29.7.1.9	**NCE-007 - Additional Contract Requirements for provision ICE's Certificates (RSE) on re-use of existing materials**	8 days	Jun 14 '21	Jun 21 '21	Jun 14 '21	Jun 21 '21	0 days			
1237	1237	5.29.7.1.9.:	Provision of ICE's Certificate	8 days	Jun 14 '21	Jun 21 '21	Jun 14 '21	Jun 21 '21	0 days		1233,1241	
1238	1238	5.29.7.1.10	**NCE-008 - Additional Contract Requirements for provision ICE's Certificates on product design of E&M plant and materials.**	14 days	Jun 24 '21	Jul 7 '21	Jun 24 '21	Jul 7 '21	0 days			
1239	1239	5.29.7.1.10	Provision of ICE's Certificate	14 days	Jun 24 '21	Jul 7 '21	Jun 24 '21	Jul 7 '21	0 days		1241	
1240	1240	5.29.7.1.11	**Mechanical Installations of existing PST No. 6**	48 days	Jun 4 '21	Jul 21 '21	Jun 4 '21	Jul 21 '21	0 days			
1241	1241	5.29.7.1.11	Installation of PST influent feed pipe	2 days	Jul 8 '21	Jul 9 '21	Jul 8 '21	Jul 9 '21	0 days	1231,1237,1239	1242	ME - A x 4~6 men
1242	1242	5.29.7.1.11	Installation of center bearing and slip ring assembly for rotating bridge	2 days	Jul 10 '21	Jul 11 '21	Jul 10 '21	Jul 11 '21	0 days	1241	1243,1246	ME - A x 4~6 men
1243	1243	5.29.7.1.11	Installation of motor and gearbox assembly for rotating bridge	5 days	Jul 12 '21	Jul 16 '21	Jul 12 '21	Jul 16 '21	0 days	1242	1250,1244,124	ME - A x 4~6 men
1244	1244	5.29.7.1.11	Installation of rotating bridge sludge and scum scraper assembly	5 days	Jul 17 '21	Jul 21 '21	Jul 17 '21	Jul 21 '21	0 days	1243		ME - A x 4~6 men
1245	1245	5.29.7.1.11	Installation of circular baffle diffuser box	2 days	Jul 17 '21	Jul 18 '21	Jul 17 '21	Jul 18 '21	0 days	1243		ME - A x 4~6 men
1246	1246	5.29.7.1.11	Installation of v-notched weir plate	2 days	Jun 4 '21	Jun 5 '21	Jun 4 '21	Jun 5 '21	0 days	1242	1247,1248	ME - A x 4~6 men
1247	1247	5.29.7.1.11	Installation of scum baffle plates	2 days	Jun 6 '21	Jun 7 '21	Jun 6 '21	Jun 7 '21	0 days	1246		ME - A x 4~6 men
1248	1248	5.29.7.1.11	Installation of scum collection box	2 days	Jun 6 '21	Jun 7 '21	Jun 6 '21	Jun 7 '21	0 days	1246		ME - A x 4~6 men
1249	1249	5.29.7.1.12	**Electrical Installations of existing PSTs No. 6**	6 days	Jul 17 '21	Jul 22 '21	Jul 17 '21	Jul 22 '21	0 days		1252	
1250	1250	5.29.7.1.12	Installation of local control panels	3 days	Jul 17 '21	Jul 19 '21	Jul 17 '21	Jul 19 '21	0 days	1243	1251	
1251	1251	5.29.7.1.12	cable laying and terminations	3 days	Jul 20 '21	Jul 22 '21	Jul 20 '21	Jul 22 '21	0 days	1250	1252	
1252	1252	5.29.7.1.13	Site Acceptance Test for E&M Equip at existing PST No. 6	2 days	Jul 23 '21	Jul 24 '21	Jul 24 '21	Jul 26 '21	0 days	1249,1251	1253	
1253	1253	5.29.7.1.14	System Commissioning for E&M Equip at existing PST No. 4 and No. 6	3 days	Jul 25 '21	Jul 27 '21	Jul 25 '21	Jul 27 '21	0 days	1230,1252	1186FF	
1254	1254	5.30	**Existing Main Power House Electrical, Portion B-7A and B-7B (PS 6B.1.17)**	42 days	Jun 11 '20	Jul 22 '20	Jun 11 '20	Jul 22 '20	0 days			
1255	1255	5.30.1	Planned Key Date Completion Date - KD3A	0 days	Jul 22 '20	Jul 22 '20	Jul 22 '20	Jul 22 '20	0 days			
1256	1256	5.30.2	**Design Submissions for Existing Emergency Generator House**	15 days	Jun 12 '20	Jun 26 '20	Jun 12 '20	Jun 26 '20	0 days			
1257	1257	5.30.2.1	Design submissions for E&M installation works of existing power house	15 days	Jun 12 '20	Jun 26 '20	Jun 12 '20	Jun 26 '20	0 days	192	1261	
1258	1258	5.30.3	**Site Installation Work**	39 days	Jun 11 '20	Jul 19 '20	Jun 11 '20	Jul 19 '20	0 days			
1259	1259	5.30.3.1	Tentative Civil Handover Date, Portion B-7A & 7B area for modification of existing emergency generator electrical works	1 day	Jun 11 '20	Jun 11 '20	Jun 11 '20	Jun 11 '20	0 days			
1260	1260	5.30.3.2	**Commencement of Modification of existing emergency generator Electrical Works**	23 days	Jun 27 '20	Jul 19 '20	Jun 27 '20	Jul 19 '20	0 days			
1261	1261	5.30.3.2.1	Site survey and preparation work	1 day	Jun 27 '20	Jun 27 '20	Jun 27 '20	Jun 27 '20	0 days	1257	1262	
1262	1262	5.30.3.2.2	Modification of existing emergency generator electrical works	3 days	Jun 28 '20	Jun 30 '20	Jun 28 '20	Jun 30 '20	0 days	1261	1263	

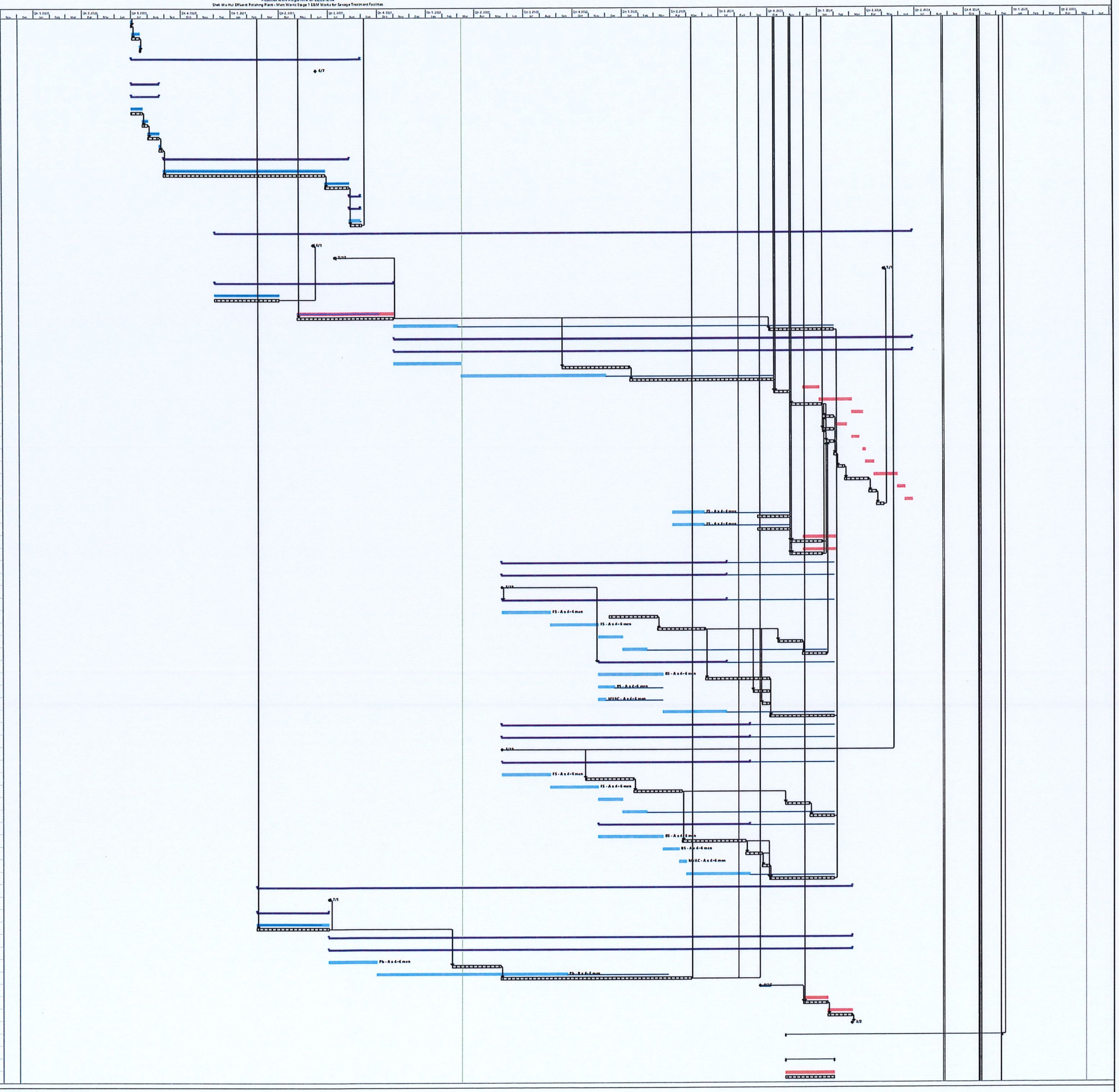


Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

D	ID	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1263	1263	5.30.3.2.3	Test the new switchboard for on-site mobile generator	2 days	Jul 1 '20	Jul 2 '20	Jul 1 '20	Jul 2 '20	0 days	1262	1264	
1264	1264	5.30.3.2.4	Dismantling and removal the existing power & control cables	14 days	Jul 3 '20	Jul 16 '20	Jul 3 '20	Jul 16 '20	0 days	1263	1265	
1265	1265	5.30.3.2.5	Take down existing generator to DSD (Completed)	3 days	Jul 17 '20	Jul 19 '20	Jul 17 '20	Jul 19 '20	0 days	1264		
1266	1266	5.31	**Existing Sludge Press House, Portion 8-10 (PS 6B.2.11)**	425 days	Jul 1 '20	Aug 29 '21	Jul 1 '20	Sep 1 '21	3 days			
1267	1267	5.31.1	Planned Key Date Completion Date - KD3B	0 days	Jun 7 '21	Jun 7 '21	Jun 7 '21	Jun 7 '21	0 days			
1268	1268	5.31.2	**Selection of Suppliers for major plant and materials for Filter Presses**	52 days	Jul 1 '20	Aug 21 '20	Jul 1 '20	Aug 21 '20	0 days			
1269	1269	5.31.2.1	MS - new replacement filter plates and provision of filter cloths, C11, ref. EQT038	52 days	Jul 1 '20	Aug 21 '20	Jul 1 '20	Aug 21 '20	0 days			
1270	1270	5.31.2.1.1	Submission for acceptance of purchasing package	21 days	Jul 1 '20	Jul 21 '20	Jul 1 '20	Jul 21 '20	0 days		1271	
1271	1271	5.31.2.1.2	Invitation of quotations for purchasing package	10 days	Jul 22 '20	Jul 31 '20	Jul 22 '20	Jul 31 '20	0 days	1270	1272	
1272	1272	5.31.2.1.3	Acceptance of conforming quotation (Completed)	21 days	Aug 1 '20	Aug 21 '20	Aug 1 '20	Aug 21 '20	0 days	1271	1273	
1273	1273	5.31.3	Design submission for replacement of filter plates	7 edays	Aug 21 '20	Aug 28 '20	Aug 21 '20	Aug 28 '20	0 edays	1272	1275	
1274	1274	5.31.4	**Manufacturing and Delivery of Plant & Materials**	345 days	Aug 29 '20	Aug 8 '21	Aug 29 '20	Aug 8 '21	0 days			
1275	1275	5.31.4.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Aug 29 '20	Jun 24 '21	Aug 29 '20	Jun 24 '21	0 days	1273	1276	
1276	1276	5.31.4.2	Shipping and Delivery of Plant to site	45 days	Jun 25 '21	Aug 8 '21	Jun 25 '21	Aug 8 '21	0 days	1275	1279	
1277	1277	5.31.5	**Site Installation Work**	21 days	Aug 9 '21	Aug 29 '21	Aug 12 '21	Sep 1 '21	3 days			
1278	1278	5.31.5.1	**Commencement of replacement of filter plates**	21 days	Aug 9 '21	Aug 29 '21	Aug 12 '21	Sep 1 '21	3 days			
1279	1279	5.31.5.1.1	Replacement of filter plates (On Hold)	21 days	Aug 9 '21	Aug 29 '21	Aug 12 '21	Sep 1 '21	3 days	1276	1137FF	
1280	1280	5.32	**Fire Services Installation (PS 6B.6.9)**	1302 days	Dec 1 '20	Jun 24 '24	Dec 1 '20	May 1 '24	0 days			
1281	1281	5.32.1	Planned Key Date Completion Date - KD1B, Fire	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1285FF		
1282	1282	5.32.2	Planned Sectional Completion Date - Section 1, FSI	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1286FF		
1283	1283	5.32.3	Planned Sectional Completion Date - Section 4, FSI	0 days	May 1 '24	May 1 '24	May 1 '24	May 1 '24	0 days	1301FF		
1284	1284	5.32.4	**Design Submissions for FSI**	334 days	Dec 1 '20	Oct 30 '21	Dec 1 '20	Oct 30 '21	0 days			
1285	1285	5.32.4.1	CDS081-11 - Civil and dimensional requirements drawings for Fire Services Sprinkler Pumping Room and Fire Hydrant and Booster Pumping Room	120 days	Dec 1 '20	Mar 30 '21	Dec 1 '20	Mar 30 '21	0 days		1281FF	
1286	1286	5.32.4.2	CDS049 - Detailed Design for Fire Services include AFA, FS, FH, Sprinkler etc.	180 edays	May 3 '21	Oct 30 '21	May 3 '21	Oct 30 '21	0 edays	157	1290,1287,128	
1287	1287	5.32.5	DG Stores Submissions to FSD for approval	120 days	Oct 31 '21	Feb 27 '22	Oct 2 '23	Jan 29 '24	701 days	1286	1296FF	
1288	1288	5.32.6	**Site Installation Work**	968 days	Oct 31 '21	Jun 24 '24	Sep 10 '22	May 1 '24	0 days			
1289	1289	5.32.6.1	**Commencement of Fire Services Installation**	968 days	Oct 31 '21	Jun 24 '24	Sep 10 '22	May 1 '24	0 days			
1290	1290	5.32.6.1.1	Design Review of Approved General Building Plan	126 days	Oct 31 '21	Mar 5 '22	Sep 10 '22	Jan 13 '23	0 days	1286	1291	
1291	1291	5.32.6.1.2	Submission of WWO542 for WSD's approval	270 days	Mar 6 '22	Nov 30 '22	Jan 14 '23	Oct 10 '23	314 days	1290	1292	
1292	1292	5.32.6.1.3	Submission of WWO46 for WSD's Inspection	30 days	Dec 4 '23	Jan 2 '24	Oct 11 '23	Nov 9 '23	0 days	1291,910,644,365,510,783	1293	
1293	1293	5.32.6.1.4	Obtain WWO46 Part V	60 days	Jan 3 '24	Mar 2 '24	Nov 10 '23	Jan 8 '24	0 days	1292	1296,1294	
1294	1294	5.32.6.1.5	FSD Inspection and Approval for MVAC	21 days	Mar 3 '24	Mar 23 '24	Jan 9 '24	Jan 29 '24	0 days	1304,1305,1293	1297	
1295	1295	5.32.6.1.6	FSD Inspection and Approval for DG Stores	21 days	Feb 2 '24	Feb 22 '24	Jan 9 '24	Jan 29 '24	0 days	1304,1305,961	1297	
1296	1296	5.32.6.1.7	Submission of (FSI/314 & FSI/501) to FSD	14 days	Mar 3 '24	Mar 16 '24	Jan 16 '24	Jan 29 '24	0 days	1304,1305,1293,1318FF,131	1297	
1297	1297	5.32.6.1.8	Pre-inspection meeting with FSD	5 days	Mar 24 '24	Mar 28 '24	Jan 30 '24	Feb 3 '24	0 days	1296,1294,1295	1298	
1298	1298	5.32.6.1.9	Initial Inspection with FSD	15 days	Mar 29 '24	Apr 12 '24	Feb 4 '24	Feb 18 '24	0 days	1297	1299	
1299	1299	5.32.6.1.10	Document Checking	45 days	Apr 13 '24	May 27 '24	Feb 19 '24	Apr 3 '24	0 days	1298	1300	
1300	1300	5.32.6.1.11	Re-inspections with FSD	14 days	May 28 '24	Jun 10 '24	Apr 4 '24	Apr 17 '24	0 days	1299	1301	
1301	1301	5.32.6.1.12	Issue of acceptance memo by FSD	14 days	Jun 11 '24	Jun 24 '24	Apr 18 '24	May 1 '24	0 days	1300	1283FF	
1302	1302	5.32.6.1.13	Installation of FS Pumps and Sprinkler Pumps	60 days	Apr 3 '23	Jun 1 '23	Sep 11 '23	Nov 9 '23	161 days		1305	FS - A x 4~6 men
1303	1303	5.32.6.1.14	Installation of Fire Hydrant and Booster Pumps	60 days	Apr 3 '23	Jun 1 '23	Sep 11 '23	Nov 9 '23	161 days		1305	FS - A x 4~6 men
1304	1304	5.32.6.1.15	SAT for Manual and automatic fire detection and alarm system	60 days	Dec 4 '23	Feb 1 '24	Nov 10 '23	Jan 8 '24	0 days	1008,961,910,644,365,510,7	1296,1294,129	
1305	1305	5.32.6.1.16	SAT for Fire hydrants, hose reels and street fire hydrant system	60 days	Dec 4 '23	Feb 1 '24	Nov 10 '23	Jan 8 '24	0 days	1302,1303,1008,961,910,64	1296,1294,129	
1306	1306	5.33	**Fire Services Sprinkler Pumping Room, Portion 8-7 & 8-7B (PS 6B.6.9)**	421 days	May 19 '22	Jul 13 '23	Dec 5 '22	Jan 29 '24	200 days			
1307	1307	5.33.1	**Site Installation Work**	421 days	May 19 '22	Jul 13 '23	Dec 5 '22	Jan 29 '24	200 days			
1308	1308	5.33.1.1	Tentative Civil Handover Date, FS Sprinkler Pump Room (Rev. 5)	1 day	May 19 '22	May 19 '22	Dec 5 '22	Dec 5 '22	0 days		1309,1314	
1309	1309	5.33.1.2	**Commencement of E&M Installation at FS & Sprinkler Pump Room**	420 days	May 19 '22	Jul 13 '23	Dec 6 '22	Jan 29 '24	200 days	1308		
1310	1310	5.33.1.2.1	Mechanical Installations for FS & Sprinkler Pumps	90 edays	May 19 '22	Aug 17 '22	Dec 6 '22	Mar 6 '23	0 edays		1311	FS - A x 4~6 men
1311	1311	5.33.1.2.2	Electrical Installations for FS & Sprinkler Pumps	90 edays	Aug 17 '22	Nov 15 '22	Mar 6 '23	Jun 4 '23	0.63 edays	1310	1312,1315,131	FS - A x 4~6 men
1312	1312	5.33.1.2.3	Site Acceptance Test for FS & Sprinkler Pumps	45 days	Nov 16 '22	Dec 30 '22	Oct 18 '23	Dec 1 '23	0 days	1311	1313	
1313	1313	5.33.1.2.4	System Commissioning for FS & Sprinkler Pumps	45 days	Dec 31 '22	Feb 13 '23	Dec 2 '23	Jan 15 '24	336 days	1312	1296	
1314	1314	5.33.1.2.5	**Building Services Installations at FS & Sprinkler Pump Room**	240 days	Nov 16 '22	Jul 13 '23	Jun 4 '23	Jan 29 '24	200 days	1308		
1315	1315	5.33.1.2.5.	Lighting and Power Distribution System, Chem 1&2	120 days	Nov 16 '22	Mar 15 '23	Jun 4 '23	Oct 1 '23	0 days	1311	1318	BS - A x 4~6 men
1316	1316	5.33.1.2.5.	Lightning Protection System, FS & Sprinkler Pump Room	30 days	Nov 16 '22	Dec 15 '22	Sep 2 '23	Oct 1 '23	90 days	1311	1318	BS - A x 4~6 men
1317	1317	5.33.1.2.5.	Mechanical Ventilation System, FS & Sprinkler PR	14 days	Nov 16 '22	Nov 29 '22	Sep 18 '23	Oct 1 '23	106 days	1311	1318	MVAC - A x 4~6 men
1318	1318	5.33.1.2.5.	Testing and Commissioning of Building Services Installations, FS & Sprinkler PR	120 days	Mar 16 '23	Jul 13 '23	Oct 2 '23	Jan 29 '24	200 days	1315,1316,1317	1296FF	
1319	1319	5.34	**Fire Hydrant and Booster Pumping Room, Portion 87 & 8-7B (PS 6B.6.9)**	465 days	May 19 '22	Aug 26 '23	Oct 22 '22	Jan 29 '24	156 days			
1320	1320	5.34.1	**Site Installation Work**	465 days	May 19 '22	Aug 26 '23	Oct 22 '22	Jan 29 '24	156 days			
1321	1321	5.34.1.1	Tentative Civil Handover Date, Fire Hydrant and Booster Pumping Room (Rev. 5)	1 day	May 19 '22	May 19 '22	Oct 22 '22	Oct 22 '22	0 days		1001FF+50 days,1323	
1322	1322	5.34.1.2	**Commencement of E&M Installation at Street FH Pump Room**	464 days	May 19 '22	Aug 26 '23	Oct 23 '22	Jan 29 '24	156 days			
1323	1323	5.34.1.2.1	Mechanical Installations for Street FH Pumps	90 edays	May 19 '22	Aug 17 '22	Oct 23 '22	Jan 21 '23	0 edays	1321	1324	FS - A x 4~6 men
1324	1324	5.34.1.2.2	Electrical Installations for Street FH Pump	90 edays	Aug 17 '22	Nov 15 '22	Jan 21 '23	Apr 21 '23	0.63 edays	1323	1325,1328	FS - A x 4~6 men
1325	1325	5.34.1.2.3	Site Acceptance Test for Street FH Pump	45 days	Nov 16 '22	Dec 30 '22	Nov 1 '23	Dec 15 '23	0 days	1324	1326	
1326	1326	5.34.1.2.4	System Commissioning for Street FH Pumps	45 days	Dec 31 '22	Feb 13 '23	Dec 16 '23	Jan 29 '24	350 days	1325	1296FF	
1327	1327	5.34.1.2.5	**Building Services Installations at Street FH Pump Room**	284 days	Nov 16 '22	Aug 26 '23	Apr 21 '23	Jan 29 '24	156 days			
1328	1328	5.34.1.2.5.	Lighting and Power Distribution System, Street FH PR	120 days	Nov 16 '22	Mar 15 '23	Apr 21 '23	Aug 18 '23	0 days	1324	1331,1329	BS - A x 4~6 men
1329	1329	5.34.1.2.5.	Lightning Protection System, Street FH PR	30 days	Mar 16 '23	Apr 14 '23	Aug 19 '23	Sep 17 '23	0 days	1328	1330,1331	BS - A x 4~6 men
1330	1330	5.34.1.2.5.	Mechanical Ventilation System, Street FH PR	14 days	Apr 15 '23	Apr 28 '23	Sep 18 '23	Oct 1 '23	0 days	1329	1331	MVAC - A x 4~6 men
1331	1331	5.34.1.2.5.	Testing and Commissioning of Building Services Installations, FH PR	120 days	Apr 29 '23	Aug 26 '23	Oct 2 '23	Jan 29 '24	156 days	1328,1329,1330	1296FF	
1332	1332	5.35	**Plumbing Installation (PS 6B.6.8)**	1110 days	Feb 16 '21	Mar 2 '24	Feb 16 '21	Mar 2 '24	0 days			
1333	1333	5.35.1	Planned Sectional Completion Date - Section 1, Plumbing	0 days	Jul 1 '21	Jul 1 '21	Jul 1 '21	Jul 1 '21	0 days	1335FF		
1334	1334	5.35.2	**Design Submissions for Plumbing**	134 days	Feb 16 '21	Jun 30 '21	Feb 16 '21	Jul 1 '21	1 day			
1335	1335	5.35.2.1	CDS033 - Detailed Design for Plumbing System	134 edays	Feb 16 '21	Jun 30 '21	Feb 16 '21	Jul 1 '21	0.63 edays	162	1338,1333FF	
1336	1336	5.35.3	**Site Installation Work**	976 days	Jul 1 '21	Mar 2 '24	Feb 17 '22	Mar 2 '24	0 days			
1337	1337	5.35.3.1	**Commencement of Plumbing Installation**	976 days	Jul 1 '21	Mar 2 '24	Feb 17 '22	Mar 2 '24	0 days			
1338	1338	5.35.3.1.1	Submission of detail design for acceptance	90 days	Jul 1 '21	Sep 28 '21	Feb 17 '22	May 17 '22	0 days	1335	1339	Pb - A x 4~6 men
1339	1339	5.35.3.1.2	Submission of WWO542 for WSD's approval	355 days	Sep 29 '21	Sep 18 '22	May 18 '22	May 7 '23	118 days	1338	908,642,363,50	Pb - B x 4~6 men
1340	1340	5.35.3.1.3	Connection of External Pumping System (By others)	0 days	Sep 15 '23	Sep 15 '23	Oct 4 '23	Oct 4 '23	19 days		1341	
1341	1341	5.35.3.1.4	Submission of WWO46 for WSD's Inspection	45 days	Dec 4 '23	Jan 17 '24	Dec 4 '23	Jan 17 '24	0 days	1340,908,642,363,508,779	1342	
1342	1342	5.35.3.1.5	Obtain WWO46 Part V	45 days	Jan 18 '24	Mar 2 '24	Jan 18 '24	Mar 2 '24	0 days	1341	1343	
1343	1343	5.35.3.1.6	Tentative Date for connection of external water pipework (by others)	0 days	Mar 2 '24	Mar 2 '24	Mar 2 '24	Mar 2 '24	0 days	1342		
1344	1344	5.36	**Plant Commissioning**	404 days	Nov 1 '23	Dec 8 '24	Nov 1 '23	Dec 8 '24	0 days		39FF	
1345	1345	5.36.1	Planned Sectional Completion Date - Section 4, Plant Commissioning	0 days	May 2 '24	May 2 '24	May 2 '24	May 2 '24	0 days			
1346	1346	5.36.2	**Design Submission for Treatment Process Plant Testing & Commissioning**	90 days	Nov 1 '23	Jan 29 '24	Nov 1 '23	Jan 29 '24	0 days			
1347	1347	5.36.2.1	Document Submission and Resubmission for T&C procedures	90 days	Nov 1 '23	Jan 29 '24	Nov 1 '23	Jan 29 '24	0 days			



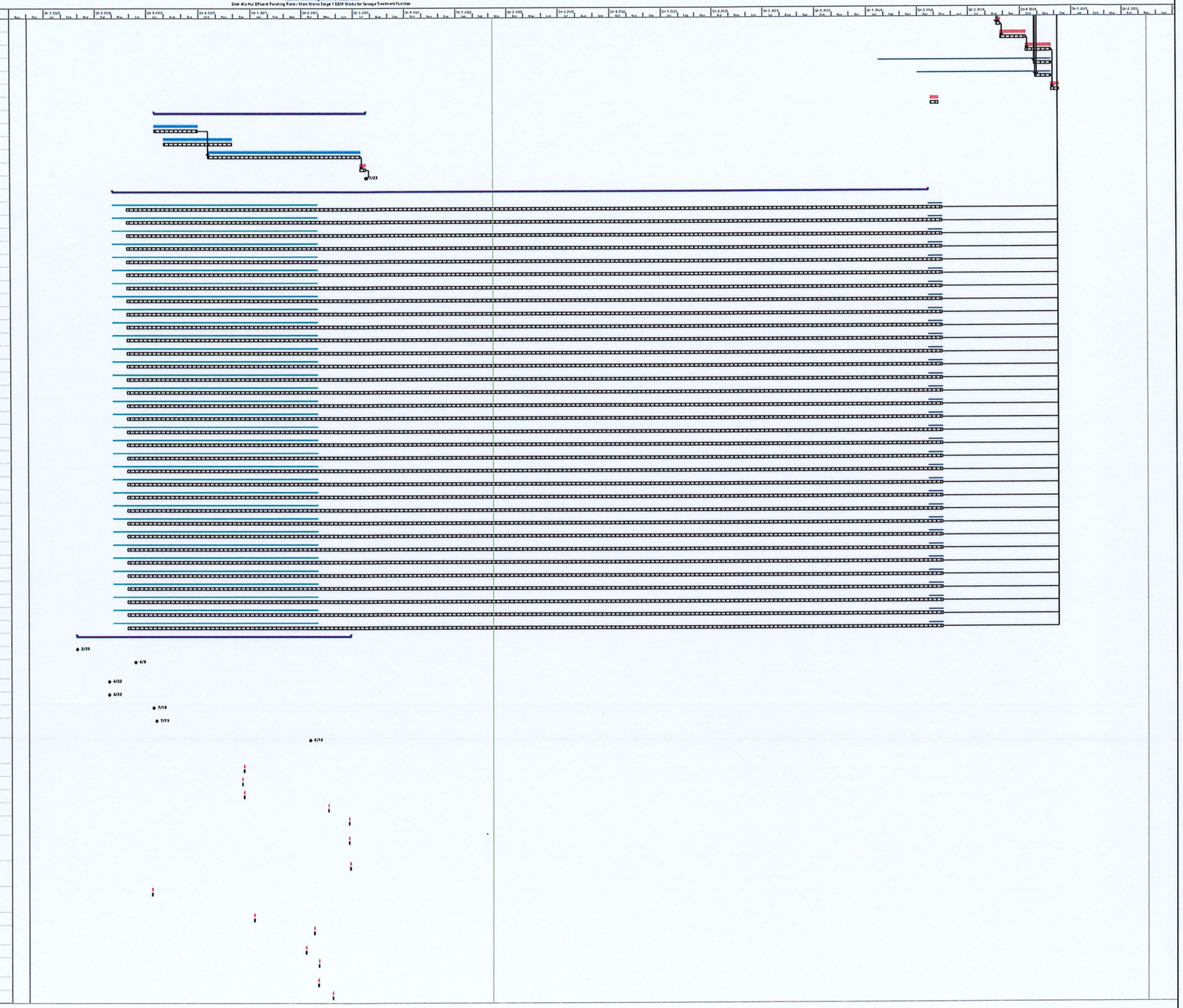
Project: DE/2018/04
Date: Mar 8 '22

Task | Milestone | Milestone | Summary | Project Summary | Manual Summary | Critical | Progress | Manual Progress | Slack

Drainage Services Department

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

D	O	WBS	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1348	1348	5.36.3	System Commissioning Tests of the E&M systems at ITC PST, BR 2A/2B, 4A/B No. 2, Chemical Dosing Systems, DOCs	7 days	Aug 20 '24	Aug 26 '24	Aug 20 '24	Aug 27 '24	0 days	1045,1062,660,515,958,1085	1349	
1349	1349	5.36.4	MBR System Process Startup	45 days	Aug 27 '24	Oct 10 '24	Aug 27 '24	Oct 11 '24	0 days	1348	1350	
1350	1350	5.36.5	Plant Commissioning	45 days	Oct 11 '24	Nov 24 '24	Oct 11 '24	Nov 25 '24	0 days	1349	1353	
1351	1351	5.36.6	Overall commissioning of CCTV system	30 days	Dec 24 '23	Jan 22 '24	Oct 26 '24	Nov 25 '24	307 days	909,643,364,509,781	1353	
1352	1352	5.36.7	Overall commissioning of Facility Computerized Systems (SCADA, OJMS, PMS, iCMS)	28 days	Mar 4 '24	Mar 31 '24	Oct 28 '24	Nov 25 '24	216 days	371,515,903,804	1353	
1353	1353	5.36.8	Overall Plant Commissioning and DSD pre-handover inspections	14 days	Nov 25 '24	Dec 8 '24	Nov 25 '24	Dec 8 '24	0 days	1350,1351,1352		
1354	1354	5.36.9	O&M manual for overall system	14 days	Apr 25 '24	May 8 '24	Apr 25 '24	May 8 '24	0 days			
1355	1355	5.37	CE No. 809 - Provision of an Additional Primary Sludge Thickening System	375 days	Jul 14 '20	Jul 23 '21	Jul 14 '20	Jul 23 '21	0 days			
1356	1356	5.37.1	Detail Design Submission and Approval	77 days	Jul 14 '20	Sep 28 '20	Jul 14 '20	Sep 28 '20	0 days		1358	
1357	1357	5.37.2	Submitting, Procurement, Manufacturing and Delivery	120 days	Jul 31 '20	Nov 27 '20	Jul 31 '20	Nov 27 '20	0 days			
1358	1358	5.37.3	Site Installation	270 days	Oct 17 '20	Jul 13 '21	Oct 17 '20	Jul 13 '21	0 days	1356	1359	
1359	1359	5.37.4	Testing and Commissioning (Rev 15)	10 days	Jul 14 '21	Jul 23 '21	Jul 14 '21	Jul 23 '21	0 days	1358	1360FF	
1360	1360	5.37.5	Planned Completion Date	1 day	Jul 23 '21	Jul 23 '21	Jul 23 '21	Jul 23 '21	0 days	1359FF		
1361	1361	6	Beam Plus Submissions	1450 days	May 1 '20	Apr 19 '24	May 1 '20	Apr 19 '24	0 days			
1362	1362	6.1	SA10 - Environmental Management Plan	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1363	1363	6.2	SA11 - Air Pollution During Construction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1364	1364	6.3	SA12 - Noise During Construction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1365	1365	6.4	SA14 - Noise from Building Equipment	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1366	1366	6.5	SA15 - Light Pollution	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1367	1367	6.6	MMP1 - Timber used for Temporary Works	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1368	1368	6.7	MMP2 - Use of Non-CFC Based Refrigerants	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1369	1369	6.8	MMP3 - Waste Management Plan	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1370	1370	6.9	MM2 - Modular and Standardized Design	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1371	1371	6.10	MM3 - Ozone Depleting Substances	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1372	1372	6.11	MM11 - Construction Waste Reduction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1373	1373	6.12	EU1 - Minimum Energy Performance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1374	1374	6.13	EU1 - Reduction of CO2 Emissions	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1375	1375	6.14	EU2 - Peak Electricity Demand Reduction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1376	1376	6.15	EU6 - Renewable Energy Systems	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1377	1377	6.16	EU9 - Energy Efficient Appliances	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1378	1378	6.17	EU10 - Testing and Commissioning	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1379	1379	6.18	EU11 - Operation and Maintenance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1380	1380	6.19	EU12 - Meter and Monitoring	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1381	1381	6.20	WUP1 - Water Quality Survey	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1382	1382	6.21	WUP2 - Minimum Water Saving Performance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1383	1383	6.22	WU3 / WU6 - Annual Water Use / Effluent Discharge to Foul Sewers	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1384	1384	6.23	IEQP1 - Minimum Ventilation Performance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1385	1385	6.24	IEQ1 - Security	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1386	1386	6.25	IEQ2 - Plumbing and Drainage	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1387	1387	6.26	IEQ3 - Biological Contamination	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1388	1388	6.27	IEQ5 - Construction IAQ Management	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1389	1389	6.28	IEQ6 / IEQ7 - IAQ	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1390	1390	6.29	IEQ9 - Increased Ventilation	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1391	1391	6.30	IEQ11 - Localised Ventilation	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1392	1392	6.31	IEQ12 - Ventilation in Common Areas	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1393	1393	6.32	IEQ13 - Thermal Comfort in Air - Conditioned Premises	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1394	1394	6.33	IEQ16 / IEQ17 - Interior Lighting in Normally Occupied Area / Interior Lighting in Areas not Norm	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		39	
1395	1395	7	Summary of compensation events notified	487 days	Feb 25 '20	Jun 25 '21	Feb 25 '20	Jun 25 '21	0 days			
1396	1396	7.1	Compensation Event (CE) No. 001, Special Arrangement in Reducing the Risk of the Spread of Novel Coronavirus	1 day	Feb 25 '20	Feb 25 '20	Feb 25 '20	Feb 25 '20	0 days			
1397	1397	7.2	Compensation Event (CE) No. 002, the Contractor's Site Accommodation by Modular Integrated Construction (MiC) Method	1 day	Jun 8 '20	Jun 8 '20	Jun 8 '20	Jun 8 '20	0 days			
1398	1398	7.3	Compensation Event (CE) No. 003, Designated Areas for the Contractor's Site Accommodation in Works Area WA1	1 day	Apr 22 '20	Apr 22 '20	Apr 22 '20	Apr 22 '20	0 days			
1399	1399	7.4	Compensation Event (CE) No. 005, Designated Areas for the Contractor's Storage Area in Works Area WA3-C	1 day	Apr 22 '20	Apr 22 '20	Apr 22 '20	Apr 22 '20	0 days			
1400	1400	7.5	Compensation Event (CE) No. 007, Employment of Temporary Staff under Anti-Epidemic Fund	1 day	Jul 10 '20	Jul 10 '20	Jul 10 '20	Jul 10 '20	0 days			
1401	1401	7.6	Compensation Event (CE) No. 009, Provision of an Additional Primary Sludge Thickening System and Deletion of Provision of a Membrane Filter Press System	1 day	Jul 15 '20	Jul 15 '20	Jul 15 '20	Jul 15 '20	0 days			
1402	1402	7.7	Compensation Event (CE) No. 011, Dismantling, relocating, disconnecting and re-installing of the existing building services (BS) equipment, supervisory control and data acquisition (SCADA) panel at existing main power house	1 day	Apr 14 '21	Apr 14 '21	Apr 14 '21	Apr 14 '21	0 days			
1403	1403	7.8	NCE-PPVA-0202 (CE) Revised GA for F.S. & Sprinkler Pumping Room and Emergency Generator Room	1 day	Dec 18 '20	Dec 18 '20	Dec 18 '20	Dec 18 '20	0 days			
1404	1404	7.9	NCE-PPVA-0203 (CE) Revised General Arrangement for Temp. Chemical System	1 day	Dec 15 '20	Dec 15 '20	Dec 15 '20	Dec 15 '20	0 days			
1405	1405	7.10	NCE-PPVA-0204 (CE) Revised GA Layout Plan for DO Sys. No. 3A	1 day	Dec 18 '20	Dec 18 '20	Dec 18 '20	Dec 18 '20	0 days			
1406	1406	7.11	NCE-PPVA-0205 (CE) Provision of Louvre Panel for Outdoor AC Units at Contractor's Site Accommodation	1 day	May 17 '21	May 17 '21	May 17 '21	May 17 '21	0 days			
1407	1407	7.12	NCE-PPVA-0206 (CE) Modification of Feeders of the existing switchboards at Inlet Work and Provision of MCB Distribution Boards and Cables for Sitewide Submersible Pumps	1 day	Jun 23 '21	Jun 23 '21	Jun 23 '21	Jun 23 '21	0 days			
1408	1408	7.13	NCE-PPVA-0207 (CE) Modification of Feeders of the existing switchboards at Inlet Consultation House and Provision of MCB Distribution Boards and Cables for Sitewide Submersible Pumps	1 day	Jun 23 '21	Jun 23 '21	Jun 23 '21	Jun 23 '21	0 days			
1409	1409	7.14	NCE-PPVA-0208 (CE) Modification of Feeders of the existing switchboards at Membrane Facilities Building and Provision of MCB Distribution Boards and Cables for Sitewide Submersible Pumps	1 day	Jun 25 '21	Jun 25 '21	Jun 25 '21	Jun 25 '21	0 days			
1410	1410	7.15	NCE-PPVA-0211 (CE) Provision of a New Chemical Storage and Dosing System for the Application of Glycerin to Replace Methanol as an Alternative External Carbon Source for the Denitrification Process at BR3A and BR3B	1 day	Jul 8 '20	Jul 8 '20	Jul 8 '20	Jul 8 '20	0 days			
1411	1411	7.16	NCE-PPVA-0213 (CE) Revised General Arrangement for Chemical System No. 1	1 day	Jan 5 '21	Jan 5 '21	Jan 5 '21	Jan 5 '21	0 days			
1412	1412	7.17	NCE-PPVA-0218 (CE) Provision and Removal of the Blank Flange to Blank Off Drain Valve and Temporary Submersible Pumps in PST No. 6	1 day	Apr 22 '21	Apr 22 '21	Apr 22 '21	Apr 22 '21	0 days			
1413	1413	7.18	NCE-PPVA-0223 (CE) Revised GA for Chemical Pipe Trench	1 day	Apr 7 '21	Apr 7 '21	Apr 7 '21	Apr 7 '21	0 days			
1414	1414	7.19	NCE-PPVA-0226 (CE) Modification Works of Manhole Cover for MH013 for Filtrate Intake Pipe of Primary Sludge Thickening System	1 day	Apr 30 '21	Apr 30 '21	Apr 30 '21	Apr 30 '21	0 days			
1415	1415	7.20	NCE-PPVA-0224 (CE) Provision of Removal of the blank flange to blank off drain valve of PST No. 4	1 day	Apr 29 '21	Apr 29 '21	Apr 29 '21	Apr 29 '21	0 days			
1416	1416	7.21	NCE-PPVA-0234 (CE) Provision of removal of the blank flange to blank off drain valve of PST No. 4	1 day	May 25 '21	May 25 '21	May 25 '21	May 25 '21	0 days			



Project: DE/2018/04
Date: Mar 8 '22

Task | Milestone | Summary | Project Summary | Critical | Progress | Manual Progress | Slack